US EPA RECORDS CENTER REGION 5
497020

# FINAL REPORT
# REMOVAL ACTION

## FORMER SYBILL, INC./SRS SITE
## 111 MILITARY STREET
## DETROIT MICHIGAN

## VOLUME II (APPENDICES G AND H)

**Prepared For:**
**Altech Environmental Inc.**

**Prepared by:**
**Conestoga-Rovers & Associates**

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St. Catharines, Ontario
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**FEBRUARY 2004**
**REF. NO. 32664 (3)**
This report is printed on recycled paper.

# APPENDIX G

# WASTE MATERIAL COMPATIBILTY ANALYTICAL REPORT

| LAB ID | INVENTORY ID | PHYSICAL STATE | COLOR | AIR REACT | H20 REACT | H2O SOL. | SOLV. SOL. | ph | PEROXIDE | OXIDIZER | HALOGENS | SULFIDE | CYANIDE | FLASH | PCB'S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 03053-001 | D-003 | L | CLR | N | N | S | I | 6.71 | N | N | N | N | N | N | <10 |
| 03053-002 | D-004 | L | BL | N | N | I | S | 7.5 | N | N | N | N | N | N | <10 |
| 03053-003A | D-007A | SLD | BL | N | N | I | S | 5.86 | N | N | N | N | N | N | <10 |
| 03053-003B | D-007B | L | CLR | N | N | S | I | 5.91 | N | N | N | N | N | N | <10 |
| 03053-004B | D-008B | L | CLR | N | N | S | PS | 4.46 | N | N | N | N | N | N | <10 |
| 03053-005 | D-009 | PELLETS | BL | N | N | I | I | 9.56 | N | N | N | N | N | N | <10 |
| 03053-006A | D-010A | SLD | BL | N | N | I | S | 5.53 | N | N | N | N | N | N | <10 |
| 03053-006B | D-010B | L |  | N | N | PS | PS | 7 | N | N | N | N | N | N | <10 |
| 03053-007 | D-011 | SOL | BR | N | N | I | I | 4.61 | N | N | N | N | N | N | <10 |
| 03053-008 | D-012 | L | CLR | N | N | S | I | 2.64 | N | P | N | N | N | N | <10 |
| 03053-009A | D-013A | SLD | BL | N | N | I | PS | 5.99 | N | P | N | N | N | N | <10 |
| 03053-009B | D-013B | L | CLR | N | N | S | PS | 6.49 | N | P | N | N | N | N | <10 |
| 03053-010 | D-015 | L | CLR | N | N | S | I | 6.61 | P<1MG | N | N | N | N | N | <10 |
| 03053-011 | D-016 | SLD | BL | N | N | I | PS | 6.61 | N | N | N | N | N | N | <10 |
| 03053-012A | D-018A | L | AM | N | N | S | I | 6 | N | N | P | N | N | N | NT |
| 03053-012B | D-018B | L | CLR | N | N | S | I | 6 | N | N | P | N | N | N | NT |
| 03053-013 | D-019 | L | LT BR | N | N | S | I | 8 | N | N | N | N | N | N | <10 |
| 03053-014 | D-020 | L | CLR | N | N | S | I | 6 | N | N | N | N | N | N | <10 |
| 03053-015 | D-022 | L | LT Y | N | N | S | I | 7 | N | N | N | N | N | N | <10 |
| 03053-016 | D-023 | L | BL | N | N | I | S | 7 | N | N | N | N | N | N | <10 |
| 03053-017A | D-024A | L | BL | N | N | I | S | 7 | N | N | N | N | N | N | <10 |
| 03053-017B | D-024B | L | CLR | N | N | S | I | 7 | N | N | N | N | N | N | <10 |
| 03053-018 | T-029 | L | BL | N | N | PS | S | 2 | N | N | N | N | N | P | <10 |
| 03053-019 | T-030 | L | CLR | N | N | I | S | 7 | N | N | N | N | N | N | <10 |
| 03053-020 | T-031 | L | BL | N | N | PS | S | 7 | N | N | N | N | N | P | <10 |
| 03053-021 | T-032 | L | RD BR | N | N | S | I | 5 | N | N | N | N | N | N | <10 |
| 03053-022A | F-34 | L | LT GY | N | N | S | I | 7 | N | N | N | N | N | N | <10 |
| 03053-022B | F-35 | L | BL | N | N | S | I | 7 | N | N | N | N | N | N | <10 |
| 03053-023 | D-037 | L | CLR | N | N | S | I | 6 | N | N | N | N | N | N | <10 |
| 03053-024 | D-038 | L | CLR | N | N | S | I | 6 | N | N | N | N | N | N | <10 |
| 03053-025 | D-039 | L | CLR | N | N | S | I | 5 | N | N | N | N | N | N | <10 |
| 03053-026 | D-041 | L | CLR | N | N | S | I | 5 | N | N | N | N | N | N | <10 |
| 03053-027 | T-042 | L | CLR | N | N | S | I | 6 | N | P | N | N | N | N | <10 |
| 03053-028B | T-028B | L | BL | N | N | PS | S | 2 | N | N | N | N | N | P | <10 |
| 03053-029 | D-040* | L | BL | N | N | I | S | 7 | N | N | N | P | N | N | <10 |
| 03053-030 | TT-047 | L | BL | N | N | PS | S | 5.9 | N | N | N | N | N | N | <10 |
| 03053-031A | TT-048A | SLD | BL | N | N | I | S | 7.6 | N | N | N | N | N | N | <10 |
| 03053-031B | TT-048B | L | CLR | N | N | S | I | 6.1 | N | N | N | N | N | N | <10 |
| 03053-032A | TT-050A | SLD | BL | N | N | I | S | 6.9 | N | N | N | N | N | N | <10 |
| 03053-032B | TT-050B | L | CLR | N | N | S | I | 6.5 | N | N | N | N | N | N | <10 |
| 03053-033 | TT-051 | SLD | BL | N | N | I | S | 5.9 | N | N | N | N | N | N | NT WAXY |
| 03053-034 | TT-052 | L | CLR | N | N | S | I | 7.1 | N | N | N | N | N | N | <10 |

| LAB ID | INVENTORY ID | PHYSICAL STATE | COLOR | AIR REACT | H20 REACT | H2O SOL. | SOLV. SOL. | ph | PEROXIDE | OXIDIZER | HALOGENS | SULFIDE | CYANIDE | FLUORIDE | PCB'S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 03053-035 | TT-056 | L | BL | N | N | PS | PS | 8.9 | N | N | N | N | N | N | <10 |
| 03053-036A | D-024A RESAMP | L | BL | N | N | I | S | 6.5 | N | N | N | N | N | N | <10 |
| 03053-036B | D-024B RESAMP | L | CLR | N | N | PS | I | 7 | N | N | N | N | N | N | <10 |
| 03053-037 | T-28 RESAMP | L | BL | N | N | PS | S | 2 | N | N | N | N | N | N | <10 |
| 03053-038 | D-040 RESAMP | L | BL | N | N | I | S | 7 | N | N | N | N | N | N | <10 |
| 03053-039 | OP-057 | L | Y | N | N | S | S | 9 | N | N | N | N | N | N | <10 |
| 03053-040 | OP-058 | L | CLR | N | N | S | I | 4 | P~1500MG/L | P | N | N | N | N | <10 |
| 03053-041 | OP-059 | L | CLR | N | N | S | I | 9.4 | P~10MG/L | P | N | N | N | N | <10 |
| 03053-042 | OP-061 | L | CLR | N | N | I | S | 7 | N | N | N | N | N | N | <10 |
| 03053-043A | RO-062A | L | BL | N | N | I | PS | 7 | N | N | N | N | N | N | <10 |
| 03053-043B | RO-062B | L | BL | N | N | S | I | 7 | N | N | N | N | N | N | <10 |
| 03053-044A | T-063A | L | CLR | N | N | S | I | 14 | N | N | N | N | N | N | <10 |
| 03053-044B | T-063B | SOL | W/BL | N | N | PS | I | 14 | N | N | N | N | N | N | <10 |
| 03053-045A | FT-064A | L | BL | N | N | I | S | 4 | N | N | N | N | N | N | <10 |
| 03053-045B | FT-064B | L | WH/CLR | N | N | S | PS | 4 | N | N | N | N | N | N | <10 |
| 03053-046 | FT-065 | L | BL | N | N | S | I | 8 | N | N | N | N | N | N | <10 |

## WASTE STREAM COMPOSITE LOG

| WS Composite Number | Inventory ID | Amount | Units | Comments |
|---|---|---|---|---|
| C001 | D-018A | 1 | mL | MOSTLY CLR LIQS, PH RANGES 5-9 |
| | F-35 | 1 | mL | NO REACTIONS |
| | D-003 | 1 | mL | |
| | D-007B | 1 | mL | |
| | D-008B | 1 | mL | |
| | D-015 | 1 | mL | |
| | D-018B | 1 | mL | |
| | D-020 | 1 | mL | |
| | D-024B | 1 | mL | |
| | D-037 | 1 | mL | |
| | D-038 | 1 | mL | |
| | D-039 | 1 | mL | |
| | D-041 | 1 | mL | |
| | TT-048B | 1 | mL | |
| | TT-050B | 1 | mL | |
| | TT-052 | 1 | mL | |
| | D-019 | 1 | mL | |
| | F-34 | 1 | mL | |
| | D-022 | 1 | mL | |
| | T-032 | 1 | mL | |
| | OP-057 | 1 | mL | |
| C004 (OK to MIX with C001) | TT-047 | 1 | mL | DARK LIQS, OILY NO FLASH |
| | TT-056 | 1 | mL | NO REACTIONS |
| | D-024B | 1 | mL | |
| | D-010B | 1 | mL | |
| C006 (OK to MIX with C001) | D-004 | 1 | mL | BLACK LIQS, SOLVENT SOLUBLE |
| | D-007A | 1 | mL | NO FLASH |
| | D-009 | 1 | mL | |
| | D-010A | 1 | mL | |
| | D-011 | 1 | mL | |
| | D-016 | 1 | mL | |
| | D-023 | 1 | mL | |
| | D-024A | 1 | mL | |
| | T-030 | 1 | mL | |
| | TT-048A | 1 | mL | |
| | TT-050A | 1 | mL | |
| | TT-051 | 1 | mL | |

## WASTE STREAM COMPOSITE LOG

| WS Composite Number | Inventory ID | Amount | Units | Comments |
|---|---|---|---|---|
| C003 (OK to MIX with C001) | D-012 | 1 | mL | CLR LIQS, OXIDIZERS AND PEROXIDES |
| | D-013A | 1 | mL | NO REACTIONS |
| | D-013B | 1 | mL | |
| | T-042 | 1 | mL | |
| C002 | T-029 | 1 | mL | DARK LIQS, SAMPLES FLASH |
| | T-031 | 1 | mL | NO REACTIONS |
| | T-028B | 1 | mL | |
| C003 | OP-58 | 1 | mL | OXIDIZERS AND PEROXIDES |
| | OP-059 | 1 | mL | NO REACTIONS (BUT COULD BE EXPLOSIVE) |
| C005 | D-040 | 1 | g | SLUDGES AND SOLIDS |
| | OP-061 | 1 | g | D-040 CONTAINS SULFIDES |
| | RO-062A | 1 | g | NO REACTIONS |
| | RO-062B | 1 | g | |
| | FT-064A | 1 | g | |
| | FT-064B | 1 | g | |
| | FT-065 | 1 | g | |

# APPENDIX H

# WASTE MATERIAL CHARACTERIZATION ANALYTICAL REPORT

•SGS

REC'D CRA
SEP - 3 2003
SDG: 1

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033420

ORIGINAL ANALYTICAL REPORT

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

Project#: 32664 Lab#: 3033420
Name: Sybill, Inc.

Description

Event: _____
Samples: 2 Composite
Analysis: RCI, TCLP VOC + SVOC
TCLP MTL, PCB
TAT: 7 day
Lab: SGS

Checked Against Preliminary Data:
Date: 9-3-03 Init.: K.B.
Date of Validation Memo: 9-19-03
Invoice Approval Date: _____
Comments: _____

Approval Signature: Tamela M. Johnson

Date Issued: 8-29-03
Total Pages: 82

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033420

***Sample Collection and Receipt -***

Five samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on August 12, 2003 and additional sample was collected on August 18, 2003 for client samples L-32664-081803-SM-006, L-32664-081803-SM-007 and L-32664-081803-SM-008. The sample containers were released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The samples collected on August 12, 2003 were received at SGS on August 13, 2003 in good condition, on ice and at a temperature of 4°C. The samples collected on August 18, 2003 were received at SGS on August 19, 2003 in good condition, on ice and at a temperature of 4°C. Following log-in, the samples were stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

The samples collected on August 12, 2003 were separated into oil phases and water phases. The water layers were composited and analyzed for RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint), RCRA Metals and Volatile Organic Compounds (VOCs). The oil layers were composited and analyzed for RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint), RCRA Metals, RCRA Semivolatile Organic Compounds (SVOCs), Polychlorinated Biphenyls (PCBs) and Volatile Organic Compounds (VOCs).

Additional water sample was collected for client samples L-32664-081803-SM-006, L-32664-081803-SM-007 and L-32664-081803-SM-008 on August 18, 2003. These were composited and analyzed for RCRA Semivolatile Organic Compounds (SVOCs) and Polychlorinated Biphenyls (PCBs).

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

Laboratory sample 3033420001 was extracted at a X10 dilution for PCBs and SVOCs.

Laboratory sample 3033420001was analyzed at a X5 dilution and sample 3033420002 was analyzed at a X10 dilution for SVOCs due to matrix interference.

***Quality Control (QC) -***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Volatiles Analysis*

The recovery for Vinyl chloride was above the upper control limit in the MS/MSD associated with preparation batch VXX 3692. The MS/MSD were not performed on a sample from this sample delivery group (SDG).

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033420

***Quality Control (QC) continued –***

*GC PCB Analysis*

The relative percent difference (RPD) was above QC acceptance criteria for Aroclor-1248 in the MS/MSD associated with preparation batch XXX 5844. The MS/MSD were not performed on a sample from this SDG.

*Metals Analysis*

The recoveries for Barium and Lead were above the upper control limits in the MSD on sample 3033420001 associated with preparation batch MXX 11204. Also, the RPD was above QC acceptance criteria for Barium in the MS/MSD. Barium and Lead were flagged for matrix interference (M).

***Sample Reporting –***

The SVOC results for laboratory sample 3033420001 and 3033420002 were qualified for dilution (D) due to matrix interference (M).

The Barium and Lead results for laboratory sample 3033420001 were qualified (M) for matrix interference.

The Selenium result for laboratory sample 3033420001 was qualified as estimated (J) due to a relative standard deviation (RSD) greater than twenty.

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 8-26-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033420

## I. Analytical Methods:

| | |
|---|---|
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9040B[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| Water Layer Composite | 3033420001 |
| Oil Layer Composite | 3033420002 |

# Explanation of Terms and Data Qualifiers

| Term Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

3033420

CT&E Environmental Services Inc.

166514 COC Serial

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

SHIPPED TO (Laboratory Name): C
1200 Conrad Industrial Drive, Ludington, MI 49431

# CHAIN OF CUSTODY RECORD

REFERENCE NUMBER: 032664

PROJECT NAME: Sybil, Inc.

SAMPLER'S SIGNATURE: Shawn McLean PRINTED NAME: Shawn Mclean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | PARAMETERS: RCI / RCRA VOCs / RCRA SVOCs / RCRA Metals / PCB's / Total Halocarbons | REMARKS |
|---|---|---|---|---|---|---|---|
| 1 | 8-12-03 | 1000 | L-32664-081203-SM-005 | L | 1 | ✓ ✓ ✓ ✓ ✓ ✓ | |
| 2 | " | " | L-32664-081203-SM-004 | L | 1 | ✓ — — — — ✓ | ASAP |
| 3 | " | " | " -003 | L | 1 | ✓ — — — — ✓ | |
| 4 | " | 1050 | " " -002 | L | 1 | ✓ — — — — ✓ | |
| 5 | " | 1100 | " " -001 | L | 2 | ✓ — — — — ✓ | |
| 001 | | | water layer composite } DDH | 8/13/03 | | | |
| 002 | | | oil layer composite } | | | | |

TOTAL NUMBER OF CONTAINERS: 6

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. Shawn McLean | DATE: 8-12-03 TIME: 1800 | RECEIVED BY: 1. | DATE: TIME: |
| RELINQUISHED BY: 2. | DATE: TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: Fed Ex AIR BILL No. 8384 6513 9923

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24033

SAMPLE TEAM: SM - Brian (SWPC)

RECEIVED FOR LABORATORY BY:

DATE: 8/13/03 TIME: 10.45 AR

1001 (FORMS)-APRIL 29, 93-REV.0-(C)(F-01)

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of __

Project Number: 3033420 Date Logged In: 8/13/03 Login Person Initials: KB

This section to be completed when corrective action is required:

Client: CRA Project Name: _____
Client Contact: _____ Phone Number: _____

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | — | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | — | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | — | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | — | |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 1 Liter amber | 250 mL sample | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | sample no. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)

8/13/03: Per Paul Wiseman: composite all $H_2O$ layers into one sample, composite all oil layers into one sample. Additional sample will be rec'd on 8/14/03. DDH

8/19/03: Additional sample (aqueous) was rec'd; lab composited amber containers for analysis (client IDs: 006, 006, 007).

CT&E Environmental Services Inc.

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

# CHAIN OF CUSTODY RECORD

SHIPPED TO (Laboratory Name): CT&E 166643 COC Serial
1200 Conrad Industrial Drive, Ludington MI 49451

REFERENCE NUMBER: 032664

PROJECT NAME: Sybill, Inc. 3033420 3033498

SAMPLER'S SIGNATURE: Shawn McLean PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | RCI | RCRA VOCs | RCRA SVOCs | RCRA Metals | RCBs | Total Halocarbons | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8-18-03 | 0900 | L-32664-081803-SM-006 | L | 4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | 1 amber 3 wd |
| 2 | | 0915 | L-32664-081803-SM-008 | L | 4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | " |
| 3 | | 0930 | L-32664-081803-SM-007 | L | 4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | " ASAP |
| 4 | | 0945 | L-32664-081803-SM-009 | L | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | 4oz |
| 5 | | 0950 | L-32664-081803-SM-010 | L | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | " |
| 6 | | 1000 | L-32664-081803-SM-011 | L | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | " |
| 7 | | 1015 | L-32664-081803-SM-012 | L | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | " |

TOTAL NUMBER OF CONTAINERS

| RELINQUISHED BY: | DATE: | RECEIVED BY: | DATE: |
|---|---|---|---|
| 1. Shawn McLean | TIME: 1530 | 1. | TIME: |
| 2. | TIME: | 2. | TIME: |
| 3. | TIME: | 1. | TIME: |

METHOD OF SHIPMENT: Fed - Ex AIR BILL No. 8384 6513 9945

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24034

SAMPLE TEAM: 3M -

RECEIVED FOR LABORATORY BY: [signature]
DATE: 8/19/03 TIME: 8:30 4°C

1001 (FORMS)-APRIL 29, 93-REV.0-(C)(F-01)

9

Attach to the COC and include with the final report.

**SGS**

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of 1

3033420
Project Number: 3033498 Date Logged In: 8/19/05 Login Person Initials: KE

This section to be completed when corrective action is required:

Client: CRA
Client Contact: _____

Project Name: _____
Phone Number: _____

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | | ✓ |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | ✓ | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | = | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | = | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | = | |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 1 oz. amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Sample No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE** (Provide date/time of contact, client response and project manager initials)
8/20/05: Per Paul Wiseman Composite samples 6, 7 & 8 – this is additional sample for 3033420. DOH

# Laboratory Report

# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3033420**<br>**Sybill, Inc #32664 (08/12)** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

8/26/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033420001 | **Matrix:** | Aqueous |
| **Client Sample ID:** | Water Layer Composite | **Location:** | |
| **Collected:** | 08/12/2003 10:00 | **Project:** | Project 32684 Sybill, Inc. |
| **Received:** | 08/13/2003 13:54 | **Sampled By:** | SM |

**Comments:** Results reported as received.

Sample is a composite of all aqueous layers received on 8/13/03; for the PCB and SVOC analysis, the sample is a composite of all aqueous layers received on 8/19/03.

Barium, Lead: Matrix spike duplicate above Quality Control Acceptance criteria.

PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

8270: Sample was diluted due to matrix interference.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TOTAL METALS ANALYSIS** | | | | | | | | | |
| Arsenic | 0.016 | | mg/L | 0.0010 | SW-846 6020 / SW-846 3010A | 08/15/03 15:08 | 08/20/03 02:20 | SRO | 1 |
| Barium | 1.0 M | | mg/L | 0.00040 | SW-846 6020 / SW-846 3010A | 08/15/03 15:08 | 08/20/03 02:20 | SRO | 1 |
| Cadmium | 0.023 | | mg/L | 0.00020 | SW-846 6020 / SW-846 3010A | 08/15/03 15:08 | 08/20/03 02:20 | SRO | 1 |
| Chromium | 0.15 | | mg/L | 0.00060 | SW-846 6020 / SW-846 3010A | 08/15/03 15:08 | 08/20/03 02:20 | SRO | 1 |
| [redacted] | 0.39 M | | mg/L | 0.00040 | SW-846 6020 / SW-846 3010A | 08/15/03 15:08 | 08/20/03 02:20 | SRO | 1 |
| Mercury | 0.00038 | | mg/L | 0.00020 | SW-846 7470A | 08/14/03 07:14 | 08/14/03 10:37 | SKP | 1 |
| Selenium | 0.0027 J | | mg/L | 0.0016 | SW-846 6020 / SW-846 3010A | 08/15/03 15:08 | 08/20/03 02:20 | SRO | 1 |
| Silver | 0.0013 | | mg/L | 0.00040 | SW-846 6020 / SW-846 3010A | 08/15/03 15:08 | 08/20/03 02:20 | SRO | 1 |
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 08/15/03 11:12 | 08/18/03 10:27 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 08/15/03 07:45 | 08/19/03 07:48 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 08/15/03 17:32 | SRS | 1 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 08/19/03 11:01 | WD | 1 |
| pH | 4.63 | | S.U. | | SW-846 9040B | | 08/15/03 17:32 | SRS | 1 |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,1,1-Trichloroethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| [redacted]2-Trichloro-1,2,2-fluoroet | ND | | ug/L | 3.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | |
| [redacted],2-Trichloroethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,1-Dichloroethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |

Workorder: 3033420 Conestoga-Rovers & Associates Reported: 8/26/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033420001 | **Matrix:** | Aqueous |
| **Client Sample ID:** | Water Layer Composite | **Location:** | |
| **Collected:** | 08/12/2003 10:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/13/2003 13:54 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1-Dichloroethene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,1-Dichloropropene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/L | 5.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,2,3-Trichloropropane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/L | 5.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,2-Dibromoethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,2-Dichlorobenzene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,2-Dichloroethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,2-Dichloropropane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,3-Dichlorobenzene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,3-Dichloropropane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 2,2-Dichloropropane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 2-Butanone ( M E K ) | 98 | | ug/L | 25 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 2-Chlorotoluene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| 4-Chlorotoluene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Benzene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Bromochloromethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Bromodichloromethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Bromoform | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Bromomethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Carbon tetrachloride | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Chlorobenzene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Chloroethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Chloroform | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Chloromethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| cis-1,2-Dichloroethene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| cis-1,3-Dichloropropene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Dibromochloromethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Dibromomethane | ND | | ug/L | 5.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033420001 | **Matrix:** | Aqueous |
| **Client Sample ID:** | Water Layer Composite | **Location:** | |
| **Collected:** | 08/12/2003 10:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/13/2003 13:54 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Dichlorodifluoromethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Hexachlorobutadiene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Hexachloroethane | ND | | ug/L | 5.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Methylene chloride | 1.8J | | ug/L | 5.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Tetrachloroethene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| trans-1,2-Dichloroethene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| trans-1,3-Dichloropropene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Trichloroethene | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| Trichlorofluoromethane | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| [redacted]chloride | ND | | ug/L | 1.0 | SW-846 8260B / SW-846 5030B | 08/18/03 08:00 | 08/18/03 11:10 | JEH | 1 |
| **GC/MS SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND D,M | | ug/L | 250 | SW-846 8270C / SW-846 3510C | 08/20/03 13:26 | 08/20/03 20:26 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND D,M | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 08/20/03 13:26 | 08/20/03 20:26 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND D,M | | ug/L | 250 | SW-846 8270C / SW-846 3510C | 08/20/03 13:26 | 08/20/03 20:26 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND D,M | | ug/L | 250 | SW-846 8270C / SW-846 3510C | 08/20/03 13:26 | 08/20/03 20:26 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | ND D,M | | ug/L | 500 | SW-846 8270C / SW-846 3510C | 08/20/03 13:26 | 08/20/03 20:26 | BPJ | 1 |
| Hexachlorobenzene | ND D,M | | ug/L | 500 | SW-846 8270C / SW-846 3510C | 08/20/03 13:26 | 08/20/03 20:26 | BPJ | 1 |
| Hexachlorobutadiene | ND D,M | | ug/L | 250 | SW-846 8270C / SW-846 3510C | 08/20/03 13:26 | 08/20/03 20:26 | BPJ | 1 |
| Hexachloroethane | ND D,M | | ug/L | 250 | SW-846 8270C / SW-846 3510C | 08/20/03 13:26 | 08/20/03 20:26 | BPJ | 1 |
| Nitrobenzene | ND D,M | | ug/L | 100 | SW-846 8270C / SW-846 3510C | 08/20/03 13:26 | 08/20/03 20:26 | BPJ | 1 |
| Pentachlorophenol | ND D,M | | ug/L | 1000 | SW-846 8270C / SW-846 3510C | 08/20/03 13:26 | 08/20/03 20:26 | BPJ | 1 |
| Pyridine | ND D,M | | ug/L | 2500 | SW-846 8270C / SW-846 3510C | 08/20/03 13:26 | 08/20/03 20:26 | BPJ | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/20/03 13:27 | 08/21/03 13:50 | ESA | 1 |
| Aroclor-1221 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/20/03 13:27 | 08/21/03 13:50 | ESA | 1 |
| [redacted]lor-1232 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/20/03 13:27 | 08/21/03 13:50 | ESA | 1 |
| [redacted]clor-1242 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/20/03 13:27 | 08/21/03 13:50 | ESA | 1 |
| Aroclor-1248 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/20/03 13:27 | 08/21/03 13:50 | ESA | 1 |

Workorder: 3033420 Conestoga-Rovers & Associates Reported: 8/26/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033420001 | **Matrix:** | Aqueous |
| **Client Sample ID:** | Water Layer Composite | **Location:** | |
| **Collected:** | 08/12/2003 10:00 | **Project:** | Project 32684 Sybill, Inc. |
| **Received:** | 08/13/2003 13:54 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1254 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/20/03 13:27 | 08/21/03 13:50 | ESA | 1 |
| Aroclor-1260 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/20/03 13:27 | 08/21/03 13:50 | ESA | 1 |
| Aroclor-1262 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/20/03 13:27 | 08/21/03 13:50 | ESA | 1 |
| Aroclor-1268 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/20/03 13:27 | 08/21/03 13:50 | ESA | 1 |

CT&E Environmental Services Inc.
Michigan Division

Workorder: 3033420 | Conestoga-Rovers & Associates | Reported: 8/29/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033420002 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | Oil Layer Composite | Location: | |
| Collected: | 08/12/2003 10:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/13/2003 10:45 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).
8270: Sample was diluted due to matrix interference.
Sample is a composite of all oil layers received on 8/13/03.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TOTAL METALS ANALYSIS** | | | | | | | | | |
| Arsenic | 0.91 | | mg/Kg | 0.058 | SW-846 6020 / SW-846 3051 | 08/15/03 10:17 | 08/19/03 11:03 | SRO | 1 |
| Barium | 41 | | mg/Kg | 0.58 | SW-846 6020 / SW-846 3051 | 08/15/03 10:17 | 08/19/03 11:03 | SRO | 1 |
| Cadmium | 0.50 | | mg/Kg | 0.029 | SW-846 6020 / SW-846 3051 | 08/15/03 10:17 | 08/19/03 11:03 | SRO | 1 |
| Chromium | 7.3 | | mg/Kg | 0.29 | SW-846 6020 / SW-846 3051 | 08/15/03 10:17 | 08/19/03 11:03 | SRO | 1 |
| Lead | 20 | | mg/Kg | 0.58 | SW-846 6020 / SW-846 3051 | 08/15/03 10:17 | 08/19/03 11:03 | SRO | 1 |
| [illegible]ury | ND | | mg/Kg | 0.019 | SW-846 7470A / EPA 245.5[1] | 08/19/03 08:14 | 08/19/03 09:18 | SKP | 1 |
| Selenium | 0.17 | | mg/Kg | 0.12 | SW-846 6020 / SW-846 3051 | 08/15/03 10:17 | 08/19/03 11:03 | SRO | 1 |
| Silver | 0.076J | | mg/Kg | 0.29 | SW-846 6020 / SW-846 3051 | 08/15/03 10:17 | 08/19/03 11:03 | SRO | 1 |
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 08/15/03 11:12 | 08/18/03 10:40 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 08/15/03 07:45 | 08/19/03 07:48 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 08/15/03 17:32 | SRS | 1 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 08/19/03 11:01 | WD | 1 |
| pH | 4.41 | | S.U. | | SW-846 9040B | | 08/15/03 17:32 | SRS | 1 |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,1,2-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| [illegible]Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |

Workorder: 3033420 Conestoga-Rovers & Associates Reported: 8/29/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033420002 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | Oil Layer Composite | Location: | |
| Collected: | 08/12/2003 10:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/13/2003 10:45 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,2-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 2-Butanone ( M E K) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| 4-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Benzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Chloromethane | 101J | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Dibromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Methylene chloride | 64.4J | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033420002 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | Oil Layer Composite | **Location:** | |
| **Collected:** | 08/12/2003 10:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/13/2003 10:45 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Trichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/13/03 16:00 | 08/14/03 22:01 | JEH | 1 |
| **GC/MS SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND D,M | | mg/Kg | 730 | SW-846 8270C / SW-846 3580A | 08/14/03 11:15 | 08/15/03 23:43 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND D,M | | mg/Kg | 490 | SW-846 8270C / SW-846 3580A | 08/14/03 11:15 | 08/15/03 23:43 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND D,M | | mg/Kg | 240 | SW-846 8270C / SW-846 3580A | 08/14/03 11:15 | 08/15/03 23:43 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND D,M | | mg/Kg | 490 | SW-846 8270C / SW-846 3580A | 08/14/03 11:15 | 08/15/03 23:43 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | ND D,M | | mg/Kg | 730 | SW-846 8270C / SW-846 3580A | 08/14/03 11:15 | 08/15/03 23:43 | BPJ | 1 |
| Hexachlorobenzene | ND D,M | | mg/Kg | 240 | SW-846 8270C / SW-846 3580A | 08/14/03 11:15 | 08/15/03 23:43 | BPJ | 1 |
| Hexachlorobutadiene | ND D,M | | mg/Kg | 200 | SW-846 8270C / SW-846 3580A | 08/14/03 11:15 | 08/15/03 23:43 | BPJ | 1 |
| Hexachloroethane | ND D,M | | mg/Kg | 200 | SW-846 8270C / SW-846 3580A | 08/14/03 11:15 | 08/15/03 23:43 | BPJ | 1 |
| Nitrobenzene | ND D,M | | mg/Kg | 240 | SW-846 8270C / SW-846 3580A | 08/14/03 11:15 | 08/15/03 23:43 | BPJ | 1 |
| Pentachlorophenol | ND D,M | | mg/Kg | 490 | SW-846 8270C / SW-846 3580A | 08/14/03 11:15 | 08/15/03 23:43 | BPJ | 1 |
| Pyridine | ND D,M | | mg/Kg | 200 | SW-846 8270C / SW-846 3580A | 08/14/03 11:15 | 08/15/03 23:43 | BPJ | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.97 | SW-846 8082 / SW-846 3580A | 08/14/03 11:52 | 08/16/03 17:07 | JL | 1 |
| Aroclor-1221 | ND | | mg/Kg | 0.97 | SW-846 8082 / SW-846 3580A | 08/14/03 11:52 | 08/16/03 17:07 | JL | 1 |
| Aroclor-1232 | ND | | mg/Kg | 0.97 | SW-846 8082 / SW-846 3580A | 08/14/03 11:52 | 08/16/03 17:07 | JL | 1 |
| Aroclor-1242 | ND | | mg/Kg | 0.97 | SW-846 8082 / SW-846 3580A | 08/14/03 11:52 | 08/16/03 17:07 | JL | 1 |
| Aroclor-1248 | ND | | mg/Kg | 0.97 | SW-846 8082 / SW-846 3580A | 08/14/03 11:52 | 08/16/03 17:07 | JL | 1 |
| Aroclor-1254 | ND | | mg/Kg | 0.97 | SW-846 8082 / SW-846 3580A | 08/14/03 11:52 | 08/16/03 17:07 | JL | 1 |
| Aroclor-1260 | ND | | mg/Kg | 0.97 | SW-846 8082 / SW-846 3580A | 08/14/03 11:52 | 08/16/03 17:07 | JL | 1 |
| Aroclor-1262 | ND | | mg/Kg | 0.97 | SW-846 8082 / SW-846 3580A | 08/14/03 11:52 | 08/16/03 17:07 | JL | 1 |
| Aroclor-1268 | ND | | mg/Kg | 0.97 | SW-846 8082 / SW-846 3580A | 08/14/03 11:52 | 08/16/03 17:07 | JL | 1 |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4730 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Aqueous | **Date** | 08/18/2003 |
| | | **By** | JEH |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3033420001 PS | 89.7 | 78.6 | 93.1 | 94.7 |
| 330176 MB | 87.1 | 87.2 | 95.9 | 93.1 |
| 330177 LCS | 94.4 | 93.8 | 93.9 | 94.5 |
| 330178 LCSD | 93.5 | 89.5 | 97.2 | 94.3 |

| | | | |
|---|---|---|---|
| [redacted] | = | 4-Bromofluorobenzene Surr | ( 79-116 ) |
| [redacted]M | = | Dibromofluoromethane Surr | ( 72-132 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 77-124 ) |
| TOL | = | Toluene-d8 Surr | ( 87-110 ) |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32684 Sybill, Inc. | Batch | VMS 4731 |
| | | Method | SW-846 8260B |
| Matrix | Aqueous | Date | 08/18/2003 |
| | | By | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 330170 | MS | 97.3 | 93 | 100 | 94.1 |
| 330171 | MSD | 97.1 | 93.2 | 99.8 | 92.8 |
| 330205 | MB | 88.1 | 88.2 | 95.7 | 92.3 |
| 330206 | LCS | 91.6 | 81.6 | 91 | 96.5 |
| 330207 | LCSD | 91.5 | 85.4 | 94.8 | 94.5 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 79-116 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 72-132 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 77-124 ) |
| TOL | = | Toluene-d8 Surr | ( 87-110 ) |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4706 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Non Aqueous Liquid | **Date** | 08/14/2003 |
| | | **By** | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3033420002 | PS | 92 | 101 | 98 | 97.8 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 80-124 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 87-117 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 74-123 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 92-113 )** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | VMS 4706 |
| | | Method | SW-846 8260B |
| Matrix | Solid | Date | 08/14/2003 |
| | | By | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 329573 | MB | 90.3 | 103 | 100 | 96.9 |
| 329574 | LCS | 92.9 | 100 | 99.3 | 97.6 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 80-124 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 87-117 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 74-123 ) |
| TOL | = | Toluene-d8 Surr | ( 92-113 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 329574 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | VMS 4706 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | H0814_04.D | | **Date** | 08/14/2003 |
| | | | **By** | JEH |

QC results affect the following production samples:

3033420002

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 2500 | 2300 | 93 | | | ( 69-117 ) | | |
| 1,1,1-Trichloroethane | 2500 | 2100 | 85 | | | ( 62-124 ) | | |
| [illegible]2-Tetrachloroethane | 2500 | 2000 | 82 | | | ( 64-127 ) | | |
| [illegible],2-Trichloroethane | 2500 | 2100 | 83 | | | ( 73-116 ) | | |
| 1,1-Dichloroethane | 2500 | 2200 | 86 | | | ( 73-113 ) | | |
| 1,1-Dichloroethene | 2500 | 2200 | 87 | | | ( 57-133 ) | | |
| 1,1-Dichloropropene | 2500 | 2100 | 84 | | | ( 78-118 ) | | |
| 1,2,3-Trichlorobenzene | 2500 | 2200 | 90 | | | ( 71-127 ) | | |
| 1,2,3-Trichloropropane | 2500 | 2200 | 90 | | | ( 58-122 ) | | |
| 1,2,4-Trichlorobenzene | 2500 | 2300 | 91 | | | ( 72-128 ) | | |
| 1,2-Dibromo-3-chloropropane | 2500 | 2200 | 88 | | | ( 52-136 ) | | |
| 1,2-Dibromoethane | 2500 | 2000 | 80 | | | ( 69-123 ) | | |
| 1,2-Dichlorobenzene | 2500 | 2300 | 92 | | | ( 70-125 ) | | |
| 1,2-Dichloroethane | 2500 | 2100 | 83 | | | ( 55-120 ) | | |
| 1,2-Dichloropropane | 2500 | 2100 | 83 | | | ( 77-116 ) | | |
| 1,3-Dichlorobenzene | 2500 | 2200 | 90 | | | ( 75-121 ) | | |
| 1,3-Dichloropropane | 2500 | 2100 | 84 | | | ( 78-114 ) | | |
| 1,4-Dichlorobenzene | 2500 | 2200 | 87 | | | ( 73-117 ) | | |
| 2,2-Dichloropropane | 2500 | 2100 | 85 | | | ( 71-116 ) | | |
| 2-Butanone ( M E K ) | 2500 | 2100 | 84 | | | ( 48-168 ) | | |
| 2-Chlorotoluene | 2500 | 2200 | 87 | | | ( 84-115 ) | | |
| 4-Chlorotoluene | 2500 | 2100 | 84 | | | ( 82-121 ) | | |
| Benzene | 2500 | 2100 | 85 | | | ( 74-122 ) | | |
| Bromochloromethane | 2500 | 2000 | 79 | | | ( 71-117 ) | | |
| Bromodichloromethane | 2500 | 2100 | 83 | | | ( 67-122 ) | | |
| [illegible]noform | 2500 | 2200 | 90 | | | ( 53-136 ) | | |
| Bromomethane | 2500 | 2200 | 88 | | | ( 25-170 ) | | |
| Carbon tetrachloride | 2500 | 2300 | 91 | | | ( 63-133 ) | | |
| Chlorobenzene | 2500 | 2200 | 88 | | | ( 74-122 ) | | |
| Chloroethane | 2500 | 2000 | 79 | | | ( 49-132 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 329574 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | | **Batch** | VMS 4706 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B | |
| **Project** | Project 32684 Sybill, Inc. | | | |
| **File** | H0814_04.D | **Date** | 08/14/2003 | |
| | | **By** | JEH | |

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 2500 | 2200 | 87 | | | ( 67-114 ) | | |
| Chloromethane | 2500 | 1800 | 73 | | | ( 60-115 ) | | |
| cis-1,2-Dichloroethene | 2500 | 2000 | 81 | | | ( 79-110 ) | | |
| cis-1,3-Dichloropropene | 2500 | 2000 | 82 | | | ( 70-131 ) | | |
| Dibromochloromethane | 2500 | 2100 | 83 | | | ( 68-126 ) | | |
| Dibromomethane | 2500 | 2200 | 87 | | | ( 64-127 ) | | |
| Dichlorodifluoromethane | 2500 | 1400 | 57 | | | ( 27-129 ) | | |
| Hexachlorobutadiene | 2500 | 2600 | 104 | | | ( 64-135 ) | | |
| Hexachloroethane | 2500 | 2400 | 94 | | | ( 85-137 ) | | |
| Methylene chloride | 2500 | 2000 | 79 | | | ( 69-119 ) | | |
| Tetrachloroethene | 2500 | 2200 | 90 | | | ( 51-134 ) | | |
| trans-1,2-Dichloroethene | 2500 | 2100 | 85 | | | ( 74-116 ) | | |
| trans-1,3-Dichloropropene | 2500 | 2000 | 80 | | | ( 68-125 ) | | |
| Trichloroethene | 2500 | 2300 | 91 | | | ( 70-121 ) | | |
| Trichlorofluoromethane | 2500 | 2200 | 89 | | | ( 47-132 ) | | |
| Vinyl chloride | 2500 | 1800 | 74 | | | ( 60-125 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330177 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | VMS 4730 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | Q0818_03.D | | **Date** | 08/18/2003 |
| | | | **By** | JEH |

QC results affect the following production samples:

3033420001

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 20 | 20 | 102 | | | (84-116) | | |
| 1,1,1-Trichloroethane | 20 | 20 | 99 | | | (83-118) | | |
| 1,1,2,2-Tetrachloroethane | 20 | 19 | 96 | | | (75-121) | | |
| 1,1,2-Trichloroethane | 20 | 20 | 101 | | | (82-111) | | |
| 1,1-Dichloroethane | 20 | 19 | 97 | | | (84-115) | | |
| 1,1-Dichloroethene | 20 | 20 | 98 | | | (86-121) | | |
| 1,1-Dichloropropene | 20 | 18 | 92 | | | (80-109) | | |
| 1,2,3-Trichlorobenzene | 20 | 18 | 90 | | | (83-128) | | |
| 1,2,3-Trichloropropane | 20 | 19 | 96 | | | (72-117) | | |
| 1,2,4-Trichlorobenzene | 20 | 18 | 89 | | | (79-134) | | |
| 1,2-Dibromo-3-chloropropane | 20 | 18 | 89 | | | (69-120) | | |
| 1,2-Dibromoethane | 20 | 20 | 99 | | | (85-112) | | |
| 1,2-Dichlorobenzene | 20 | 19 | 95 | | | (84-124) | | |
| 1,2-Dichloroethane | 20 | 19 | 97 | | | (77-114) | | |
| 1,2-Dichloropropane | 20 | 19 | 97 | | | (81-109) | | |
| 1,3-Dichlorobenzene | 20 | 19 | 95 | | | (82-124) | | |
| 1,3-Dichloropropane | 20 | 20 | 99 | | | (82-110) | | |
| 1,4-Dichlorobenzene | 20 | 18 | 92 | | | (83-120) | | |
| 2,2-Dichloropropane | 20 | 20 | 102 | | | (64-130) | | |
| 2-Butanone (MEK) | 20 | 19 | 95 | | | (63-131) | | |
| 2-Chlorotoluene | 20 | 19 | 94 | | | (78-119) | | |
| 4-Chlorotoluene | 20 | 19 | 97 | | | (80-123) | | |
| Benzene | 20 | 19 | 97 | | | (87-112) | | |
| Bromochloromethane | 20 | 19 | 96 | | | (82-116) | | |
| Bromodichloromethane | 20 | 20 | 100 | | | (88-120) | | |
| Bromoform | 20 | 17 | 87 | | | (82-119) | | |
| Bromomethane | 20 | 22 | 109 | | | (56-152) | | |
| Carbon tetrachloride | 20 | 19 | 95 | | | (80-124) | | |
| Chlorobenzene | 20 | 19 | 96 | | | (85-117) | | |
| Chloroethane | 20 | 21 | 103 | | | (76-124) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330177 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | VMS 4730 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | Q0618_03.D | | **Date** | 06/18/2003 |
| | | | **By** | JEH |

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 20 | 19 | 94 | | | (83-113) | | |
| Chloromethane | 20 | 20 | 102 | | | (47-139) | | |
| cis-1,2-Dichloroethene | 20 | 19 | 97 | | | (81-111) | | |
| cis-1,3-Dichloropropene | 20 | 20 | 101 | | | (83-114) | | |
| Dibromochloromethane | 20 | 18 | 91 | | | (82-128) | | |
| Dibromomethane | 20 | 20 | 98 | | | (87-118) | | |
| Dichlorodifluoromethane | 20 | 25 | 127 | | | (40-184) | | |
| Hexachlorobutadiene | 20 | 19 | 97 | | | (70-123) | | |
| Hexachloroethane | 20 | 19 | 93 | | | (76-118) | | |
| Methylene chloride | 20 | 18 | 91 | | | (72-125) | | |
| Tetrachloroethene | 20 | 18 | 92 | | | (59-148) | | |
| trans-1,2-Dichloroethene | 20 | 19 | 96 | | | (86-115) | | |
| trans-1,3-Dichloropropene | 20 | 20 | 102 | | | (85-124) | | |
| Trichloroethene | 20 | 20 | 98 | | | (83-111) | | |
| Trichlorofluoromethane | 20 | 23 | 113 | | | (77-127) | | |
| Vinyl chloride | 20 | 23 | 113 | | | (68-133) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330206 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | VMS 4731 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | Q0617_04.D | | **Date** | 06/17/2003 |
| | | | **By** | JEH |

QC results affect the following production samples:

330170, 330171

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 20 | 19 | 96 | | | ( 84-116 ) | | |
| 1,1,1-Trichloroethane | 20 | 19 | 93 | | | ( 83-118 ) | | |
| [redacted]2-Tetrachloroethane | 20 | 19 | 94 | | | ( 75-121 ) | | |
| 1,1,2-Trichloroethane | 20 | 19 | 93 | | | ( 82-111 ) | | |
| 1,1-Dichloroethane | 20 | 17 | 86 | | | ( 84-115 ) | | |
| 1,1-Dichloroethene | 20 | 17 | 87 | | | ( 86-121 ) | | |
| 1,1-Dichloropropene | 20 | 17 | 87 | | | ( 80-109 ) | | |
| 1,2,3-Trichlorobenzene | 20 | 19 | 96 | | | ( 83-128 ) | | |
| 1,2,3-Trichloropropane | 20 | 19 | 93 | | | ( 72-117 ) | | |
| 1,2,4-Trichlorobenzene | 20 | 19 | 93 | | | ( 79-134 ) | | |
| 1,2-Dibromo-3-chloropropane | 20 | 18 | 89 | | | ( 69-120 ) | | |
| 1,2-Dibromoethane | 20 | 19 | 96 | | | ( 85-112 ) | | |
| 1,2-Dichlorobenzene | 20 | 19 | 94 | | | ( 84-124 ) | | |
| 1,2-Dichloroethane | 20 | 18 | 91 | | | ( 77-114 ) | | |
| 1,2-Dichloropropane | 20 | 18 | 90 | | | ( 81-109 ) | | |
| 1,3-Dichlorobenzene | 20 | 19 | 93 | | | ( 82-124 ) | | |
| 1,3-Dichloropropane | 20 | 18 | 90 | | | ( 82-110 ) | | |
| 1,4-Dichlorobenzene | 20 | 18 | 90 | | | ( 83-120 ) | | |
| 2,2-Dichloropropane | 20 | 18 | 93 | | | ( 64-130 ) | | |
| 2-Butanone ( M E K ) | 20 | 17 | 84 | | | ( 63-131 ) | | |
| 2-Chlorotoluene | 20 | 18 | 92 | | | ( 78-119 ) | | |
| 4-Chlorotoluene | 20 | 19 | 95 | | | ( 80-123 ) | | |
| Benzene | 20 | 18 | 91 | | | ( 87-112 ) | | |
| Bromochloromethane | 20 | 18 | 89 | | | ( 82-116 ) | | |
| [redacted]modichloromethane | 20 | 19 | 96 | | | ( 86-120 ) | | |
| [redacted]noform | 20 | 17 | 83 | | | ( 82-119 ) | | |
| Bromomethane | 20 | 17 | 84 | | | ( 56-152 ) | | |
| Carbon tetrachloride | 20 | 19 | 94 | | | ( 80-124 ) | | |
| Chlorobenzene | 20 | 19 | 95 | | | ( 85-117 ) | | |
| Chloroethane | 20 | 17 | 85 | | | ( 76-124 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 330206 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4731 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybilt, Inc. | | |
| **File** | Q0817_04.D | **Date** | 08/17/2003 |
| | | **By** | JEH |

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 20 | 17 | 85 | | | (83-113) | | |
| Chloromethane | 20 | 12 | 62 | | | (47-139) | | |
| cis-1,2-Dichloroethene | 20 | 18 | 90 | | | (81-111) | | |
| cis-1,3-Dichloropropene | 20 | 19 | 96 | | | (83-114) | | |
| Dibromochloromethane | 20 | 17 | 86 | | | (82-128) | | |
| Dibromomethane | 20 | 19 | 95 | | | (87-118) | | |
| Dichlorodifluoromethane | 20 | 22 | 112 | | | (40-184) | | |
| Hexachlorobutadiene | 20 | 19 | 93 | | | (70-123) | | |
| Hexachloroethane | 20 | 18 | 88 | | | (76-118) | | |
| Methylene chloride | 20 | 16 | 80 | | | (72-125) | | |
| Tetrachloroethene | 20 | 18 | 92 | | | (59-148) | | |
| trans-1,2-Dichloroethene | 20 | 18 | 88 | | | (86-115) | | |
| trans-1,3-Dichloropropene | 20 | 19 | 97 | | | (85-124) | | |
| Trichloroethene | 20 | 19 | 94 | | | (83-111) | | |
| Trichlorofluoromethane | 20 | 21 | 103 | | | (77-127) | | |
| Vinyl chloride | 20 | 19 | 95 | | | (68-133) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330170 | Matrix Spike | **Analysis** | |
| | 330171 | Matrix Spike Duplicate | **Batch** | VMS 4731 |
| **Prep Batch** | VXX 3692 | | **Method** | SW-846 8260B |
| **Original** | 3033350004 | | | |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 08/18/2003 |
| **File** | Q0817_23.D | | **By** | JEH |
| | Q0817_24.D | | | |

QC results affect the following production samples:

3033420001

| Analyte | MS, MSD Spike Added ug/L | Sample Conc. ug/L | MS Concentration ug/L | MS Recovery % | MSD Concentration ug/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 200, 200 | ND | 200 | 102 | 200 | 102 | (85-115) | 0 | (< 11) |
| [illegible]-Trichloroethane | 200, 200 | 14 | 220 | 105 | 220 | 104 | (79-122) | 1 | (< 12) |
| [illegible],2-Tetrachloroethane | 200, 200 | ND | 190 | 93 | 190 | 94 | (68-127) | 2 | (< 16) |
| 1,1,2-Trichloroethane | 200, 200 | ND | 200 | 102 | 200 | 102 | (75-116) | 0 | (< 11) |
| 1,1-Dichloroethane | 200, 200 | 940 | 1200 | 111 | 1200 | 117 | (77-122) | 1 | (< 11) |
| 1,1-Dichloroethene | 200, 200 | 34 | 250 | 108 | 250 | 110 | (80-123) | 2 | (< 14) |
| 1,1-Dichloropropene | 200, 200 | ND | 200 | 98 | 190 | 96 | (77-118) | 3 | (< 13) |
| 1,2,3-Trichlorobenzene | 200, 200 | ND | 170 | 83 | 180 | 89 | (70-113) | 7 | (< 20) |
| 1,2,3-Trichloropropane | 200, 200 | ND | 180 | 92 | 180 | 92 | (83-115) | 0 | (< 18) |
| 1,2,4-Trichlorobenzene | 200, 200 | ND | 160 | 82 | 180 | 88 | (72-110) | 7 | (< 19) |
| 1,2-Dibromo-3-chloropropane | 200, 200 | ND | 160 | 82 | 170 | 85 | (59-127) | 4 | (< 23) |
| 1,2-Dibromoethane | 200, 200 | ND | 190 | 97 | 200 | 98 | (82-114) | 1 | (< 11) |
| 1,2-Dichlorobenzene | 200, 200 | ND | 190 | 93 | 190 | 93 | (79-116) | 0 | (< 14) |
| 1,2-Dichloroethane | 200, 200 | 11 | 210 | 99 | 200 | 96 | (82-114) | 3 | (< 11) |
| 1,2-Dichloropropane | 200, 200 | ND | 200 | 99 | 190 | 96 | (79-114) | 3 | (< 12) |
| 1,3-Dichlorobenzene | 200, 200 | ND | 180 | 91 | 190 | 94 | (80-112) | 3 | (< 14) |
| 1,3-Dichloropropane | 200, 200 | ND | 200 | 100 | 200 | 99 | (77-118) | 1 | (< 13) |
| 1,4-Dichlorobenzene | 200, 200 | ND | 180 | 89 | 180 | 90 | (77-112) | 1 | (< 14) |
| 2,2-Dichloropropane | 200, 200 | ND | 180 | 92 | 180 | 89 | (48-131) | 3 | (< 14) |
| 2-Butanone (MEK) | 200, 200 | | 190 | 98 | 190 | 97 | (55-147) | 1 | (< 28) |
| 2-Chlorotoluene | 200, 200 | ND | 180 | 91 | 180 | 92 | (83-110) | 2 | (< 15) |
| 4-Chlorotoluene | 200, 200 | ND | 190 | 94 | 190 | 97 | (82-112) | 4 | (< 15) |
| Benzene | 200, 200 | ND | 210 | 101 | 210 | 99 | (77-120) | 2 | (< 11) |
| Bromochloromethane | 200, 200 | ND | 190 | 97 | 190 | 97 | (71-122) | 0 | (< 12) |
| [illegible]romodichloromethane | 200, 200 | ND | 200 | 100 | 200 | 100 | (81-112) | 0 | (< 12) |
| [illegible]romoform | 200, 200 | ND | 170 | 86 | 170 | 86 | (68-121) | 0 | (< 12) |
| Bromomethane | 200, 200 | ND | 220 | 108 | 240 | 121 | (43-147) | 11 | (< 28) |
| Carbon tetrachloride | 200, 200 | ND | 190 | 96 | 190 | 95 | (86-120) | 0 | (< 13) |
| Chlorobenzene | 200, 200 | ND | 190 | 97 | 190 | 95 | (82-112) | 2 | (< 12) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330170 | Matrix Spike | **Analysis** | |
| | 330171 | Matrix Spike Duplicate | **Batch** | VMS 4731 |
| **Prep Batch** | VXX 3692 | | **Method** | SW-846 8260B |
| **Original** | 3033350004 | | | |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 08/18/2003 |
| **File** | Q0817_23.D | | **By** | JEH |
| | Q0817_24.D | | | |

| Analyte | MS, MSD Spike Added ug/L | Sample Conc. ug/L | MS Concentration ug/L | MS Recovery % | MSD Concentration ug/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloroethane | 200, 200 | 110 | 330 | 113 | 360 | 126 | (77-126) | 8 | (< 14) |
| Chloroform | 200, 200 | ND | 200 | 100 | 200 | 98 | (79-114) | 2 | (< 11) |
| Chloromethane | 200, 200 | ND | 240 | 118 | 240 | 121 | (56-126) | 3 | (< 19) |
| cis-1,2-Dichloroethene | 200, 200 | ND | 210 | 104 | 210 | 103 | (71-114) | 1 | (< 11) |
| cis-1,3-Dichloropropene | 200, 200 | ND | 190 | 95 | 190 | 97 | (75-114) | 2 | (< 12) |
| Dibromochloromethane | 200, 200 | ND | 180 | 89 | 180 | 91 | (81-114) | 2 | (< [illegible]) |
| Dibromomethane | 200, 200 | ND | 190 | 95 | 190 | 93 | (82-118) | 1 | (< [illegible]) |
| Dichlorodifluoromethane | 200, 200 | ND | 290 | 146 | 300 | 152 | (28-153) | 4 | (< 14) |
| Hexachlorobutadiene | 200, 200 | ND | 180 | 92 | 190 | 96 | (59-118) | 5 | (< 24) |
| Hexachloroethane | 200, 200 | | 180 | 88 | 180 | 90 | (82-124) | 3 | (< 22) |
| Methylene chloride | 200, 200 | ND | 190 | 94 | 190 | 93 | (81-117) | 1 | (< 13) |
| Tetrachloroethene | 200, 200 | ND | 170 | 85 | 170 | 83 | (56-110) | 2 | (< 12) |
| trans-1,2-Dichloroethene | 200, 200 | ND | 210 | 103 | 210 | 104 | (79-120) | 2 | (< 13) |
| trans-1,3-Dichloropropene | 200, 200 | ND | 200 | 99 | 200 | 98 | (76-123) | 1 | (< 13) |
| Trichloroethene | 200, 200 | ND | 200 | 102 | 200 | 98 | (83-113) | 4 | (< 13) |
| Trichlorofluoromethane | 200, 200 | ND | 230 | 115 | 260 | 128 | (74-131) | 11 | (< 16) |
| Vinyl chloride | 200, 200 | ND | 260 | 130 | 270 | 135 | (68-117) | 4 | (< 13) |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 329573 Method Blank | | |
| **Prep Batch** | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | VMS 4706 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 8260B |
| **File** | H0814_07.D | | |
| | | **Date** | 08/14/2003 |
| | | **By** | JEH |

QC results affect the following production samples:

3033420002

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 70 |
| 1,1,1-Trichloroethane | ND | 35 |
| 1,1,2,2-Tetrachloroethane | ND | 70 |
| 1,1,2-Trichloroethane | ND | 35 |
| 1,1-Dichloroethane | ND | 35 |
| 1,1-Dichloroethene | ND | 35 |
| 1,1-Dichloropropene | ND | 35 |
| 1,2,3-Trichlorobenzene | ND | 150 |
| 1,2,3-Trichloropropane | ND | 70 |
| 1,2,4-Trichlorobenzene | ND | 150 |
| 1,2-Dibromo-3-chloropropane | ND | 150 |
| 1,2-Dibromoethane | ND | 150 |
| 1,2-Dichlorobenzene | ND | 70 |
| 1,2-Dichloroethane | ND | 35 |
| 1,2-Dichloropropane | ND | 35 |
| 1,3-Dichlorobenzene | ND | 70 |
| 1,3-Dichloropropane | ND | 35 |
| 1,4-Dichlorobenzene | ND | 70 |
| 2,2-Dichloropropane | ND | 35 |
| 2-Butanone ( M E K) | ND | 300 |
| 2-Chlorotoluene | ND | 35 |
| 4-Chlorotoluene | ND | 35 |
| Benzene | ND | 35 |
| Bromochloromethane | ND | 70 |
| Bromodichloromethane | ND | 70 |
| Bromoform | ND | 70 |
| Bromomethane | ND | 150 |
| Carbon tetrachloride | ND | 35 |
| Chlorobenzene | ND | 35 |
| Chloroethane | ND | 150 |
| Chloroform | ND | 35 |
| Chloromethane | ND | 150 |
| cis-1,2-Dichloroethene | ND | 35 |
| cis-1,3-Dichloropropene | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 329573 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4706 |
| **Project** | Project 32684 Sybil, Inc. | | **Method** | SW-846 8260B |
| **File** | H0814_07.D | | | |
| | | | **Date** | 08/14/2003 |
| | | | **By** | JEH |

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Dibromochloromethane | ND | 70 |
| Dibromomethane | ND | 150 |
| Dichlorodifluoromethane | ND | 70 |
| Hexachlorobutadiene | ND | 150 |
| Hexachloroethane | ND | 150 |
| Methylene chloride | ND | 150 |
| Tetrachloroethene | ND | 35 |
| trans-1,2-Dichloroethene | ND | 35 |
| trans-1,3-Dichloropropene | ND | 35 |
| Trichloroethene | ND | 35 |
| Trichlorofluoromethane | ND | 70 |
| Vinyl chloride | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330176 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4730 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | Q0618_06.D | | | |
| | | | **Date** | 06/18/2003 |
| | | | **By** | JEH |

QC results affect the following production samples:

3033420001

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 1.0 |
| 1,1,1-Trichloroethane | ND | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 |
| 1,1,2-Trichloroethane | ND | 1.0 |
| 1,1-Dichloroethane | ND | 1.0 |
| 1,1-Dichloroethene | ND | 1.0 |
| 1,1-Dichloropropene | ND | 1.0 |
| 1,2,3-Trichlorobenzene | ND | 5.0 |
| 1,2,3-Trichloropropane | ND | 1.0 |
| 1,2,4-Trichlorobenzene | ND | 5.0 |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 |
| 1,2-Dibromoethane | ND | 1.0 |
| 1,2-Dichlorobenzene | ND | 1.0 |
| 1,2-Dichloroethane | ND | 1.0 |
| 1,2-Dichloropropane | ND | 1.0 |
| 1,3-Dichlorobenzene | ND | 1.0 |
| 1,3-Dichloropropane | ND | 1.0 |
| 1,4-Dichlorobenzene | ND | 1.0 |
| 2,2-Dichloropropane | ND | 1.0 |
| 2-Butanone ( M E K) | ND | 25 |
| 2-Chlorotoluene | ND | 1.0 |
| 4-Chlorotoluene | ND | 1.0 |
| Benzene | ND | 1.0 |
| Bromochloromethane | ND | 1.0 |
| Bromodichloromethane | ND | 1.0 |
| Bromoform | ND | 1.0 |
| Bromomethane | ND | 1.0 |
| Carbon tetrachloride | ND | 1.0 |
| Chlorobenzene | ND | 1.0 |
| Chloroethane | ND | 1.0 |
| Chloroform | ND | 1.0 |
| Chloromethane | ND | 1.0 |
| cis-1,2-Dichloroethene | ND | 1.0 |
| cis-1,3-Dichloropropene | ND | 1.0 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330176 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4730 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | Q0818_06.D | | | |
| | | | **Date** | 08/18/2003 |
| | | | **By** | JEH |

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Dibromochloromethane | ND | 1.0 |
| Dibromomethane | ND | 5.0 |
| Dichlorodifluoromethane | ND | 1.0 |
| Hexachlorobutadiene | ND | 1.0 |
| Hexachloroethane | ND | 5.0 |
| Methylene chloride | ND | 5.0 |
| Tetrachloroethene | ND | 1.0 |
| trans-1,2-Dichloroethene | ND | 1.0 |
| trans-1,3-Dichloropropene | ND | 1.0 |
| Trichloroethene | ND | 1.0 |
| Trichlorofluoromethane | ND | 1.0 |
| Vinyl chloride | ND | 1.0 |

## METHOD BLANK SUMMARY

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330205 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4731 |
| **Project** | Project 32664 Sybil, Inc. | | **Method** | SW-846 8260B |
| **File** | Q0817_07.D | | | |
| | | | **Date** | 08/17/2003 |
| | | | **By** | JEH |

QC results affect the following production samples:

330170, 330171

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 1.0 |
| 1,1,1-Trichloroethane | ND | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 |
| 1,1,2-Trichloroethane | ND | 1.0 |
| 1,1-Dichloroethane | ND | 1.0 |
| 1,1-Dichloroethene | ND | 1.0 |
| 1,1-Dichloropropene | ND | 1.0 |
| 1,2,3-Trichlorobenzene | ND | 5.0 |
| 1,2,3-Trichloropropane | ND | 1.0 |
| 1,2,4-Trichlorobenzene | ND | 5.0 |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 |
| 1,2-Dibromoethane | ND | 1.0 |
| 1,2-Dichlorobenzene | ND | 1.0 |
| 1,2-Dichloroethane | ND | 1.0 |
| 1,2-Dichloropropane | ND | 1.0 |
| 1,3-Dichlorobenzene | ND | 1.0 |
| 1,3-Dichloropropane | ND | 1.0 |
| 1,4-Dichlorobenzene | ND | 1.0 |
| 2,2-Dichloropropane | ND | 1.0 |
| 2-Butanone ( M E K) | ND | 25 |
| 2-Chlorotoluene | ND | 1.0 |
| 4-Chlorotoluene | ND | 1.0 |
| Benzene | ND | 1.0 |
| Bromochloromethane | ND | 1.0 |
| Bromodichloromethane | ND | 1.0 |
| Bromoform | ND | 1.0 |
| Bromomethane | ND | 1.0 |
| Carbon tetrachloride | ND | 1.0 |
| Chlorobenzene | ND | 1.0 |
| Chloroethane | ND | 1.0 |
| Chloroform | ND | 1.0 |
| Chloromethane | ND | 1.0 |
| cis-1,2-Dichloroethene | ND | 1.0 |
| cis-1,3-Dichloropropene | ND | 1.0 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330205 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4731 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | Q0817_07.D | | | |
| | | | **Date** | 08/17/2003 |
| | | | **By** | JEH |

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Dibromochloromethane | ND | 1.0 |
| Dibromomethane | ND | 5.0 |
| Dichlorodifluoromethane | ND | 1.0 |
| Hexachlorobutadiene | ND | 1.0 |
| Hexachloroethane | ND | 5.0 |
| Methylene chloride | ND | 5.0 |
| Tetrachloroethene | ND | 1.0 |
| trans-1,2-Dichloroethene | ND | 1.0 |
| trans-1,3-Dichloropropene | ND | 1.0 |
| Trichloroethene | ND | 1.0 |
| Trichlorofluoromethane | ND | 1.0 |
| Vinyl chloride | ND | 1.0 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

## GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XMS 2678 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Non Aqueous Liquid | **Date** | 06/05/2003 |
| | | **By** | BWR |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 319763 MB | 113 | 106 | 113 | 111 | 105 | 106 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 10-111 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 22-114 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 19-113 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 10-127 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 32-125 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 24-178 )** |

## SURROGATE SUMMARY

## GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2787 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Non Aqueous Liquid | **Instrument** | HP 5972 Series INSTRU L |
| | | **Date** | 08/15/2003 |
| | | **By** | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033420002 | PS | 90.9 | 103 | 92.2 | 98.4 | 104 | 103 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 10-111 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 22-114 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 19-113 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 10-127 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 32-125 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 24-178 )** |

## SURROGATE SUMMARY

## GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32864 Sybill, Inc. | Batch | XMS 2792 |
| | | Method | SW-846 8270C |
| Matrix | Aqueous | Date | 08/20/2003 |
| | | By | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033420001 PS | 46.2 | 88.7 | 85.4 | 37.7 | 102 | 102 |
| 330478 MB | 53.9 | 88.6 | 85.4 | 40.3 | 98.8 | 85.9 |
| 330479 LCS | 53.6 | 95.2 | 90.9 | 39.4 | 104 | 96.9 |
| 330480 LCSD | 53.6 | 92.5 | 87.6 | 38.9 | 99.9 | 95.6 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | (14-68) |
| FBP | = | 2-Fluorobiphenyl Surr | (31-99) |
| NB2 | = | Nitrobenzene-d5 Surr | (33-102) |
| PHL | = | Phenol-d5 Surr | (13-50) |
| TBP | = | 2,4,6-Tribromophenol Surr | (31-133) |
| TPH | = | Terphenyl-d14 Surr | (20-116) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330479 | Lab Control Spike | | |
| | 330480 | Lab Control Spike Dup | **Analysis** | |
| **Prep Batch** | XXX | 5874 | **Batch** | XMS 2792 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C |
| **Project** | Project 32684 Sybill, Inc. | | | |
| **File** | F0820_11.D | | **Date** | 08/20/2003 |
| | F0820_12.D | | **By** | BPJ |

QC results affect the following production samples:

3033420001

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 100, 100 | 100 | 101 | 100 | 101 | (39-113) | 0 | (< 18) |
| 2,4,6-Trichlorophenol | 100, 100 | 110 | 105 | 100 | 104 | (32-119) | 1 | (< 19) |
| 2,4-Dinitrotoluene | 100, 100 | 97 | 97 | 98 | 98 | (47-122) | 1 | (< 23) |
| 2-Methylphenol (o-Cresol) | 100, 100 | 77 | 77 | 76 | 76 | (25-95) | 1 | (< 20) |
| 3&4-Methylphenol (p&m-Cresol) | 200, 200 | 140 | 71 | 140 | 71 | (26-90) | 1 | (< 22) |
| Hexachlorobenzene | 100, 100 | 90 | 90 | 90 | 90 | (41-109) | 0 | (< 15) |
| Hexachlorobutadiene | 100, 100 | 80 | 80 | 78 | 78 | (21-92) | 3 | (< 30) |
| Hexachloroethane | 100, 100 | 68 | 68 | 67 | 67 | (20-84) | 1 | (< 23) |
| Nitrobenzene | 100, 100 | 85 | 85 | 84 | 84 | (25-103) | 0 | (< 28) |
| Pentachlorophenol | 100, 100 | 100 | 101 | 100 | 100 | (34-135) | 1 | (< 22) |
| Pyridine | 100, 100 | 44 | 44 | 47 | 47 | (7.9-55) | 8 | (< 43) |

## METHOD BLANK SUMMARY

## GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 319763 Method Blank | | |
| **Prep Batch** | XXX 5648 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | XMS 2678 |
| **Project** | Project 32684 Sybil, Inc. | **Method** | SW-846 8270C |
| **File** | F0605_08.D | | |
| | | **Date** | 06/05/2003 |
| | | **By** | BWR |

QC results affect the following production samples:

3033420002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 75 |
| 2,4,6-Trichlorophenol | ND | 50 |
| 2,4-Dinitrotoluene | ND | 25 |
| 2-Methylphenol (o-Cresol) | ND | 50 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 75 |
| Hexachlorobenzene | ND | 25 |
| Hexachlorobutadiene | ND | 20 |
| Hexachloroethane | ND | 20 |
| Nitrobenzene | ND | 25 |
| Pentachlorophenol | ND | 50 |
| Pyridine | ND | 20 |

## METHOD BLANK SUMMARY

## GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 330478 Method Blank | | |
| **Prep Batch** | XXX 5874 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | XMS 2792 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 8270C |
| **File** | F0820_10.D | | |
| | | **Date** | 08/20/2003 |
| | | **By** | BPJ |

QC results affect the following production samples:

3033420001

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 5.0 |
| 2,4,6-Trichlorophenol | ND | 4.0 |
| 2,4-Dinitrotoluene | ND | 5.0 |
| 2-Methylphenol (o-Cresol) | ND | 5.0 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 10 |
| Hexachlorobenzene | ND | 1.0 |
| Hexachlorobutadiene | ND | 5.0 |
| Hexachloroethane | ND | 5.0 |
| Nitrobenzene | ND | 2.0 |
| Pentachlorophenol | ND | 20 |
| Pyridine | ND | 20 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XGC 3791 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 08/20/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 330384 | MB | 73.3 | 46.3 |
| 330385 | LCS | 75.7 | 58.7 |
| 330386 | LCSD | 73 | 57.7 |

**DCB = Decachlorobiphenyl Surr (14-91)**
**TMX = Tetrachloro-m-xylene Surr (17-94)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32684 Sybil, Inc. | Batch | XGC 3793 |
| | | Method | SW-846 8082 |
| Matrix | Aqueous | Instrument | Varian 3400 ECD INST-U |
| | | Date | 08/21/2003 |
| | | By | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033420001 | PS | 52.3 | 40.7 |

| | | | |
|---|---|---|---|
| DCB | = | Decachlorobiphenyl Surr | ( 14-91 ) |
| TMX | = | Tetrachloro-m-xylene Surr | ( 17-94 ) |

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3773 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-T |
| | | **Date** | 08/12/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 329078 | MS | 68 | 73.3 |
| 329079 | MSD | 68 | 73.3 |

**DCB** = **Decachlorobiphenyl Surr** **( 25-170 )**
**TMX** = **Tetrachloro-m-xylene Surr** **( 25-150 )**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XGC 3778 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 08/13/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 328963 | MB | 67 | 71 |
| 328964 | LCS | 66.7 | 60.7 |
| 328965 | LCSD | 73 | 63 |

**DCB = Decachlorobiphenyl Surr ( 25-170 )**
**TMX = Tetrachloro-m-xylene Surr ( 25-150 )**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32884 Sybill, Inc. | Batch | XGC 3784 |
| | | Method | SW-846 8082 |
| Matrix | Non Aqueous Liquid | Instrument | Varian 3400 ECD INST-C |
| | | Date | 08/16/2003 |
| | | By | JL |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033420002 | PS | 41.3 | 83.3 |

| | | | |
|---|---|---|---|
| DCB | = | Decachlorobiphenyl Surr | ( 25-170 ) |
| TMX | = | Tetrachloro-m-xylene Surr | ( 25-150 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 328964 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5844 | **Batch** | XGC 3778 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U | |
| | | **Date** | 08/13/2003 | |
| | | **By** | ESA | |

QC results affect the following production samples:

3033420002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration mg/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.8, 9.5 | 6.1 | 63 | 6.4 | 67 | ( 25-141 ) | 4 | (< 20 ) |
| Aroclor-1260 | 9.8, 9.5 | 6.2 | 63 | 6.8 | 71 | ( 29-170 ) | 9 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330385 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5871 | **Batch** | XGC 3791 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | EPA 608 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U | |
| | | **Date** | 08/20/2003 | |
| | | **By** | ESA | |

QC results affect the following production samples:

3033420001

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.70 | 70 | 0.76 | 76 | ( 38-158 ) | 8 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.80 | 80 | 0.82 | 82 | ( 10-127 ) | 1 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 329078 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5844 | **Batch** | XGC 3773 |
| **Original** | 3033221012 | **Method** | SW-846 8082 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-T |
| **Project** | Project 32864 Sybill, Inc. | **Date** | 08/12/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3033420002

| Analyte | MS, MSD Spike Added mg/Kg | Sample Conc. mg/Kg | MS Concentration mg/Kg | MS Recovery % | MSD Concentration mg/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.8, 9.9 | ND | 9.4 | 96 | 12 | 118 | ( 22-196 ) | 22 | (< 20 ) |
| Aroclor-1260 | 9.8, 9.9 | ND | 7.3 | 75 | 7.0 | 71 | ( 49-187 ) | 4 | (< 20 ) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 328983 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5844 | **Batch** | XGC 3778 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 08/13/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3033420002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Aroclor-1016 | ND | 0.98 |
| Aroclor-1221 | ND | 0.98 |
| Aroclor-1232 | ND | 0.98 |
| Aroclor-1242 | ND | 0.98 |
| Aroclor-1248 | ND | 0.98 |
| Aroclor-1254 | ND | 0.98 |
| Aroclor-1260 | ND | 0.98 |
| Aroclor-1262 | ND | 0.98 |
| Aroclor-1268 | ND | 0.98 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330384 | Method Blank | | |
| **Prep Batch** | XXX | 5871 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XGC 3791 |
| **Project** | Project 32864 Sybill, Inc. | | **Method** | EPA 608 |
| | | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 08/20/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3033420001

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 329604 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | MXX 11198 | **Batch** | MIM 5611 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 | |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS | |
| **File** | N:\ICPMS\elandata\Dataset\081803A\LCS.146 | **Date** | 08/19/2003 | |
| | | **By** | SRO | |

QC results affect the following production samples:

3033420002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 40 | 41 | 103 | | | (77-127) | | |
| Barium | 40 | 42 | 105 | | | (77-131) | | |
| [illegible]ium | 40 | 42 | 105 | | | (77-126) | | |
| Chromium | 40 | 41 | 103 | | | (77-130) | | |
| Lead | 40 | 43 | 108 | | | (78-129) | | |
| Selenium | 40 | 40 | 101 | | | (75-126) | | |
| Silver | 40 | 44 | 109 | | | (77-128) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 329694 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11204 | **Batch** | MIM 5633 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\061903\LCS.128 | **Date** | 06/20/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033420001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.1 | 0.100 | 100 | | | ( 83-111 ) | | |
| Barium | 0.1 | 0.10 | 104 | | | ( 80-113 ) | | |
| Cadmium | 0.1 | 0.099 | 99 | | | ( 83-110 ) | | |
| Chromium | 0.1 | 0.099 | 99 | | | ( 83-112 ) | | |
| Lead | 0.1 | 0.10 | 102 | | | ( 81-117 ) | | |
| Selenium | 0.1 | 0.10 | 101 | | | ( 81-114 ) | | |
| Silver | 0.1 | 0.099 | 99 | | | ( 81-113 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 329601 Matrix Spike | **Analysis** | |
| | 329602 Matrix Spike Duplicate | **Batch** | MIM 5611 |
| **Prep Batch** | MXX 11198 | **Method** | SW-846 6020 |
| **Original** | 3033343001 | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Client** | Conestoga-Rovers & Associates | **Date** | 08/19/2003 |
| **Project** | Project 32664 Sybill, Inc. | **By** | SRO |
| **File** | N:\ICPMS\elandata\Dataset\081803A\3033343001 MS.149 | | |
| | N:\ICPMS\elandata\Dataset\081803A\3033343001 MSD.150 | | |

QC results affect the following production samples:

3033420002

| Analyte | MS, MSD Spike Added mg/Kg | Sample Conc. mg/Kg | MS Concentration mg/Kg | MS Recovery % | MSD Concentration mg/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 19, 19 | 27 | 47 | 107 | 43 | 86 | (21-169) | 9 | (< 20) |
| [illegible]im | 19, 19 | 1.9 | 22 | 104 | 21 | 99 | (-14-228) | 6 | (< 20) |
| [illegible]nium | 19, 19 | 0.48 | 20 | 102 | 19 | 97 | (47-155) | 6 | (< 20) |
| Chromium | 19, 19 | 77 | 97 | 105 | 87 | 50 | (35-166) | 12 | (< 20) |
| Lead | 19, 19 | 6.4 | 27 | 106 | 25 | 99 | (41-165) | 6 | (< 20) |
| Selenium | 19, 19 | 0.20 | 21 | 107 | 19 | 101 | (39-149) | 7 | (< 20) |
| Silver | 19, 19 | ND | 20 | 103 | 19 | 98 | (35-161) | 6 | (< 20) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 329695 Matrix Spike | | |
| | 329696 Matrix Spike Duplicate | **Analysis** | |
| **Prep Batch** | MXX 11204 | **Batch** | MIM 5633 |
| **Original** | 3033420001 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 08/20/2003 |
| **File** | N:\ICPMS\elandata\Dataset\081903\3033420001 MS.136 | **By** | SRO |
| | N:\ICPMS\elandata\Dataset\081903\3033420001 MSD.137 | | |

QC results affect the following production samples:

3033420001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.1, 0.1 | 0.016 | 0.11 | 93 | 0.100 | 84 | (69-138) | 9 | (< 16) |
| Barium | 0.1, 0.1 | 1.0 | 1.1 | 98 | 1.4 | 349 | (56-146) | 20 | (< 16) |
| Cadmium | 0.1, 0.1 | 0.023 | 0.13 | 106 | 0.12 | 97 | (71-128) | 7 | (< |
| Chromium | 0.1, 0.1 | 0.15 | 0.26 | 110 | 0.27 | 118 | (68-128) | 3 | (< 21) |
| Lead | 0.1, 0.1 | 0.39 | 0.51 | 114 | 0.59 | 199 | (72-125) | 16 | (< 18) |
| Selenium | 0.1, 0.1 | 0.0027 | 0.099 | 96 | 0.090 | 87 | (69-138) | 10 | (< 22) |
| Silver | 0.1, 0.1 | 0.0013 | 0.10 | 103 | 0.090 | 89 | (23-140) | 15 | (< 35) |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 329603 Method Blank | | |
| **Prep Batch** | MXX 11198 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MIM 5611 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 6020 |
| **File** | N:\ICPMS\elandata\Dataset\081803A\MB.145 | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| | | **Date** | 08/19/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033420002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Arsenic | ND | 0.13 |
| Barium | ND | 1.3 |
| Cadmium | ND | 0.063 |
| Chromium | ND | 0.63 |
| Lead | ND | 1.3 |
| [illegible]nium | ND | 0.25 |
| Silver | ND | 0.63 |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 329693 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11204 | **Batch** | MIM 5633 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\081903\MB.127 | **Date** | 08/20/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033420001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.0010 |
| Barium | ND | 0.00040 |
| Cadmium | ND | 0.00020 |
| Chromium | ND | 0.00060 |
| Lead | ND | 0.00040 |
| Selenium | ND | 0.0016 |
| Silver | ND | 0.00040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 329399 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11193 | **Batch** | MCV 1995 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\081403 | **Date** | 08/14/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3033420001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0020 | 101 | | | ( 86-114 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 330130 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11213 | **Batch** | MCV 1997 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7471A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\081903 | **Date** | 08/19/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3033420002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 1 | 0.82 | 82 | | | (77-131) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 329405 Matrix Spike | | |
| | 329406 Matrix Spike Duplicate | **Analysis** | |
| **Prep Batch** | MXX 11193 | **Batch** | MCV 1995 |
| **Original** | 3033402002 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 08/14/2003 |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\081403W1.TXT | **By** | SKP |
| | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\081403W1.TXT | | |

QC results affect the following production samples:

3033420001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002, 0.002 | ND | 0.0021 | 104 | 0.0020 | 102 | ( 64-127 ) | 3 | (< 15 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330131 Matrix Spike | | | |
| | 330132 Matrix Spike Duplicate | | **Analysis** | |
| **Prep Batch** | MXX 11213 | | **Batch** | MCV 1997 |
| **Original** | 3033407001 | | **Method** | SW-846 7471A |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 08/19/2003 |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\081903S1.TXT | | **By** | SKP |
| | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\081903S1.TXT | | | |

QC results affect the following production samples:

3033420002

| Analyte | MS, MSD Spike Added mg/Kg | Sample Conc. mg/Kg | MS Concentration mg/Kg | MS Recovery % | MSD Concentration mg/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.16, 0.16 | ND | 0.17 | 108 | 0.17 | 103 | ( 61-123 ) | 2 | (< 19 ) |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 329398 Method Blank | | |
| **Prep Batch** | MXX 11193 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MCV 1995 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 7470A |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\081403 | **Instrument** | PSA Millenium |
| | | **Date** | 08/14/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3033420001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 330129 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11213 | **Batch** | MCV 1997 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7471A |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\081903 | **Date** | 08/19/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3033420002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Mercury | ND | 0.020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 329856 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | WXX 3408 | **Batch** | WLA 1422 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat | |
| **File** | CN08183A.FDT | **Date** | 08/18/2003 | |
| | | **By** | MAH | |

QC results affect the following production samples:

3033420001, 3033420002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 0.70 | 14 | | | ( 2.6-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 329855 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3408 | **Batch** | WLA 1422 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32684 Sybil, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| **File** | CN08183A.FDT | **Date** | 08/18/2003 |
| | | **By** | MAH |

QC results affect the following production samples:

3033420001, 3033420002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330089 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3410 | **Batch** | WAT 1823 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 08/19/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3033420001, 3033420002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 350 | 85 | | | ( 57-109 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 330088 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3410 | **Batch** | WAT 1823 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 08/19/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033420001, 3033420002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330090 | Matrix Duplicate | | |
| **Prep Batch** | WXX | 3410 | | |
| **Original** | 3033461001 | | | |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | | |

| | |
|---|---|
| **Analysis** | |
| **Batch** | WAT 1823 |
| **Method** | SW-846 7.3.4.2 |
| **Instrument** | No Instrument, Manual Handling |
| **Date** | 08/19/2003 |
| **By** | JB |

QC results affect the following production samples:

3033420001, 3033420002

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 50 | 0.00 | |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 329737 pH Calibration Standard | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2058 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 08/15/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033420001, 3033420002

| Analyte | LCS;LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 329738 | Quality Control Sample | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2058 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 08/15/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033420001

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.95 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 329741 | Quality Control Sample | | |
| **Prep Batch** | | | **Analysis Batch** | WPH 2058 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 08/15/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033420001, 3033420002

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.95 | | | | (99-101) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 329740 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2058 |
| **Original** | 3033420001 | **Method** | SW-846 9040B |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| **Project** | Project 32864 Sybill, Inc. | **Date** | 08/15/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033420001, 3033420002

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 4.63 | 4.64 | | 0.22 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330174 | Flashpoint Calibration Std. | **Analysis** | |
| **Prep Batch** | | | **Batch** | MXX 11214 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 1010 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 08/19/2003 |
| | | | **By** | WD |

QC results affect the following production samples:

3033420001, 3033420002

| Analyte | LCS/LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 81 | 101 | | | (98-102) | | |

•SGS

REC'D CRA
SEP 24 2003
SDC: 3

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033593

**Prepared For:**

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

**Prepared By:**

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

ORIGINAL ANALYTICAL REPORT

Project#: 32664 Lab#: 3033593
Name: SYBILL, INC.
Description
Event:
Samples: 2 LIQUID
Analysis: RCI, TOT HALOC
RCRA VOC, SVOC, PCB
TAT: 14 day
Lab: SGS
Checked Against Preliminary Data:
Date: 9-25-03 Init.: K.B.
Date of Validation Memo: 10-9-03
Invoice Approval Date:
Comments:

Approval Signature: Tamela M. Johnson

Date Issued: 9-22-03
Total Pages: 45

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033593

***Sample Collection and Receipt -***

Two samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on August 20, 2003. The sample containers were released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on August 23, 2003 in good condition, on ice and at a temperature of 5°C. Following log-in, the samples were stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

Client sample L-32664-082003-KMB-022 was placed on hold per the client. Client sample L-32664-082003-KMB-021 was analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the sample was extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. The leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Semi-Volatile Analysis*

The relative percent difference (RPD) was above QC acceptance criteria for 2,4-Dinitrotoluene, Hexachlorobenzene and Pentachlorophenol in the LCS/LCSD associated with preparation batch XXX 5909. No corrective action was initiated on the basis of the RPD results.

*GC PCB Analysis*

The surrogate recovery was below the lower control limit for Tetrachloro-m-xylene in the MB associated with analytical batch XGC 3807. The alternate surrogate, Decachlorobiphenyl, was acceptable.

*Metals Analysis*

The recovery for Silver was below the lower control limits in the MS/MSD on sample 3033593001 associated with preparation batch MXX 11270. The Silver result may be biased low in sample 3033593001.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033593

***Sample Reporting –***

The Silver result for laboratory sample 3033593001 was qualified (M) for matrix interference due to low spike recovery.

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 9-19-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033593

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA | CTE-MI |
|---|---|
| Sample Number | Sample Number |
| L-32664-082003-KMB-021 | 3033593001 |
| L-32664-082003-KMB-022 | 3033593002(on Hold) |

# Explanation of Terms and Data Qualifiers

| Term/Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

CT&E Environmental Services Inc.

167014 COC Serial

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

SHIPPED TO (Laboratory Name): 3033593 CT&E

REFERENCE NUMBER: 32664

PROJECT NAME: Sybron Inc

# CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: PRINTED NAME:

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | PARAMETERS | REMARKS |
|---|---|---|---|---|---|---|---|
| 001 | 8/24/03 | 1300 | L-32664-08/2003-KMB-021 | LIQUID | 4 | | |
| 002 | ↓ | ↓ | ↓ ↓ ↓ ↓ -022 | ↓ | 4 | | |

TOTAL NUMBER OF CONTAINERS

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. | DATE: 8/24/03 TIME: 1700 | RECEIVED BY: 1. | DATE: 8/25/03 TIME: 8:50 |
| RELINQUISHED BY: 2. | DATE: 8/25/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: ~~FedEx~~ Lab Courier AIR BILL No. ~~8284 8513 2256~~

White -Fully Executed Copy
Yellow -Receiving Laboratory Copy
Pink -Shipper Copy
Goldenrod -Sampler Copy

24026

SAMPLE TEAM: KMB

RECEIVED FOR LABORATORY BY:

DATE: 8-23-03 TIME: 9:45 Sc

1001 (FOR APRIL 29, 93-REV.0-(C)(F-01)

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of 1

Project Number: 3033593 Date Logged In: 8/25/03 Login Person Initials: KS

This section to be completed when corrective action is required:

Client: CRA
Client Contact: _____

Project Name: _____
Phone Number: _____

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | — |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | — |
| 3. | Are samples within holding times? | ✓ | — |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | — |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | — |
| 6. | Do the samples match the COC? | ✓ | — |
| 7. | Were the proper containers used? | ✓ | — |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | — |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | — |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | — | — |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | — | — |
| 12. | Is the chain of custody signed? | ✓ | — |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | — | — |
| 14. | Were proper sample weights met for Wisconsin soil samples? | — | — |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Sample No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

9/19/03: Sample -022 remains on hold per CRA. DDH.

# Laboratory Report

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3033593**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

9/19/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

CT&E Environmental Services Inc.
Michigan Division

Workorder: 3033593 | Conestoga-Rovers & Associates | Reported: 9/19/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033593001 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-082003-SM-021 | **Location:** | |
| **Collected:** | 08/20/2003 13:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/23/2003 09:45 | **Sampled By:** | KMB |

**Comments:** Results reported as received.
Silver: Matrix spike/Matrix spike duplicate below QC Acceptance criteria.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 08/29/03 12:21 | 09/02/03 08:56 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 08/29/03 13:50 | 09/02/03 13:52 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 08/28/03 16:31 | SRS | 1 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/03/03 14:48 | WD | 1 |
| | 7.62 | | S.U. | | SW-846 9040B | | 08/28/03 16:31 | SRS | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:01 | ESA | 1 |
| Aroclor-1221 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:01 | ESA | 1 |
| Aroclor-1232 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:01 | ESA | 1 |
| Aroclor-1242 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:01 | ESA | 1 |
| Aroclor-1248 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:01 | ESA | 1 |
| Aroclor-1254 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:01 | ESA | 1 |
| Aroclor-1260 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:01 | ESA | 1 |
| Aroclor-1262 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:01 | ESA | 1 |
| Aroclor-1268 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:01 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 20:58 | SRO | 1 |
| Barium | 0.044 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 20:58 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 20:58 | SRO | 1 |
| Chromium | ND | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 20:58 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/02/03 13:45 | 09/02/03 18:44 | PSK | 1 |
| Lead | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 20:58 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 20:58 | SRO | 1 |
| Silver | ND M | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 20:58 | SRO | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033593001 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-082003-SM-021 | **Location:** | |
| **Collected:** | 08/20/2003 13:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/23/2003 09:45 | **Sampled By:** | KMB |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 09:49 | JDS | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 09:49 | JDS | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 09:49 | JDS | 1 |
| 2-Butanone (MEK) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/03/03 09:49 | JDS | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 09:49 | JDS | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 09:49 | JDS | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 09:49 | JDS | 1 |
| Chloroform | 0.60 | 6 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 09:49 | JDS | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 09:49 | JDS | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 09:49 | JDS | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 09:49 | JDS | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 19:23 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 19:23 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 19:23 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 19:23 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 19:23 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 19:23 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 19:23 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 19:23 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 19:23 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 19:23 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 19:23 | BPJ | 1 |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | | |
| Project | Project 32664 Sybill, Inc. | Batch | VMS 4778 | |
| | | Method | SW-846 8260B | |
| Matrix | Aqueous | Instrument | HP 5972 Series | INSTRU Q |
| | | Date | 09/03/2003 | |
| | | By | JDS | |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3033593001 PS | 102 | 104 | 106 | 96.5 |
| 332382 MS | 104 | 113 | 106 | 94.7 |
| 332385 LCS | 105 | 111 | 109 | 98.8 |
| 332386 MB | 102 | 107 | 109 | 97.5 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 79-116 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 72-132 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 77-124 ) |
| TOL | = | Toluene-d8 Surr | ( 87-110 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332385 | Lab Control Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4778 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU Q |
| **File** | Q0902_30.D | | **Date** | 09/02/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3033593001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.24 | 119 | | | ( 86-121 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.21 | 107 | | | ( 77-114 ) | | |
| [illegible]ichlorobenzene | 0.2 | 0.18 | 90 | | | ( 83-120 ) | | |
| 2-Butanone ( M E K ) | 0.2 | 0.21 | 105 | | | ( 63-131 ) | | |
| Benzene | 0.2 | 0.20 | 100 | | | ( 87-112 ) | | |
| Carbon tetrachloride | 0.2 | 0.20 | 98 | | | ( 80-124 ) | | |
| Chlorobenzene | 0.2 | 0.20 | 99 | | | ( 85-117 ) | | |
| Chloroform | 0.2 | 0.22 | 109 | | | ( 83-113 ) | | |
| Tetrachloroethene | 0.2 | 0.25 | 124 | | | ( 59-148 ) | | |
| Trichloroethene | 0.2 | 0.21 | 104 | | | ( 83-111 ) | | |
| Vinyl chloride | 0.2 | 0.23 | 116 | | | ( 68-133 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332382 | Matrix Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4778 | |
| **Original** | 3033593001 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU Q |
| **Project** | Project 32664 Sybil, Inc. | | **Date** | 09/03/2003 | |
| **File** | Q0902_53.D | | **By** | JDS | |

QC results affect the following production samples:

3033593001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.25 | 124 | | | ( 71-144 ) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.21 | 103 | | | ( 67-121 ) | | |
| 1,4-Dichlorobenzene | 0.2 | ND | 0.18 | 88 | | | ( 51-145 ) | | |
| 2-Butanone ( M E K ) | 0.2 | ND | 0.21 | 105 | | | ( 32-134 ) | | |
| Benzene | 0.2 | ND | 0.20 | 101 | | | ( 76-127 ) | | |
| Carbon tetrachloride | 0.2 | ND | 0.20 | 98 | | | ( 83-130 ) | | |
| Chlorobenzene | 0.2 | ND | 0.19 | 97 | | | ( 86-117 ) | | |
| Chloroform | 0.2 | 0.60 | 0.83 | 113 | | | ( 71-137 ) | | |
| Tetrachloroethene | 0.2 | ND | 0.18 | 90 | | | ( 55-113 ) | | |
| Trichloroethene | 0.2 | ND | 0.20 | 102 | | | ( 80-122 ) | | |
| Vinyl chloride | 0.2 | ND | 0.26 | 132 | | | ( 59-145 ) | | |

## METHOD BLANK SUMMARY

## TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332386 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4778 | |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B | |
| **File** | Q0902_32.D | | **Instrument** | HP 5972 Series | INSTRU Q |
| | | | **Date** | 09/03/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3033593001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2808 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/02/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033593001 PS | 28 | 43.6 | 43.8 | 22.1 | 53.6 | 62.4 |
| 331973 MB | 32.5 | 49.3 | 50.3 | 24.5 | 68.5 | 80.6 |
| 331974 LCS | 31.6 | 49.9 | 49.9 | 25.2 | 58.9 | 54.9 |
| 331975 LCSD | 36 | 58.5 | 57.9 | 27.8 | 75.4 | 77.2 |
| 331976 MS | 34.2 | 50.3 | 52 | 25.9 | 66.2 | 77.8 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **(14-68)** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **(31-99)** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **(33-102)** |
| **PHL** | = | **Phenol-d5 Surr** | **(13-50)** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **(31-133)** |
| **TPH** | = | **Terphenyl-d14 Surr** | **(20-116)** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331974 | Lab Control Spike | | |
| | 331975 | Lab Control Spike Dup | **Analysis** | |
| **Prep Batch** | XXX | 5909 | **Batch** | XMS 2808 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | L0902_05.D | | **Date** | 09/02/2003 |
| | L0902_06.D | | **By** | BPJ |

QC results affect the following production samples:

3033593001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.12 | 58 | 0.14 | 71 | (36-135) | 20 | (< 27) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.12 | 60 | 0.14 | 71 | (32-140) | 18 | (< 27) |
| 2,4-Dinitrotoluene | 0.05, 0.05 | 0.029 | 58 | 0.040 | 80 | (47-140) | 32 | (< 3[illegible] |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.092 | 46 | 0.11 | 54 | (27-119) | 16 | (< [illegible] |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.11 | 44 | 0.13 | 51 | (25-112) | 16 | (< 33) |
| Hexachlorobenzene | 0.05, 0.05 | 0.029 | 58 | 0.038 | 76 | (36-138) | 27 | (< 16) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.021 | 42 | 0.026 | 51 | (18-122) | 20 | (< 28) |
| Hexachloroethane | 0.05, 0.05 | 0.020 | 39 | 0.023 | 46 | (16-112) | 17 | (< 24) |
| Nitrobenzene | 0.05, 0.05 | 0.026 | 52 | 0.031 | 61 | (27-128) | 16 | (< 24) |
| Pentachlorophenol | 0.2, 0.2 | 0.13 | 63 | 0.17 | 87 | (45-162) | 32 | (< 17) |
| Pyridine | 0.05, 0.05 | 0.013 | 25 | 0.015 | 30 | (12-68) | 17 | (< 20) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331976 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 5909 | | **Batch** | XMS 2808 |
| **Original** | 3033593001 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/02/2003 |
| **File** | L0902_09.D | | **By** | BPJ |

QC results affect the following production samples:

3033593001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.12 | 61 | | | ( 39-116 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.12 | 62 | | | ( 39-114 ) | | |
| 2,4-Dinitrotoluene | 0.05 | ND | 0.036 | 73 | | | ( 46-125 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.098 | 49 | | | ( 28-101 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | ND | 0.12 | 48 | | | ( 31-96 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.033 | 66 | | | ( 39-116 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.024 | 48 | | | ( 24-91 ) | | |
| Hexachloroethane | 0.05 | ND | 0.023 | 46 | | | ( 23-90 ) | | |
| Nitrobenzene | 0.05 | ND | 0.028 | 55 | | | ( 28-113 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.16 | 80 | | | ( 42-136 ) | | |
| Pyridine | 0.05 | ND | 0.016 | 31 | | | ( 4.5-59 ) | | |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331973 | Method Blank | | |
| **Prep Batch** | XXX | 5909 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XMS 2808 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8270C |
| **File** | L0902_04.D | | | |
| | | | **Date** | 09/02/2003 |
| | | | **By** | BPJ |

QC results affect the following production samples:

3033593001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3807 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 08/30/2003 |
| | | **By** | ESA |

| Sample ID(s) | Surrogate Recovery % | |
|---|---|---|
| | DCB | TMX |
| 3033593001 PS | 72 | 40 |
| 331746 MB | 82 | 1.67 |
| 331747 LCS | 78.3 | 42.7 |
| 331748 LCSD | 80.3 | 49.3 |

**DCB = Decachlorobiphenyl Surr (14-91)**
**TMX = Tetrachloro-m-xylene Surr (17-94)**

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331747 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5900 | **Batch** | XGC 3807 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | EPA 608 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U | |
| | | **Date** | 08/29/2003 | |
| | | **By** | ESA | |

QC results affect the following production samples:

3033593001, 3033593002

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.64 | 64 | 0.68 | 68 | ( 38-158 ) | 6 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.96 | 96 | 1.0 | 101 | ( 10-127 ) | 5 | (< 20 ) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331746 | Method Blank | | |
| **Prep Batch** | XXX | 5900 | | |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | | |

**Analysis**

| | |
|---|---|
| **Batch** | XGC 3807 |
| **Method** | EPA 608 |
| **Instrument** | Varian 3400 ECD INST-U |
| **Date** | 08/29/2003 |
| **By** | ESA |

QC results affect the following production samples:

3033593001, 3033593002

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331906 Lab Control Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11270 | **Batch** | MIM 5673 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | n:\icpms\elandata\dataset\090203\LCS.084 | **Date** | 09/02/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033593001, 3033593002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 103 | | | ( 50-150 ) | | |
| Barium | 1 | 1.0 | 103 | | | ( 50-150 ) | | |
| Cadmium | 1 | 0.99 | 99 | | | ( 50-150 ) | | |
| Chromium | 1 | 1.0 | 102 | | | ( 50-150 ) | | |
| Lead | 1 | 1.0 | 105 | | | ( 50-150 ) | | |
| Selenium | 1 | 1.0 | 102 | | | ( 50-150 ) | | |
| Silver | 1 | 1.0 | 104 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331909 Matrix Spike TCLP | **Analysis** | |
| | 331910 Matrix Spike Duplicate TCLP | **Batch** | MIM 5673 |
| **Prep Batch** | MXX 11270 | **Method** | SW-846 6020 |
| **Original** | 3033593001 | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Client** | Conestoga-Rovers & Associates | **Date** | 09/02/2003 |
| **Project** | Project 32664 Sybill, Inc. | **By** | SRO |
| **File** | n:\icpms\elandata\dataset\090203\3033593001 MS.086 | | |
| | n:\icpms\elandata\dataset\090203\3033593001 MSD.087 | | |

QC results affect the following production samples:

3033593001, 3033593002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1, 1 | ND | 0.97 | 97 | 1.00 | 100 | ( 50-150 ) | 2 | (< 20 ) |
| Barium | 1, 1 | 0.044 | 1.0 | 97 | 1.1 | 101 | ( 50-150 ) | 4 | (< 20 ) |
| [illegible]nium | 1, 1 | ND | 0.92 | 92 | 0.96 | 96 | ( 50-150 ) | 4 | (< 20 ) |
| [illegible]romium | 1, 1 | ND | 0.95 | 96 | 0.99 | 100 | ( 50-150 ) | 5 | (< 20 ) |
| Lead | 1, 1 | ND | 0.97 | 97 | 1.0 | 100 | ( 50-150 ) | 3 | (< 20 ) |
| Selenium | 1, 1 | ND | 0.98 | 98 | 1.0 | 101 | ( 50-150 ) | 2 | (< 20 ) |
| Silver | 1, 1 | ND | 0.045 | 4 | 0.047 | 5 | ( 50-150 ) | 3 | (< 20 ) |

Workorder: 3033593 Conestoga-Rovers & Associates Reported: 9/19/2003

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331911 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11270 | **Batch** | MIM 5673 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | n:\icpms\elandata\dataset\090203\MB.063 | **Date** | 09/02/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033593001, 3033593002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| Selenium | ND | 0.016 |
| Silver | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332078 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11276 | **Batch** | MCV 2005 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090203W1.TXT | **Date** | 09/02/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033593001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0021 | 104 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 332081 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11276 | **Batch** | MCV 2005 |
| **Original** | 3033593001 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/02/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090203W1.TXT | **By** | PSK |

QC results affect the following production samples:

3033593001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.020 | 101 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332077 Method Blank | | |
| **Prep Batch** | MXX 11276 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MCV 2005 |
| **Project** | Project 32684 Sybill, Inc. | **Method** | SW-846 7470A |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090203W1.TXT | **Instrument** | PSA Millenium |
| | | **Date** | 09/02/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033593001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332020 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | WXX 3423 | **Batch** | WLA 1450 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 | |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat | |
| **File** | rcn 9-2-03.xls | **Date** | 09/02/2003 | |
| | | **By** | MAH | |

QC results affect the following production samples:

3033593001, 3033593002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 0.47 | 9 | | | ( 2.6-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332021 | Method Blank | | |
| **Prep Batch** | WXX | 3423 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | WLA 1450 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 7.3.3.2 |
| **File** | rcn 9-2-03.xls | | **Instrument** | Quick Chem 8000 Lachat |
| | | | **Date** | 09/02/2003 |
| | | | **By** | MAH |

QC results affect the following production samples:

3033593001, 3033593002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332049 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3424 | **Batch** | WAT 1826 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32864 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/02/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3033593001, 3033593002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 320 | 77 | | | (57-109) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332048 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3424 | **Batch** | WAT 1826 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 09/02/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033593001, 3033593002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332050 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3424 | **Batch** | WAT 1826 |
| **Original** | 3033596009 | **Method** | SW-846 7.3.4.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | No Instrument, Manual Handling |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/02/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033593001, 3033593002

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 50 | 0.00 | (< 20) |

# Physical Property
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331735 | pH Calibration Standard | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2063 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 08/28/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033593001

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331736 | Quality Control Sample | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | WPH 2063 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 9040B |
| | | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 08/28/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033593001

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.95 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331740 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2063 |
| **Original** | 3033595001 | **Method** | SW-846 9040B |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 08/28/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033593001

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 7.76 | 7.73 | | 0.39 | (< 20) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332297 | Flashpoint Calibration Std. | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | MXX 11284 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 1010 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/03/2003 |
| | | | **By** | WD |

QC results affect the following production samples:

3033593001

| Analyte | LCS,LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 81 | 101 | | | ( 98-102 ) | | |

SGS

REC'D CRA
OCT - 9 2003
SDG: 4

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033594

REVISED

ORIGINAL ANALYTICAL REPORT

Project#: 32664 Lab#: 30 33594
Name: SYBELL, INC.
Description
Event:
Samples: 2 LIQUID
Analysis: RCE, RCRA MTL, VOC, SVOC, PCB
TAT: 5 day
Lab: SGS
Checked Against Preliminary Data:
Date: 10-9-03 Init.: K.B.
Date of Validation Memo: 10-9-03
Invoice Approval Date:
Comments:

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

Approval Signature: Denise Hackler

Date Issued: 10-7-03
Total Pages: 37

CT&E Environmental Services Inc.

167011

C[illegible]rial

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

# CHAIN OF CUSTODY RECORD

SHIPPED TO (Laboratory Name): 3033594 CT&E

REFERENCE NUMBER: 32664

PROJECT NAME: SYBILL INC

SAMPLER'S SIGNATURE: [signature] PRINTED NAME: [signature]

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | RCI | RCRA Metals | RCRA SVOCs | RCRA VOCs | PCBs | Total Hexavalent | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 001 | 8/20/03 | 1300 | L-32664-082003-KMB-023 | Liquid | 1 | X | X | X | X | X | X | | | | | ASAP |
| 002 | | 1400 | L-32664-082003-KMB-020 | Liquid | 4 | X | X | X | X | X | X | | | | | |
| ~~003~~ | | ~~1400~~ | ~~[illegible]~~ | | ~~4~~ | | | | | | | | | | | |
| ~~004~~ | | ~~1400~~ | ~~[illegible]~~ | | ~~4~~ | | | | | | | | | | | |

TOTAL NUMBER OF CONTAINERS

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. [signature] | DATE: 8/21/03 TIME: 1900 hrs | RECEIVED BY: 1. [signature] | DATE: 8/22/03 TIME: 12:50 |
| RELINQUISHED BY: 2. [signature] | DATE: 8/22/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: ~~Fed Ex~~ L&B Courier AIR BILL No. ~~8384 6513 9956~~

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24024

SAMPLE TEAM: KMB

RECEIVED FOR LABORATORY BY: [signature]

DATE: 8/23/03 TIME: 945 SOC

1001 (FORMS)-APRIL 29, 93-REV.0-(C)(F-01)

SGS

CT&E Environmental Services Inc.
Michigan Division

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033594

***Sample Collection and Receipt -***

Two samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on August 20, 2003. The sample containers were released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on August 23, 2003 in good condition, on ice and at a temperature of 5°C. Following log-in, the samples were stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

The samples were received for the analysis of Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the samples were to be extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. The leachates were to be analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals. However, due to the nature of the matrix the samples were placed on hold per client request on August 29, 2003.

On September 19, 2003 the client requested that the samples be analyzed for pH, and also, the samples be extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311 and the leachates analyzed for RCRA metals.

On September 24, 2003 the client requested that the samples be extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311 and the leachates analyzed for volatile organic compounds (VOC) and semivolatile organic compounds (SVOC).

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

Due to the pH of the samples, only twenty-five milliliters was used for the SVOC TCLP extraction, resulting in a 40X extraction dilution. Due to the necessary dilution, no matrix spikes were performed.

***Quality Control (QC) -***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Volatile TCLP Analysis*

The recovery for the surrogate Dibromofluoromethane was below the lower control limit in laboratory sample 3033594002. The recovery was confirmed by the associated matrix spike.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033594

***Quality Control (QC), continued -***

*GC/MS Volatile TCLP Analysis, continued*

The recoveries for 1,1-Dichloroethene (biased high), 2-Butanone (biased high), Carbon tetrachloride (biased low), Chloroform (biased low), and Trichloroethene (biased high) were outside the control limits in the MS on sample 3033594002. The results for Carbon tetrachloride and Chloroform may be biased low in the parent sample.

*Metals Analysis*

The Chromium result for sample 3033594002 was flagged as estimated because the relative standard deviation (RSD) of the analysis replicates was greater than twenty percent.

The recovery for Barium and Lead were below the lower control limits in the MS on sample 3033594001 associated with preparation batch MXX 11270. The Barium and Lead results may be biased low in sample 3033594001.

The recovery for Silver was below the lower control limits in the MS on sample 3033594002 associated with preparation batch MXX 11270. The Silver result may be biased low in sample 3033594002.

*Physical Properties Analysis*

Due to the nature of the matrix pH strips were used to analyze sample 3033594001 at a pH less than 1and sample 3033594002 at a pH greater than 14.

***Sample Reporting -***

The Chromium result for sample 3033594002 was qualified as estimated (J) due to a relative standard deviation (RSD) greater than twenty.

The Barium and Lead results for laboratory sample 3033594001 and the Silver result for laboratory sample 303359400 were qualified (M) for matrix interference due to low spike recoveries.

No other sample qualifications were required for any sample or quality control issues.

The laboratory report and the associated data package were revised on October 6, 2003 to include the analyses requested by the client after issuance of the original report on September 23, 2003.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 10-7-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033594

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| L-32664-082003-KMB-023 | 3033594001 |
| L-32664-082003-KMB-020 | 3033594002 |

# Explanation of Terms and Data Qualifiers

| Term Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

CT&E Environmental Services

COC Se

167011

# CRA

CONESTOGA-ROVERS & ASSOCIATES, INC.
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

## CHAIN OF CUSTODY RECORD

SHIPPED TO (Laboratory Name): 3033594 CT&E

REFERENCE NUMBER: 32664

PROJECT NAME: SYBILL INC

SAMPLER'S SIGNATURE: [signature] PRINTED NAME: [signature]

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | RCI | RCRA Metals | RCRA SVOCs | RCRA VOCs | PCBs | Total Hexavalent | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 001 | 8/20/03 | 1300 | L-32664-082003-KMB-023 | Liquid | 1 | X | X | X | X | X | X | | | | ASAP |
| 002 | | 1400 | L-32664-082003-KMB-020 | Liquid | 4 | X | X | X | X | X | X | | | | |
| ~~003~~ | ~~[illegible]~~ | ~~1400~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~4~~ | | | | | | | | | | |
| ~~004~~ | ~~[illegible]~~ | ~~1400~~ | ~~[illegible]~~ | ~~[illegible]~~ | ~~4~~ | | | | | | | | | | |

TOTAL NUMBER OF CONTAINERS

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. [signature] | DATE: 8/21/03 TIME: 1900 HRS | RECEIVED BY: 1. [signature] | DATE: 8/22/03 TIME: 1250 |
| RELINQUISHED BY: 2. [signature] | DATE: 8/22/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: ~~Fed Ex~~ L&B Courier AIR BILL No. ~~8384 7513 9956~~

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Yellow -Receiving Laboratory Copy
Pink -Shipper Copy
Goldenrod -Sampler Copy

24024

SAMPLE TEAM: KMB

RECEIVED FOR LABORATORY BY: [signature]

DATE: 8/23/03 TIME: 945 5°C

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77

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of 1

Project Number: 3033594 Date Logged In: 8/25/03 Login Person Initials: KE

This section to be completed when corrective action is required:

Client: CRA Project Name: _____
Client Contact: _____ Phone Number: _____

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | ✓ | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | ✓ | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | | |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 1 liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Sample No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE** (Provide date/time of contact, client response and project manager initials)

8/29/03: Client contacted about matrix of sample. Client put samples on hold.

9/19/03: Client took samples off hold, test pH - TCLP Metals.

# Laboratory Report

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3033594**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

**Certification:**

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

10/6/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

SGS CT&E Environmental Services Inc.
Michigan Division

Workorder: 3033594 | Conestoga-Rovers & Associates | Reported: 10/6/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033594001 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-082003-KMB-023 | **Location:** | |
| **Collected:** | 08/20/2003 13:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/23/2003 09:45 | **Sampled By:** | KMB |

**Comments:** Results reported as received.
Barium: Matrix spike below QC Acceptance criteria.
pH: Sample pH is less than 1. pH strips were used for analysis.
Lead: Matrix spike below QC Acceptance criteria.
8260 TCLP: Sample analyzed after holding time expired.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 08/29/03 12:21 | 09/02/03 08:56 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 08/29/03 13:50 | 09/02/03 13:52 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Corrosive | | | | SW-846 9040B[1] | | 08/28/03 13:28 | KA[redacted] | 1 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/28/03 12:35 | WD | |
| pH | 1.00 | | S.U. | | SW-846 9040B | | 08/28/03 13:28 | KAA | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:55 | ESA | 1 |
| Aroclor-1221 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:55 | ESA | 1 |
| Aroclor-1232 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:55 | ESA | 1 |
| Aroclor-1242 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:55 | ESA | 1 |
| Aroclor-1248 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:55 | ESA | 1 |
| Aroclor-1254 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:55 | ESA | 1 |
| Aroclor-1260 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:55 | ESA | 1 |
| Aroclor-1262 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:55 | ESA | 1 |
| Aroclor-1268 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 04:55 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.67 | 5 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 22:16 | SRO | 1 |
| Barium | 1.9 M | 100 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 22:16 | SRO | 1 |
| Cadmium | 0.030 | 1 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 22:16 | SRO | 1 |
| Chromium | 8.9 | 5 | mg/L | 0.060 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 22:16 | SR[redacted] | |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/22/03 14:00 | 09/22/03 19:00 | PSK | 1 |
| Lead | 0.26 M | 5 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 22:16 | SRO | 1 |

CT&E Environmental Services Inc.
Michigan Division

Workorder: 3033594 | Conestoga-Rovers & Associates | Reported: 10/6/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033594001 | Matrix: | Aqueous |
| Client Sample ID: | L-082003-KMB-023 | Location: | |
| Collected: | 08/20/2003 13:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | KMB |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Selenium | ND | 1 | mg/L | 0.16 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 22:16 | SRO | 1 |
| Silver | ND | 5 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 22:16 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:47 | JEH | |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:47 | JEH | |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:47 | JEH | |
| 2-Butanone ( M E K) | 0.062 | 200 | mg/L | 0.050 | SW-846 8260B | | 09/25/03 14:47 | JEH | |
| [redacted]ene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:47 | JEH | |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:47 | JEH | |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:47 | JEH | |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:47 | JEH | |
| Tetrachloroethene | 0.010 | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:47 | JEH | |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:47 | JEH | |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:47 | JEH | |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 22:32 | BPJ | |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 22:32 | BPJ | |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 22:32 | BPJ | |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 22:32 | BPJ | |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.40 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 22:32 | BPJ | |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 22:32 | BPJ | |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 22:32 | BPJ | |
| Hexachloroethane | ND | 3 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 22:32 | BPJ | |
| Nitrobenzene | ND | 2 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 22:32 | BPJ | |
| [redacted]ntachlorophenol | ND | 100 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 22:32 | BPJ | |
| [redacted]idine | ND | 5 | mg/L | 0.40 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 22:32 | BPJ | |

Workorder: 3033594 Conestoga-Rovers & Associates Reported: 10/6/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033594002 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-082003-KMB-020 | **Location:** | |
| **Collected:** | 08/20/2003 14:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/23/2003 09:45 | **Sampled By:** | KMB |

**Comments:** Results reported as received.
pH: Sample pH is greater than 14. pH strips were used for analysis.
Silver: Matrix spike below QC Acceptance criteria.
8260 TCLP: Low surrogate recovery, confirmed by matrix spike.
8260 TCLP: Sample analyzed after holding time expired.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 08/29/03 12:21 | 09/02/03 08:57 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 08/29/03 13:50 | 09/02/03 13:52 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Corrosive | | | | SW-846 9040B[1] | | 08/28/03 13:29 | K[illegible] | 1 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/26/03 12:35 | WD | |
| pH | 14.0 | | S.U. | | SW-846 9040B | | 08/28/03 13:29 | KAA | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:22 | ESA | 1 |
| Aroclor-1221 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:22 | ESA | 1 |
| Aroclor-1232 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:22 | ESA | 1 |
| Aroclor-1242 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:22 | ESA | 1 |
| Aroclor-1248 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:22 | ESA | 1 |
| Aroclor-1254 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:22 | ESA | 1 |
| Aroclor-1260 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:22 | ESA | 1 |
| Aroclor-1262 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:22 | ESA | 1 |
| Aroclor-1268 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:22 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.25 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 23:02 | SRO | 1 |
| Barium | 6.2 | 100 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 23:02 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.050 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 23:02 | SRO | 1 |
| Chromium | 0.24 J | 5 | mg/L | 0.15 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 23:02 | SR[illegible] | |
| Mercury | 0.0052 | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/22/03 14:00 | 09/22/03 19:09 | PSK | 1 |
| Lead | ND | 5 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 23:02 | SRO | 1 |

Workorder: 3033594 Conestoga-Rovers & Associates Reported: 10/6/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033594002 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-082003-KMB-020 | **Location:** | |
| **Collected:** | 08/20/2003 14:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/23/2003 09:45 | **Sampled By:** | KMB |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Selenium | ND | 1 | mg/L | 0.40 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 23:02 | SRO | 1 |
| Silver | ND M | 5 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 23:02 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:19 | JEH | |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:19 | JEH | |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:19 | JEH | |
| 2-Butanone ( M E K) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/25/03 14:19 | JEH | |
| [illegible]zene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:19 | JEH | |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:19 | JEH | |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:19 | JEH | |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:19 | JEH | |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:19 | JEH | |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:19 | JEH | |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 14:19 | JEH | |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 23:18 | BPJ | |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 23:18 | BPJ | |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 23:18 | BPJ | |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 23:18 | BPJ | |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.40 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 23:18 | BPJ | |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 23:18 | BPJ | |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 23:18 | BPJ | |
| Hexachloroethane | ND | 3 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 23:18 | BPJ | |
| Nitrobenzene | ND | 2 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 23:18 | BPJ | |
| Pentachlorophenol | ND | 100 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 23:18 | BPJ | |
| [illegible]idine | ND | 5 | mg/L | 0.40 | SW-846 8270C / SW-846 3510C | 09/29/03 08:45 | 10/02/03 23:18 | BPJ | |

# TCLP Volatile Organic Compounds Quality Control Summary

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | VMS 4852 |
| | | Method | SW-846 8260B |
| Matrix | Aqueous | Instrument | HP 5972 Series INSTRU Q |
| | | Date | 09/25/2003 |
| | | By | JDS |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3033594001 PS | 91.1 | 94.1 | 91.5 | 94.6 |
| 3033594002 PS | 87.5 | 0 | 95.5 | 89.9 |
| 336197 LCS | 93.5 | 97.9 | 88.7 | 92.3 |
| 336198 MB | 94 | 92.5 | 89.2 | 94.5 |
| 336216 MS | 88 | 0 | 91.4 | 89.3 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 79-116 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 72-132 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 77-124 ) |
| TOL | = | Toluene-d8 Surr | ( 87-110 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336197 | Lab Control Spike | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4852 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU Q |
| **File** | Q0925_04.D | | **Date** | 09/25/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3033594001, 3033594002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.20 | 102 | | | (86-121) | | |
| 1,2-Dichloroethane | 0.2 | 0.19 | 96 | | | (77-114) | | |
| 1,4-Dichlorobenzene | 0.2 | 0.19 | 97 | | | (83-120) | | |
| 2-Butanone (MEK) | 0.2 | 0.20 | 100 | | | (63-131) | | |
| Benzene | 0.2 | 0.19 | 94 | | | (87-112) | | |
| Carbon tetrachloride | 0.2 | 0.18 | 92 | | | (80-124) | | |
| Chlorobenzene | 0.2 | 0.19 | 96 | | | (85-117) | | |
| Chloroform | 0.2 | 0.18 | 92 | | | (83-113) | | |
| Tetrachloroethene | 0.2 | 0.16 | 78 | | | (59-148) | | |
| Trichloroethene | 0.2 | 0.19 | 93 | | | (83-111) | | |
| Vinyl chloride | 0.2 | 0.23 | 115 | | | (68-133) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336216 Matrix Spike | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4852 | |
| **Original** | 3033594002 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU Q |
| **Project** | Project 32684 Sybil, Inc. | | **Date** | 09/25/2003 | |
| **File** | Q0925_22.D | | **By** | JEH | |

QC results affect the following production samples:

3033594001, 3033594002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.41 | 204 | | | ( 71-144 ) | | |
| [illegible]ichloroethane | 0.2 | ND | 0.18 | 88 | | | ( 67-121 ) | | |
| [illegible]-Dichlorobenzene | 0.2 | ND | 0.18 | 89 | | | ( 51-145 ) | | |
| 2-Butanone ( M E K ) | 0.2 | ND | 0.51 | 252 | | | ( 32-134 ) | | |
| Benzene | 0.2 | ND | 0.18 | 91 | | | ( 76-127 ) | | |
| Carbon tetrachloride | 0.2 | ND | 0.16 | 80 | | | ( 83-130 ) | | |
| Chlorobenzene | 0.2 | ND | 0.18 | 89 | | | ( 86-117 ) | | |
| Chloroform | 0.2 | ND | 0.026 | 11 | | | ( 71-137 ) | | |
| Tetrachloroethene | 0.2 | ND | 0.20 | 101 | | | ( 55-113 ) | | |
| Trichloroethene | 0.2 | ND | 0.42 | 211 | | | ( 80-122 ) | | |
| Vinyl chloride | 0.2 | ND | 0.27 | 135 | | | ( 59-145 ) | | |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336198 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4852 | |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B | |
| **File** | Q0925_08.D | | **Instrument** | HP 5972 Series | INSTRU Q |
| | | | **Date** | 09/25/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3033594001, 3033594002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

SGS CT&E Environmental Services Inc.
Michigan Division

# TCLP Semivolatile Organic Compounds Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | XMS 2835 |
| | | Method | SW-846 8270C |
| Matrix | Aqueous | Date | 09/25/2003 |
| | | By | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 335752 | MB | 53 | 81.3 | 82.7 | 41.3 | 91.6 | 89.8 |
| 335753 | LCS | 52 | 75.5 | 80.7 | 38.5 | 87.9 | 82.5 |
| 335754 | LCSD | 46.8 | 71.8 | 78.1 | 35 | 79.6 | 70.9 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | (14-68) |
| FBP | = | 2-Fluorobiphenyl Surr | (31-99) |
| NB2 | = | Nitrobenzene-d5 Surr | (33-102) |
| PHL | = | Phenol-d5 Surr | (13-50) |
| TBP | = | 2,4,6-Tribromophenol Surr | (31-133) |
| TPH | = | Terphenyl-d14 Surr | (20-116) |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2839 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 10/02/2003 |
| | | **By** | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033594001 | PS | 39.4 | 63.5 | 71.9 | 40.1 | 49.3 | 84.8 |
| 3033594002 | PS | 46 | 64.3 | 70.7 | 39.6 | 48.7 | 81.1 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | ( 14-68 ) |
| FBP | = | 2-Fluorobiphenyl Surr | ( 31-99 ) |
| NB2 | = | Nitrobenzene-d5 Surr | ( 33-102 ) |
| PHL | = | Phenol-d5 Surr | ( 13-50 ) |
| TBP | = | 2,4,6-Tribromophenol Surr | ( 31-133 ) |
| TPH | = | Terphenyl-d14 Surr | ( 20-116 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335753 | Lab Control Spike | | |
| | 335754 | Lab Control Spike Dup | **Analysis** | |
| **Prep Batch** | XXX | 5991 | **Batch** | XMS 2835 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | F0925_05.D | | **Date** | 09/25/2003 |
| | F0925_06.D | | **By** | BPJ |

QC results affect the following production samples:

3033594001, 3033594002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.15 | 76 | 0.14 | 71 | (36-135) | 7 | (< 27) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.16 | 81 | 0.15 | 76 | (32-140) | 6 | (< 27) |
| 2,4-Dinitrotoluene | 0.05, 0.05 | 0.043 | 86 | 0.039 | 78 | (47-140) | 9 | [illegible] |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.14 | 71 | 0.13 | 67 | (27-119) | 5 | (< 33) |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.17 | 69 | 0.16 | 65 | (25-112) | 6 | (< 33) |
| Hexachlorobenzene | 0.05, 0.05 | 0.039 | 79 | 0.036 | 72 | (36-138) | 9 | (< 16) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.033 | 65 | 0.032 | 65 | (18-122) | 1 | (< 26) |
| Hexachloroethane | 0.05, 0.05 | 0.036 | 72 | 0.036 | 73 | (16-112) | 1 | (< 24) |
| Nitrobenzene | 0.05, 0.05 | 0.043 | 86 | 0.042 | 84 | (27-128) | 1 | (< 24) |
| Pentachlorophenol | 0.2, 0.2 | 0.17 | 87 | 0.16 | 78 | (45-162) | 11 | (< 17) |
| Pyridine | 0.05, 0.05 | 0.021 | 41 | 0.019 | 37 | (12-68) | 10 | (< 20) |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335752 | Method Blank | | |
| **Prep Batch** | XXX | 5991 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XMS 2835 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8270C |
| **File** | F0925_04.D | | | |
| | | | **Date** | 09/25/2003 |
| | | | **By** | BPJ |

QC results affect the following production samples:

3033594001, 3033594002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331908 Lab Control Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11270 | **Batch** | MIM 5673 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | n:\icpms\elandata\dataset\090203\LCS.084 | **Date** | 09/02/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033594001, 3033594002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 103 | | | (50-150) | | |
| Barium | 1 | 1.0 | 103 | | | (50-150) | | |
| Cadmium | 1 | 0.99 | 99 | | | (50-150) | | |
| Chromium | 1 | 1.0 | 102 | | | (50-150) | | |
| Lead | 1 | 1.0 | 105 | | | (50-150) | | |
| Selenium | 1 | 1.0 | 102 | | | (50-150) | | |
| Silver | 1 | 1.0 | 104 | | | (50-150) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331912 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11270 | **Batch** | MIM 5673 |
| **Original** | 3033594001 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32684 Sybill, Inc. | **Date** | 09/02/2003 |
| **File** | n:\icpms\elandata\dataset\090203\3033594001 MS.108 | **By** | SRO |

QC results affect the following production samples:

3033594001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 10 | 0.87 | 11 | 101 | | | (50-150) | | |
| Barium | 10 | 1.9 | 0.91 | -10 | | | (50-150) | | |
| Cadmium | 10 | 0.030 | 9.7 | 97 | | | (50-150) | | |
| Chromium | 10 | 8.9 | 16 | 70 | | | (50-150) | | |
| Lead | 10 | 0.26 | 4.3 | 41 | | | (50-150) | | |
| Selenium | 10 | ND | 12 | 131 | | | (50-150) | | |
| Silver | 10 | ND | 9.7 | 97 | | | (50-150) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331913 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11270 | **Batch** | MIM 5673 |
| **Original** | 3033594002 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybil, Inc. | **Date** | 09/02/2003 |
| **File** | n:\icpms\elandata\dataset\090203\3033594002 MS.110 | **By** | SRO |

QC results affect the following production samples:

3033594002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 5 | ND | 6.4 | 123 | | | ( 50-150 ) | | |
| Barium | 5 | 6.2 | 12 | 121 | | | ( 50-150 ) | | |
| Cadmium | 5 | ND | 5.3 | 105 | | | ( 50-150 ) | | |
| Chromium | 5 | 0.24 | 5.8 | 112 | | | ( 50-150 ) | | |
| Lead | 5 | ND | 5.9 | 117 | | | ( 50-150 ) | | |
| Selenium | 5 | ND | 5.8 | 113 | | | ( 50-150 ) | | |
| Silver | 5 | ND | 0.30 | 6 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331911 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11270 | **Batch** | MIM 5673 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | n:\icpms\elandata\dataset\090203MB.063 | **Date** | 09/02/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033594001, 3033594002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| Selenium | ND | 0.016 |
| Silver | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335425 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11380 | **Batch** | MCV 2020 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\092203W1.TXT | **Date** | 09/22/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033594001, 3033594002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0020 | 99 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 335426 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11380 | **Batch** | MCV 2020 |
| **Original** | 3033594001 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/22/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\092203W1.TXT | **By** | PSK |

QC results affect the following production samples:

3033594001, 3033594002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.021 | 103 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335424 Method Blank | | | |
| **Prep Batch** | MXX 11380 | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MCV 2020 | |
| **Project** | Project 32684 Sybill, Inc. | **Method** | SW-846 7470A | |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\092203W1.TXT | **Instrument** | PSA Millenium | |
| | | **Date** | 09/22/2003 | |
| | | **By** | PSK | |

**QC results affect the following production samples:**

3033594001, 3033594002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 331735 pH Calibration Standard | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2083 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 08/28/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033594001, 3033594002

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331736 | Quality Control Sample | | |
| **Prep Batch** | | | **Analysis Batch** | WPH 2063 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 09/26/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033594001, 3033594002

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.95 | | | | (99-101) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331740 Matrix Duplicate | | | |
| **Prep Batch** | | **Analysis** | | |
| **Original** | 3033596001 | **Batch** | WPH 2063 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A | |
| | | **Date** | 08/28/2003 | |
| | | **By** | SRS | |

QC results affect the following production samples:

3033594001, 3033594002

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 7.76 | 7.73 | | 0.39 | (< 20) |

SGS

REC'D CRA
SEP 25 2003
SDG: 4

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033594

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

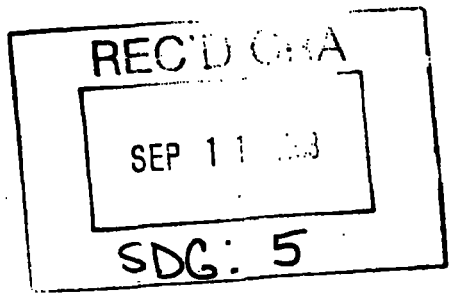
ORIGINAL ANALYTICAL REPORT
Project#: 32664 Lab#: 30335
Name: SYBELL
Description
Event:
Samples: 2 Liquid
Analysis:
TCLP MTL
TAT:
Lab:
Checked Against Preliminary Data:
Date: Init.:
Date of Validation Memo:
Invoice Approval Date:
Comments: Revision Sent to Include (ALL) other parametes.

Approval Signature: Tamela M. Johnson

Date Issued: 9-23-03
Total Pages: 25

SGS

REC'D CRA
SEP 11 [illegible]
SDG: 5



Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033498

ORIGINAL ANALYTICAL REPORT

Project#: 32664 Lab#: 3033498

Name: Sybill, Inc.

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Description

Event: Waste Char.

Samples: 2 Liquid

Analysis: RCI, RCRA - VOC, SVOC, MTL, Tot halo C, PCB's

TAT: 14 day

Lab: SGS

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

Checked Against Preliminary Data:

Date: 9-11-03 Init.: K.B.

Date of Validation Memo: 9-19-03

Invoice Approval Date: _____

Comments: _____

Approval Signature: Tamela M. Johnson

Date Issued: 9-10-03

Total Pages: 60

SGS CT&E Environmental Services Inc.
Michigan Division

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033498

***Sample Collection and Receipt -***

Nine samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on August 18 and 20, 2003. The sample containers were released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The samples collected on August 18, 2003 were received at SGS on August 19, 2003 and the samples collected on August 20, 2003 were received on August 21, 2003. Both coolers were received in good condition, on ice and at a temperature of 4°C. One sample container was received without a client ID and was assigned the client ID of L-32664-082003-KMB-024A to match the COC amount of containers per sample. Following log-in, the sample was stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

Client samples L-32664-081803-SM-006, 007 and 008 were received as additional sample for a separate project per Paul Wiseman.

Analysis of client samples L-32664-081803-SM-009, 010, 011 and 012 were cancelled August 22, 2003 per Paul Wiseman.

Per the fax received on August 26, 2003 client sample L-32664-082003-KMB-024B was analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the sample was extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. The leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals. Client sample L-32664-082003-KMB-024A was analyzed for Flashpoint, PCBs and VOCs.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

Laboratory sample 3033498009 was extracted for PCBs at a X20 dilution due to the nature of the matrix.

Laboratory sample 3033498009 was analyzed for SVOCs at a X5 dilution due to analyte level.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033498

***Quality Control (QC) –continued***

*GC/MS Semi-Volatiles Analysis*

The recoveries for the surrogates 2-Fluorophenol and Phenol-d5 were below the lower control limit in the MS on sample 3033498009 associated with analytical batch XMS 2810.

The relative percent difference (RPD) was above QC acceptance criteria for 2,4-Dinitrotoluene, Hexachlorobenzene and Pentachlorophenol in the LCS associated with preparation batch XXX 5909. No corrective action was initiated on the basis of the RPD results.

The recoveries for 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol, 3&4- Methylphenol and Pentachlorophenol were below the lower control limit in the MS on sample 3033498009 associated with preparation batch XXX 5909. These compounds may be biased low in the parent sample.

*GC PCB Analysis*

The surrogate recovery for Tetrachloro-m-xylene was below the lower control limit in the method blank associated with preparation batch XXX 5900. The alternate surrogate, Decachlorobiphenyl, was acceptable.

*Metals Analysis*

The recovery for Silver was below the lower control limits in the MS on sample 3033498009 associated with preparation batch MXX 11282. The Silver result may be biased low in sample 3033498009.

***Sample Reporting –***

The Silver result for laboratory sample 3033498009 was qualified (M) for matrix interference.

The SVOC results for laboratory sample 3033498009 were qualified for dilution (D) due analyte level.

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 9-10-03

SGS CT&E Environmental Services Inc.
Michigan Division

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033498

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Total Volatiles | SW-846 8260[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| L-32664-081803-SM-006 | 3033498001 |
| L-32664-081803-SM-008 | 3033498002 |
| L-32664-081803-SM-007 | 3033498003 |
| L-32664-081803-SM-009 | 3033498004 |
| L-32664-081803-SM-010 | 3033498005 |
| L-32664-081803-SM-011 | 3033498006 |
| L-32664-081803-SM-012 | 3033498007 |
| L-32664-082003-KMB-024A | 3033498008 |
| L-32664-082003-KMB-024B | 3033498009 |

# Explanation of Terms and Data Qualifiers

| Term Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

SGS CT&E Environmental Services Inc.
Michigan Division

# Chain-of-Custody/Log-in Records

CT&E Environmental Services Inc.

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

SHIPPED TO (Laboratory Name): CT&E 166643 COC Serial
200 Conrad Industrial Drive, Ludington MI 49431

REFERENCE NUMBER: 032664

PROJECT NAME: Sybill, Inc. 3033420 3033498

# CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: Shawn McLean PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | PARAMETERS: RCL / PCRA VOCs / PCRA SVOCs / PCRA Metals / PCBs / Total Volatiles | REMARKS |
|---|---|---|---|---|---|---|---|
| 1 | 8-18-03 | 0900 | L-32664-081803-SM-006 | L | 4 | ✓ ✓ ✓ ✓ ✓ ✓ | 1 amber 3 vial |
| 2 | | 0915 | L-32664-081803-SM-008 | L | 4 | ✓ ✓ ✓ ✓ ✓ ✓ | 4 |
| 3 | | 0930 | L-32664-081803-SM-007 | L | 4 | ✓ ✓ ✓ ✓ ✓ ✓ | 4 ASAP |
| 4 | | 0945 | L-32664-081803-SM-009 | L | 1 | ✓ ✓ ✓ ✓ ✓ ✓ | 4oz |
| 5 | | 0950 | L-32664-081803-SM-010 | L | 1 | ✓ ✓ ✓ ✓ ✓ ✓ | 4 |
| 6 | | 1000 | L-32664-081803-SM-011 | L | 1 | ✓ ✓ ✓ ✓ ✓ ✓ | 4 |
| 7 | | 1015 | L-32664-081803-SM-012 | L | 1 | ✓ ✓ ✓ ✓ ✓ ✓ | 4 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | TOTAL NUMBER OF CONTAINERS | | | | |

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. Shawn McLean | DATE: 8-18-03 TIME: 1530 | RECEIVED BY: 1. | DATE: TIME: |
| RELINQUISHED BY: 2. | DATE: TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: Fed-Ex AIR BILL No. 8384 6513 9945

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24034

SAMPLE TEAM: SM -

RECEIVED FOR LABORATORY BY:
DATE: 8/19/03 TIME: 9:30 4°C

1001 (FOR APRIL 29, 93-REV.0-(C)(F-01)

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

# CHAIN OF CUSTODY RECORD

SHIPPED TO (Laboratory Name): 3033498

CT&E Environmental Services Inc.

166735 COC Serial

REFERENCE NUMBER: 032664

PROJECT: SYBILL INC.

SAMPLER'S SIGNATURE: [signature] PRINTED NAME: GRANIGAN

| SEQ. No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | RCI | RCRA VOCs | RCRA SVOCs | RCRA METALS | PCBs | [illegible] | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 001 | 8/20/04 | 1700 | L-32664-082003-KMB-024A | LIQUID | 4 | X | X | X | X | X | X | | | | | ASAP |
| 9 002 | ↓ | ↓ | ↓ ↓ ↓ ↓ -024B | LIQUID | 4 | X | X | X | X | X | X | | | | | ASAP |
| TOTAL NUMBER OF CONTAINERS | | | | | 8 | | | | | | | | | | | |

| RELINQUISHED BY: | DATE: | RECEIVED BY: | DATE: |
|---|---|---|---|
| 1. [signature] | TIME: 1800 | 1. | TIME: |
| RELINQUISHED BY: 2. | DATE: TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: FED EX AIR BILL No. 838465139934

White -Fully Executed Copy
Yellow -Receiving Laboratory Copy
Pink -Shipper Copy
Goldenrod -Sampler Copy

24025

SAMPLE TEAM:

RECEIVED FOR LABORATORY BY: [signature]

DATE: 8/21/03 TIME: 10:15 4°C

1001 (FORMS)-APRIL 29, 93-REV.0-(C)(F-01)

Attach to the COC and include with the final report.

**SGS**

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of 1

3033420
Project Number: 3033498 Date Logged In: 8/19/03 Login Person Initials: KE

This section to be completed when corrective action is required:

Client: CRA Project Name:
Client Contact: Phone Number:

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | | ✓ |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | ✓ | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | = | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | = | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | = | |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 4 oz. amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | Other | Sample No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)
8/20/03: Per Paul Wiseman Composite Samples 6, 7 & 8 - this is additional sample for 3033420. DDH
8/22/03: Cancel samples 9-12, Per P Wiseman. DDH

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of 1

Project Number: 3033498 Date Logged In: 8/21/03 Login Person Initials: EE

This section to be completed when corrective action is required:

Client: CRA Project Name:
Client Contact: Phone Number:

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | = | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | = | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | = | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | ✓ | |

**COMMENTS/CORRECTIVE ACTION**

1 32oz bottle had no Lb. Lab put with #24A
so each had 4 containers.
-Date collected indicates 8/20/04. Should be 8/20/03.

**Containers Created**

| 40 mL vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Sample No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

# Laboratory Report

CT&E Environmental Services Inc.
Michigan Division

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3033498**<br>**#032664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

9/10/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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Member of the SGS Group (Societe Generale de Surveillance)

# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

CT&E Environmental Services Inc.
Michigan Division

Workorder: 3033498 Conestoga-Rovers & Associates Reported: 9/10/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033498008 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | L-32664-082003-KMB-024A | Location: | |
| Collected: | 08/20/2003 17:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/21/2003 08:30 | Sampled By: | KMB |

Comments: Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/03/03 14:48 | WD | |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| [illegible]Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,2-Dichloroethane | 569 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 2-Butanone ( M E K ) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| [illegible]lorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Benzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B[1] | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |

Workorder: 3033498 Conestoga-Rovers & Associates Reported: 9/10/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033498008 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-082003-KMB-024A | **Location:** | |
| **Collected:** | 08/20/2003 17:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/21/2003 08:30 | **Sampled By:** | KMB |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Chloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Dibromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Methylene chloride | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Trichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 14:15 | JEH | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:56 | JL | |
| Aroclor-1221 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:56 | JL | |
| Aroclor-1232 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:56 | JL | |
| Aroclor-1242 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:56 | JL | |
| Aroclor-1248 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:56 | JL | |
| Aroclor-1254 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:56 | JL | |
| Aroclor-1260 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:56 | JL | |
| Aroclor-1262 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:56 | JL | |
| Aroclor-1268 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:56 | JL | |

CT&E Environmental Services Inc.
Michigan Division

Workorder: 3033498 Conestoga-Rovers & Associates Reported: 9/10/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033498009 | Matrix: | Aqueous |
| Client Sample ID: | L-32684-082003-KMB-024B | Location: | |
| Collected: | 08/20/2003 17:00 | Project: | Project 32684 Sybill, Inc. |
| Received: | 08/21/2003 08:30 | Sampled By: | KMB |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).
Silver: Matrix spike/Matrix spike duplicate below QC Acceptance criteria.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2' | 08/29/03 12:21 | 09/02/03 08:56 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2' | 08/29/03 13:50 | 09/02/03 13:52 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B' | | 08/28/03 16:31 | SRS | 1 |
| [illegible]point Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/03/03 14:48 | WD | 1 |
| pH | 5.25 | | S.U. | | SW-846 9040B | | 08/28/03 16:31 | SRS | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 16:52 | ESA | 1 |
| Aroclor-1221 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 16:52 | ESA | 1 |
| Aroclor-1232 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 16:52 | ESA | 1 |
| Aroclor-1242 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 16:52 | ESA | 1 |
| Aroclor-1248 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 16:52 | ESA | 1 |
| Aroclor-1254 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 16:52 | ESA | 1 |
| Aroclor-1260 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 16:52 | ESA | 1 |
| Aroclor-1262 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 16:52 | ESA | 1 |
| Aroclor-1268 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 16:52 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.013 | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 15:55 | SRO | 1 |
| Barium | 0.031 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 15:55 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 15:55 | SRO | 1 |
| Chromium | 0.32 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 15:55 | SRO | 1 |
| [illegible]cury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/03/03 10:00 | 09/03/03 15:12 | SKP | 1 |
| Lead | 0.0071 | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 15:55 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 15:55 | SRO | 1 |
| Silver | 0.0091 M | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 15:55 | SRO | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033498009 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-082003-KMB-024B | **Location:** | |
| **Collected:** | 08/20/2003 17:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/21/2003 08:30 | **Sampled By:** | KMB |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 05:41 | JDS | 1 |
| 1,2-Dichloroethane | 0.12 | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 05:41 | JDS | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 05:41 | JDS | 1 |
| 2-Butanone ( M E K ) | 0.23 | 200 | mg/L | 0.050 | SW-846 8260B | | 09/03/03 05:41 | JDS | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 05:41 | JDS | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 05:41 | JDS | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 05:41 | JDS | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 05:41 | JDS | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 05:41 | JDS | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 05:41 | JDS | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/03/03 05:41 | JDS | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND D | 400 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:02 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND D | 2 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:02 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND D | 0.13 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:02 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND D | 200 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:02 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | 0.22 D | 200 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:02 | BPJ | 1 |
| Hexachlorobenzene | ND D | 0.13 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:02 | BPJ | 1 |
| Hexachlorobutadiene | ND D | 0.5 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:02 | BPJ | 1 |
| Hexachloroethane | ND D | 3 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:02 | BPJ | 1 |
| Nitrobenzene | ND D | 2 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:02 | BPJ | 1 |
| Pentachlorophenol | ND D | 100 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:02 | BPJ | 1 |
| Pyridine | ND D | 5 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:02 | BPJ | 1 |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4778 | |
| | | **Method** | SW-846 8260B | |
| **Matrix** | Aqueous | **Instrument** | HP 5972 Series | INSTRU Q |
| | | **Date** | 09/03/2003 | |
| | | **By** | JDS | |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3033498009 PS | 101 | 105 | 99.4 | 97.9 |
| 332383 MS | 101 | 107 | 99.7 | 98.3 |
| 332385 LCS | 105 | 111 | 109 | 98.8 |
| 332386 MB | 102 | 107 | 109 | 97.5 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybil, Inc. | **Batch** | VMS 4779 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Non Aqueous Liquid | **Date** | 09/03/2003 |
| | | **By** | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3033498008 | PS | 104 | 101 | 98.5 | 100 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 80-124 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 87-117 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 74-123 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 92-113 )** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | VMS 4779 |
| | | Method | SW-846 8260B |
| Matrix | Solid | Date | 09/03/2003 |
| | | By | JEH |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 332403 LCS | 103 | 101 | 101 | 97.4 |
| 332404 MB | 96.3 | 105 | 101 | 96.7 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 80-124 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 87-117 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 74-123 ) |
| TOL | = | Toluene-d8 Surr | ( 92-113 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332385 Lab Control Spike | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4778 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU Q |
| **File** | Q0902_30.D | | **Date** | 09/02/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3033498009

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.24 | 119 | | | ( 86-121 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.21 | 107 | | | ( 77-114 ) | | |
| Chlorobenzene | 0.2 | 0.18 | 90 | | | ( 83-120 ) | | |
| 2-Butanone ( M E K ) | 0.2 | 0.21 | 105 | | | ( 63-131 ) | | |
| Benzene | 0.2 | 0.20 | 100 | | | ( 87-112 ) | | |
| Carbon tetrachloride | 0.2 | 0.20 | 98 | | | ( 80-124 ) | | |
| Chlorobenzene | 0.2 | 0.20 | 99 | | | ( 85-117 ) | | |
| Chloroform | 0.2 | 0.22 | 109 | | | ( 83-113 ) | | |
| Tetrachloroethene | 0.2 | 0.25 | 124 | | | ( 59-148 ) | | |
| Trichloroethene | 0.2 | 0.21 | 104 | | | ( 83-111 ) | | |
| Vinyl chloride | 0.2 | 0.23 | 116 | | | ( 68-133 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332403 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4779 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32684 Sybill, Inc. | | |
| **File** | H0903_03.D | **Date** | 09/03/2003 |
| | | **By** | JEH |

QC results affect the following production samples:

3033498008

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 2500 | 2500 | 99 | | | ( 69-117 ) | | |
| 1,1,1-Trichloroethane | 2500 | 2600 | 103 | | | ( 62-124 ) | | |
| 1,1,2,2-Tetrachloroethane | 2500 | 2300 | 91 | | | ( 64-127 ) | | |
| 1,1,2-Trichloroethane | 2500 | 2400 | 95 | | | ( 73-116 ) | | |
| 1,1-Dichloroethane | 2500 | 2500 | 99 | | | ( 73-113 ) | | |
| 1,1-Dichloroethene | 2500 | 2700 | 109 | | | ( 57-133 ) | | |
| 1,1-Dichloropropene | 2500 | 2600 | 106 | | | ( 78-118 ) | | |
| 1,2,3-Trichlorobenzene | 2500 | 2500 | 102 | | | ( 71-127 ) | | |
| 1,2,3-Trichloropropane | 2500 | 2200 | 90 | | | ( 58-122 ) | | |
| 1,2,4-Trichlorobenzene | 2500 | 2500 | 101 | | | ( 72-128 ) | | |
| 1,2-Dibromo-3-chloropropane | 2500 | 2200 | 87 | | | ( 52-136 ) | | |
| 1,2-Dibromoethane | 2500 | 2500 | 99 | | | ( 69-123 ) | | |
| 1,2-Dichlorobenzene | 2500 | 2400 | 96 | | | ( 70-125 ) | | |
| 1,2-Dichloroethane | 2500 | 2600 | 103 | | | ( 55-120 ) | | |
| 1,2-Dichloropropane | 2500 | 2400 | 98 | | | ( 77-116 ) | | |
| 1,3-Dichlorobenzene | 2500 | 2400 | 97 | | | ( 75-121 ) | | |
| 1,3-Dichloropropane | 2500 | 2500 | 101 | | | ( 78-114 ) | | |
| 1,4-Dichlorobenzene | 2500 | 2400 | 95 | | | ( 73-117 ) | | |
| 2,2-Dichloropropane | 2500 | 2500 | 101 | | | ( 71-116 ) | | |
| 2-Butanone ( M E K ) | 2500 | 2200 | 88 | | | ( 48-168 ) | | |
| 2-Chlorotoluene | 2500 | 2400 | 95 | | | ( 84-115 ) | | |
| 4-Chlorotoluene | 2500 | 2400 | 95 | | | ( 82-121 ) | | |
| Benzene | 2500 | 2500 | 102 | | | ( 74-122 ) | | |
| Bromochloromethane | 2500 | 2300 | 94 | | | ( 71-117 ) | | |
| Bromodichloromethane | 2500 | 2500 | 100 | | | ( 67-122 ) | | |
| Bromoform | 2500 | 2600 | 106 | | | ( 53-136 ) | | |
| Bromomethane | 2500 | 2800 | 112 | | | ( 25-170 ) | | |
| Carbon tetrachloride | 2500 | 2800 | 111 | | | ( 63-133 ) | | |
| Chlorobenzene | 2500 | 2500 | 101 | | | ( 74-122 ) | | |
| Chloroethane | 2500 | 2700 | 107 | | | ( 49-132 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

**Sample ID** 332403 Lab Control Spike

**Prep Batch**
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.
**File** H0903_03.D

**Analysis**
**Batch** VMS 4779
**Method** SW-846 8260B
**Date** 09/03/2003
**By** JEH

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 2500 | 2500 | 99 | | | ( 67-114 ) | | |
| Chloromethane | 2500 | 2500 | 100 | | | ( 60-115 ) | | |
| cis-1,2-Dichloroethene | 2500 | 2400 | 97 | | | ( 79-110 ) | | |
| cis-1,3-Dichloropropene | 2500 | 2600 | 103 | | | ( 70-131 ) | | |
| [illegible]mochloromethane | 2500 | 2700 | 106 | | | ( 68-126 ) | | |
| [illegible]romomethane | 2500 | 2600 | 103 | | | ( 64-127 ) | | |
| Dichlorodifluoromethane | 2500 | 2400 | 96 | | | ( 27-129 ) | | |
| Methylene chloride | 2500 | 2400 | 96 | | | ( 69-119 ) | | |
| Tetrachloroethene | 2500 | 2400 | 94 | | | ( 51-134 ) | | |
| trans-1,2-Dichloroethene | 2500 | 2500 | 100 | | | ( 74-116 ) | | |
| trans-1,3-Dichloropropene | 2500 | 2800 | 110 | | | ( 68-125 ) | | |
| Trichloroethene | 2500 | 2500 | 98 | | | ( 70-121 ) | | |
| Trichlorofluoromethane | 2500 | 2800 | 113 | | | ( 47-132 ) | | |
| Vinyl chloride | 2500 | 2800 | 111 | | | ( 60-125 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332383 | Matrix Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4778 | |
| **Original** | 3033498009 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU Q |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/03/2003 | |
| **File** | Q0902_49.D | | **By** | JDS | |

QC results affect the following production samples:

3033498009

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.24 | 121 | | | ( 71-144 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.12 | 0.32 | 99 | | | ( 67-121 ) | | |
| 1,4-Dichlorobenzene | 0.2 | ND | 0.18 | 90 | | | ( 51-145 ) | | |
| 2-Butanone ( M E K ) | 0.2 | 0.23 | 0.45 | 109 | | | ( 32-134 ) | | |
| Benzene | 0.2 | ND | 0.20 | 95 | | | ( 76-127 ) | | |
| Carbon tetrachloride | 0.2 | ND | 0.19 | 97 | | | ( 83-130 ) | | |
| Chlorobenzene | 0.2 | ND | 0.20 | 98 | | | ( 86-117 ) | | |
| Chloroform | 0.2 | ND | 0.21 | 105 | | | ( 71-137 ) | | |
| Tetrachloroethene | 0.2 | ND | 0.17 | 87 | | | ( 55-113 ) | | |
| Trichloroethene | 0.2 | ND | 0.20 | 100 | | | ( 80-122 ) | | |
| Vinyl chloride | 0.2 | ND | 0.25 | 124 | | | ( 59-145 ) | | |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332386 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4778 | |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B | |
| **File** | Q0902_32.D | | **Instrument** | HP 5972 Series | INSTRU Q |
| | | | **Date** | 09/03/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3033498009

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K ) | ND | 0.050 |
| [redacted]ene | ND | 0.010 |
| [redacted]on tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332404 Method Blank | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4779 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | H0903_06.D | **Date** | 09/03/2003 |
| | | **By** | JEH |

QC results affect the following production samples:

3033498008

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 70 |
| 1,1,1-Trichloroethane | ND | 35 |
| 1,1,2,2-Tetrachloroethane | ND | 70 |
| 1,1,2-Trichloroethane | ND | 35 |
| 1,1-Dichloroethane | ND | 35 |
| 1,1-Dichloroethene | ND | 35 |
| 1,1-Dichloropropene | ND | 35 |
| 1,2,3-Trichlorobenzene | ND | 150 |
| 1,2,3-Trichloropropane | ND | 70 |
| 1,2,4-Trichlorobenzene | ND | 150 |
| 1,2-Dibromo-3-chloropropane | ND | 150 |
| 1,2-Dibromoethane | ND | 150 |
| 1,2-Dichlorobenzene | ND | 70 |
| 1,2-Dichloroethane | ND | 35 |
| 1,2-Dichloropropane | ND | 35 |
| 1,3-Dichlorobenzene | ND | 70 |
| 1,3-Dichloropropane | ND | 35 |
| 1,4-Dichlorobenzene | ND | 70 |
| 2,2-Dichloropropane | ND | 35 |
| 2-Butanone ( M E K) | ND | 300 |
| 2-Chlorotoluene | ND | 35 |
| 4-Chlorotoluene | ND | 35 |
| Benzene | ND | 35 |
| Bromochloromethane | ND | 70 |
| Bromodichloromethane | ND | 70 |
| Bromoform | ND | 70 |
| Bromomethane | ND | 150 |
| Carbon tetrachloride | ND | 35 |
| Chlorobenzene | ND | 35 |
| Chloroethane | ND | 150 |
| Chloroform | ND | 35 |
| Chloromethane | ND | 150 |
| cis-1,2-Dichloroethene | ND | 35 |
| cis-1,3-Dichloropropene | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332404 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4779 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | H0903_06.D | | | |
| | | | **Date** | 09/03/2003 |
| | | | **By** | JEH |

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Dibromochloromethane | ND | 70 |
| Dibromomethane | ND | 150 |
| Dichlorodifluoromethane | ND | 70 |
| Methylene chloride | ND | 150 |
| Tetrachloroethene | ND | 35 |
| trans-1,2-Dichloroethene | ND | 35 |
| trans-1,3-Dichloropropene | ND | 35 |
| [redacted]roethene | ND | 35 |
| [redacted]orofluoromethane | ND | 70 |
| Vinyl chloride | ND | 35 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | XMS 2808 |
| | | Method | SW-846 8270C |
| Matrix | Aqueous | Date | 09/02/2003 |
| | | By | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 331973 | MB | 32.5 | 49.3 | 50.3 | 24.5 | 68.5 | 80.6 |
| 331974 | LCS | 31.6 | 49.9 | 49.9 | 25.2 | 58.9 | 54.9 |
| 331975 | LCSD | 36 | 58.5 | 57.9 | 27.8 | 75.4 | 77.2 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | ( 14-68 ) |
| FBP | = | 2-Fluorobiphenyl Surr | ( 31-99 ) |
| NB2 | = | Nitrobenzene-d5 Surr | ( 33-102 ) |
| PHL | = | Phenol-d5 Surr | ( 13-50 ) |
| TBP | = | 2,4,6-Tribromophenol Surr | ( 31-133 ) |
| TPH | = | Terphenyl-d14 Surr | ( 20-116 ) |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2810 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/03/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033498009 PS | 18.6 | 66.3 | 67 | 18.3 | 57.5 | 68.1 |
| 332302 MS | 6.3 | 68.9 | 70.5 | 9 | 39.4 | 71.4 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331974 | Lab Control Spike | **Analysis** | |
| | 331975 | Lab Control Spike Dup | **Batch** | XMS 2808 |
| **Prep Batch** | XXX | 5909 | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | L0902_05.D | | **Date** | 09/02/2003 |
| | L0902_06.D | | **By** | BPJ |

QC results affect the following production samples:

3033498009

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.12 | 58 | 0.14 | 71 | ( 36-135 ) | 20 | (< 27 ) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.12 | 60 | 0.14 | 71 | ( 32-140 ) | 18 | (< 27 ) |
| 2,4-Dinitrotoluene | 0.05, 0.05 | 0.029 | 58 | 0.040 | 80 | ( 47-140 ) | 32 | (< |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.092 | 46 | 0.11 | 54 | ( 27-119 ) | 16 | (< |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.11 | 44 | 0.13 | 51 | ( 25-112 ) | 16 | (< 33 ) |
| Hexachlorobenzene | 0.05, 0.05 | 0.029 | 58 | 0.038 | 76 | ( 36-138 ) | 27 | (< 16 ) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.021 | 42 | 0.026 | 51 | ( 18-122 ) | 20 | (< 26 ) |
| Hexachloroethane | 0.05, 0.05 | 0.020 | 39 | 0.023 | 46 | ( 16-112 ) | 17 | (< 24 ) |
| Nitrobenzene | 0.05, 0.05 | 0.026 | 52 | 0.031 | 61 | ( 27-128 ) | 16 | (< 24 ) |
| Pentachlorophenol | 0.2, 0.2 | 0.13 | 63 | 0.17 | 87 | ( 45-162 ) | 32 | (< 17 ) |
| Pyridine | 0.05, 0.05 | 0.013 | 25 | 0.015 | 30 | ( 12-68 ) | 17 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332302 Matrix Spike | | **Analysis** | |
| **Prep Batch** | XXX 5909 | | **Batch** | XMS 2810 |
| **Original** | 3033498009 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32684 Sybil, Inc. | | **Date** | 09/03/2003 |
| **File** | L0903_16.D | | **By** | BPJ |

QC results affect the following production samples:

3033498009

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.040 | 20 | | | ( 39-116 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.043 | 22 | | | ( 39-114 ) | | |
| 2,4-Dinitrotoluene | 0.05 | ND | 0.033 | 66 | | | ( 46-125 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.082 | 41 | | | ( 28-101 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | 0.22 | 0.24 | 8 | | | ( 31-96 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.033 | 65 | | | ( 39-116 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.033 | 66 | | | ( 24-91 ) | | |
| Hexachloroethane | 0.05 | ND | 0.035 | 71 | | | ( 23-90 ) | | |
| Nitrobenzene | 0.05 | ND | 0.038 | 76 | | | ( 28-113 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.082 | 41 | | | ( 42-136 ) | | |
| Pyridine | 0.05 | ND | 0.029 | 25 | | | ( 4.5-59 ) | | |

## METHOD BLANK SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Sample ID** | 331973 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5909 | **Batch** | XMS 2808 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | L0902_04.D | **Date** | 09/02/2003 |
| | | **By** | BPJ |

QC results affect the following production samples:

3033498009

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | XGC 3807 |
| | | Method | EPA 608 |
| Matrix | Aqueous | Instrument | Varian 3400 ECD INST-U |
| | | Date | 08/29/2003 |
| | | By | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 331746 | MB | 82 | 1.67 |
| 331747 | LCS | 78.3 | 42.7 |
| 331748 | LCSD | 80.3 | 49.3 |

| | | | |
|---|---|---|---|
| DCB | = | Decachlorobiphenyl Surr | (14-91) |
| TMX | = | Tetrachloro-m-xylene Surr | (17-94) |

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3810 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/02/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033498009 | PS | 47 | 45.3 |

| | | | |
|---|---|---|---|
| **DCB** | = | **Decachlorobiphenyl Surr** | **( 14-91 )** |
| **TMX** | = | **Tetrachloro-m-xylene Surr** | **( 17-94 )** |

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3813 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 09/03/2003 |
| | | **By** | JL |

| Sample ID(s) | Surrogate Recovery % | |
|---|---|---|
| | DCB | TMX |
| 3033498008 PS | 53 | 91.3 |
| 332179 MB | 69.7 | 87.3 |
| 332180 LCS | 69 | 82.7 |
| 332181 LCSD | 71 | 86.7 |
| 332182 MS | 57.3 | 109 |
| 332183 MSD | 51.3 | 107 |

**DCB = Decachlorobiphenyl Surr (25-170)**
**TMX = Tetrachloro-m-xylene Surr (25-150)**

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332180 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5916 | **Batch** | XGC 3813 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Varian 3400 ECD INST-C |
| | | | **Date** | 09/03/2003 |
| | | | **By** | JL |

QC results affect the following production samples:

3033498008

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration mg/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.8, 9.8 | 6.1 | 63 | 7.1 | 73 | ( 25-141 ) | 15 | (< 20 ) |
| Aroclor-1260 | 9.8, 9.8 | 6.0 | 61 | 6.7 | 69 | ( 29-170 ) | 12 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332182 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5916 | **Batch** | XGC 3813 |
| **Original** | 3033710001 | **Method** | SW-846 8082 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-C |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/05/2003 |
| | | **By** | JL |

QC results affect the following production samples:

3033498008

| Analyte | MS, MSD Spike Added mg/Kg | Sample Conc. mg/Kg | MS Concentration mg/Kg | MS Recovery % | MSD Concentration mg/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.3, 9.7 | ND | 6.7 | 72 | 7.0 | 72 | ( 22-196 ) | 5 | (< 20 ) |
| Aroclor-1260 | 9.3, 9.7 | ND | 5.2 | 56 | 5.2 | 53 | ( 49-187 ) | 0 | (< 20 ) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331746 | Method Blank | | |
| **Prep Batch** | XXX | 5900 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XGC 3807 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | EPA 608 |
| | | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 08/29/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3033498009

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| [redacted]lor-1248 | ND | 0.10 |
| [redacted]or-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332179 Method Blank | | | |
| **Prep Batch** | XXX 5916 | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | XGC 3813 | |
| **Project** | Project 32884 Sybill, Inc. | **Method** | SW-846 8082 | |
| | | **Instrument** | Varian 3400 ECD INST-C | |
| | | **Date** | 09/03/2003 | |
| | | **By** | JL | |

QC results affect the following production samples:

3033498008

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Aroclor-1016 | ND | 0.95 |
| Aroclor-1221 | ND | 0.95 |
| Aroclor-1232 | ND | 0.95 |
| Aroclor-1242 | ND | 0.95 |
| Aroclor-1248 | ND | 0.95 |
| Aroclor-1254 | ND | 0.95 |
| Aroclor-1260 | ND | 0.95 |
| Aroclor-1262 | ND | 0.95 |
| Aroclor-1268 | ND | 0.95 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332253 Lab Control Spike TCLP | | | |
| | | **Analysis** | | |
| **Prep Batch** | MXX 11282 | **Batch** | MIM 5672 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 | |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS | |
| **File** | N:\ICPMS\elandata\Dataset\090303\LCS.038 | **Date** | 09/03/2003 | |
| | | **By** | SRO | |

QC results affect the following production samples:

3033498009

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 103 | | | ( 50-150 ) | | |
| Barium | 1 | 1.0 | 101 | | | ( 50-150 ) | | |
| Cadmium | 1 | 1.00 | 100 | | | ( 50-150 ) | | |
| Chromium | 1 | 1.0 | 101 | | | ( 50-150 ) | | |
| Lead | 1 | 1.0 | 103 | | | ( 50-150 ) | | |
| Selenium | 1 | 1.0 | 101 | | | ( 50-150 ) | | |
| Silver | 1 | 1.1 | 106 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332254 Matrix Spike TCLP | | |
| | 332255 Matrix Spike Duplicate TCLP | **Analysis** | |
| **Prep Batch** | MXX 11282 | **Batch** | MIM 5672 |
| **Original** | 3033498009 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/03/2003 |
| **File** | N:\ICPMS\elandata\Dataset\090303\3033498009 MS.045 | **By** | SRO |
| | N:\ICPMS\elandata\Dataset\090303\3033498009 MSD.046 | | |

QC results affect the following production samples:

3033498009

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1, 1 | 0.013 | 1.1 | 112 | 1.1 | 105 | ( 50-150 ) | 6 | (< 20 ) |
| [illegible]n | 1, 1 | 0.031 | 1.2 | 115 | 1.1 | 109 | ( 50-150 ) | 5 | (< 20 ) |
| [illegible]ium | 1, 1 | ND | 1.1 | 110 | 1.1 | 105 | ( 50-150 ) | 4 | (< 20 ) |
| Chromium | 1, 1 | 0.32 | 1.5 | 120 | 1.4 | 113 | ( 50-150 ) | 5 | (< 20 ) |
| Lead | 1, 1 | 0.0071 | 1.1 | 112 | 1.1 | 108 | ( 50-150 ) | 4 | (< 20 ) |
| Selenium | 1, 1 | ND | 1.2 | 116 | 1.1 | 109 | ( 50-150 ) | 6 | (< 20 ) |
| Silver | 1, 1 | 0.0091 | 0.33 | 32 | 0.34 | 34 | ( 50-150 ) | 6 | (< 20 ) |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332256 Method Blank | | |
| **Prep Batch** | MXX 11282 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MIM 5672 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 6020 |
| **File** | N:\ICPMS\elandata\Dataset\090303\MB:037 | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| | | **Date** | 09/03/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033498009

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| Selenium | ND | 0.016 |
| Silver | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332326 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11285 | **Batch** | MCV 2007 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32864 Sybil, Inc. | **Instrument** | PSA Millenium |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\090303 | **Date** | 09/03/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3033498009

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0020 | 100 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332330 Matrix Spike TCLP | | | |
| | | | **Analysis** | |
| **Prep Batch** | MXX 11285 | | **Batch** | MCV 2007 |
| **Original** | 3033498009 | | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/03/2003 |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\090303W1.TXT | | **By** | SKP |

QC results affect the following production samples:

3033498009

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.020 | 98 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332325 | Method Blank | | |
| **Prep Batch** | MXX | 11285 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | MCV 2007 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 7470A |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\090303 | | **Instrument** | PSA Millenium |
| | | | **Date** | 09/03/2003 |
| | | | **By** | SKP |

QC results affect the following production samples:

3033498009

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332020 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | WXX 3423 | **Batch** | WLA 1450 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 | |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat | |
| **File** | rcn 9-2-03.xls | **Date** | 09/02/2003 | |
| | | **By** | MAH | |

QC results affect the following production samples:

3033498009

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 0.47 | 9 | | | ( 2.6-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332021 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3423 | **Batch** | WLA 1450 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| **File** | rcn 9-2-03.xls | **Date** | 09/02/2003 |
| | | **By** | MAH |

QC results affect the following production samples:

3033498009

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332049 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3424 | **Batch** | WAT 1826 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/02/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3033498009

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 320 | 77 | | | (57-109) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332048 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3424 | **Batch** | WAT 1826 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 09/02/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033498009

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332050 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3424 | **Batch** | WAT 1826 |
| **Original** | 3033596009 | **Method** | SW-846 7.3.4.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | No Instrument, Manual Handling |
| **Project** | Project 32684 Sybill, Inc. | **Date** | 09/02/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033498009

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 50 | 0.00 | |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331735 | pH Calibration Standard | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2063 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 08/28/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033498009

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |
| [redacted]l. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331740 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2063 |
| **Original** | 3033595001 | **Method** | SW-846 9040B |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 08/28/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033498009

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 7.76 | 7.73 | | 0.39 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332297 | Flashpoint Calibration Std. | **Analysis** | |
| **Prep Batch** | | | **Batch** | MXX 11284 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 1010 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/03/2003 |
| | | | **By** | WD |

QC results affect the following production samples:

3033498008, 3033498009

| Analyte | LCS,LCSD Spike Added | LCS Concentration | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| | deg F | deg F | | | | | | |
| Flashpoint Fahrenheit | 80 | 81 | 101 | | | ( 98-102 ) | | |

SGS

REC'D CRA
SEP 11
SDG: 6

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033595

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

ORIGINAL ANALYTICAL REPORT

Project#: 32664 Lab#: 3033595

Name: Sybill, Inc.

Description

Event:

Samples: 2 LIQUID

Analysis: RCI, RCRA - VOC, SVOC, MTL, PCB; tot halo

TAT: 14 day

Lab: SGS

Checked Against Preliminary Data:

Date: 9-11-03 Init.: K.B.

Date of Validation Memo: 9-19-03

Invoice Approval Date:

Approval Signature: Tamela M. Johnson Comments:

Date Issued: 9-10-03

Total Pages: 59

SGS CT&E Environmental Services Inc.
Michigan Division

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033595

***Sample Collection and Receipt -***

Two samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on August 21, 2003. The sample containers were released to a laboratory courier on August 22, 2003 for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on August 23, 2003 in good condition, on ice and at a temperature of 5°C. Following log-in, the sample was stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

Per the fax received on August 26, 2003 client sample L-32664-082103-SM-025A was analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the sample was extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. The leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals. Client sample L-32664-082103-SM-025B was analyzed for Flashpoint, PCBs and VOCs.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

Laboratory sample 3033595001 was extracted for PCBs at a X10 dilution due to the nature of the matrix.

Laboratory sample 3033595002 was analyzed for PCBs at a X2 dilution due to matrix interference.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Semi-Volatiles Analysis*

The recovery for the surrogate Terphenyl-d14 was above the upper control limit in laboratory sample 3033595001. The result was confirmed by the associated matrix spike. No qualifications were necessary because no compounds were detected in the fraction associated with this surrogate.

The RPD was above QC acceptance criteria for 2,4-Dinitrotoluene, Hexachlorobenzene and Pentachlorophenol in the LCS associated with preparation batch XXX 5909. No corrective action was initiated on the basis of the RPD results.

The recovery for Nitrobenzene was above the upper control limit in the MS on sample 3033595001 associated with preparation batch XXX 5909. This compound was not detected in the parent sample.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033595

***Quality Control (QC) –continued***

*GC PCB Analysis*

The surrogate recovery for Tetrachloro-m-xylene was below the lower control limit in the method blank associated with preparation batch XXX 5900. The alternate surrogate, Decachlorobiphenyl, was acceptable.

*Metals Analysis*

The recoveries for Selenium and Silver were below the lower control limits in the MS on sample 3033595001 associated with preparation batch MXX 11270. The Selenium and Silver results may be biased low in sample 3033595001.

***Sample Reporting –***

The Selenium and Silver results for laboratory sample 3033595001 were qualified (M) for matrix interference.

The PCB results for laboratory sample 3033595002 were qualified for dilution (D) due to matrix interference (M).

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Tamela M. Johnson *Phone:* (231) 843-1877
Tamela M. Johnson, Reporting Group Supervisor

*Date:* 9-10-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033595

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Total Volatiles | SW-846 8260[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| L-32664-082103-SM-025A | 3033595001 |
| L-32664-082103-SM-025B | 3033595002 |

# Explanation of Terms and Data Qualifiers

| Term Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

CT&E Environmental Services Inc.

167013 COC Serial

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

SHIPPED TO (Laboratory Name): CT&E 3033595
200 Conrad Industrial Drive, Ludington MI 49431

REFERENCE NUMBER: 32664

PROJECT NAME: Sybill, Inc.

# CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: _____ PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | PARAMETERS: RCT | RCRA VOCs | RCRA SVOCs | RCRA Metals | PCBs | Total Lead | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8-22-03 | 1630 | L-32664-082203-SM-025A | L | 4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 2 | | | " -025B | L | 4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ASAP |
| | | | | | | | | | | | | |
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| | | | | | | | | | | | | |
| | | | TOTAL NUMBER OF CONTAINERS | | 8 | | | | | | | |

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. Shawn McLean | DATE: 8-22-03 TIME: 1630 | RECEIVED BY: 1. | DATE: 8/22/03 TIME: 12:50 |
| RELINQUISHED BY: 2. | DATE: 8/22/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: ~~FedEx~~ AIR BILL No. ~~8304 6515 9647~~

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24027

SAMPLE TEAM:

RECEIVED FOR LABORATORY BY:

DATE: 8-23-03 TIME: 9:45 gg

1001 (FOR APRIL 29, 93-REV.0-(C)(F-01)

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of 1

Project Number: 3033595 Date Logged In: 8 SOB Login Person Initials: KE

This section to be completed when corrective action is required:

Client: CLA
Client Contact: _____

Project Name: _____
Phone Number: _____

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | = | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | = | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | = | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | ✓ | |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz glass | 4 oz glass | 8 oz glass | other | Sample No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
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| | | | | | | | | | 4 |
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| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

# Laboratory Report

SGS CT&E Environmental Services Inc.
Michigan Division

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3033595**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

Respectfully submitted,

Denise Heckler

9/9/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

This report contains _____ pages

This report shall not be reproduced, in whole or in part, without the written approval of CT&E Environmental Services Inc.

# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

SGS CT&E Environmental Services Inc.
Michigan Division

Workorder: 3033595 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033595001 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082103-SM-025A | Location: | |
| Collected: | 08/22/2003 16:30 | Project: | Project 32664 Sybil, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

Comments: Results reported as received.
Silver, Selenium: Matrix spike below QC Acceptance criteria.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 08/29/03 12:21 | 09/02/03 08:57 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 08/29/03 13:50 | 09/02/03 13:52 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 08/28/03 16:31 | SRS | 1 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/03/03 14:48 | WD | 1 |
| | 7.76 | | S.U. | | SW-846 9040B | | 08/28/03 16:31 | SRS | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:49 | ESA | 1 |
| Aroclor-1221 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:49 | ESA | 1 |
| Aroclor-1232 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:49 | ESA | 1 |
| Aroclor-1242 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:49 | ESA | 1 |
| Aroclor-1248 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:49 | ESA | 1 |
| Aroclor-1254 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:49 | ESA | 1 |
| Aroclor-1260 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:49 | ESA | 1 |
| Aroclor-1262 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:49 | ESA | 1 |
| Aroclor-1268 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 05:49 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.011 | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:12 | SRO | 1 |
| Barium | 0.049 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:12 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:12 | SRO | 1 |
| Chromium | 0.011 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:12 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/02/03 13:45 | 09/02/03 19:22 | PSK | 1 |
| Lead | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:12 | SRO | 1 |
| Selenium | ND M | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:12 | SRO | 1 |
| Silver | ND M | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:12 | SRO | 1 |

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033595001 | Matrix: | Aqueous |
| Client Sample ID: | L-32684-082103-SM-025A | Location: | |
| Collected: | 08/22/2003 16:30 | Project: | Project 32684 Sybill, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:22 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:22 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:22 | JEH | 1 |
| 2-Butanone ( M E K ) | 0.079 | 200 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 17:22 | JEH | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:22 | JEH | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:22 | JEH | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:22 | JEH | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:22 | JEH | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:22 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:22 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:22 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 17:44 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 17:44 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 17:44 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 17:44 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | 0.30 | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 17:44 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 17:44 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 17:44 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 17:44 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 17:44 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 17:44 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 17:44 | BPJ | 1 |

Workorder: 3033595 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033595002 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | L-32664-082103-SM-025B | Location: | |
| Collected: | 08/22/2003 16:30 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).
PCB: Sample was diluted due to matrix interference.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/03/03 14:48 | WD | |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| [illegible]-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 610 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,2-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 2-Butanone ( M E K ) | ND | | ug/Kg | 610 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| [illegible]orotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| Benzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH | |

Workorder: 3033595 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033595002 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | L-32664-082103-SM-025B | Location: | |
| Collected: | 08/22/2003 16:30 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Cont. Analyst ID |
|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Chloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Dibromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Methylene chloride | ND | | ug/Kg | 610 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Trichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 09:45 | 09/02/03 16:55 | JEH |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | |
| Aroclor-1016 | ND D,M | | mg/Kg | 1.9 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 23:07 | JL |
| Aroclor-1221 | ND D,M | | mg/Kg | 1.9 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 23:07 | JL |
| Aroclor-1232 | ND D,M | | mg/Kg | 1.9 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 23:07 | JL |
| Aroclor-1242 | ND D,M | | mg/Kg | 1.9 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 23:07 | JL |
| Aroclor-1248 | ND D,M | | mg/Kg | 1.9 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 23:07 | JL |
| Aroclor-1254 | ND D,M | | mg/Kg | 1.9 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 23:07 | JL |
| Aroclor-1260 | ND D,M | | mg/Kg | 1.9 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 23:07 | JL |
| Aroclor-1262 | ND D,M | | mg/Kg | 1.9 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 23:07 | JL |

Workorder: 3033595 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033595002 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-082103-SM-025B | **Location:** | |
| **Collected:** | 08/22/2003 16:30 | **Project:** | Project 32664 Sybil, Inc. |
| **Received:** | 08/23/2003 09:45 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1268 | ND D,M | | mg/Kg | 1.9 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 23:07 | JL | |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | VMS 4769 |
| | | Method | SW-846 8260B |
| Matrix | Solid | Date | 09/02/2003 |
| | | By | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 332169 | LCS | 102 | 101 | 97.3 | 98.1 |
| 332170 | MB | 99.2 | 101 | 98.2 | 97.9 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | (80-124) |
| DBFM | = | Dibromofluoromethane Surr | (87-117) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | (74-123) |
| TOL | = | Toluene-d8 Surr | (92-113) |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybil, Inc. | Batch | VMS 4769 |
| | | Method | SW-846 8260B |
| Matrix | Non Aqueous Liquid | Date | 09/02/2003 |
| | | By | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3033595002 | PS | 102 | 103 | 98.9 | 96 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | (80-124) |
| DBFM | = | Dibromofluoromethane Surr | (87-117) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | (74-123) |
| TOL | = | Toluene-d8 Surr | (92-113) |

## SURROGATE SUMMARY

## TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | | |
| Project | Project 32664 Sybil, Inc. | Batch | VMS 4771 | |
| | | Method | SW-846 8260B | |
| Matrix | Aqueous | Instrument | HP 5972 Series | INSTRU H |
| | | Date | 09/02/2003 | |
| | | By | JEH | |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3033595001 PS | 104 | 110 | 109 | 96.2 |
| 332197 LCS | 104 | 103 | 101 | 98.8 |
| 332198 MB | 103 | 103 | 103 | 97.4 |
| 332201 MS | 103 | 106 | 101 | 98.2 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 79-116 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 72-132 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 77-124 ) |
| TOL | = | Toluene-d8 Surr | ( 87-110 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332169 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4769 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | H0829_05.D | **Date** | 09/02/2003 |
| | | **By** | JEH |

QC results affect the following production samples:

3033595002

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 2500 | 2500 | 98 | | | (69-117) | | |
| 1,1,1-Trichloroethane | 2500 | 2500 | 102 | | | (62-124) | | |
| 1,1,2,2-Tetrachloroethane | 2500 | 2400 | 97 | | | (64-127) | | |
| 1,1,2-Trichloroethane | 2500 | 2400 | 97 | | | (73-116) | | |
| 1,1-Dichloroethane | 2500 | 2500 | 98 | | | (73-113) | | |
| 1,1-Dichloroethene | 2500 | 2700 | 109 | | | (57-133) | | |
| 1,1-Dichloropropene | 2500 | 2600 | 104 | | | (78-118) | | |
| 1,2,3-Trichlorobenzene | 2500 | 2400 | 94 | | | (71-127) | | |
| 1,2,3-Trichloropropane | 2500 | 2400 | 95 | | | (58-122) | | |
| 1,2,4-Trichlorobenzene | 2500 | 2400 | 95 | | | (72-128) | | |
| 1,2-Dibromo-3-chloropropane | 2500 | 2300 | 91 | | | (52-136) | | |
| 1,2-Dibromoethane | 2500 | 2500 | 100 | | | (69-123) | | |
| 1,2-Dichlorobenzene | 2500 | 2400 | 96 | | | (70-125) | | |
| 1,2-Dichloroethane | 2500 | 2500 | 101 | | | (55-120) | | |
| 1,2-Dichloropropane | 2500 | 2500 | 98 | | | (77-116) | | |
| 1,3-Dichlorobenzene | 2500 | 2500 | 99 | | | (75-121) | | |
| 1,3-Dichloropropane | 2500 | 2500 | 101 | | | (78-114) | | |
| 1,4-Dichlorobenzene | 2500 | 2400 | 96 | | | (73-117) | | |
| 2,2-Dichloropropane | 2500 | 2400 | 96 | | | (71-116) | | |
| 2-Butanone (MEK) | 2500 | 2200 | 89 | | | (48-168) | | |
| 2-Chlorotoluene | 2500 | 2500 | 101 | | | (84-115) | | |
| 4-Chlorotoluene | 2500 | 2500 | 101 | | | (82-121) | | |
| Benzene | 2500 | 2500 | 101 | | | (74-122) | | |
| Bromochloromethane | 2500 | 2400 | 96 | | | (71-117) | | |
| Bromodichloromethane | 2500 | 2500 | 101 | | | (67-122) | | |
| Bromoform | 2500 | 2700 | 108 | | | (53-136) | | |
| Bromomethane | 2500 | 2500 | 102 | | | (25-170) | | |
| Carbon tetrachloride | 2500 | 2700 | 109 | | | (63-133) | | |
| Chlorobenzene | 2500 | 2600 | 104 | | | (74-122) | | |
| Chloroethane | 2500 | 2700 | 107 | | | (49-132) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332169 | Lab Control Spike | | |
| **Prep Batch** | | | **Analysis Batch** | VMS 4769 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | H0829_05.D | | **Date** | 09/02/2003 |
| | | | **By** | JEH |

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 2500 | 2400 | 96 | | | (67-114) | | |
| Chloromethane | 2500 | 2800 | 112 | | | (60-115) | | |
| cis-1,2-Dichloroethene | 2500 | 2400 | 95 | | | (79-110) | | |
| cis-1,3-Dichloropropene | 2500 | 2600 | 103 | | | (70-131) | | |
| Dibromochloromethane | 2500 | 2700 | 109 | | | (68-126) | | |
| Dibromomethane | 2500 | 2500 | 100 | | | (64-127) | | |
| Dichlorodifluoromethane | 2500 | 2800 | 114 | | | (27-129) | | |
| Methylene chloride | 2500 | 2400 | 96 | | | (69-119) | | |
| Tetrachloroethene | 2500 | 2400 | 96 | | | (51-134) | | |
| trans-1,2-Dichloroethene | 2500 | 2500 | 101 | | | (74-116) | | |
| trans-1,3-Dichloropropene | 2500 | 2700 | 110 | | | (68-125) | | |
| Trichloroethene | 2500 | 2400 | 96 | | | (70-121) | | |
| Trichlorofluoromethane | 2500 | 2900 | 114 | | | (47-132) | | |
| Vinyl chloride | 2500 | 2900 | 115 | | | (60-125) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332197 | Lab Control Spike | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4771 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU H |
| **File** | Q0902_04.D | | **Date** | 09/02/2003 | |
| | | | **By** | JEH | |

QC results affect the following production samples:

3033595001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 0.2 | 0.22 | 110 | | | (86-121) | | |
| 1,2-Dichloroethane | 0.2 | 0.20 | 101 | | | (77-114) | | |
| [illegible]chlorobenzene | 0.2 | 0.18 | 90 | | | (83-120) | | |
| 2-Butanone (MEK) | 0.2 | 0.20 | 99 | | | (63-131) | | |
| Benzene | 0.2 | 0.20 | 99 | | | (87-112) | | |
| Carbon tetrachloride | 0.2 | 0.20 | 99 | | | (80-124) | | |
| Chlorobenzene | 0.2 | 0.20 | 99 | | | (85-117) | | |
| Chloroform | 0.2 | 0.20 | 101 | | | (83-113) | | |
| Tetrachloroethene | 0.2 | 0.22 | 110 | | | (59-148) | | |
| Trichloroethene | 0.2 | 0.20 | 101 | | | (83-111) | | |
| Vinyl chloride | 0.2 | 0.24 | 118 | | | (68-133) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332201 | Matrix Spike | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4771 | |
| **Original** | 3033595001 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU.Q |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/02/2003 | |
| **File** | Q0902_24.D | | **By** | JEH | |

QC results affect the following production samples:

3033595001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.24 | 118 | | | (71-144) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.20 | 100 | | | (67-121) | | |
| 1,4-Dichlorobenzene | 0.2 | ND | 0.18 | 91 | | | (51-145) | | |
| 2-Butanone (MEK) | 0.2 | 0.079 | 0.26 | 91 | | | (32-134) | | |
| Benzene | 0.2 | ND | 0.20 | 100 | | | (76-127) | | |
| Carbon tetrachloride | 0.2 | ND | 0.20 | 99 | | | (83-130) | | |
| Chlorobenzene | 0.2 | ND | 0.20 | 99 | | | (86-117) | | |
| Chloroform | 0.2 | ND | 0.21 | 104 | | | (71-137) | | |
| Tetrachloroethene | 0.2 | ND | 0.18 | 90 | | | (55-113) | | |
| Trichloroethene | 0.2 | ND | 0.20 | 102 | | | (80-122) | | |
| Vinyl chloride | 0.2 | ND | 0.24 | 118 | | | (59-145) | | |

Order: 3033595 Conestoga-Rovers & Associates *Reported:* *9/9/2003*

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332170 Method Blank | | |
| **Prep Batch** | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | VMS 4769 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 8260B |
| **File** | H0829_06.D | | |
| | | **Date** | 09/02/2003 |
| | | **By** | JEH |

QC results affect the following production samples:

3033595002

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 70 |
| 1,1,1-Trichloroethane | ND | 35 |
| 1,1,2,2-Tetrachloroethane | ND | 70 |
| 1,1,2-Trichloroethane | ND | 35 |
| 1,1-Dichloroethane | ND | 35 |
| 1,1-Dichloroethene | ND | 35 |
| 1,1-Dichloropropene | ND | 35 |
| 1,2,3-Trichlorobenzene | ND | 150 |
| 1,2,3-Trichloropropane | ND | 70 |
| 1,2,4-Trichlorobenzene | ND | 150 |
| 1,2-Dibromo-3-chloropropane | ND | 150 |
| 1,2-Dibromoethane | ND | 150 |
| 1,2-Dichlorobenzene | ND | 70 |
| 1,2-Dichloroethane | ND | 35 |
| 1,2-Dichloropropane | ND | 35 |
| 1,3-Dichlorobenzene | ND | 70 |
| 1,3-Dichloropropane | ND | 35 |
| 1,4-Dichlorobenzene | ND | 70 |
| 2,2-Dichloropropane | ND | 35 |
| 2-Butanone ( M E K ) | ND | 300 |
| 2-Chlorotoluene | ND | 35 |
| 4-Chlorotoluene | ND | 35 |
| Benzene | ND | 35 |
| Bromochloromethane | ND | 70 |
| Bromodichloromethane | ND | 70 |
| Bromoform | ND | 70 |
| Bromomethane | ND | 150 |
| Carbon tetrachloride | ND | 35 |
| Chlorobenzene | ND | 35 |
| Chloroethane | ND | 150 |
| Chloroform | ND | 35 |
| Chloromethane | ND | 150 |
| cis-1,2-Dichloroethene | ND | 35 |
| cis-1,3-Dichloropropene | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332170 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4769 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | H0829_08.D | | | |
| | | | **Date** | 09/02/2003 |
| | | | **By** | JEH |

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Dibromochloromethane | ND | 70 |
| Dibromomethane | ND | 150 |
| Dichlorodifluoromethane | ND | 70 |
| Methylene chloride | ND | 150 |
| Tetrachloroethene | ND | 35 |
| trans-1,2-Dichloroethene | ND | 35 |
| trans-1,3-Dichloropropene | ND | 35 |
| Trichloroethene | ND | 35 |
| Trichlorofluoromethane | ND | 70 |
| Vinyl chloride | ND | 35 |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332198 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4771 | |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B | |
| **File** | Q0902_06.D | | **Instrument** | HP 5972 Series | INSTRU H |
| | | | **Date** | 09/02/2003 | |
| | | | **By** | JEH | |

QC results affect the following production samples:

3033595001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K ) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32684 Sybil, Inc. | Batch | XMS 2808 |
| | | Method | SW-846 8270C |
| Matrix | Aqueous | Date | 09/02/2003 |
| | | By | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 331973 | MB | 32.5 | 49.3 | 50.3 | 24.5 | 68.5 | 80.6 |
| 331974 | LCS | 31.6 | 49.9 | 49.9 | 25.2 | 58.9 | 54.9 |
| 331975 | LCSD | 36 | 58.5 | 57.9 | 27.8 | 75.4 | 77.2 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | (14-68) |
| [redacted] | = | 2-Fluorobiphenyl Surr | (31-99) |
| | = | Nitrobenzene-d5 Surr | (33-102) |
| PHL | = | Phenol-d5 Surr | (13-50) |
| TBP | = | 2,4,6-Tribromophenol Surr | (31-133) |
| TPH | = | Terphenyl-d14 Surr | (20-116) |

## SURROGATE SUMMARY

## TCLP SEMI-VOLATILES SW1311

Client: Conestoga-Rovers & Associates
Project: Project 32884 Sybill, Inc.
Matrix: Aqueous

Analysis
Batch: XMS 2810
Method: SW-846 8270C
Date: 09/03/2003
By: BPJ

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033595001 PS | 30 | 55.4 | 54.6 | 25.1 | 68.5 | 129 |
| 331977 MS | 43.3 | 65.1 | 72.9 | 34.4 | 77.3 | 151 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | (14-68) |
| FBP | = | 2-Fluorobiphenyl Surr | (31-99) |
| NB2 | = | Nitrobenzene-d5 Surr | (33-102) |
| PHL | = | Phenol-d5 Surr | (13-50) |
| TBP | = | 2,4,6-Tribromophenol Surr | (31-133) |
| TPH | = | Terphenyl-d14 Surr | (20-116) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331974 | Lab Control Spike | | |
| | 331975 | Lab Control Spike Dup | **Analysis** | |
| **Prep Batch** | XXX | 5909 | **Batch** | XMS 2808 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | L0902_05.D | | **Date** | 09/02/2003 |
| | L0902_06.D | | **By** | BPJ |

QC results affect the following production samples:

3033595001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.12 | 58 | 0.14 | 71 | (36-135) | 20 | (< 27) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.12 | 60 | 0.14 | 71 | (32-140) | 18 | (< 27) |
| 2,4-Dinitrotoluene | 0.05, 0.05 | 0.029 | 58 | 0.040 | 80 | (47-140) | 32 | (< 30) |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.092 | 46 | 0.11 | 54 | (27-119) | 16 | (< 33) |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.11 | 44 | 0.13 | 51 | (25-112) | 16 | (< 33) |
| Hexachlorobenzene | 0.05, 0.05 | 0.029 | 58 | 0.038 | 76 | (36-136) | 27 | (< 16) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.021 | 42 | 0.026 | 51 | (18-122) | 20 | (< 26) |
| Hexachloroethane | 0.05, 0.05 | 0.020 | 39 | 0.023 | 46 | (16-112) | 17 | (< 24) |
| Nitrobenzene | 0.05, 0.05 | 0.026 | 52 | 0.031 | 61 | (27-128) | 16 | (< 24) |
| Pentachlorophenol | 0.2, 0.2 | 0.13 | 63 | 0.17 | 87 | (45-162) | 32 | (< 17) |
| Pyridine | 0.05, 0.05 | 0.013 | 25 | 0.015 | 30 | (12-68) | 17 | (< 20) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331977 | Matrix Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5909 | **Batch** | XMS 2810 |
| **Original** | 3033595001 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/03/2003 |
| **File** | L0903_13.D | | **By** | BPJ |

QC results affect the following production samples:

3033595001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.17 | 84 | | | ( 39-116 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.14 | 72 | | | ( 39-114 ) | | |
| 2,4-Dinitrotoluene | 0.05 | ND | 0.034 | 67 | | | ( 46-125 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.12 | 60 | | | ( 28-101 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | 0.30 | 0.52 | 88 | | | ( 31-96 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.041 | 82 | | | ( 39-116 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.033 | 66 | | | ( 24-91 ) | | |
| Hexachloroethane | 0.05 | ND | 0.030 | 61 | | | ( 23-90 ) | | |
| Nitrobenzene | 0.05 | ND | 0.10 | 206 | | | ( 28-113 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.13 | 63 | | | ( 42-136 ) | | |
| Pyridine | 0.05 | ND | 0.035 | 56 | | | ( 4.5-59 ) | | |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331973 | Method Blank | | |
| **Prep Batch** | XXX | 5909 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XMS 2808 |
| **Project** | Project 32664 Sybil, Inc. | | **Method** | SW-846 8270C |
| **File** | L0902_04.D | | | |
| | | | **Date** | 09/02/2003 |
| | | | **By** | BPJ |

QC results affect the following production samples:

3033595001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | XGC 3807 |
| | | Method | EPA 608 |
| Matrix | Aqueous | Instrument | Varian 3400 ECD INST-U |
| | | Date | 08/29/2003 |
| | | By | ESA |

| Sample ID(s) | Surrogate Recovery % | |
|---|---|---|
| | DCB | TMX |
| 3033595001 PS | 53 | 45 |
| 331746 MB | 82 | 1.67 |
| 331747 LCS | 78.3 | 42.7 |
| 331748 LCSD | 80.3 | 49.3 |

DCB = Decachlorobiphenyl Surr (14-91)
TMX = Tetrachloro-m-xylene Surr (17-94)

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32684 Sybil, Inc. | Batch | XGC 3813 |
| | | Method | SW-846 8082 |
| Matrix | Non Aqueous Liquid | Instrument | Varian 3400 ECD INST-C |
| | | Date | 09/03/2003 |
| | | By | JL |

| Sample ID(s) | Surrogate Recovery % | |
|---|---|---|
| | DCB | TMX |
| 3033595002 PS | 36.7 | 116 |
| 332179 MB | 69.7 | 87.3 |
| 332180 LCS | 69 | 82.7 |
| 332181 LCSD | 71 | 86.7 |
| 332182 MS | 57.3 | 109 |
| 332183 MSD | 51.3 | 107 |

DCB = Decachlorobiphenyl Surr (25-170)
TMX = Tetrachloro-m-xylene Surr (25-150)

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331747 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5900 | **Batch** | XGC 3807 |
| **Client** | Conestoga-Rovers & Associates | **Method** | EPA 608 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 08/29/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3033595001

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.64 | 64 | 0.68 | 68 | ( 38-158 ) | 6 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.96 | 96 | 1.0 | 101 | ( 10-127 ) | 5 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332180 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5916 | **Batch** | XGC 3813 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-C | |
| | | **Date** | 09/03/2003 | |
| | | **By** | JL | |

QC results affect the following production samples:

3033595002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration mg/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.8, 9.8 | 6.1 | 63 | 7.1 | 73 | ( 25-141 ) | 15 | (< 20 ) |
| Aroclor-1260 | 9.8, 9.8 | 6.0 | 61 | 6.7 | 69 | ( 29-170 ) | 12 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332162 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5916 | **Batch** | XGC 3813 |
| **Original** | 3033710001 | **Method** | SW-846 8082 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-C |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/05/2003 |
| | | **By** | JL |

QC results affect the following production samples:

3033595002

| Analyte | MS, MSD Spike Added mg/Kg | Sample Conc. mg/Kg | MS Concentration mg/Kg | MS Recovery % | MSD Concentration mg/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.3, 9.7 | ND | 6.7 | 72 | 7.0 | 72 | (22-196) | 5 | (< 20) |
| Aroclor-1260 | 9.3, 9.7 | ND | 5.2 | 56 | 5.2 | 53 | (49-187) | 0 | (< 20) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331746 | Method Blank | | |
| **Prep Batch** | XXX | 5900 | | |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32684 Sybill, Inc. | | | |

| | |
|---|---|
| **Analysis** | |
| **Batch** | XGC 3807 |
| **Method** | EPA 608 |
| **Instrument** | Varian 3400 ECD INST-U |
| **Date** | 08/29/2003 |
| **By** | ESA |

QC results affect the following production samples:

3033595001

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332179 | Method Blank | | |
| **Prep Batch** | XXX | 5916 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XGC 3813 |
| **Project** | Project 32664 Sybil, Inc. | | **Method** | SW-846 8082 |
| | | | **Instrument** | Varian 3400 ECD INST-C |
| | | | **Date** | 09/03/2003 |
| | | | **By** | JL |

QC results affect the following production samples:

3033595002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Aroclor-1016 | ND | 0.95 |
| Aroclor-1221 | ND | 0.95 |
| Aroclor-1232 | ND | 0.95 |
| Aroclor-1242 | ND | 0.95 |
| Aroclor-1248 | ND | 0.95 |
| Aroclor-1254 | ND | 0.95 |
| Aroclor-1260 | ND | 0.95 |
| Aroclor-1262 | ND | 0.95 |
| Aroclor-1268 | ND | 0.95 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331908 Lab Control Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11270 | **Batch** | MIM 5673 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | n:\icpms\elandata\dataset\090203\LCS.064 | **Date** | 09/02/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033595001, 3033595002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 103 | | | (50-150) | | |
| Barium | 1 | 1.0 | 103 | | | (50-150) | | |
| Cadmium | 1 | 0.99 | 99 | | | (50-150) | | |
| Chromium | 1 | 1.0 | 102 | | | (50-150) | | |
| Lead | 1 | 1.0 | 105 | | | (50-150) | | |
| Selenium | 1 | 1.0 | 102 | | | (50-150) | | |
| Silver | 1 | 1.0 | 104 | | | (50-150) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331914 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11270 | **Batch** | MIM 5673 |
| **Original** | 3033595001 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/02/2003 |
| **File** | n:\icpms\elandata\dataset\090203\3033595001 MS.089 | **By** | SRO |

QC results affect the following production samples:

3033595001, 3033595002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 0.011 | 0.96 | 95 | | | (50-150) | | |
| Barium | 1 | 0.049 | 1.1 | 103 | | | (50-150) | | |
| Cadmium | 1 | ND | 0.97 | 97 | | | (50-150) | | |
| Chromium | 1 | 0.011 | 1.0 | 101 | | | (50-150) | | |
| Lead | 1 | ND | 0.95 | 95 | | | (50-150) | | |
| Selenium | 1 | ND | 0.18 | 18 | | | (50-150) | | |
| Silver | 1 | ND | 0.057 | 6 | | | (50-150) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331911 | Method Blank | | |
| **Prep Batch** | MXX | 11270 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | MIM 5673 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 6020 |
| **File** | n:\icpms\elandata\dataset\090203\MB.083 | | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| | | | **Date** | 09/02/2003 |
| | | | **By** | SRO |

QC results affect the following production samples:

3033595001, 3033595002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| [redacted]lum | ND | 0.016 |
| Silver | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332078 Lab Control Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | MXX 11276 | | **Batch** | MCV 2005 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090203W1.TXT | | **Date** | 09/02/2003 |
| | | | **By** | PSK |

QC results affect the following production samples:

3033595001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0021 | 104 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 332085 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11276 | **Batch** | MCV 2005 |
| **Original** | 3033595001 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32684 Sybil, Inc. | **Date** | 09/02/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090203W1.TXT | **By** | PSK |

QC results affect the following production samples:

3033595001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.018 | 91 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332077 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11276 | **Batch** | MCV 2005 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32864 Sybil, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090203W1.TXT | **Date** | 09/02/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033595001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

SGS CT&E Environmental Services Inc.
Michigan Division

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332049 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3424 | **Batch** | WAT 1826 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32984 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/02/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3033595001

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 320 | 77 | | | ( 57-109 ) | | |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332050 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3424 | **Batch** | WAT 1826 |
| **Original** | 3033596009 | **Method** | SW-846 7.3.4.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | No Instrument, Manual Handling |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/02/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033595001

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 50 | 0.00 | (< 20) |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332048 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3424 | **Batch** | WAT 1826 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 09/02/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033595001

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332020 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | WXX 3423 | **Batch** | WLA 1450 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat | |
| **File** | rcn 9-2-03.xls | **Date** | 09/02/2003 | |
| | | **By** | MAH | |

QC results affect the following production samples:

3033595001

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 0.47 | 9 | | | ( 2.6-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332021 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3423 | **Batch** | WLA 1450 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| **File** | rcn 9-2-03.xls | **Date** | 09/02/2003 |
| | | **By** | MAH |

QC results affect the following production samples:

3033595001

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

SGS CT&E Environmental Services Inc.
Michigan Division

# Physical Property
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 331735 pH Calibration Standard | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2063 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 08/28/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033595001, 3033595002

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331739 | Quality Control Sample | | |
| **Prep Batch** | | | **Analysis Batch** | WPH 2063 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybil, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 08/28/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033595001, 3033595002

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 8.01 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331740 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3033595001 | **Batch** | WPH 2063 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 08/28/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033595001, 3033595002

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 7.76 | 7.73 | | 0.39 | (< 20) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332297 | Flashpoint Calibration Std. | **Analysis** | |
| **Prep Batch** | | | **Batch** | MXX 11284 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 1010 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/03/2003 |
| | | | **By** | WD |

QC results affect the following production samples:

3033595001, 3033595002

| Analyte | LCS,LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 81 | 101 | | | ( 98-102 ) | | |

•SGS

REC'D CRA
SEP 11 [illegible]
SDG 7

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033596

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

ORIGINAL ANALYTICAL REPORT
Project#: 32664 Lab#: 3033596
Name: SYBILL, INC.
Description
Event:
Samples: 9 liquid
Analysis: RCI, RCRA-voc, svoc
mtl, PCB, Tot halo
TAT: 14 day
Lab: SGS
Checked Against Preliminary Data:
Date: 9-11-03 Init.: K.B
Date of Validation Memo:
Invoice Approval Date:
Comments:

Approval Signature: Tamela M. Johnson

Date Issued: 9-9-03
Total Pages: 97

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033596

***Sample Collection and Receipt -***

Nine samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on August 22, 2003. The sample containers were released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on August 23, 2003 in good condition, on ice and at a temperature of 6°C. Following log-in, the sample was stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

Per the fax received on August 26, 2003 client samples L-32664-082203-SM-026, 027, 031B, 031A and 030 were analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the samples were extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. The leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals. The remaining client samples, L-32664-082203-SM-028, 032, 033 and 029, were analyzed for Flashpoint, PCBs and VOCs.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

Laboratory sample 3033596005 was analyzed for VOCs at a X100 dilution due to analyte level.

Laboratory samples 3033596001 and 3033596002 were analyzed for SVOCs at a X5 dilution due to analyte level.

PCBs were extracted at the following dilutions:

5X: 3033596007, 3033596009
10X: 3033596001, 3033596002, 3033596008
40X: 3033596005

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033596

***Quality Control (QC) –continued***

*GC/MS Volatiles Analysis*

The recovery for Chloromethane was above the upper control limit in the LCS associated with analytical batch VMS 4768. Chloromethane was not detected in the associated project samples.

The recoveries for Chloroethane and Trichlorofluoromethane were above the upper control limits in the LCS associated with analytical batch VMS 4777. These compounds were not detected in the associated project sample.

The recoveries for 1,2,3-Trichlorobenzene and Chloroethane were outside the control limits in the LCS associated with analytical batch VMS 4781.

The recoveries for 1,1-Dichloroethene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, Chloroethane, Chloromethane, Hexachloroethane, Trichlorofluoromethane and Vinyl chloride were outside the control limits in the MS and/or MSD associated with preparation batch VXX 3707. Also, the relative percent difference (RPD) was above QC acceptance criteria for twenty-four compounds in the MS/MSD. The MS/MSD were not performed on a sample from this sample delivery group (SDG).

*GC/MS Semi-Volatiles Analysis*

The RPD was above QC acceptance criteria for 2,4-Dinitrotoluene, Hexachlorobenzene and Pentachlorophenol in the LCS associated with preparation batch XXX 5909. No corrective action was initiated on the basis of the RPD results.

*GC PCB Analysis*

The surrogate recovery for Decachlorobiphenyl was above the upper control limit in sample 3033596005 associated with analytical batch XGC 3812. The alternate surrogate, Tetrachloro-m-xylene, was acceptable.

*Metals Analysis*

The results for Selenium in samples 3033596001 and 3033596002, Arsenic in samples 3033596002 and 3033596008 and Chromium in sample 3033596008 had the relative standard deviation (RSD) of the analysis replicates greater than twenty percent.

The recovery for Silver was below the lower control limit in the MS on sample 3033596009 associated with preparation batch MXX 11270. The Silver result may be biased low in sample 3033596009.

SGS CT&E Environmental Services Inc.
Michigan Division

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033596

***Sample Reporting –***

The results for Selenium in samples 3033596001 and 3033596002, Arsenic in samples 3033596002 and 3033596008 and Chromium in sample 3033596008 were qualified as estimated (J) due to a relative standard deviation (RSD) greater than twenty.

The Silver result for laboratory sample 3033596009 was qualified (M) for matrix interference.

The VOC results for laboratory sample 3033596005 and the SVOC results for laboratory samples 3033596001 and 3033596002 were qualified for dilution (D) due to analyte level.

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 9-9-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033596

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Total Volatiles | SW-846 8260[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| L-32664-082203-SM-026 | 3033596001 |
| L-32664-082203-SM-027 | 3033596002 |
| L-32664-082203-SM-028 | 3033596003 |
| L-32664-082203-SM-032 | 3033596004 |
| L-32664-082203-SM-033 | 3033596005 |
| L-32664-082203-SM-029 | 3033596006 |
| L-32664-082203-SM-031B | 3033596007 |
| L-32664-082203-SM-031A | 3033596008 |
| L-32664-082203-SM-030 | 3033596009 |

# Explanation of Terms and Data Qualifiers

| Term Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

CT&E Environmental Services Inc.

167012 COC Serial

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

# CHAIN OF CUSTODY RECORD

SHIPPED TO (Laboratory Name): CT&E 303 3576
1200 Conrad Industrial Drive, Luding...

REFERENCE NUMBER: 32664

PROJECT NAME: Sybill, Inc.

SAMPLER'S SIGNATURE: Shawn McLean PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | RCT | RCRA VOCs | RCRA SVOCs | RCRA Metals | PCBs | total halocarbons | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8-22-03 | 0730 | L-32664-082203-SM-026 | L | 4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| 2 | | | " " -027 | L | 4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | ASAP |
| 3 | | | " " -028 | L | 4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| 4 | | | " " -032 | L | 4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| 5 | | | " " -033 | L | 4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| 6 | | | " " -029 | L | 4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| 7 | | | " " -031B | L | 4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| 8 | | | " " -031A | L | 4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |
| 9 | | | " " -030 | L | 4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |

TOTAL NUMBER OF CONTAINERS

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. Shawn McLean | DATE: 8-22-03 TIME: 12:50 | RECEIVED BY: 1. [signature] | DATE: 8/22/03 TIME: 12:50 |
| RELINQUISHED BY: 2. [signature] | DATE: 8/22/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: AIR BILL No.

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24028

SAMPLE TEAM: SM

RECEIVED FOR LABORATORY BY: [signature]
DATE: 8-23-03 TIME: 9:45 6°C

1001 (FORMS)-APRIL 29, 93-REV.0-(C)(F-01)

Attach to the COC and include with the final report.

**SGS**

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of 1

Project Number: 3033596 Date Logged In: 8/25/03 Login Person Initials: KS

This section to be completed when corrective action is required:

Client: CRA Project Name: _____
Client Contact: _____ Phone Number: _____

| *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|
| 1. Were custody seals/original packing tape intact? | ✓ | |
| 2. Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. Are samples within holding times? | ✓ | |
| 4. Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. Do the samples match the COC? | ✓ | |
| 7. Were the proper containers used? | ✓ | |
| 8 Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. Do water VOC samples contain headspace less than the size of a pea? | | |
| 11. Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | | |
| 12. Is the chain of custody signed? | ✓ | |
| 13. Is sub-sampling required? *(note bottles created and preserved below)* | | |
| 14. Were proper sample weights met for Wisconsin soil samples? | ✓ | |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 1 L Amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Sample No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

SGS
CT&E Environmental Services Inc.
Michigan Division

# Laboratory Report

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3033596**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

**Certification:**

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

9/9/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

Workorder: 3033596 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033596001 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082203-SM-026 | Location: | |
| Collected: | 08/22/2003 07:30 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/02/03 08:44 | 09/02/03 15:28 | MAH | 1 |
| Reactive Sulfide | 280 | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/02/03 07:43 | 09/02/03 07:50 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 08/28/03 16:31 | SRS | 1 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/03/03 14:48 | WD | 1 |
| pH | 8.29 | | S.U. | | SW-846 9040B | | 08/28/03 16:31 | SRS | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:32 | ESA | 1 |
| Aroclor-1221 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:32 | ESA | 1 |
| Aroclor-1232 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:32 | ESA | 1 |
| Aroclor-1242 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:32 | ESA | 1 |
| Aroclor-1248 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:32 | ESA | 1 |
| Aroclor-1254 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:32 | ESA | 1 |
| Aroclor-1260 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:32 | ESA | 1 |
| Aroclor-1262 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:32 | ESA | 1 |
| Aroclor-1268 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:32 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.19 | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:44 | SRO | 1 |
| Barium | 0.15 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:44 | SRO | 1 |
| Cadmium | 0.023 | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:44 | SRO | 1 |
| Chromium | 0.33 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:44 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/02/03 13:45 | 09/02/03 19:32 | PSK | 1 |
| Lead | 0.0041 | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:44 | SRO | 1 |
| Selenium | 0.017 J | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:44 | SRO | 1 |
| Silver | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:44 | SRO | 1 |

Workorder: 3033596 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033596001 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082203-SM-026 | Location: | |
| Collected: | 08/22/2003 07:30 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:16 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:16 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:16 | JEH | 1 |
| 2-Butanone ( M E K) | 0.61 | 200 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 18:16 | JEH | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:16 | JEH | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:16 | JEH | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:16 | JEH | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:16 | JEH | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:16 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:16 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:16 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND D | 400 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 21:33 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND D | 2 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 21:33 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND D | 0.13 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 21:33 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND D | 200 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 21:33 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | 0.61 D | 200 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 21:33 | BPJ | 1 |
| Hexachlorobenzene | ND D | 0.13 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 21:33 | BPJ | 1 |
| Hexachlorobutadiene | ND D | 0.5 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 21:33 | BPJ | 1 |
| Hexachloroethane | ND D | 3 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 21:33 | BPJ | 1 |
| Nitrobenzene | ND D | 2 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 21:33 | BPJ | 1 |
| Pentachlorophenol | ND D | 100 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 21:33 | BPJ | 1 |
| Pyridine | ND D | 5 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 21:33 | BPJ | 1 |

Workorder: 3033596 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033596002 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082203-SM-027 | Location: | |
| Collected: | 08/22/2003 07:30 | Project: | Project 32664 Sybil, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/02/03 08:44 | 09/02/03 15:28 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/02/03 07:43 | 09/02/03 07:50 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/28/03 16:31 | SRS | 1 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/03/03 14:48 | WD | 1 |
| pH | 6.51 | | S.U. | | SW-846 9040B | | 09/28/03 16:31 | SRS | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/29/03 10:50 | 09/03/03 09:49 | ESA | 1 |
| Aroclor-1221 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/29/03 10:50 | 09/03/03 09:49 | ESA | 1 |
| Aroclor-1232 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/29/03 10:50 | 09/03/03 09:49 | ESA | 1 |
| Aroclor-1242 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/29/03 10:50 | 09/03/03 09:49 | ESA | 1 |
| Aroclor-1248 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/29/03 10:50 | 09/03/03 09:49 | ESA | 1 |
| Aroclor-1254 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/29/03 10:50 | 09/03/03 09:49 | ESA | 1 |
| Aroclor-1260 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/29/03 10:50 | 09/03/03 09:49 | ESA | 1 |
| Aroclor-1262 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/29/03 10:50 | 09/03/03 09:49 | ESA | 1 |
| Aroclor-1268 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/29/03 10:50 | 09/03/03 09:49 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.011 J | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/29/03 14:57 | 09/02/03 21:48 | SRO | 1 |
| Barium | 0.031 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/29/03 14:57 | 09/02/03 21:48 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/29/03 14:57 | 09/02/03 21:48 | SRO | 1 |
| Chromium | 0.75 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/29/03 14:57 | 09/02/03 21:48 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/02/03 13:45 | 09/02/03 19:45 | PSK | 1 |
| Lead | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/29/03 14:57 | 09/02/03 21:48 | SRO | 1 |
| Selenium | 0.018 J | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/29/03 14:57 | 09/02/03 21:48 | SRO | 1 |
| Silver | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/29/03 14:57 | 09/02/03 21:48 | SRO | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033596002 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-082203-SM-027 | **Location:** | |
| **Collected:** | 08/22/2003 07:30 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/23/2003 09:45 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:49 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:49 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:49 | JEH | 1 |
| 2-Butanone ( M E K) | 0.82 | 200 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 17:49 | JEH | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:49 | JEH | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:49 | JEH | 1 |
| [redacted]robenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:49 | JEH | 1 |
| [redacted]roform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:49 | JEH | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:49 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:49 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 17:49 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND D | 400 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 19:16 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND D | 2 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 19:16 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND D | 0.13 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 19:16 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND D | 200 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 19:16 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | 0.46 D | 200 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 19:16 | BPJ | 1 |
| Hexachlorobenzene | ND D | 0.13 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 19:16 | BPJ | 1 |
| Hexachlorobutadiene | ND D | 0.5 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 19:16 | BPJ | 1 |
| Hexachloroethane | ND D | 3 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 19:16 | BPJ | 1 |
| Nitrobenzene | ND D | 2 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 19:16 | BPJ | 1 |
| Pentachlorophenol | ND D | 100 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 19:16 | BPJ | 1 |
| Pyridine | ND D | 5 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/03/03 19:16 | BPJ | 1 |

Workorder: 3033596 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033596003 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | L-32664-082203-SM-028 | Location: | |
| Collected: | 08/22/2003 07:30 | Project: | Project 32664 Sybil, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/03/03 14:48 | WD | 1 |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,1,2-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,2-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 2-Butanone ( M E K) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| 4-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Benzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033596003 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32684-082203-SM-028 | **Location:** | |
| **Collected:** | 08/22/2003 07:30 | **Project:** | Project 32684 Sybill, Inc. |
| **Received:** | 08/23/2003 09:45 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Chloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| [illegible]-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Dibromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Methylene chloride | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Trichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:55 | JEH | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/28/03 20:40 | JL | 1 |
| Aroclor-1221 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/28/03 20:40 | JL | 1 |
| Aroclor-1232 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/28/03 20:40 | JL | 1 |
| Aroclor-1242 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/28/03 20:40 | JL | 1 |
| Aroclor-1248 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/28/03 20:40 | JL | 1 |
| Aroclor-1254 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/28/03 20:40 | JL | 1 |
| [illegible]clor-1260 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/28/03 20:40 | JL | 1 |
| Aroclor-1262 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/28/03 20:40 | JL | 1 |
| Aroclor-1268 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/28/03 20:40 | JL | 1 |

Workorder: 3033596 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033596004 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | L-32664-082203-SM-032 | Location: | |
| Collected: | 08/22/2003 07:30 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/03/03 14:48 | WD | 1 |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,1,2-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 630 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,1-Dichloroethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,1-Dichloroethene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,1-Dichloropropene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,2-Dibromoethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,2-Dichloroethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,2-Dichloropropane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,3-Dichloropropane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 2,2-Dichloropropane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 2-Butanone ( M E K ) | ND | | ug/Kg | 630 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 2-Chlorotoluene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| 4-Chlorotoluene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Benzene | 239 | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Bromochloromethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B' | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Bromodichloromethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033596004 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-082203-SM-032 | **Location:** | |
| **Collected:** | 08/22/2003 07:30 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/23/2003 09:45 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromoform | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Bromomethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Carbon tetrachloride | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Chlorobenzene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Chloroethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Chloroform | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Chloromethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| [illegible]mochloromethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Dibromomethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Dichlorodifluoromethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Methylene chloride | ND | | ug/Kg | 630 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Tetrachloroethene | 149 | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Trichloroethene | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Trichlorofluoromethane | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| Vinyl chloride | ND | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 17:51 | JEH | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 20:04 | JL | 1 |
| Aroclor-1221 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 20:04 | JL | 1 |
| Aroclor-1232 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 20:04 | JL | 1 |
| Aroclor-1242 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 20:04 | JL | 1 |
| Aroclor-1248 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 20:04 | JL | 1 |
| Aroclor-1254 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 20:04 | JL | 1 |
| [illegible]clor-1260 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 20:04 | JL | 1 |
| [illegible]clor-1262 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 20:04 | JL | 1 |
| Aroclor-1268 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 20:04 | JL | 1 |

Workorder: 3033596 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033596005 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082203-SM-033 | Location: | |
| Collected: | 08/22/2003 07:30 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).
PCB: Surrogate outside QC acceptance criteria.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/03/03 14:48 | WD | |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,1,1-Trichloroethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,1,2,2-Tetrachloroethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,1,2-Trichloro-1,2,2-fluoroet | ND D | | ug/L | 300 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,1,2-Trichloroethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,1-Dichloroethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,1-Dichloroethene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,1-Dichloropropene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,2,3-Trichlorobenzene | ND D | | ug/L | 500 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,2,3-Trichloropropane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,2,4-Trichlorobenzene | ND D | | ug/L | 500 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,2-Dibromo-3-chloropropane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,2-Dibromoethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,2-Dichlorobenzene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,2-Dichloroethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,2-Dichloropropane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,3-Dichlorobenzene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,3-Dichloropropane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 1,4-Dichlorobenzene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 2,2-Dichloropropane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 2-Butanone ( M E K) | 540 D | | ug/L | 500 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 2-Chlorotoluene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| 4-Chlorotoluene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Benzene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Bromochloromethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033596005 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-082203-SM-033 | **Location:** | |
| **Collected:** | 08/22/2003 07:30 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/23/2003 09:45 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromodichloromethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Bromoform | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Bromomethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Carbon tetrachloride | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Chlorobenzene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Chloroethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Chloroform | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Chloromethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| cis-1,2-Dichloroethene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| cis-1,3-Dichloropropene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Dibromochloromethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Dibromomethane | ND D | | ug/L | 500 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Dichlorodifluoromethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Hexachlorobutadiene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Hexachloroethane | ND D | | ug/L | 500 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Methylene chloride | ND D | | ug/L | 500 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Tetrachloroethene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| trans-1,2-Dichloroethene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| trans-1,3-Dichloropropene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Trichloroethene | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Trichlorofluoromethane | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| Vinyl chloride | ND D | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/02/03 17:00 | 09/03/03 09:21 | JDS | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/02/03 09:07 | 09/03/03 16:29 | ESA | |
| Aroclor-1221 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/02/03 09:07 | 09/03/03 16:29 | ESA | |
| Aroclor-1232 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/02/03 09:07 | 09/03/03 16:29 | ESA | |
| Aroclor-1242 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/02/03 09:07 | 09/03/03 16:29 | ESA | |
| Aroclor-1248 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/02/03 09:07 | 09/03/03 16:29 | ESA | |
| Aroclor-1254 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/02/03 09:07 | 09/03/03 16:29 | ESA | |

Workorder: 3033596 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033596005 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-062203-SM-033 | **Location:** | |
| **Collected:** | 08/22/2003 07:30 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/23/2003 09:45 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1260 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/02/03 09:07 | 09/03/03 16:29 | ESA | |
| Aroclor-1262 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/02/03 09:07 | 09/03/03 16:29 | ESA | |
| Aroclor-1268 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/02/03 09:07 | 09/03/03 16:29 | ESA | |

Workorder: 3033596 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033596006 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-082203-SM-029 | **Location:** | |
| **Collected:** | 08/22/2003 07:30 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/23/2003 09:45 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/03/03 14:46 | WD | 1 |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| [redacted]-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| [redacted]-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,2-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 2-Butanone ( M E K) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| [redacted]lorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| [redacted]nzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |

Workorder: 3033596 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033596006 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | L-32664-082203-SM-029 | Location: | |
| Collected: | 08/22/2003 07:30 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Chloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Dibromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Methylene chloride | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Trichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 08/27/03 15:00 | 08/28/03 18:23 | JEH | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 02:43 | JL | 1 |
| Aroclor-1221 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 02:43 | JL | 1 |
| Aroclor-1232 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 02:43 | JL | 1 |
| Aroclor-1242 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 02:43 | JL | 1 |
| Aroclor-1248 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 02:43 | JL | 1 |
| Aroclor-1254 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 02:43 | JL | 1 |
| Aroclor-1260 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 02:43 | JL | 1 |
| Aroclor-1262 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 02:43 | JL | 1 |
| Aroclor-1268 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 08/28/03 12:40 | 08/29/03 02:43 | JL | 1 |

Workorder: 3033596 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033596007 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082203-SM-031B | Location: | |
| Collected: | 08/22/2003 07:30 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/02/03 08:44 | 09/02/03 15:28 | MAH | 1 |
| Reactive Sulfide | 200 | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/02/03 07:43 | 09/02/03 07:50 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 08/28/03 16:31 | SRS | 1 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/03/03 14:48 | WD | 1 |
| [redacted] | 6.90 | | S.U. | | SW-846 9040B | | 08/28/03 16:31 | SRS | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/03/03 10:10 | ESA | 1 |
| Aroclor-1221 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/03/03 10:10 | ESA | 1 |
| Aroclor-1232 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/03/03 10:10 | ESA | 1 |
| Aroclor-1242 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/03/03 10:10 | ESA | 1 |
| Aroclor-1248 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/03/03 10:10 | ESA | 1 |
| Aroclor-1254 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/03/03 10:10 | ESA | 1 |
| Aroclor-1260 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/03/03 10:10 | ESA | 1 |
| Aroclor-1262 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/03/03 10:10 | ESA | 1 |
| Aroclor-1268 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/03/03 10:10 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.021 | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:53 | SRO | 1 |
| Barium | 0.094 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:53 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:53 | SRO | 1 |
| Chromium | 0.032 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:53 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/02/03 13:45 | 09/02/03 19:48 | PSK | 1 |
| [redacted] | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:53 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:53 | SRO | 1 |
| Silver | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:53 | SRO | 1 |

Workorder: 3033596 | Conestoga-Rovers & Associates | Reported: 9/9/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033596007 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082203-SM-031B | Location: | |
| Collected: | 08/22/2003 07:30 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:43 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:43 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:43 | JEH | 1 |
| 2-Butanone ( M E K) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 18:43 | JEH | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:43 | JEH | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:43 | JEH | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:43 | JEH | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:43 | JEH | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:43 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:43 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 18:43 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:12 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:12 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:12 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:12 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | 0.21 | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:12 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:12 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:12 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:12 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:12 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:12 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:12 | BPJ | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033596008 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-082203-SM-031A | **Location:** | |
| **Collected:** | 08/22/2003 07:30 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/23/2003 09:45 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/02/03 08:44 | 09/02/03 15:28 | MAH | 1 |
| Reactive Sulfide | 80 | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/02/03 07:43 | 09/02/03 07:50 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 08/28/03 16:31 | SRS | 1 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/03/03 14:48 | WD | 1 |
| pH | 7.91 | | S.U. | | SW-846 9040B | | 08/28/03 16:31 | SRS | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 07:36 | ESA | 1 |
| Aroclor-1221 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 07:36 | ESA | 1 |
| Aroclor-1232 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 07:36 | ESA | 1 |
| Aroclor-1242 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 07:36 | ESA | 1 |
| Aroclor-1248 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 07:36 | ESA | 1 |
| Aroclor-1254 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 07:36 | ESA | 1 |
| Aroclor-1260 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 07:36 | ESA | 1 |
| Aroclor-1262 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 07:36 | ESA | 1 |
| Aroclor-1268 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 07:36 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.010 J | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:58 | SRO | 1 |
| Barium | 0.33 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:58 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:58 | SRO | 1 |
| Chromium | 0.0060 J | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:58 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/02/03 13:45 | 09/02/03 19:51 | PSK | 1 |
| Lead | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:58 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:58 | SRO | 1 |
| Silver | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 21:58 | SRO | 1 |

Workorder: 3033596 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033596006 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082203-SM-031A | Location: | |
| Collected: | 08/22/2003 07:30 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:11 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:11 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:11 | JEH | 1 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 19:11 | JEH | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:11 | JEH | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:11 | JEH | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:11 | JEH | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:11 | JEH | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:11 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:11 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:11 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 20:55 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 20:55 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 20:55 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 20:55 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | 0.035 | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 20:55 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 20:55 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 20:55 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 20:55 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 20:55 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 20:55 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 20:55 | BPJ | 1 |

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033596009 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082203-SM-030 | Location: | |
| Collected: | 08/22/2003 07:30 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

Comments: Results reported as received.
Silver:Matrix spike below QC Acceptance criteria.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 08/29/03 12:21 | 09/02/03 09:01 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 08/29/03 13:50 | 09/02/03 13:52 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 08/28/03 16:31 | SRS | 1 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/03/03 14:48 | WD | 1 |
| | 7.28 | | S.U. | | SW-846 9040B | | 08/28/03 16:31 | SRS | 1 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 08:03 | ESA | 1 |
| Aroclor-1221 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 08:03 | ESA | 1 |
| Aroclor-1232 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 08:03 | ESA | 1 |
| Aroclor-1242 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 08:03 | ESA | 1 |
| Aroclor-1248 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 08:03 | ESA | 1 |
| Aroclor-1254 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 08:03 | ESA | 1 |
| Aroclor-1260 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 08:03 | ESA | 1 |
| Aroclor-1262 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 08:03 | ESA | 1 |
| Aroclor-1268 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 08:03 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 22:02 | SRO | 1 |
| Barium | 0.036 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 22:02 | SRO | 1 |
| Cadmium | 0.0027 | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 22:02 | SRO | 1 |
| Chromium | 0.015 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 22:02 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/02/03 13:45 | 09/02/03 19:54 | PSK | 1 |
| Lead | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 22:02 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 22:02 | SRO | 1 |
| Silver | ND M | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 08/29/03 14:57 | 09/02/03 22:02 | SRO | 1 |

Workorder: 3033596 Conestoga-Rovers & Associates Reported: 9/9/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033596009 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082203-SM-030 | Location: | |
| Collected: | 08/22/2003 07:30 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/23/2003 09:45 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:39 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:39 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:39 | JEH | 1 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 19:39 | JEH | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:39 | JEH | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:39 | JEH | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:39 | JEH | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:39 | JEH | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:39 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:39 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 19:39 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:57 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:57 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:57 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:57 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | 0.12 | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:57 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:57 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:57 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:57 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:57 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:57 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/02/03 15:21 | 09/02/03 23:57 | BPJ | 1 |

SGS CT&E Environmental Services Inc.
Michigan Division

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32684 Sybill, Inc. | Batch | VMS 4768 |
| | | Method | SW-846 8260B |
| Matrix | Solid | Date | 08/28/2003 |
| | | By | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 332143 | MB | 93.8 | 103 | 101 | 98.8 |
| 332144 | LCS | 102 | 103 | 101 | 99 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 80-124 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 87-117 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 74-123 ) |
| TOL | = | Toluene-d8 Surr | ( 92-113 ) |

Work Order: 3033596 Conestoga-Rovers & Associates Reported: 9/5/2003

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4768 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Non Aqueous Liquid | **Date** | 08/28/2003 |
| | | **By** | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3033596003 | PS | 88.1 | 105 | 101 | 93.5 |
| 3033596004 | PS | 96.1 | 103 | 99.2 | 98.4 |
| 3033596006 | PS | 94.9 | 101 | 98.3 | 98.3 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 80-124 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 87-117 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 74-123 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 92-113 )** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | VMS 4777 |
| | | Method | SW-846 8260B |
| Matrix | Aqueous | Date | 09/03/2003 |
| | | By | JDS |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3033596005 PS | 102 | 98.8 | 104 | 98.5 |
| 332380 MB | 102 | 107 | 109 | 97.5 |
| 332381 LCS | 105 | 111 | 109 | 98.8 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 79-116 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 72-132 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 77-124 ) |
| TOL | = | Toluene-d8 Surr | ( 87-110 ) |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4781 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Aqueous | **Date** | 09/03/2003 |
| | | **By** | JDS |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 332410 | MS | 104 | 109 | 105 | 96.5 |
| 332411 | MSD | 104 | 122 | 113 | 95 |
| 332415 | LCS | 105 | 108 | 108 | 97.5 |
| 332416 | MB | 103 | 103 | 105 | 97.2 |

[redacted] = 4-Bromofluorobenzene Surr (79-116)
DBFM = Dibromofluoromethane Surr (72-132)
DCA = 1,2-Dichloroethane-D4 Surr (77-124)
TOL = Toluene-d8 Surr (87-110)

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | VMS 4771 |
| | | Method | SW-846 8260B |
| Matrix | Aqueous | Instrument | HP 5972 Series INSTRU H |
| | | Date | 09/02/2003 |
| | | By | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3033596001 | PS | 104 | 106 | 106 | 98 |
| 3033596002 | PS | 104 | 116 | 112 | 96.9 |
| 3033596007 | PS | 104 | 118 | 113 | 96.2 |
| 3033596008 | PS | 103 | 104 | 106 | 98.9 |
| 3033596009 | PS | 103 | 106 | 106 | 98.1 |
| 332197 | LCS | 104 | 103 | 101 | 98.8 |
| 332198 | MB | 103 | 103 | 103 | 97.4 |
| 332202 | MS | 105 | 117 | 111 | 97.1 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 79-116 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 72-132 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 77-124 ) |
| TOL | = | Toluene-d8 Surr | ( 87-110 ) |

SGS CT&E Environmental Services Inc.
Michigan Division

[illegible]er: 3033596 Conestoga-Rovers & Associates *Reported: 9/5/2003*

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

**Sample ID** 332144 Lab Control Spike

**Prep Batch**
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.
**File** H0828_03.D

**Analysis**
**Batch** VMS 4768
**Method** SW-846 8260B
**Date** 08/28/2003
**By** JEH

QC results affect the following production samples:

3033596003, 3033596004, 3033596006

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 2500 | 2400 | 98 | | | ( 69-117 ) | | |
| 1,1,1-Trichloroethane | 2500 | 2600 | 105 | | | ( 62-124 ) | | |
| [illegible]2-Tetrachloroethane | 2500 | 2400 | 96 | | | ( 64-127 ) | | |
| 1,1,2-Trichloroethane | 2500 | 2400 | 97 | | | ( 73-116 ) | | |
| 1,1-Dichloroethane | 2500 | 2500 | 101 | | | ( 73-113 ) | | |
| 1,1-Dichloroethene | 2500 | 2800 | 111 | | | ( 57-133 ) | | |
| 1,1-Dichloropropene | 2500 | 2600 | 106 | | | ( 78-118 ) | | |
| 1,2,3-Trichlorobenzene | 2500 | 2500 | 101 | | | ( 71-127 ) | | |
| 1,2,3-Trichloropropane | 2500 | 2400 | 96 | | | ( 58-122 ) | | |
| 1,2,4-Trichlorobenzene | 2500 | 2600 | 103 | | | ( 72-128 ) | | |
| 1,2-Dibromo-3-chloropropane | 2500 | 2300 | 92 | | | ( 52-136 ) | | |
| 1,2-Dibromoethane | 2500 | 2500 | 101 | | | ( 69-123 ) | | |
| 1,2-Dichlorobenzene | 2500 | 2500 | 100 | | | ( 70-125 ) | | |
| 1,2-Dichloroethane | 2500 | 2600 | 103 | | | ( 55-120 ) | | |
| 1,2-Dichloropropane | 2500 | 2500 | 99 | | | ( 77-116 ) | | |
| 1,3-Dichlorobenzene | 2500 | 2500 | 99 | | | ( 75-121 ) | | |
| 1,3-Dichloropropane | 2500 | 2600 | 102 | | | ( 78-114 ) | | |
| 1,4-Dichlorobenzene | 2500 | 2400 | 97 | | | ( 73-117 ) | | |
| 2,2-Dichloropropane | 2500 | 2600 | 104 | | | ( 71-116 ) | | |
| 2-Butanone ( M E K ) | 2500 | 2200 | 89 | | | ( 48-168 ) | | |
| 2-Chlorotoluene | 2500 | 2400 | 98 | | | ( 84-115 ) | | |
| 4-Chlorotoluene | 2500 | 2500 | 99 | | | ( 82-121 ) | | |
| Benzene | 2500 | 2600 | 103 | | | ( 74-122 ) | | |
| Bromochloromethane | 2500 | 2400 | 95 | | | ( 71-117 ) | | |
| [illegible]modichloromethane | 2500 | 2500 | 101 | | | ( 67-122 ) | | |
| [illegible]moform | 2500 | 2700 | 108 | | | ( 53-136 ) | | |
| Bromomethane | 2500 | 1800 | 72 | | | ( 25-170 ) | | |
| Carbon tetrachloride | 2500 | 2800 | 111 | | | ( 63-133 ) | | |
| Chlorobenzene | 2500 | 2600 | 104 | | | ( 74-122 ) | | |
| Chloroethane | 2500 | 2600 | 104 | | | ( 49-132 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332144 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | VMS 4768 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | H0826_03.D | | **Date** | 08/26/2003 |
| | | | **By** | JEH |

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 2500 | 2500 | 100 | | | ( 67-114 ) | | |
| Chloromethane | 2500 | 3200 | 129 | | | ( 60-115 ) | | |
| cis-1,2-Dichloroethene | 2500 | 2500 | 99 | | | ( 79-110 ) | | |
| cis-1,3-Dichloropropene | 2500 | 2600 | 104 | | | ( 70-131 ) | | |
| Dibromochloromethane | 2500 | 2700 | 109 | | | ( 68-126 ) | | |
| Dibromomethane | 2500 | 2600 | 103 | | | ( 64-127 ) | | |
| Dichlorodifluoromethane | 2500 | 2400 | 94 | | | ( 27-129 ) | | |
| Hexachlorobutadiene | 2500 | 2500 | 99 | | | ( 64-135 ) | | |
| Hexachloroethane | 2500 | 2800 | 111 | | | ( 85-137 ) | | |
| Methylene chloride | 2500 | 2500 | 98 | | | ( 69-119 ) | | |
| Tetrachloroethene | 2500 | 2300 | 91 | | | ( 51-134 ) | | |
| trans-1,2-Dichloroethene | 2500 | 2600 | 103 | | | ( 74-116 ) | | |
| trans-1,3-Dichloropropene | 2500 | 2800 | 112 | | | ( 68-125 ) | | |
| Trichloroethene | 2500 | 2500 | 99 | | | ( 70-121 ) | | |
| Trichlorofluoromethane | 2500 | 2800 | 112 | | | ( 47-132 ) | | |
| Vinyl chloride | 2500 | 2700 | 108 | | | ( 60-125 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332381 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | VMS 4777 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32684 Sybill, Inc. | | | |
| **File** | Q0902_30.D | | **Date** | 09/02/2003 |
| | | | **By** | JDS |

QC results affect the following production samples:

3033596005

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 20 | 20 | 102 | | | ( 84-116 ) | | |
| 1,1,1-Trichloroethane | 20 | 21 | 106 | | | ( 83-118 ) | | |
| 1,1,2,2-Tetrachloroethane | 20 | 18 | 92 | | | ( 75-121 ) | | |
| 1,1,2-Trichloroethane | 20 | 20 | 100 | | | ( 82-111 ) | | |
| 1,1-Dichloroethane | 20 | 22 | 109 | | | ( 84-115 ) | | |
| 1,1-Dichloroethene | 20 | 24 | 119 | | | ( 86-121 ) | | |
| 1,1-Dichloropropene | 20 | 20 | 102 | | | ( 80-109 ) | | |
| 1,2,3-Trichlorobenzene | 20 | 17 | 84 | | | ( 83-126 ) | | |
| 1,2,3-Trichloropropane | 20 | 19 | 97 | | | ( 72-117 ) | | |
| 1,2,4-Trichlorobenzene | 20 | 17 | 84 | | | ( 79-134 ) | | |
| 1,2-Dibromo-3-chloropropane | 20 | 16 | 79 | | | ( 69-120 ) | | |
| 1,2-Dibromoethane | 20 | 20 | 101 | | | ( 85-112 ) | | |
| 1,2-Dichlorobenzene | 20 | 19 | 93 | | | ( 84-124 ) | | |
| 1,2-Dichloroethane | 20 | 21 | 107 | | | ( 77-114 ) | | |
| 1,2-Dichloropropane | 20 | 21 | 104 | | | ( 81-109 ) | | |
| 1,3-Dichlorobenzene | 20 | 18 | 91 | | | ( 82-124 ) | | |
| 1,3-Dichloropropane | 20 | 20 | 102 | | | ( 82-110 ) | | |
| 1,4-Dichlorobenzene | 20 | 18 | 90 | | | ( 83-120 ) | | |
| 2,2-Dichloropropane | 20 | 18 | 90 | | | ( 64-130 ) | | |
| 2-Butanone ( M E K ) | 20 | 21 | 105 | | | ( 63-131 ) | | |
| 2-Chlorotoluene | 20 | 19 | 94 | | | ( 78-119 ) | | |
| 4-Chlorotoluene | 20 | 19 | 94 | | | ( 80-123 ) | | |
| Benzene | 20 | 20 | 100 | | | ( 87-112 ) | | |
| Bromochloromethane | 20 | 22 | 108 | | | ( 82-116 ) | | |
| Bromodichloromethane | 20 | 21 | 105 | | | ( 88-120 ) | | |
| Bromoform | 20 | 17 | 87 | | | ( 82-119 ) | | |
| Bromomethane | 20 | 20 | 102 | | | ( 56-152 ) | | |
| Carbon tetrachloride | 20 | 20 | 98 | | | ( 80-124 ) | | |
| Chlorobenzene | 20 | 20 | 99 | | | ( 85-117 ) | | |
| Chloroethane | 20 | 27 | 133 | | | ( 76-124 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332361 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | VMS 4777 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | Q0902_30.D | | **Date** | 09/02/2003 |
| | | | **By** | JDS |

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 20 | 22 | 109 | | | ( 83-113 ) | | |
| Chloromethane | 20 | 13 | 67 | | | ( 47-139 ) | | |
| cis-1,2-Dichloroethene | 20 | 22 | 109 | | | ( 81-111 ) | | |
| cis-1,3-Dichloropropene | 20 | 20 | 101 | | | ( 83-114 ) | | |
| Dibromochloromethane | 20 | 21 | 104 | | | ( 82-128 ) | | |
| Dibromomethane | 20 | 21 | 104 | | | ( 87-118 ) | | |
| Dichlorodifluoromethane | 20 | 26 | 132 | | | ( 40-184 ) | | |
| Hexachlorobutadiene | 20 | 16 | 79 | | | ( 70-123 ) | | |
| Hexachloroethane | 20 | 18 | 88 | | | ( 76-118 ) | | |
| Methylene chloride | 20 | 23 | 113 | | | ( 72-125 ) | | |
| Tetrachloroethene | 20 | 25 | 124 | | | ( 59-148 ) | | |
| trans-1,2-Dichloroethene | 20 | 22 | 112 | | | ( 86-115 ) | | |
| trans-1,3-Dichloropropene | 20 | 22 | 108 | | | ( 85-124 ) | | |
| Trichloroethene | 20 | 21 | 104 | | | ( 83-111 ) | | |
| Trichlorofluoromethane | 20 | 26 | 130 | | | ( 77-127 ) | | |
| Vinyl chloride | 20 | 23 | 116 | | | ( 68-133 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332415 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4781 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | Q0903_03.D | **Date** | 09/03/2003 |
| | | **By** | JDS |

QC results affect the following production samples:

332410, 332411

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 20 | 20 | 102 | | | ( 84-116 ) | | |
| 1,1,1-Trichloroethane | 20 | 20 | 102 | | | ( 83-118 ) | | |
| 1,1,2,2-Tetrachloroethane | 20 | 20 | 101 | | | ( 75-121 ) | | |
| 1,1,2-Trichloroethane | 20 | 20 | 100 | | | ( 82-111 ) | | |
| 1,1-Dichloroethane | 20 | 21 | 105 | | | ( 84-115 ) | | |
| 1,1-Dichloroethene | 20 | 23 | 115 | | | ( 86-121 ) | | |
| 1,1-Dichloropropene | 20 | 21 | 104 | | | ( 80-109 ) | | |
| 1,2,3-Trichlorobenzene | 20 | 16 | 81 | | | ( 83-128 ) | | |
| 1,2,3-Trichloropropane | 20 | 21 | 103 | | | ( 72-117 ) | | |
| 1,2,4-Trichlorobenzene | 20 | 16 | 81 | | | ( 79-134 ) | | |
| 1,2-Dibromo-3-chloropropane | 20 | 17 | 83 | | | ( 69-120 ) | | |
| 1,2-Dibromoethane | 20 | 21 | 105 | | | ( 85-112 ) | | |
| 1,2-Dichlorobenzene | 20 | 19 | 93 | | | ( 84-124 ) | | |
| 1,2-Dichloroethane | 20 | 21 | 105 | | | ( 77-114 ) | | |
| 1,2-Dichloropropane | 20 | 20 | 102 | | | ( 81-109 ) | | |
| 1,3-Dichlorobenzene | 20 | 19 | 93 | | | ( 82-124 ) | | |
| 1,3-Dichloropropane | 20 | 20 | 102 | | | ( 82-110 ) | | |
| 1,4-Dichlorobenzene | 20 | 18 | 91 | | | ( 83-120 ) | | |
| 2,2-Dichloropropane | 20 | 20 | 102 | | | ( 64-130 ) | | |
| 2-Butanone ( M E K ) | 20 | 21 | 105 | | | ( 63-131 ) | | |
| 2-Chlorotoluene | 20 | 19 | 93 | | | ( 78-119 ) | | |
| 4-Chlorotoluene | 20 | 19 | 95 | | | ( 80-123 ) | | |
| Benzene | 20 | 20 | 100 | | | ( 87-112 ) | | |
| Bromochloromethane | 20 | 21 | 106 | | | ( 82-116 ) | | |
| Bromodichloromethane | 20 | 20 | 102 | | | ( 88-120 ) | | |
| Bromoform | 20 | 18 | 89 | | | ( 82-119 ) | | |
| Bromomethane | 20 | 25 | 126 | | | ( 56-152 ) | | |
| Carbon tetrachloride | 20 | 19 | 95 | | | ( 80-124 ) | | |
| Chlorobenzene | 20 | 20 | 98 | | | ( 85-117 ) | | |
| Chloroethane | 20 | 29 | 143 | | | ( 76-124 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332415 Lab Control Spike | | |
| **Prep Batch** | | **Analysis Batch** | VMS 4781 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | Q0903_03.D | **Date** | 09/03/2003 |
| | | **By** | JDS |

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 20 | 21 | 105 | | | ( 83-113 ) | | |
| Chloromethane | 20 | 19 | 95 | | | ( 47-139 ) | | |
| cis-1,2-Dichloroethene | 20 | 21 | 104 | | | ( 81-111 ) | | |
| cis-1,3-Dichloropropene | 20 | 20 | 102 | | | ( 83-114 ) | | |
| Dibromochloromethane | 20 | 21 | 107 | | | ( 82-128 ) | | |
| Dibromomethane | 20 | 20 | 101 | | | ( 87-118 ) | | |
| Dichlorodifluoromethane | 20 | 24 | 120 | | | ( 40-184 ) | | |
| Hexachlorobutadiene | 20 | 17 | 83 | | | ( 70-123 ) | | |
| Hexachloroethane | 20 | 18 | 92 | | | ( 76-118 ) | | |
| Methylene chloride | 20 | 22 | 108 | | | ( 72-125 ) | | |
| Tetrachloroethene | 20 | 20 | 98 | | | ( 59-148 ) | | |
| trans-1,2-Dichloroethene | 20 | 22 | 109 | | | ( 86-115 ) | | |
| trans-1,3-Dichloropropene | 20 | 22 | 110 | | | ( 85-124 ) | | |
| Trichloroethene | 20 | 20 | 101 | | | ( 83-111 ) | | |
| Trichlorofluoromethane | 20 | 25 | 125 | | | ( 77-127 ) | | |
| Vinyl chloride | 20 | 23 | 114 | | | ( 68-133 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332197 | Lab Control Spike | | |
| **Prep Batch** | | **Analysis Batch** | VMS 4771 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | HP 5972 Series | INSTRU H |
| **File** | Q0902_04.D | **Date** | 09/02/2003 | |
| | | **By** | JEH | |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.22 | 110 | | | ( 86-121 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.20 | 101 | | | ( 77-114 ) | | |
| [illegible]ichlorobenzene | 0.2 | 0.18 | 90 | | | ( 83-120 ) | | |
| [illegible]tanone ( M E K ) | 0.2 | 0.20 | 99 | | | ( 63-131 ) | | |
| Benzene | 0.2 | 0.20 | 99 | | | ( 87-112 ) | | |
| Carbon tetrachloride | 0.2 | 0.20 | 99 | | | ( 80-124 ) | | |
| Chlorobenzene | 0.2 | 0.20 | 99 | | | ( 85-117 ) | | |
| Chloroform | 0.2 | 0.20 | 101 | | | ( 83-113 ) | | |
| Tetrachloroethene | 0.2 | 0.22 | 110 | | | ( 59-148 ) | | |
| Trichloroethene | 0.2 | 0.20 | 101 | | | ( 83-111 ) | | |
| Vinyl chloride | 0.2 | 0.24 | 118 | | | ( 68-133 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332410 | Matrix Spike | | |
| | 332411 | Matrix Spike Duplicate | **Analysis** | |
| **Prep Batch** | VXX | 3707 | **Batch** | VMS 4781 |
| **Original** | 3033621001 | | **Method** | SW-846 8260B |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybil, Inc. | | **Date** | 09/03/2003 |
| **File** | Q0903_26.D | | **By** | JDS |
| | Q0903_27.D | | | |

QC results affect the following production samples:

3033596005

| Analyte | MS, MSD Spike Added ug/L | Sample Conc. ug/L | MS Concentration ug/L | MS Recovery % | MSD Concentration ug/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 20, 20 | | 18 | 91 | 21 | 105 | ( 85-115 ) | 15 | (< 11 ) |
| 1,1,1-Trichloroethane | 20, 20 | | 24 | 95 | 28 | 114 | ( 79-122 ) | 15 | (< 12 ) |
| 1,1,2,2-Tetrachloroethane | 20, 20 | | 18 | 92 | 20 | 100 | ( 68-127 ) | 8 | (< |
| 1,1,2-Trichloroethane | 20, 20 | | 18 | 89 | 21 | 104 | ( 75-116 ) | 16 | (< 11 ) |
| 1,1-Dichloroethane | 20, 20 | | 36 | 87 | 41 | 112 | ( 77-122 ) | 13 | (< 11 ) |
| 1,1-Dichloroethene | 20, 20 | | 24 | 112 | 29 | 132 | ( 80-123 ) | 16 | (< 14 ) |
| 1,1-Dichloropropene | 20, 20 | | 19 | 94 | 21 | 107 | ( 77-118 ) | 14 | (< 13 ) |
| 1,2,3-Trichlorobenzene | 20, 20 | | 13 | 66 | 16 | 78 | ( 70-113 ) | 17 | (< 20 ) |
| 1,2,3-Trichloropropane | 20, 20 | | 19 | 93 | 21 | 103 | ( 83-115 ) | 11 | (< 18 ) |
| 1,2,4-Trichlorobenzene | 20, 20 | | 14 | 69 | 16 | 79 | ( 72-110 ) | 15 | (< 19 ) |
| 1,2-Dibromo-3-chloropropane | 20, 20 | | 14 | 71 | 16 | 78 | ( 59-127 ) | 10 | (< 23 ) |
| 1,2-Dibromoethane | 20, 20 | ND | 18 | 88 | 21 | 105 | ( 82-114 ) | 18 | (< 11 ) |
| 1,2-Dichlorobenzene | 20, 20 | | 17 | 84 | 18 | 92 | ( 79-116 ) | 9 | (< 14 ) |
| 1,2-Dichloroethane | 20, 20 | ND | 19 | 93 | 21 | 107 | ( 82-114 ) | 14 | (< 11 ) |
| 1,2-Dichloropropane | 20, 20 | | 18 | 91 | 21 | 103 | ( 79-114 ) | 12 | (< 12 ) |
| 1,3-Dichlorobenzene | 20, 20 | | 17 | 83 | 18 | 91 | ( 80-112 ) | 9 | (< 14 ) |
| 1,3-Dichloropropane | 20, 20 | | 18 | 91 | 21 | 106 | ( 77-118 ) | 16 | (< 13 ) |
| 1,4-Dichlorobenzene | 20, 20 | | 16 | 81 | 18 | 89 | ( 77-112 ) | 9 | (< 14 ) |
| 2,2-Dichloropropane | 20, 20 | | 18 | 91 | 21 | 105 | ( 48-131 ) | 14 | (< 14 ) |
| 2-Butanone ( M E K ) | 20, 20 | | 18 | 91 | 23 | 115 | ( 55-147 ) | 24 | (< 28 ) |
| 2-Chlorotoluene | 20, 20 | | 17 | 85 | 18 | 91 | ( 83-110 ) | 7 | (< 15 ) |
| 4-Chlorotoluene | 20, 20 | | 17 | 87 | 19 | 94 | ( 82-112 ) | 7 | (< 15 ) |
| Benzene | 20, 20 | ND | 18 | 91 | 20 | 102 | ( 77-120 ) | 11 | (< 11 ) |
| Bromochloromethane | 20, 20 | | 18 | 91 | 22 | 110 | ( 71-122 ) | 19 | (< 12 ) |
| Bromodichloromethane | 20, 20 | | 18 | 91 | 21 | 103 | ( 81-112 ) | 12 | (< 12 |
| Bromoform | 20, 20 | | 16 | 78 | 18 | 89 | ( 68-121 ) | 13 | (< 1 |
| Bromomethane | 20, 20 | | 21 | 107 | 28 | 139 | ( 43-147 ) | 26 | (< 28 ) |
| Carbon tetrachloride | 20, 20 | | 18 | 89 | 20 | 100 | ( 86-120 ) | 12 | (< 13 ) |
| Chlorobenzene | 20, 20 | | 18 | 89 | 19 | 95 | ( 82-112 ) | 7 | (< 12 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332410 | Matrix Spike | | |
| | 332411 | Matrix Spike Duplicate | **Analysis** | |
| **Prep Batch** | VXX 3707 | | **Batch** | VMS 4781 |
| **Original** | 3033621001 | | **Method** | SW-846 8260B |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32684 Sybill, Inc. | | **Date** | 09/03/2003 |
| **File** | Q0903_26.D | | **By** | JDS |
| | Q0903_27.D | | | |

| Analyte | MS, MSD Spike Added ug/L | Sample Conc. ug/L | MS Concentration ug/L | MS Recovery % | MSD Concentration ug/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloroethane | 20, 20 | | 25 | 125 | 30 | 152 | (77-126) | 19 | (< 14) |
| Chloroform | 20, 20 | | 19 | 96 | 22 | 112 | (79-114) | 16 | (< 11) |
| Chloromethane | 20, 20 | | 21 | 104 | 31 | 157 | (56-126) | 40 | (< 19) |
| cis-1,2-Dichloroethene | 20, 20 | | 19 | 94 | 22 | 111 | (71-114) | 17 | (< 11) |
| [illegible]3-Dichloropropene | 20, 20 | | 18 | 89 | 20 | 102 | (75-114) | 14 | (< 12) |
| [illegible]mochloromethane | 20, 20 | | 18 | 91 | 22 | 109 | (81-114) | 18 | (< 13) |
| Dibromomethane | 20, 20 | | 17 | 87 | 20 | 101 | (82-118) | 15 | (< 14) |
| Dichlorodifluoromethane | 20, 20 | | 24 | 119 | 28 | 138 | (28-153) | 15 | (< 14) |
| Hexachlorobutadiene | 20, 20 | | 13 | 66 | 15 | 75 | (59-118) | 13 | (< 24) |
| Hexachloroethane | 20, 20 | | 16 | 79 | 18 | 89 | (82-124) | 11 | (< 22) |
| Methylene chloride | 20, 20 | | 18 | 90 | 22 | 106 | (81-117) | 17 | (< 13) |
| Tetrachloroethene | 20, 20 | | 16 | 81 | 17 | 86 | (56-110) | 6 | (< 12) |
| trans-1,2-Dichloroethene | 20, 20 | | 20 | 100 | 24 | 119 | (79-120) | 17 | (< 13) |
| trans-1,3-Dichloropropene | 20, 20 | | 19 | 93 | 22 | 109 | (78-123) | 15 | (< 13) |
| Trichloroethene | 20, 20 | | 18 | 91 | 21 | 104 | (83-113) | 13 | (< 13) |
| Trichlorofluoromethane | 20, 20 | | 24 | 122 | 29 | 146 | (74-131) | 18 | (< 16) |
| Vinyl chloride | 20, 20 | | 22 | 111 | 28 | 138 | (68-117) | 21 | (< 13) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332202 | Matrix Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4771 | |
| **Original** | 3033596007 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU Q |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/02/2003 | |
| **File** | Q0902_25.D | | **By** | JEH | |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.26 | 128 | | | (71-144) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.22 | 108 | | | (67-121) | | |
| 1,4-Dichlorobenzene | 0.2 | ND | 0.18 | 89 | | | (51-145) | | |
| 2-Butanone (MEK) | 0.2 | ND | 0.27 | 110 | | | (32-134) | | |
| Benzene | 0.2 | ND | 0.21 | 104 | | | (76-127) | | |
| Carbon tetrachloride | 0.2 | ND | 0.20 | 101 | | | (83-130) | | |
| Chlorobenzene | 0.2 | ND | 0.19 | 97 | | | (86-117) | | |
| Chloroform | 0.2 | ND | 0.23 | 114 | | | (71-137) | | |
| Tetrachloroethene | 0.2 | ND | 0.18 | 89 | | | (55-113) | | |
| Trichloroethene | 0.2 | ND | 0.22 | 108 | | | (80-122) | | |
| Vinyl chloride | 0.2 | ND | 0.27 | 136 | | | (59-145) | | |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332143 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4768 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | H0828_06.D | | | |
| | | | **Date** | 08/28/2003 |
| | | | **By** | JEH |

QC results affect the following production samples:

3033596003, 3033596004, 3033596006

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 70 |
| 1,1,1-Trichloroethane | ND | 35 |
| 1,1,2,2-Tetrachloroethane | ND | 70 |
| 1,1,2-Trichloroethane | ND | 35 |
| 1,1-Dichloroethane | ND | 35 |
| [illegible]-Dichloroethene | ND | 35 |
| [illegible]-Dichloropropene | ND | 35 |
| 1,2,3-Trichlorobenzene | ND | 150 |
| 1,2,3-Trichloropropane | ND | 70 |
| 1,2,4-Trichlorobenzene | ND | 150 |
| 1,2-Dibromo-3-chloropropane | ND | 150 |
| 1,2-Dibromoethane | ND | 150 |
| 1,2-Dichlorobenzene | ND | 70 |
| 1,2-Dichloroethane | ND | 35 |
| 1,2-Dichloropropane | ND | 35 |
| 1,3-Dichlorobenzene | ND | 70 |
| 1,3-Dichloropropane | ND | 35 |
| 1,4-Dichlorobenzene | ND | 70 |
| 2,2-Dichloropropane | ND | 35 |
| 2-Butanone ( M E K ) | ND | 300 |
| 2-Chlorotoluene | ND | 35 |
| 4-Chlorotoluene | ND | 35 |
| Benzene | ND | 35 |
| Bromochloromethane | ND | 70 |
| Bromodichloromethane | ND | 70 |
| Bromoform | ND | 70 |
| Bromomethane | ND | 150 |
| Carbon tetrachloride | ND | 35 |
| Chlorobenzene | ND | 35 |
| Chloroethane | ND | 150 |
| [illegible]loroform | ND | 35 |
| [illegible]romethane | ND | 150 |
| cis-1,2-Dichloroethene | ND | 35 |
| cis-1,3-Dichloropropene | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332143 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4768 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | H0828_06.D | | | |
| | | | **Date** | 08/28/2003 |
| | | | **By** | JEH |

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Dibromochloromethane | ND | 70 |
| Dibromomethane | ND | 150 |
| Dichlorodifluoromethane | ND | 70 |
| Hexachlorobutadiene | ND | 150 |
| Hexachloroethane | ND | 150 |
| Methylene chloride | ND | 150 |
| Tetrachloroethene | ND | 35 |
| trans-1,2-Dichloroethene | ND | 35 |
| trans-1,3-Dichloropropene | ND | 35 |
| Trichloroethene | ND | 35 |
| Trichlorofluoromethane | ND | 70 |
| Vinyl chloride | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332380 Method Blank | | |
| **Prep Batch** | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | VMS 4777 |
| **Project** | Project 32684 Sybill, Inc. | **Method** | SW-846 8260B |
| **File** | Q0902_32.D | | |
| | | **Date** | 09/03/2003 |
| | | **By** | JDS |

QC results affect the following production samples:

3033596005

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 1.0 |
| 1,1,1-Trichloroethane | ND | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 |
| 1,1,2-Trichloroethane | ND | 1.0 |
| 1,1-Dichloroethane | ND | 1.0 |
| 1,1-Dichloroethene | ND | 1.0 |
| 1,1-Dichloropropene | ND | 1.0 |
| 1,2,3-Trichlorobenzene | ND | 5.0 |
| 1,2,3-Trichloropropane | ND | 1.0 |
| 1,2,4-Trichlorobenzene | ND | 5.0 |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 |
| 1,2-Dibromoethane | ND | 1.0 |
| 1,2-Dichlorobenzene | ND | 1.0 |
| 1,2-Dichloroethane | ND | 1.0 |
| 1,2-Dichloropropane | ND | 1.0 |
| 1,3-Dichlorobenzene | ND | 1.0 |
| 1,3-Dichloropropane | ND | 1.0 |
| 1,4-Dichlorobenzene | ND | 1.0 |
| 2,2-Dichloropropane | ND | 1.0 |
| 2-Butanone ( M E K ) | ND | 25 |
| 2-Chlorotoluene | ND | 1.0 |
| 4-Chlorotoluene | ND | 1.0 |
| Benzene | ND | 1.0 |
| Bromochloromethane | ND | 1.0 |
| Bromodichloromethane | ND | 1.0 |
| Bromoform | ND | 1.0 |
| Bromomethane | ND | 1.0 |
| Carbon tetrachloride | ND | 1.0 |
| Chlorobenzene | ND | 1.0 |
| Chloroethane | ND | 1.0 |
| Chloroform | ND | 1.0 |
| Chloromethane | ND | 1.0 |
| cis-1,2-Dichloroethene | ND | 1.0 |
| cis-1,3-Dichloropropene | ND | 1.0 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332380 Method Blank | | |
| **Prep Batch** | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | VMS 4777 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 8260B |
| **File** | Q0902_32.D | | |
| | | **Date** | 09/03/2003 |
| | | **By** | JDS |

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Dibromochloromethane | ND | 1.0 |
| Dibromomethane | ND | 5.0 |
| Dichlorodifluoromethane | ND | 1.0 |
| Hexachlorobutadiene | ND | 1.0 |
| Hexachloroethane | ND | 5.0 |
| Methylene chloride | ND | 5.0 |
| Tetrachloroethene | ND | 1.0 |
| trans-1,2-Dichloroethene | ND | 1.0 |
| trans-1,3-Dichloropropene | ND | 1.0 |
| Trichloroethene | ND | 1.0 |
| Trichlorofluoromethane | ND | 1.0 |
| Vinyl chloride | ND | 1.0 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332416 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4781 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | Q0903_05.D | | | |
| | | | **Date** | 09/03/2003 |
| | | | **By** | JDS |

QC results affect the following production samples:

332410, 332411

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 1.0 |
| 1,1,1-Trichloroethane | ND | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 |
| 1,1,2-Trichloroethane | ND | 1.0 |
| 1,1-Dichloroethane | ND | 1.0 |
| 1,1-Dichloroethene | ND | 1.0 |
| 1,1-Dichloropropene | ND | 1.0 |
| 1,2,3-Trichlorobenzene | ND | 5.0 |
| 1,2,3-Trichloropropane | ND | 1.0 |
| 1,2,4-Trichlorobenzene | ND | 5.0 |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 |
| 1,2-Dibromoethane | ND | 1.0 |
| 1,2-Dichlorobenzene | ND | 1.0 |
| 1,2-Dichloroethane | ND | 1.0 |
| 1,2-Dichloropropane | ND | 1.0 |
| 1,3-Dichlorobenzene | ND | 1.0 |
| 1,3-Dichloropropane | ND | 1.0 |
| 1,4-Dichlorobenzene | ND | 1.0 |
| 2,2-Dichloropropane | ND | 1.0 |
| 2-Butanone ( M E K ) | ND | 25 |
| 2-Chlorotoluene | ND | 1.0 |
| 4-Chlorotoluene | ND | 1.0 |
| Benzene | ND | 1.0 |
| Bromochloromethane | ND | 1.0 |
| Bromodichloromethane | ND | 1.0 |
| Bromoform | ND | 1.0 |
| Bromomethane | ND | 1.0 |
| Carbon tetrachloride | ND | 1.0 |
| Chlorobenzene | ND | 1.0 |
| Chloroethane | ND | 1.0 |
| Chloroform | ND | 1.0 |
| Chloromethane | ND | 1.0 |
| cis-1,2-Dichloroethene | ND | 1.0 |
| cis-1,3-Dichloropropene | ND | 1.0 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332416 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4781 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | Q0903_05.D | | | |
| | | | **Date** | 09/03/2003 |
| | | | **By** | JDS |

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Dibromochloromethane | ND | 1.0 |
| Dibromomethane | ND | 5.0 |
| Dichlorodifluoromethane | ND | 1.0 |
| Hexachlorobutadiene | ND | 1.0 |
| Hexachloroethane | ND | 5.0 |
| Methylene chloride | ND | 5.0 |
| Tetrachloroethene | ND | 1.0 |
| trans-1,2-Dichloroethene | ND | 1.0 |
| trans-1,3-Dichloropropene | ND | 1.0 |
| Trichloroethene | ND | 1.0 |
| Trichlorofluoromethane | ND | 1.0 |
| Vinyl chloride | ND | 1.0 |

Workorder: 3033596 Conestoga-Rovers & Associates Reported: 9/5/2003

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332198 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4771 | |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SW-846 8260B | |
| **File** | Q0902_06.D | | **Instrument** | HP 5972 Series | INSTRU H |
| | | | **Date** | 09/02/2003 | |
| | | | **By** | JEH | |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K ) | ND | 0.050 |
| Benzene | ND | 0.010 |
| [illegible]on tetrachloride | ND | 0.010 |
| [illegible]orobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XMS 2808 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/02/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033596007 PS | 27 | 45.3 | 44 | 21.2 | 54 | 49.4 |
| 3033596008 PS | 34.7 | 57.2 | 54 | 26.7 | 74.7 | 51.8 |
| 3033596009 PS | 34.8 | 55.4 | 54.6 | 27.7 | 70.9 | 66.4 |
| 331973 MB | 32.5 | 49.3 | 50.3 | 24.5 | 68.5 | 80.6 |
| 331974 LCS | 31.6 | 49.9 | 49.9 | 25.2 | 58.9 | 54.9 |
| 331975 LCSD | 36 | 58.5 | 57.9 | 27.8 | 75.4 | 77.2 |
| 331978 MS | 37.9 | 60.8 | 61.5 | 29.4 | 71.3 | 66.2 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2810 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/03/2003 |
| | | **By** | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033596001 | PS | 28 | 50.9 | 57.9 | 24.7 | 66.7 | 114 |
| 3033596002 | PS | 28.1 | 51.3 | 56.6 | 21.7 | 52.3 | 46.3 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 331974 | Lab Control Spike | | | |
| | 331975 | Lab Control Spike Dup | **Analysis** | | |
| **Prep Batch** | XXX | 5909 | **Batch** | XMS | 2808 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C | |
| **Project** | Project 32864 Sybil, Inc. | | | | |
| **File** | L0902_05.D | | **Date** | 09/02/2003 | |
| | L0902_06.D | | **By** | BPJ | |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.12 | 58 | 0.14 | 71 | ( 36-135 ) | 20 | (< 27 ) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.12 | 60 | 0.14 | 71 | ( 32-140 ) | 18 | (< 27 ) |
| [illegible]itrotoluene | 0.05, 0.05 | 0.029 | 58 | 0.040 | 80 | ( 47-140 ) | 32 | (< 30 ) |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.092 | 46 | 0.11 | 54 | ( 27-119 ) | 16 | (< 33 ) |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.11 | 44 | 0.13 | 51 | ( 25-112 ) | 16 | (< 33 ) |
| Hexachlorobenzene | 0.05, 0.05 | 0.029 | 58 | 0.038 | 76 | ( 36-138 ) | 27 | (< 16 ) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.021 | 42 | 0.026 | 51 | ( 18-122 ) | 20 | (< 26 ) |
| Hexachloroethane | 0.05, 0.05 | 0.020 | 39 | 0.023 | 46 | ( 16-112 ) | 17 | (< 24 ) |
| Nitrobenzene | 0.05, 0.05 | 0.026 | 52 | 0.031 | 61 | ( 27-128 ) | 16 | (< 24 ) |
| Pentachlorophenol | 0.2, 0.2 | 0.13 | 63 | 0.17 | 87 | ( 45-162 ) | 32 | (< 17 ) |
| Pyridine | 0.05, 0.05 | 0.013 | 25 | 0.015 | 30 | ( 12-68 ) | 17 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331978 Matrix Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5909 | **Batch** | XMS 2808 | |
| **Original** | 3033596009 | **Method** | SW-846 8270C | |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/03/2003 | |
| **File** | L0902_15.D | **By** | BPJ | |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.14 | 72 | | | ( 39-116 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.15 | 75 | | | ( 39-114 ) | | |
| 2,4-Dinitrotoluene | 0.05 | ND | 0.035 | 71 | | | ( 46-125 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.11 | 55 | | | ( 28-101 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | 0.12 | 0.26 | 55 | | | ( 31-96 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.034 | 68 | | | ( 39-116 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.031 | 62 | | | ( 24-91 ) | | |
| Hexachloroethane | 0.05 | ND | 0.028 | 57 | | | ( 23-90 ) | | |
| Nitrobenzene | 0.05 | ND | 0.032 | 64 | | | ( 28-113 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.13 | 66 | | | ( 42-136 ) | | |
| Pyridine | 0.05 | ND | 0.019 | 38 | | | ( 4.5-59 ) | | |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331973 | Method Blank | | |
| **Prep Batch** | XXX | 5909 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XMS 2808 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SW-846 8270C |
| **File** | L0902_04.D | | | |
| | | | **Date** | 09/02/2003 |
| | | | **By** | BPJ |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| [illegible]chlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3807 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 08/29/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033596008 | PS | 63.3 | 60.7 |
| 3033596009 | PS | 65.3 | 54 |
| 331746 | MB | 82 | 1.67 |
| 331747 | LCS | 78.3 | 42.7 |
| [illegible]748 | LCSD | 80.3 | 49.3 |

**DCB** = **Decachlorobiphenyl Surr** **( 14-91 )**
**TMX** = **Tetrachloro-m-xylene Surr** **( 17-94 )**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3610 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/02/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033596001 | PS | 33.7 | 30.7 |

| | | | |
|---|---|---|---|
| **DCB** | = | **Decachlorobiphenyl Surr** | **( 14-91 )** |
| **TMX** | = | **Tetrachloro-m-xylene Surr** | **( 17-94 )** |

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3812 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/03/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033596002 | PS | 42.7 | 42 |
| 3033596005 | PS | 94 | 63.3 |
| 3033596007 | PS | 42 | 41 |

**DCB = Decachlorobiphenyl Surr (14-91)**
**TMX = Tetrachloro-m-xylene Surr (17-94)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3814 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/04/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 332063 | MB | 85.3 | 38 |
| 332064 | LCS | 86 | 47.3 |
| 332065 | LCSD | 95.7 | 54.3 |

**DCB** = **Decachlorobiphenyl Surr** **( 14-91 )**
**TMX** = **Tetrachloro-m-xylene Surr** **( 17-94 )**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XGC 3806 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 08/28/2003 |
| | | **By** | JL |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033596003 | PS | 72 | 86 |
| 3033596006 | PS | 91.3 | 71.3 |
| 331581 | MB | 67.3 | 84 |
| 331582 | LCS | 70.3 | 81.3 |
| [illegible]583 | LCSD | 69 | 79.3 |
| 331584 | MS | 53.3 | 98.7 |
| 331585 | MSD | 58 | 98 |

**DCB = Decachlorobiphenyl Surr ( 25-170 )**
**TMX = Tetrachloro-m-xylene Surr ( 25-150 )**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybil, Inc. | **Batch** | XGC 3809 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 08/29/2003 |
| | | **By** | JL |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033596004 | PS | 80.3 | 83.7 |

**DCB** = **Decachlorobiphenyl Surr** **( 25-170 )**
**TMX** = **Tetrachloro-m-xylene Surr** **( 25-150 )**

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331747 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5900 | **Batch** | XGC 3807 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | EPA 608 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U | |
| | | **Date** | 08/29/2003 | |
| | | **By** | ESA | |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | LCS/LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.64 | 64 | 0.68 | 68 | ( 38-158 ) | 6 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.96 | 96 | 1.0 | 101 | ( 10-127 ) | 5 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332084 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5913 | **Batch** | XGC 3814 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | EPA 608 | |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U | |
| | | **Date** | 09/04/2003 | |
| | | **By** | ESA | |

QC results affect the following production samples:

3033596005

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.53 | 53 | 0.62 | 62 | ( 38-158 ) | 16 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.71 | 71 | 0.77 | 77 | ( 10-127 ) | 8 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331582 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5896 | **Batch** | XGC 3806 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32864 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 08/28/2003 |
| | | **By** | JL |

QC results affect the following production samples:

3033596003, 3033596004, 3033596006

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration mg/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.7, 9.8 | 6.2 | 64 | 6.2 | 63 | (25-141) | 0 | (< 20) |
| Aroclor-1260 | 9.7, 9.8 | 6.0 | 62 | 6.1 | 62 | (29-170) | 1 | (< 20) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331584 Matrix Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5896 | **Batch** | XGC 3806 | |
| **Original** | 3033649001 | **Method** | SW-846 8082 | |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-C | |
| **Project** | Project 32684 Sybill, Inc. | **Date** | 08/28/2003 | |
| | | **By** | JL | |

QC results affect the following production samples:

3033596003, 3033596004, 3033596005, 3033596006

| Analyte | MS, MSD Spike Added mg/Kg | Sample Conc. mg/Kg | MS Concentration mg/Kg | MS Recovery % | MSD Concentration mg/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.9, 9.9 | ND | 6.7 | 68 | 6.7 | 68 | ( 22-196 ) | 1 | (< 20 ) |
| Aroclor-1260 | 9.9, 9.9 | ND | 5.3 | 54 | 5.6 | 56 | ( 49-187 ) | 5 | (< 20 ) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331746 | Method Blank | | |
| **Prep Batch** | XXX | 5900 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XGC 3807 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | EPA 608 |
| | | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 08/29/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332063 | Method Blank | | |
| **Prep Batch** | XXX | 5913 | | |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | | |

**Analysis**

| | |
|---|---|
| **Batch** | XGC 3814 |
| **Method** | EPA 608 |
| **Instrument** | Varian 3400 ECD INST-U |
| **Date** | 09/04/2003 |
| **By** | ESA |

QC results affect the following production samples:

3033596005

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

[redacted]er: 3033596 Conestoga-Rovers & Associates *Reported:* *9/5/2003*

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331581 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5896 | **Batch** | XGC 3806 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 08/28/2003 |
| | | **By** | JL |

QC results affect the following production samples:

3033596003, 3033596004, 3033596006

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Aroclor-1016 | ND | 0.98 |
| Aroclor-1221 | ND | 0.98 |
| Aroclor-1232 | ND | 0.98 |
| Aroclor-1242 | ND | 0.98 |
| Aroclor-1248 | ND | 0.98 |
| [redacted]r-1254 | ND | 0.98 |
| Aroclor-1260 | ND | 0.98 |
| Aroclor-1262 | ND | 0.98 |
| Aroclor-1268 | ND | 0.98 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331908 Lab Control Spike TCLP | | |
| **Prep Batch** | MXX 11270 | **Analysis Batch** | MIM 5673 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | n:\icpms\elandata\dataset\090203\LCS.084 | **Date** | 09/02/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 103 | | | ( 50-150 ) | | |
| Barium | 1 | 1.0 | 103 | | | ( 50-150 ) | | |
| Cadmium | 1 | 0.99 | 99 | | | ( 50-150 ) | | |
| Chromium | 1 | 1.0 | 102 | | | ( 50-150 ) | | |
| Lead | 1 | 1.0 | 105 | | | ( 50-150 ) | | |
| Selenium | 1 | 1.0 | 102 | | | ( 50-150 ) | | |
| Silver | 1 | 1.0 | 104 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331915 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11270 | **Batch** | MIM 5673 |
| **Original** | 3033596009 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybil, Inc. | **Date** | 09/02/2003 |
| **File** | n:\icpms\elandata\dataset\090203\3033596009 MS.100 | **By** | SRO |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | ND | 1.0 | 100 | | | (50-150) | | |
| Barium | 1 | 0.036 | 1.1 | 103 | | | (50-150) | | |
| Cadmium | 1 | 0.0027 | 0.97 | 97 | | | (50-150) | | |
| Chromium | 1 | 0.015 | 1.0 | 101 | | | (50-150) | | |
| Lead | 1 | ND | 1.0 | 103 | | | (50-150) | | |
| Selenium | 1 | ND | 0.67 | 68 | | | (50-150) | | |
| Silver | 1 | ND | 0.085 | 9 | | | (50-150) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331911 Method Blank | | | |
| **Prep Batch** | MXX 11270 | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MIM 5673 | |
| **Project** | Project 32884 Sybill, Inc. | **Method** | SW-846 6020 | |
| **File** | n:\icpms\elandata\dataset\090203\MB.083 | **Instrument** | SCIEX ELAN 6100 ICP/MS | |
| | | **Date** | 09/02/2003 | |
| | | **By** | SRO | |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| [illegible]ium | ND | 0.016 |
| [illegible]er | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332078 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11276 | **Batch** | MCV 2005 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090203W1.TXT | **Date** | 09/02/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0021 | 104 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332066 Matrix Spike TCLP | | | |
| | | **Analysis** | | |
| **Prep Batch** | MXX 11276 | **Batch** | MCV 2005 | |
| **Original** | 3033596001 | **Method** | SW-846 7470A | |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium | |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/02/2003 | |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090203W1.TXT | **By** | PSK | |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.014 | 69 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332077 Method Blank | | | |
| **Prep Batch** | MXX 11276 | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MCV 2005 | |
| **Project** | Project 32684 Sybil, Inc. | **Method** | SW-846 7470A | |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090203W1.TXT | **Instrument** | PSA Millenium | |
| | | **Date** | 09/02/2003 | |
| | | **By** | PSK | |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332020 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | WXX 3423 | **Batch** | WLA 1450 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat | |
| **File** | rcn 9-2-03.xls | **Date** | 09/02/2003 | |
| | | **By** | MAH | |

QC results affect the following production samples:

3033596009

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 0.47 | 9 | | | ( 2.6-49 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332125 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | WXX 3427 | **Batch** | WLA 1451 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| **File** | rcn 9-3-03.xls | **Date** | 09/02/2003 |
| | | **By** | MAH |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 1.4 | 28 | | | ( 2.8-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332021 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3423 | **Batch** | WLA 1450 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| **File** | rcn 9-2-03.xls | **Date** | 09/02/2003 |
| | | **By** | MAH |

QC results affect the following production samples:

3033596009

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332124 | Method Blank | | |
| **Prep Batch** | WXX | 3427 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | WLA 1451 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 7.3.3.2 |
| **File** | rcn 9-3-03.xls | | **Instrument** | Quick Chem 8000 Lachat |
| | | | **Date** | 09/02/2003 |
| | | | **By** | MAH |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332049 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3424 | **Batch** | WAT 1826 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/02/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3033596009

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 320 | 77 | | | ( 57-109 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332113 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | WXX 3426 | **Batch** | WAT 1827 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 09/02/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008

| Analyte | LCS/LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 390 | 95 | | | ( 57-109 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332048 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3424 | **Batch** | WAT 1826 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32684 Sybil, Inc. | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 09/02/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033596009

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332112 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3426 | **Batch** | WAT 1827 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 09/02/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332050 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3424 | **Batch** | WAT 1826 |
| **Original** | 3033596009 | **Method** | SW-846 7.3.4.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | No Instrument, Manual Handling |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/02/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033596009

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 50 | 0.00 | (< 20 ) |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332114 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3426 | **Batch** | WAT 1827 |
| **Original** | 3033673011 | **Method** | SW-846 7.3.4.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | No Instrument, Manual Handling |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/02/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 50 | 0.00 | (< 20 ) |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331735 | pH Calibration Standard | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2063 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 08/28/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |
| [redacted]. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331739 | Quality Control Sample | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2063 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 08/28/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 8.01 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331740 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3033595001 | **Batch** | WPH 2063 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 08/28/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033596001, 3033596002, 3033596007, 3033596008, 3033596009

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 7.76 | 7.73 | | 0.39 | (< 20) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332297 Flashpoint Calibration Std. | **Analysis** | |
| **Prep Batch** | | **Batch** | MXX 11284 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 1010 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 09/03/2003 |
| | | **By** | WD |

QC results affect the following production samples:

3033596001, 3033596002, 3033596003, 3033596004, 3033596005, 3033596006, 3033596007, 3033596008, 3033596009

| Analyte | LCS,LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 81 | 101 | | | ( 98-102 ) | | |

SGS

REC'D CRA
SEP 15 2003
SDG: 8

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033673

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

ORIGINAL ANALYTICAL REPORT
Project#: 32664 Lab#: 3033673
Name: SYBILL, INC.
Description
Event: 12 mix
Samples:
Analysis: VOC, SVOC, RCT, PCB
RCRA MTL
TAT: 7 day
Lab: SGS
Checked Against Preliminary Data:
Date: 9-15-03 Init.: K.B.
Date of Validation Memo: 9-19-03
Invoice Approval Date:
Comments:

Approval Signature: Tamela M. Johnson

Date Issued: 9-12-03
Total Pages: 121

# Laboratory Narrative
# &
# Supporting Documentation

303367

CT&E Environmental Services Inc.

**CRA** 167120 COC Serial

tory Name): CT&E (SGS)

CONESTOGA-ROVERS & ASSOCIATES, INC.
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

1200 Conrad Industrial Drive, Ludington MI 49431

# CHAIN OF CUSTODY RECORD

REFERENCE NUMBER: 32664

PROJECT NAME: Sybill, Inc

SAMPLER'S SIGNATURE: Shawn McLean PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | TCL VOC | Freon | Ignitability | TCBs | Full TCLP | RCI | RCRA Metals | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8-26-03 | | L-32664-082503-SM-032 | L | 4 | | | | ✓ | ✓ | ✓ | | | | | ASAP |
| 2 | | | -033 | L | 1 | | | | ✓ | ✓ | ✓ | | | | | |
| 3 | | | -034 | L | 4 | | | | ✓ | ✓ | ✓ | | | | | |
| 4 | | | -035 | L | 4 | | | | ✓ | ✓ | ✓ | | | | | |
| 5 | | | -036 | L | 4 | | | | ✓ | ✓ | ✓ | | | | | |
| 6 | | | -037 | L | 4 | ✓ | ✓ | ✓ | ✓ | | | | | | | |
| 7 | | | -038 | L | 4 | | | | ✓ | ✓ | ✓ | | | | | |
| 8 | | | -039 | L | 4 | | | | ✓ | ✓ | ✓ | | | | | |
| 9 | | | -040 | S | 1 | | | | ✓ | ✓ | ✓ | | | | | |
| 10 | | | -041 | S | 1 | | | | ✓ | ✓ | ✓ | | | | | |
| 11 | | | -042 | L | 4 | | | | ✓ | ✓ | ✓ | | | | | |
| 12 | 8-27-03 | | -043 | L | 4 | | | | | | | ✓ | | | | |
| ~~13~~ | | | | | | | | | | | | | | | | |
| ~~14~~ | | | | | | | | | | | | | | | | |

TOTAL NUMBER OF CONTAINERS

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. Shawn McLean | DATE: 8-27-03 TIME: 1130 | RECEIVED BY: 1. [signature] | DATE: 8/27/03 TIME: 1130 |
| RELINQUISHED BY: 2. [signature] | DATE: 8/27/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: Lab courier AIR BILL No.

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24030

SAMPLE TEAM: [signature]

RECEIVED FOR LABORATORY BY: [signature]

DATE: 8/28/03 TIME: 9.00

1001 (FORMS)-APRIL 29, 93-REV.0-(C)(F-01)

5°C - 6°C

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033673

***Sample Collection and Receipt -***

Twelve samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on August 26 and 27, 2003. The sample containers were released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

Two coolers were received at SGS on August 28, 2003 in good condition, on ice and at temperatures of 5°C and 6°C. Following log-in, the sample was stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

Per the fax received on August 26, 2003 client samples L-32664-082503-SM-032, 035, 036, 038, 039, 040, 041 and 042 were analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the samples were extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. The leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals. Client samples, L-32664-082503-SM-028, 033, 034 and 037, were analyzed for Flashpoint, PCBs and VOCs. Client sample L-32664-082503-SM-043 was analyzed for RCRA metals. The client requested on September 5, 2003 that sample L-32664-082503-SM-043 be analyzed for TCLP Mercury.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

Laboratory sample 3033673005 was analyzed for SVOCs at a X5 dilution due to analyte level.

The SVOCs were extracted at the following dilutions:
X10: 3033673004, 3033673007, 3033673008, 3033673011
X20: 3033673001

Laboratory sample 3033637006 was analyzed for PCBs at a X2 dilution due to matrix interference.

PCBs were extracted at the following dilutions:
10X: 3033673005
20X: 3033673011
40X: 3033673001, 3033673004, 3033673007, 3033673008

Laboratory sample 3033673012 was analyzed for RCRA Metals, except Mercury, at a X5 dilution due to matrix interference.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033673

***Quality Control (QC) –continued***

*GC/MS Volatiles Analysis*

The surrogate recovery was below the lower control limit for Dibromofluoromethane in samples 3033673008 and 3033673011 associated with analytical batch VMS 4771. The low surrogate recovery for both samples was confirmed by reanalysis.

*GC/MS Semi-Volatiles Analysis*

The surrogate recovery for 2-Fluorobiphenyl was below the lower control limit in sample 3033673005 associated with analytical batch XMS 2811, which was confirmed by the MS analysis.

The surrogate recovery was above the upper control limit for Phenol-d5 in sample 3033673008 associated with analytical batch XMS 2811. The alternate surrogates were acceptable.

The relative percent difference (RPD) was above QC acceptance criteria for 2,4-Dinitrotoluene, Hexachlorobenzene and Pentachlorophenol in the LCS associated with preparation batch XXX 5909. No corrective action was initiated on the basis of the RPD results.

The recoveries for Hexachlorobenzene, Hexachlorobutadiene, Hexachloroethane, Nitrobenzene, Pentachlorophenol and Pyridine were below the lower control limits in the MS on sample 3033673005 associated with preparation batch XXX 5909. These compounds for sample 3033673005 may be biased low.

*GC PCB Analysis*

The surrogate recovery for Decachlorobiphenyl was above the upper control limit in sample 30336730011 and in the LCSD associated with preparation batch XXX 5913. The alternate surrogate, Tetrachloro-m-xylene, was acceptable.

The RPD for Aroclor-1248 was above QC acceptance criteria in the LCS/LCSD associated with preparation batch XXX 5897. No corrective action was initiated on the basis of the RPD results.

The recovery for Aroclor-1248 was below the lower control limit in the MS/MSD associated with preparation batch XXX 5897. Also, the RPD for Aroclor-1248 was above QC acceptance criteria in the MS/MSD. The MS/MSD were not performed on a sample from this sample delivery group (SDG).

*Metals Analysis*

The Arsenic result for sample 3033673011 had the relative standard deviation (RSD) of the analysis replicates greater than twenty percent. The Arsenic was flagged as estimated.

Laboratory sample 3033673005 had internal standards below QC acceptance criteria for Chromium. The sample was flagged for matrix interference.

The recoveries for Barium and Chromium were above the upper control limits in the MS on sample 3033673005 associated with preparation batch MXX 11282. The Barium and Chromium results for sample 3033673005 may be biased high.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033673

***Quality Control (QC) –continued***

*Metals Analysis-continued*

The recovery for Silver was below the lower control limit in the MS on samples 3033673005 and 3033673007 associated with preparation batch MXX 11282. The Silver result for samples 3033673005 and 3033673007 may be biased low.

The recoveries for Arsenic, Barium and Selenium were above the upper control limit in the MS/MSD associated with preparation batch MXX 11274. Also, the RPD was above QC acceptance criteria for Arsenic, Selenium and Silver in the MS/MSD. The MS/MSD were not performed on a sample from this SDG.

*Physical Properties Analysis*

Due to the nature of the matrix, pH test strips were used to analyze the pH for samples 3033673008 and 3033673011. The pH was determined to be greater than 14.0 for both samples.

***Sample Reporting –***

The percent solids for samples 3033673009 and 3033673010 were determined and results corrected to a dry-weight reporting basis.

The Arsenic result for sample 3033673011 was qualified as estimated (J) due to a relative standard deviation (RSD) greater than twenty.

The Silver result for laboratory sample 3033673007 was qualified (M) for matrix interference. Also, the Barium, Chromium and Silver results for sample 3033673005 were qualified (M) for matrix interference.

The SVOC results for laboratory sample 3033673005 were qualified for dilution (D) due to analyte level.

The PCB results for laboratory sample 3033673006 were qualified for dilution (D) due to matrix interference (M).

The Metals results, excluding Mercury, for laboratory sample 3033673012 were qualified for dilution (D) due to matrix interference (M).

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 9-11-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033673

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Total Volatiles | SW-846 8260[1] |
| Total Metals (excluding Mercury) | SW-846 6020[1] |
| Total Mercury | SW-846 7470[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| L-32664-082503-SM-032 | 3033673001 |
| L-32664-082503-SM-033 | 3033673002 |
| L-32664-082503-SM-034 | 3033673003 |
| L-32664-082503-SM-035 | 3033673004 |
| L-32664-082503-SM-036 | 3033673005 |
| L-32664-082503-SM-037 | 3033673006 |
| L-32664-082503-SM-038 | 3033673007 |
| L-32664-082503-SM-039 | 3033673008 |
| L-32664-082503-SM-040 | 3033673009 |
| L-32664-082503-SM-041 | 3033673010 |
| L-32664-082503-SM-042 | 3033673011 |
| L-32664-082503-SM-043 | 3033673012 |

# Explanation of Terms and Data Qualifiers

| Term Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: ___ of ___

Project Number: 3033673 Date Logged In: 8/28/03 Login Person Initials: _____

This section to be completed when corrective action is required:

Client: CRA Project Name: _____
Client Contact: _____ Phone Number: _____

| | | YES | NO |
|---|---|---|---|
| | *If no to any, notify the project manager and project manager documents client response below.* | | |
| 1. | Were custody seals/original packing tape intact? | ✓ | ___ |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | ___ |
| 3. | Are samples within holding times? | ✓ | ___ |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | ___ |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | ___ |
| 6. | Do the samples match the COC? | ✓ | ___ |
| 7. | Were the proper containers used? | ✓ | ___ |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | ___ |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | ___ |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | = | ___ |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | = | ___ |
| 12. | Is the chain of custody signed? | ✓ | ___ |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | = | ___ |
| 14. | Were proper sample weights met for Wisconsin soil samples? | = | ___ |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Samp. No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

8/5/03: TCLP Mercury added by client.

# Laboratory Report

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3033673**<br>**Sybill, Inc. 32664 (08/26-27)** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

9/11/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

Workorder: 3033673 | Conestoga-Rovers & Associates | Reported: 9/11/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033673001 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-082503-SM-032 | **Location:** | |
| **Collected:** | 08/26/2003 00:00 | **Project:** | Project 32664 Sybil, Inc. |
| **Received:** | 08/28/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | 0.028J | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/02/03 08:44 | 09/02/03 15:28 | MAH | |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/02/03 07:43 | 09/02/03 07:50 | JB | |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/02/03 16:47 | SRS | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/04/03 12:42 | WD | |
| pH | 6.83 | | S.U. | | SW-846 9040B | | 09/02/03 16:47 | SRS | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/29/03 21:19 | ESA | |
| Aroclor-1221 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/29/03 21:19 | ESA | |
| Aroclor-1232 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/29/03 21:19 | ESA | |
| Aroclor-1242 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/29/03 21:19 | ESA | |
| Aroclor-1248 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/29/03 21:19 | ESA | |
| Aroclor-1254 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/29/03 21:19 | ESA | |
| Aroclor-1260 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/29/03 21:19 | ESA | |
| Aroclor-1262 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/29/03 21:19 | ESA | |
| Aroclor-1268 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/29/03 21:19 | ESA | |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 09/03/03 13:08 | 09/04/03 01:43 | SRO | |
| Barium | 0.095 | 100 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:08 | 09/04/03 01:43 | SRO | |
| Cadmium | 0.0093J | 1 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/03/03 13:08 | 09/04/03 01:43 | SRO | |
| Chromium | 0.38 | 5 | mg/L | 0.060 | SW-846 6020 / SW-846 3010A | 09/03/03 13:08 | 09/04/03 01:43 | SRO | |
| Mercury | ND | 0.2 | mg/L | 0.010 | SW-846 7470A | 09/03/03 10:00 | 09/03/03 13:50 | SKP | |
| Lead | ND | 5 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:08 | 09/04/03 01:43 | SRO | |
| Selenium | ND | 1 | mg/L | 0.16 | SW-846 6020 / SW-846 3010A | 09/03/03 13:08 | 09/04/03 01:43 | SRO | |
| Silver | 0.0087J | 5 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:08 | 09/04/03 01:43 | SRO | |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033673001 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-082503-SM-032 | **Location:** | |
| **Collected:** | 08/28/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/28/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:10 | JEH | |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:10 | JEH | |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:10 | JEH | |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.25 | SW-846 8260B | | 09/02/03 14:10 | JEH | |
| Benzene | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:10 | JEH | |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:10 | JEH | |
| Chlorobenzene | ND | 100 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:10 | JEH | |
| [redacted]oform | ND | 6 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:10 | JEH | |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:10 | JEH | |
| Trichloroethene | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:10 | JEH | |
| Vinyl chloride | ND | 0.2 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:10 | JEH | |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:01 | BPJ | |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:01 | BPJ | |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:01 | BPJ | |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:01 | BPJ | |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.40 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:01 | BPJ | |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:01 | BPJ | |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:01 | BPJ | |
| Hexachloroethane | ND | 3 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:01 | BPJ | |
| Nitrobenzene | ND | 2 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:01 | BPJ | |
| Pentachlorophenol | ND | 100 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:01 | BPJ | |
| Pyridine | ND | 5 | mg/L | 0.40 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:01 | BPJ | |

Workorder: 3033673 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033673002 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-082503-SM-033 | **Location:** | |
| **Collected:** | 08/26/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/28/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/04/03 12:42 | WD | |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,1,2-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,2-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 2-Butanone ( M E K ) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| 4-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Benzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B[1] | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |

Work Order: 3033673 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033673002 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-082503-SM-033 | **Location:** | |
| **Collected:** | 08/26/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/28/2003 09:00 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Chloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| [redacted]nochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Methylene chloride | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Trichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 16:08 | JEH | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.94 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:29 | JL | |
| Aroclor-1221 | ND | | mg/Kg | 0.94 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:29 | JL | |
| Aroclor-1232 | ND | | mg/Kg | 0.94 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:29 | JL | |
| Aroclor-1242 | ND | | mg/Kg | 0.94 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:29 | JL | |
| Aroclor-1248 | ND | | mg/Kg | 0.94 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:29 | JL | |
| Aroclor-1254 | ND | | mg/Kg | 0.94 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:29 | JL | |
| Aroclor-1260 | ND | | mg/Kg | 0.94 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:29 | JL | |
| [redacted]or-1262 | ND | | mg/Kg | 0.94 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:29 | JL | |
| Aroclor-1268 | ND | | mg/Kg | 0.94 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 08:29 | JL | |

Workorder: 3033673 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033673003 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | L-32664-082503-SM-034 | Location: | |
| Collected: | 08/26/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/28/2003 09:00 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/04/03 12:42 | WD | |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,1,2-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,1,2-Trichloroethane | 52.1J | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,2-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 2-Butanone ( M E K ) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| 4-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Benzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033673003 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-082503-SM-034 | **Location:** | |
| **Collected:** | 08/26/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/28/2003 09:00 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Chloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| [illegible]mochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Methylene chloride | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Trichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/03/03 13:05 | JEH | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 10:49 | JL | |
| Aroclor-1221 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 10:49 | JL | |
| Aroclor-1232 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 10:49 | JL | |
| Aroclor-1242 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 10:49 | JL | |
| Aroclor-1248 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 10:49 | JL | |
| Aroclor-1254 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 10:49 | JL | |
| Aroclor-1260 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 10:49 | JL | |
| [illegible]clor-1262 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 10:49 | JL | |
| Aroclor-1268 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 10:49 | JL | |

Workorder: 3033673 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033673004 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082503-SM-035 | Location: | |
| Collected: | 08/26/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/28/2003 09:00 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | 0.021J | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/02/03 08:44 | 09/02/03 15:32 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/02/03 07:43 | 09/02/03 07:50 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/02/03 16:47 | SRS | 3 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/04/03 12:42 | WD | 1 |
| pH | 4.40 | | S.U. | | SW-846 9040B | | 09/02/03 16:47 | SRS | 3 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 14:38 | ESA | 4 |
| Aroclor-1221 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 14:38 | ESA | 4 |
| Aroclor-1232 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 14:38 | ESA | 4 |
| Aroclor-1242 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 14:38 | ESA | 4 |
| Aroclor-1248 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 14:38 | ESA | 4 |
| Aroclor-1254 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 14:38 | ESA | 4 |
| Aroclor-1260 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 14:38 | ESA | 4 |
| Aroclor-1262 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 14:38 | ESA | 4 |
| Aroclor-1268 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 14:38 | ESA | 4 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.057 | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 17:41 | SRO | 1 |
| Barium | 0.13 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 17:41 | SRO | 1 |
| Cadmium | 0.0030 | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 17:41 | SRO | 1 |
| Chromium | 0.90 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 17:41 | SRO | 1 |
| Mercury | 0.0018J | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/03/03 10:00 | 09/03/03 14:23 | SKP | 2 |
| Lead | 0.24 | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 17:41 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 17:41 | SRO | 1 |
| Silver | 0.0068 | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 17:41 | SRO | 1 |

Workorder: 3033673 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033673004 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32684-082503-SM-035 | **Location:** | |
| **Collected:** | 08/26/2003 00:00 | **Project:** | Project 32684 Sybil, Inc. |
| **Received:** | 08/28/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.050 | SW-846 8260B | | 09/03/03 14:40 | JEH | 2 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/03/03 14:40 | JEH | 2 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.050 | SW-846 8260B | | 09/03/03 14:40 | JEH | 2 |
| 2-Butanone ( M E K) | 1.4 | 200 | mg/L | 0.25 | SW-846 8260B | | 09/03/03 14:40 | JEH | 2 |
| Benzene | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/03/03 14:40 | JEH | 2 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/03/03 14:40 | JEH | 2 |
| Chlorobenzene | ND | 100 | mg/L | 0.050 | SW-846 8260B | | 09/03/03 14:40 | JEH | 2 |
| [redacted]oform | ND | 6 | mg/L | 0.050 | SW-846 8260B | | 09/03/03 14:40 | JEH | 2 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.050 | SW-846 8260B | | 09/03/03 14:40 | JEH | 2 |
| Trichloroethene | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/03/03 14:40 | JEH | 2 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.050 | SW-846 8260B | | 09/03/03 14:40 | JEH | 2 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:02 | BPJ | 2 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:02 | BPJ | 2 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:02 | BPJ | 2 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:02 | BPJ | 2 |
| 3&4-Methylphenol (p&m-Cresol) | 1.5 | 200 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:02 | BPJ | 2 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:02 | BPJ | 2 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:02 | BPJ | 2 |
| Hexachloroethane | ND | 3 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:02 | BPJ | 2 |
| Nitrobenzene | ND | 2 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:02 | BPJ | 2 |
| Pentachlorophenol | ND | 100 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:02 | BPJ | 2 |
| Pyridine | ND | 5 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:02 | BPJ | 2 |

Workorder: 3033673 | Conestoga-Rovers & Associates | Reported: 9/11/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033673005 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082503-SM-036 | Location: | |
| Collected: | 08/26/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/28/2003 09:00 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).
Chromium: Internal Standard below acceptance criteria: matrix interference suspected.
8270 TCLP: Surrogate outside QC acceptance criteria confirmed by matrix spike

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | 0.025J | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/02/03 08:44 | 09/02/03 15:22 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/02/03 07:43 | 09/02/03 07:50 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/02/03 16:47 | SRS | 3 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/04/03 12:42 | WD | 1 |
| pH | 3.73 | | S.U. | | SW-846 9040B | | 09/02/03 16:47 | SRS | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:05 | ESA | 4 |
| Aroclor-1221 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:05 | ESA | 4 |
| Aroclor-1232 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:05 | ESA | 4 |
| Aroclor-1242 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:05 | ESA | 4 |
| Aroclor-1248 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:05 | ESA | 4 |
| Aroclor-1254 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:05 | ESA | 4 |
| Aroclor-1260 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:05 | ESA | 4 |
| Aroclor-1262 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:05 | ESA | 4 |
| Aroclor-1268 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 09/02/03 15:05 | ESA | 4 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.018 | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 17:46 | SRO | 1 |
| Barium | 4.8 M | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 17:46 | SRO | 1 |
| Cadmium | 0.0015J | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 17:46 | SRO | 1 |
| Chromium | 2.2 M | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 17:46 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/03/03 10:00 | 09/03/03 14:30 | SKP | |
| Lead | 0.32 | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 17:46 | SRO | |
| Selenium | 0.016J | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 17:46 | SRO | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033673005 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-082503-SM-036 | **Location:** | |
| **Collected:** | 08/26/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/28/2003 09:00 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Silver | 0.0049 M | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 17:46 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:00 | JEH | 2 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:00 | JEH | 2 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:00 | JEH | 2 |
| 2-Butanone ( M E K) | 1.3 | 200 | mg/L | 0.13 | SW-846 8260B | | 09/03/03 13:45 | JEH | |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:00 | JEH | 2 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:00 | JEH | 2 |
| [illegible]obenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:00 | JEH | 2 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:00 | JEH | 2 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:00 | JEH | 2 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:00 | JEH | 2 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:00 | JEH | 2 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND D | 400 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:47 | BPJ | 2 |
| 2,4,6-Trichlorophenol | ND D | 2 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:47 | BPJ | 2 |
| 2,4-Dinitrotoluene | ND D | 0.13 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:47 | BPJ | 2 |
| 2-Methylphenol (o-Cresol) | ND D | 200 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:47 | BPJ | 2 |
| 3&4-Methylphenol (p&m-Cresol) | 0.27 D | 200 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:47 | BPJ | 2 |
| Hexachlorobenzene | ND D | 0.13 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:47 | BPJ | 2 |
| Hexachlorobutadiene | ND D | 0.5 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:47 | BPJ | 2 |
| Hexachloroethane | ND D | 3 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:47 | BPJ | 2 |
| Nitrobenzene | ND D | 2 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:47 | BPJ | 2 |
| Pentachlorophenol | ND D | 100 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:47 | BPJ | 2 |
| Pyridine | ND D | 5 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 21:47 | BPJ | 2 |

Workorder: 3033673 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033673006 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | L-32664-082503-SM-037 | Location: | |
| Collected: | 08/26/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/28/2003 09:00 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).
PCB: Sample was diluted due to matrix interference.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/04/03 12:42 | WD | 1 |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,1,2-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,2-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 2-Butanone (M E K) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| 4-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Benzene | 52.1J | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033673006 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-082503-SM-037 | **Location:** | |
| **Collected:** | 08/26/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/28/2003 09:00 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Chloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| [redacted]3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Dibromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Methylene chloride | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Tetrachloroethene | 110J | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Trichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/02/03 14:45 | 09/02/03 16:24 | JEH | 3 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND D,M | | mg/Kg | 1.8 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 14:03 | JL | 2 |
| Aroclor-1221 | ND D,M | | mg/Kg | 1.8 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 14:03 | JL | 2 |
| Aroclor-1232 | ND D,M | | mg/Kg | 1.8 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 14:03 | JL | 2 |
| Aroclor-1242 | ND D,M | | mg/Kg | 1.8 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 14:03 | JL | 2 |
| Aroclor-1248 | ND D,M | | mg/Kg | 1.8 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 14:03 | JL | 2 |
| Aroclor-1254 | ND D,M | | mg/Kg | 1.8 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 14:03 | JL | 2 |
| [redacted]r-1260 | ND D,M | | mg/Kg | 1.8 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 14:03 | JL | 2 |
| Aroclor-1262 | ND D,M | | mg/Kg | 1.8 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 14:03 | JL | 2 |

Workorder: 3033673 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033673006 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-082503-SM-037 | **Location:** | |
| **Collected:** | 08/26/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/28/2003 09:00 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1268 | ND D,M | | mg/Kg | 1.8 | SW-846 8082 / SW-846 3580A | 09/03/03 15:21 | 09/04/03 14:03 | JL | 2 |

Workorder: 3033673 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033673007 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-082503-SM-038 | **Location:** | |
| **Collected:** | 08/26/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/28/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported as received.
Silver: Matrix spike/Matrix spike duplicate below QC Acceptance criteria.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | 0.024J | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/02/03 08:44 | 09/02/03 15:22 | MAH | 4 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/02/03 07:43 | 09/02/03 08:15 | JB | 4 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/02/03 16:47 | SRS | 4 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/04/03 12:42 | WD | 4 |
| [redacted] | 10.6 | | S.U. | | SW-846 9040B | | 09/02/03 16:47 | SRS | 4 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 02:41 | ESA | 1 |
| Aroclor-1221 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 02:41 | ESA | 1 |
| Aroclor-1232 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 02:41 | ESA | 1 |
| Aroclor-1242 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 02:41 | ESA | 1 |
| Aroclor-1248 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 02:41 | ESA | 1 |
| Aroclor-1254 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 02:41 | ESA | 1 |
| Aroclor-1260 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 02:41 | ESA | 1 |
| Aroclor-1262 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 02:41 | ESA | 1 |
| Aroclor-1268 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 02:41 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:00 | SRO | 2 |
| Barium | 0.036J | 100 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:00 | SRO | 2 |
| Cadmium | ND | 1 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:00 | SRO | 2 |
| Chromium | ND | 5 | mg/L | 0.060 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:00 | SRO | 2 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/03/03 10:00 | 09/03/03 14:33 | SKP | 2 |
| [redacted] | ND | 5 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:00 | SRO | 2 |
| Selenium | ND | 1 | mg/L | 0.16 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:00 | SRO | 2 |
| Silver | 0.0095J M | 5 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:00 | SRO | 2 |

Workorder: 3033673 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033673007 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082503-SM-038 | Location: | |
| Collected: | 08/26/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/28/2003 09:00 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:37 | JEH | 3 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:37 | JEH | 3 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:37 | JEH | 3 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.25 | SW-846 8260B | | 09/02/03 14:37 | JEH | 3 |
| Benzene | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:37 | JEH | 3 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:37 | JEH | 3 |
| Chlorobenzene | ND | 100 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:37 | JEH | 3 |
| Chloroform | ND | 6 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:37 | JEH | 3 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:37 | JEH | 3 |
| Trichloroethene | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:37 | JEH | 3 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 14:37 | JEH | 3 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:16 | BPJ | 3 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:16 | BPJ | 3 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:16 | BPJ | 3 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:16 | BPJ | 3 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:16 | BPJ | 3 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:16 | BPJ | 3 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:16 | BPJ | 3 |
| Hexachloroethane | ND | 3 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:16 | BPJ | 3 |
| Nitrobenzene | ND | 2 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:16 | BPJ | 3 |
| Pentachlorophenol | ND | 100 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:16 | BPJ | 3 |
| Pyridine | ND | 5 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 20:16 | BPJ | 3 |

Workorder: 3033673 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033673008 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082503-SM-039 | Location: | |
| Collected: | 08/28/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/28/2003 09:00 | Sampled By: | SM |

Comments: Results reported as received.
8260 TCLP: Low surrogate recovery, confirmed by 2nd analysis.
9040: pH of sample greater than 14. Test strips were used for analysis.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | 0.025J | | mg/Kg | 30 | SW-846 7.3.3.2' | 09/02/03 08:44 | 09/02/03 15:22 | MAH | 4 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2' | 09/02/03 07:43 | 09/02/03 10:35 | JB | 4 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Corrosive | | | | SW-846 9040B' | | 09/03/03 08:07 | KAA | 4 |
| [illegible]point Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/04/03 12:42 | WD | 4 |
| pH | 14.0 | | S.U. | | SW-846 9040B | | 09/03/03 08:07 | KAA | 4 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 03:35 | ESA | 1 |
| Aroclor-1221 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 03:35 | ESA | 1 |
| Aroclor-1232 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 03:35 | ESA | 1 |
| Aroclor-1242 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 03:35 | ESA | 1 |
| Aroclor-1248 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 03:35 | ESA | 1 |
| Aroclor-1254 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 03:35 | ESA | 1 |
| Aroclor-1260 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 03:35 | ESA | 1 |
| Aroclor-1262 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 03:35 | ESA | 1 |
| Aroclor-1268 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 08/29/03 10:50 | 08/30/03 03:35 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:28 | SRO | 2 |
| Barium | 0.23 | 100 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:28 | SRO | 2 |
| Cadmium | 0.0046J | 1 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:28 | SRO | 2 |
| Chromium | 0.12 | 5 | mg/L | 0.060 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:28 | SRO | 2 |
| [illegible]cury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/03/03 10:00 | 09/03/03 15:00 | SKP | 2 |
| Lead | 0.19 | 5 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:28 | SRO | 2 |
| Selenium | ND | 1 | mg/L | 0.16 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:28 | SRO | 2 |

Workorder: 3033873 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033873008 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082503-SM-039 | Location: | |
| Collected: | 08/26/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/28/2003 09:00 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Silver | 0.0100J | 5 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:28 | SRO | 2 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:05 | JEH | 3 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:05 | JEH | 3 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:05 | JEH | 3 |
| 2-Butanone ( M.E.K ) | 0.049J | 200 | mg/L | 0.25 | SW-846 8260B | | 09/02/03 15:05 | JEH | 3 |
| Benzene | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:05 | JEH | 3 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:05 | JEH | 3 |
| Chlorobenzene | ND | 100 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:05 | JEH | 3 |
| Chloroform | ND | 6 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:05 | JEH | 3 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:05 | JEH | 3 |
| Trichloroethene | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:05 | JEH | 3 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:05 | JEH | 3 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:46 | BPJ | 3 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:46 | BPJ | 3 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:46 | BPJ | 3 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:46 | BPJ | 3 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:46 | BPJ | 3 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:46 | BPJ | 3 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:46 | BPJ | 3 |
| Hexachloroethane | ND | 3 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:46 | BPJ | 3 |
| Nitrobenzene | ND | 2 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:46 | BPJ | 3 |
| Pentachlorophenol | ND | 100 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:46 | BPJ | 3 |
| Pyridine | ND | 5 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 18:46 | BPJ | 3 |

Workorder: 3033673 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033673009 | Matrix: | Solid |
| Client Sample ID: | L-32664-082503-SM-040 | Location: | |
| Collected: | 08/26/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/28/2003 09:00 | Sampled By: | SM |

Comments: Results reported on Dry Weight basis.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | 0.056J | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/02/03 08:44 | 09/02/03 15:22 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 60 | SW-846 7.3.4.2[1] | 09/02/03 07:43 | 09/02/03 08:18 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 09/02/03 16:47 | SRS | 1 |
| Ignitability | Non | | | | SW-846 7.1[1] | | 08/29/03 15:00 | WD | 1 |
| [redacted] | 9.33 | | S.U. | | SW-846 9045C | | 09/02/03 16:47 | SRS | 1 |
| Total Solids | 88.8 | | % | 0.10 | SM19 2540G[1] | | 09/03/03 09:59 | SKP | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/Kg | 37 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:12 | JL | 1 |
| Aroclor-1221 | ND | | ug/Kg | 37 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:12 | JL | 1 |
| Aroclor-1232 | ND | | ug/Kg | 37 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:12 | JL | 1 |
| Aroclor-1242 | ND | | ug/Kg | 37 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:12 | JL | 1 |
| Aroclor-1248 | ND | | ug/Kg | 37 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:12 | JL | 1 |
| Aroclor-1254 | ND | | ug/Kg | 37 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:12 | JL | 1 |
| Aroclor-1260 | ND | | ug/Kg | 37 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:12 | JL | 1 |
| Aroclor-1262 | ND | | ug/Kg | 37 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:12 | JL | 1 |
| Aroclor-1268 | ND | | ug/Kg | 37 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:12 | JL | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.20 | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:33 | SRO | 1 |
| Barium | 0.038 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:33 | SRO | 1 |
| Cadmium | 0.00064J | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:33 | SRO | 1 |
| [redacted]mium | 0.12 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:33 | SRO | 1 |
| [redacted]rcury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/03/03 10:00 | 09/03/03 15:03 | SKP | 1 |
| Lead | 0.014 | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:33 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:33 | SRO | 1 |

Workorder: 3033673 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033673009 | Matrix: | Solid |
| Client Sample ID: | L-32664-082503-SM-040 | Location: | |
| Collected: | 08/26/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 08/28/2003 09:00 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Silver | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:33 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:27 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:27 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:27 | JEH | 1 |
| 2-Butanone (MEK) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 16:27 | JEH | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:27 | JEH | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:27 | JEH | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:27 | JEH | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:27 | JEH | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:27 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:27 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:27 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 22:15 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 22:15 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 22:15 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 22:15 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 22:15 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 22:15 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 22:15 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 22:15 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 22:15 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 22:15 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 22:15 | BPJ | 1 |

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033673010 | Matrix: | Solid |
| Client Sample ID: | L-32684-082503-SM-041 | Location: | |
| Collected: | 08/26/2003 00:00 | Project: | Project 32684 Sybill, Inc. |
| Received: | 08/28/2003 09:00 | Sampled By: | SM |

Comments: Results reported on Dry Weight basis.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | 0.038J | | mg/Kg | 40 | SW-846 7.3.3.2[1] | 09/02/03 08:44 | 09/02/03 15:22 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 80 | SW-846 7.3.4.2[1] | 09/02/03 07:43 | 09/02/03 08:18 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 09/02/03 16:47 | SRS | 1 |
| Ignitability | Non | | | | SW-846 7.1[1] | | 09/29/03 15:00 | WD | 1 |
| pH | 2.41 | | S.U. | | SW-846 9045C | | 09/02/03 16:47 | SRS | 1 |
| Total Solids | 63.8 | | % | 0.10 | SM19 2540G[1] | | 09/03/03 09:59 | SKP | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/Kg | 51 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:39 | JL | 1 |
| Aroclor-1221 | ND | | ug/Kg | 51 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:39 | JL | 1 |
| Aroclor-1232 | ND | | ug/Kg | 51 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:39 | JL | 1 |
| Aroclor-1242 | ND | | ug/Kg | 51 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:39 | JL | 1 |
| Aroclor-1248 | ND | | ug/Kg | 51 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:39 | JL | 1 |
| Aroclor-1254 | ND | | ug/Kg | 51 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:39 | JL | 1 |
| Aroclor-1260 | ND | | ug/Kg | 51 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:39 | JL | 1 |
| Aroclor-1262 | ND | | ug/Kg | 51 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:39 | JL | 1 |
| Aroclor-1268 | ND | | ug/Kg | 51 | SW-846 8082 / SW-846 3550B | 08/28/03 13:53 | 08/28/03 20:39 | JL | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:51 | SRO | 1 |
| Barium | 0.078 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:51 | SRO | 1 |
| Cadmium | 0.00045J | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:51 | SRO | 1 |
| Chromium | 0.0060J | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:51 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/03/03 10:00 | 09/03/03 15:06 | SKP | 1 |
| Lead | 0.013 | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:51 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:51 | SRO | 1 |

Workorder: 3033673 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033673010 | Matrix: | Solid |
| Client Sample ID: | L-32664-082503-SM-041 | Location: | |
| Collected: | 08/26/2003 00:00 | Project: | Project 32664 Sybil, Inc. |
| Received: | 08/28/2003 09:00 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Silver | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 18:51 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:54 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:54 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:54 | JEH | 1 |
| 2-Butanone (MEK) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 16:54 | JEH | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:54 | JEH | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:54 | JEH | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:54 | JEH | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:54 | JEH | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:54 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:54 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/02/03 16:54 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 20:44 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 20:44 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 20:44 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 20:44 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 20:44 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 20:44 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 20:44 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 20:44 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 20:44 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 20:44 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/02/03 20:44 | BPJ | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033673011 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-082503-SM-042 | **Location:** | |
| **Collected:** | 08/26/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/28/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).
8260 TCLP: Low surrogate recovery, confirmed by 2nd analysis.
9040: pH of sample greater than 14. Test strips were used for analysis.
PCB: Surrogate outside QC acceptance criteria.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | 0.027J | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/02/03 08:44 | 09/02/03 15:22 | MAH | 4 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/02/03 07:43 | 09/02/03 08:16 | JB | 4 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| [illegible]sivity pH Analysis | Corrosive | | | | SW-846 9040B[1] | | 09/03/03 08:08 | KAA | 4 |
| [illegible]shpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/04/03 12:42 | WD | 4 |
| pH | 14.0 | | S.U. | | SW-846 9040B | | 09/03/03 08:08 | KAA | 4 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/02/03 15:37 | 09/03/03 16:51 | ESA | 2 |
| Aroclor-1221 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/02/03 15:37 | 09/03/03 16:51 | ESA | 2 |
| Aroclor-1232 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/02/03 15:37 | 09/03/03 16:51 | ESA | 2 |
| Aroclor-1242 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/02/03 15:37 | 09/03/03 16:51 | ESA | 2 |
| Aroclor-1248 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/02/03 15:37 | 09/03/03 16:51 | ESA | 2 |
| Aroclor-1254 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/02/03 15:37 | 09/03/03 16:51 | ESA | 2 |
| Aroclor-1260 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/02/03 15:37 | 09/03/03 16:51 | ESA | 2 |
| Aroclor-1262 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/02/03 15:37 | 09/03/03 16:51 | ESA | 2 |
| Aroclor-1268 | ND | | ug/L | 2.0 | SW-846 8082 / SW-846 3510C | 09/02/03 15:37 | 09/03/03 16:51 | ESA | 2 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.14 J | 5 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 19:00 | SRO | 1 |
| Barium | 0.20 | 100 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 19:00 | SRO | 1 |
| Cadmium | 0.022 | 1 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 19:00 | SRO | 1 |
| [illegible]omium | 0.13 | 5 | mg/L | 0.060 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 19:00 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/03/03 10:00 | 09/03/03 15:09 | SKP | 1 |
| Lead | 0.50 | 5 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 19:00 | SRO | 1 |

Workorder: 3033673 Conestoga-Rovers & Associates Reported: 9/11/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033673011 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-082503-SM-042 | **Location:** | |
| **Collected:** | 08/26/2003 00:00 | **Project:** | Project 32664 Sybil, Inc. |
| **Received:** | 08/28/2003 09:00 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Selenium | ND | 1 | mg/L | 0.16 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 19:00 | SRO | 1 |
| Silver | 0.023J | 5 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/03/03 13:17 | 09/03/03 19:00 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:32 | JEH | 3 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:32 | JEH | 3 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:32 | JEH | 3 |
| 2-Butanone ( M E K) | ND | 200 | mg/L | 0.25 | SW-846 8260B | | 09/02/03 15:32 | JEH | 3 |
| Benzene | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:32 | JEH | 3 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:32 | JEH | 3 |
| Chlorobenzene | ND | 100 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:32 | JEH | 3 |
| Chloroform | ND | 6 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:32 | JEH | 3 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:32 | JEH | 3 |
| Trichloroethene | ND | 0.5 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:32 | JEH | 3 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.050 | SW-846 8260B | | 09/02/03 15:32 | JEH | 3 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 19:31 | BPJ | 3 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 19:31 | BPJ | 3 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 19:31 | BPJ | 3 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 19:31 | BPJ | 3 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 19:31 | BPJ | 3 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 19:31 | BPJ | 3 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 19:31 | BPJ | 3 |
| Hexachloroethane | ND | 3 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 19:31 | BPJ | 3 |
| Nitrobenzene | ND | 2 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 19:31 | BPJ | 3 |
| Pentachlorophenol | ND | 100 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 19:31 | BPJ | 3 |
| Pyridine | ND | 5 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/03/03 15:02 | 09/03/03 19:31 | BPJ | 3 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033673012 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-082503-SM-043 | **Location:** | |
| **Collected:** | 08/27/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 08/28/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported as received.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TOTAL METALS ANALYSIS** | | | | | | | | | |
| Arsenic | 0.0053 D,M | | mg/L | 0.0050 | SW-846 6020 / SW-846 3010A | 09/02/03 14:26 | 09/03/03 02:38 | SRO | 1 |
| Barium | 3.3 D,M | | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/02/03 14:26 | 09/03/03 02:38 | SRO | 1 |
| Cadmium | 0.010 D,M | | mg/L | 0.0010 | SW-846 6020 / SW-846 3010A | 09/02/03 14:26 | 09/03/03 02:38 | SRO | 1 |
| Chromium | 0.10 D,M | | mg/L | 0.0030 | SW-846 6020 / SW-846 3010A | 09/02/03 14:26 | 09/03/03 02:38 | SRO | 1 |
| Lead | 0.16 D,M | | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/02/03 14:26 | 09/03/03 02:38 | SRO | 1 |
| Mercury | 0.00011J | | mg/L | 0.00020 | SW-846 7470A | 09/02/03 13:45 | 09/02/03 19:57 | PSK | 1 |
| [redacted] | ND D,M | | mg/L | 0.0080 | SW-846 6020 / SW-846 3010A | 09/02/03 14:26 | 09/03/03 02:38 | SRO | 1 |
| [redacted] | ND D,M | | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/02/03 14:26 | 09/03/03 02:38 | SRO | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/09/03 12:00 | 09/09/03 14:40 | PSK | |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | VMS 4771 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Aqueous | **Instrument** | HP 5972 Series INSTRU H |
| | | **Date** | 09/02/2003 |
| | | **By** | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3033673001 | PS | 99 | 110 | 107 | 95.1 |
| 3033673005 | PS | 101 | 102 | 104 | 98.3 |
| 3033673007 | PS | 103 | 103 | 112 | 95.5 |
| 3033673008 | PS | 104 | 0 | 107 | 96.4 |
| 3033673011 | PS | 103 | 0 | 105 | 96 |
| 332197 | LCS | 104 | 103 | 101 | 98.8 |
| 332198 | MB | 103 | 103 | 103 | 97.4 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4771 | |
| | | **Method** | SW-846 8260B | |
| **Matrix** | Solid | **Instrument** | HP 5972 Series | INSTRU Q |
| | | **Date** | 09/02/2003 | |
| | | **By** | JEH | |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3033673009 | PS | 104 | 114 | 111 | 95.8 |
| 3033673010 | PS | 104 | 102 | 106 | 98.5 |
| 332200 | MS | 104 | 106 | 101 | 98.9 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4774 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Aqueous | **Instrument** | HP 5972 Series INSTRU Q |
| | | **Date** | 09/03/2003 |
| | | **By** | JEH |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3033673004 PS | 102 | 101 | 104 | 96.8 |
| 332309 LCS | 105 | 108 | 108 | 97.5 |
| 332310 MB | 103 | 103 | 105 | 97.2 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4769 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Non Aqueous Liquid | **Date** | 09/02/2003 |
| | | **By** | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3033673006 | PS | 102 | 102 | 98.5 | 97.1 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 80-124 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 87-117 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 74-123 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 92-113 )** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4769 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Solid | **Date** | 09/02/2003 |
| | | **By** | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 332169 | LCS | 102 | 101 | 97.3 | 98.1 |
| 332170 | MB | 99.2 | 101 | 98.2 | 97.9 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 80-124 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 87-117 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 74-123 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 92-113 )** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4779 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Non Aqueous Liquid | **Date** | 09/03/2003 |
| | | **By** | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3033673002 | PS | 110 | 96.1 | 95.2 | 101 |
| 3033673003 | PS | 103 | 100 | 96.5 | 99.4 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 80-124 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 87-117 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 74-123 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 92-113 )** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | VMS 4779 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Solid | **Date** | 09/03/2003 |
| | | **By** | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 332403 | LCS | 103 | 101 | 101 | 97.4 |
| 332404 | MB | 98.3 | 105 | 101 | 96.7 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 80-124 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 87-117 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 74-123 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 92-113 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332169 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | VMS 4769 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | H0829_05.D | | **Date** | 09/02/2003 |
| | | | **By** | JEH |

QC results affect the following production samples:

3033673006

| Analyte | LCS/LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 2500 | 2500 | 98 | | | ( 69-117 ) | | |
| 1,1,1-Trichloroethane | 2500 | 2500 | 102 | | | ( 62-124 ) | | |
| 1,1,2,2-Tetrachloroethane | 2500 | 2400 | 97 | | | ( 64-127 ) | | |
| 1,1,2-Trichloroethane | 2500 | 2400 | 97 | | | ( 73-116 ) | | |
| 1,1-Dichloroethane | 2500 | 2500 | 98 | | | ( 73-113 ) | | |
| 1,1-Dichloroethene | 2500 | 2700 | 109 | | | ( 57-133 ) | | |
| 1,1-Dichloropropene | 2500 | 2600 | 104 | | | ( 78-118 ) | | |
| 1,2,3-Trichlorobenzene | 2500 | 2400 | 94 | | | ( 71-127 ) | | |
| 1,2,3-Trichloropropane | 2500 | 2400 | 95 | | | ( 58-122 ) | | |
| 1,2,4-Trichlorobenzene | 2500 | 2400 | 95 | | | ( 72-128 ) | | |
| 1,2-Dibromo-3-chloropropane | 2500 | 2300 | 91 | | | ( 52-136 ) | | |
| 1,2-Dibromoethane | 2500 | 2500 | 100 | | | ( 69-123 ) | | |
| 1,2-Dichlorobenzene | 2500 | 2400 | 96 | | | ( 70-125 ) | | |
| 1,2-Dichloroethane | 2500 | 2500 | 101 | | | ( 55-120 ) | | |
| 1,2-Dichloropropane | 2500 | 2500 | 98 | | | ( 77-116 ) | | |
| 1,3-Dichlorobenzene | 2500 | 2500 | 99 | | | ( 75-121 ) | | |
| 1,3-Dichloropropane | 2500 | 2500 | 101 | | | ( 78-114 ) | | |
| 1,4-Dichlorobenzene | 2500 | 2400 | 96 | | | ( 73-117 ) | | |
| 2,2-Dichloropropane | 2500 | 2400 | 96 | | | ( 71-116 ) | | |
| 2-Butanone ( M E K ) | 2500 | 2200 | 89 | | | ( 48-168 ) | | |
| 2-Chlorotoluene | 2500 | 2500 | 101 | | | ( 84-115 ) | | |
| 4-Chlorotoluene | 2500 | 2500 | 101 | | | ( 82-121 ) | | |
| Benzene | 2500 | 2500 | 101 | | | ( 74-122 ) | | |
| Bromochloromethane | 2500 | 2400 | 96 | | | ( 71-117 ) | | |
| Bromodichloromethane | 2500 | 2500 | 101 | | | ( 67-122 ) | | |
| Bromoform | 2500 | 2700 | 108 | | | ( 53-136 ) | | |
| Bromomethane | 2500 | 2500 | 102 | | | ( 25-170 ) | | |
| Carbon tetrachloride | 2500 | 2700 | 109 | | | ( 63-133 ) | | |
| Chlorobenzene | 2500 | 2600 | 104 | | | ( 74-122 ) | | |
| Chloroethane | 2500 | 2700 | 107 | | | ( 49-132 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

**Sample ID** 332169 Lab Control Spike

**Prep Batch**
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.
**File** H0829_05.D

**Analysis**
**Batch** VMS 4769
**Method** SW-846 8260B
**Date** 09/02/2003
**By** JEH

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 2500 | 2400 | 98 | | | ( 67-114 ) | | |
| Chloromethane | 2500 | 2800 | 112 | | | ( 60-115 ) | | |
| cis-1,2-Dichloroethene | 2500 | 2400 | 95 | | | ( 79-110 ) | | |
| cis-1,3-Dichloropropene | 2500 | 2800 | 103 | | | ( 70-131 ) | | |
| [redacted]nochloromethane | 2500 | 2700 | 109 | | | ( 68-126 ) | | |
| [redacted]omethane | 2500 | 2500 | 100 | | | ( 64-127 ) | | |
| Dichlorodifluoromethane | 2500 | 2800 | 114 | | | ( 27-129 ) | | |
| Methylene chloride | 2500 | 2400 | 96 | | | ( 69-119 ) | | |
| Tetrachloroethene | 2500 | 2400 | 96 | | | ( 51-134 ) | | |
| trans-1,2-Dichloroethene | 2500 | 2500 | 101 | | | ( 74-116 ) | | |
| trans-1,3-Dichloropropene | 2500 | 2700 | 110 | | | ( 68-125 ) | | |
| Trichloroethene | 2500 | 2400 | 98 | | | ( 70-121 ) | | |
| Trichlorofluoromethane | 2500 | 2900 | 114 | | | ( 47-132 ) | | |
| Vinyl chloride | 2500 | 2900 | 115 | | | ( 60-125 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332403 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4779 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32684 Sybill, Inc. | | |
| **File** | H0903_03.D | **Date** | 09/03/2003 |
| | | **By** | JEH |

QC results affect the following production samples:

3033673002, 3033673003

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 2500 | 2500 | 99 | | | ( 69-117 ) | | |
| 1,1,1-Trichloroethane | 2500 | 2600 | 103 | | | ( 62-124 ) | | |
| 1,1,2,2-Tetrachloroethane | 2500 | 2300 | 91 | | | ( 64-127 ) | | |
| 1,1,2-Trichloroethane | 2500 | 2400 | 95 | | | ( 73-116 ) | | |
| 1,1-Dichloroethane | 2500 | 2500 | 99 | | | ( 73-113 ) | | |
| 1,1-Dichloroethene | 2500 | 2700 | 109 | | | ( 57-133 ) | | |
| 1,1-Dichloropropene | 2500 | 2600 | 106 | | | ( 78-118 ) | | |
| 1,2,3-Trichlorobenzene | 2500 | 2500 | 102 | | | ( 71-127 ) | | |
| 1,2,3-Trichloropropane | 2500 | 2200 | 90 | | | ( 58-122 ) | | |
| 1,2,4-Trichlorobenzene | 2500 | 2500 | 101 | | | ( 72-128 ) | | |
| 1,2-Dibromo-3-chloropropane | 2500 | 2200 | 87 | | | ( 52-136 ) | | |
| 1,2-Dibromoethane | 2500 | 2500 | 99 | | | ( 69-123 ) | | |
| 1,2-Dichlorobenzene | 2500 | 2400 | 96 | | | ( 70-125 ) | | |
| 1,2-Dichloroethane | 2500 | 2600 | 103 | | | ( 55-120 ) | | |
| 1,2-Dichloropropane | 2500 | 2400 | 98 | | | ( 77-116 ) | | |
| 1,3-Dichlorobenzene | 2500 | 2400 | 97 | | | ( 75-121 ) | | |
| 1,3-Dichloropropane | 2500 | 2500 | 101 | | | ( 76-114 ) | | |
| 1,4-Dichlorobenzene | 2500 | 2400 | 95 | | | ( 73-117 ) | | |
| 2,2-Dichloropropane | 2500 | 2500 | 101 | | | ( 71-116 ) | | |
| 2-Butanone ( MEK ) | 2500 | 2200 | 88 | | | ( 48-168 ) | | |
| 2-Chlorotoluene | 2500 | 2400 | 95 | | | ( 84-115 ) | | |
| 4-Chlorotoluene | 2500 | 2400 | 95 | | | ( 82-121 ) | | |
| Benzene | 2500 | 2500 | 102 | | | ( 74-122 ) | | |
| Bromochloromethane | 2500 | 2300 | 94 | | | ( 71-117 ) | | |
| Bromodichloromethane | 2500 | 2500 | 100 | | | ( 67-122 ) | | |
| Bromoform | 2500 | 2600 | 106 | | | ( 53-136 ) | | |
| Bromomethane | 2500 | 2800 | 112 | | | ( 25-170 ) | | |
| Carbon tetrachloride | 2500 | 2800 | 111 | | | ( 63-133 ) | | |
| Chlorobenzene | 2500 | 2500 | 101 | | | ( 74-122 ) | | |
| Chloroethane | 2500 | 2700 | 107 | | | ( 49-132 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332403 Lab Control Spike | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4779 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | H0903_03.D | **Date** | 09/03/2003 |
| | | **By** | JEH |

| Analyte | LCS/LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 2500 | 2500 | 99 | | | ( 67-114 ) | | |
| Chloromethane | 2500 | 2500 | 100 | | | ( 60-115 ) | | |
| cis-1,2-Dichloroethene | 2500 | 2400 | 97 | | | ( 79-110 ) | | |
| cis-1,3-Dichloropropene | 2500 | 2600 | 103 | | | ( 70-131 ) | | |
| [illegible]mochloromethane | 2500 | 2700 | 108 | | | ( 68-126 ) | | |
| [illegible]romomethane | 2500 | 2600 | 103 | | | ( 64-127 ) | | |
| Dichlorodifluoromethane | 2500 | 2400 | 96 | | | ( 27-129 ) | | |
| Methylene chloride | 2500 | 2400 | 96 | | | ( 69-119 ) | | |
| Tetrachloroethene | 2500 | 2400 | 94 | | | ( 51-134 ) | | |
| trans-1,2-Dichloroethene | 2500 | 2500 | 100 | | | ( 74-116 ) | | |
| trans-1,3-Dichloropropene | 2500 | 2800 | 110 | | | ( 68-125 ) | | |
| Trichloroethene | 2500 | 2500 | 98 | | | ( 70-121 ) | | |
| Trichlorofluoromethane | 2500 | 2800 | 113 | | | ( 47-132 ) | | |
| Vinyl chloride | 2500 | 2800 | 111 | | | ( 60-125 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332197 | Lab Control Spike | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4771 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32864 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU H |
| **File** | Q0902_04.D | | **Date** | 09/02/2003 | |
| | | | **By** | JEH | |

QC results affect the following production samples:

3033673001, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.22 | 110 | | | ( 86-121 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.20 | 101 | | | ( 77-114 ) | | |
| 1,4-Dichlorobenzene | 0.2 | 0.18 | 90 | | | ( 83-120 ) | | |
| 2-Butanone ( M E K ) | 0.2 | 0.20 | 99 | | | ( 63-131 ) | | |
| Benzene | 0.2 | 0.20 | 99 | | | ( 87-112 ) | | |
| Carbon tetrachloride | 0.2 | 0.20 | 99 | | | ( 80-124 ) | | |
| Chlorobenzene | 0.2 | 0.20 | 99 | | | ( 85-117 ) | | |
| Chloroform | 0.2 | 0.20 | 101 | | | ( 83-113 ) | | |
| Tetrachloroethene | 0.2 | 0.22 | 110 | | | ( 59-148 ) | | |
| Trichloroethene | 0.2 | 0.20 | 101 | | | ( 83-111 ) | | |
| Vinyl chloride | 0.2 | 0.24 | 118 | | | ( 68-133 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332309 | Lab Control Spike | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4774 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU Q |
| **File** | Q0903_03.D | | **Date** | 09/03/2003 | |
| | | | **By** | JEH | |

QC results affect the following production samples:

3033673004, 3033673005

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.23 | 115 | | | ( 86-121 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.21 | 105 | | | ( 77-114 ) | | |
| 1,4-Dichlorobenzene | 0.2 | 0.18 | 91 | | | ( 83-120 ) | | |
| 2-Butanone ( MEK ) | 0.2 | 0.21 | 105 | | | ( 83-131 ) | | |
| Benzene | 0.2 | 0.20 | 100 | | | ( 87-112 ) | | |
| Carbon tetrachloride | 0.2 | 0.19 | 95 | | | ( 80-124 ) | | |
| Chlorobenzene | 0.2 | 0.20 | 98 | | | ( 85-117 ) | | |
| Chloroform | 0.2 | 0.21 | 105 | | | ( 83-113 ) | | |
| Tetrachloroethene | 0.2 | 0.20 | 98 | | | ( 59-148 ) | | |
| Trichloroethene | 0.2 | 0.20 | 101 | | | ( 83-111 ) | | |
| Vinyl chloride | 0.2 | 0.23 | 114 | | | ( 68-133 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332200 Matrix Spike | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4771 | |
| **Original** | 3033673009 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU Q |
| **Project** | Project 32664 Sybil, Inc. | | **Date** | 09/02/2003 | |
| **File** | Q0902_23.D | | **By** | JEH | |

QC results affect the following production samples:

3033673001, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.18 | 92 | | | (71-144) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.20 | 101 | | | (67-121) | | |
| 1,4-Dichlorobenzene | 0.2 | ND | 0.18 | 89 | | | (51-145) | | |
| 2-Butanone (MEK) | 0.2 | ND | 0.19 | 97 | | | (32-134) | | |
| Benzene | 0.2 | ND | 0.20 | 100 | | | (76-127) | | |
| Carbon tetrachloride | 0.2 | ND | 0.20 | 98 | | | (83-130) | | |
| Chlorobenzene | 0.2 | ND | 0.20 | 98 | | | (86-117) | | |
| Chloroform | 0.2 | ND | 0.21 | 104 | | | (71-137) | | |
| Tetrachloroethene | 0.2 | ND | 0.18 | 91 | | | (55-113) | | |
| Trichloroethene | 0.2 | ND | 0.20 | 100 | | | (80-122) | | |
| Vinyl chloride | 0.2 | ND | 0.21 | 107 | | | (59-145) | | |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332170 Method Blank | | |
| **Prep Batch** | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | VMS 4769 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 8260B |
| **File** | H0829_08.D | | |
| | | **Date** | 09/02/2003 |
| | | **By** | JEH |

QC results affect the following production samples:

3033673006

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 70 |
| 1,1,1-Trichloroethane | ND | 35 |
| 1,1,2,2-Tetrachloroethane | ND | 70 |
| 1,1,2-Trichloroethane | ND | 35 |
| 1,1-Dichloroethane | ND | 35 |
| 1,1-Dichloroethene | ND | 35 |
| 1,1-Dichloropropene | ND | 35 |
| 1,2,3-Trichlorobenzene | ND | 150 |
| 1,2,3-Trichloropropane | ND | 70 |
| 1,2,4-Trichlorobenzene | ND | 150 |
| 1,2-Dibromo-3-chloropropane | ND | 150 |
| 1,2-Dibromoethane | ND | 150 |
| 1,2-Dichlorobenzene | ND | 70 |
| 1,2-Dichloroethane | ND | 35 |
| 1,2-Dichloropropane | ND | 35 |
| 1,3-Dichlorobenzene | ND | 70 |
| 1,3-Dichloropropane | ND | 35 |
| 1,4-Dichlorobenzene | ND | 70 |
| 2,2-Dichloropropane | ND | 35 |
| 2-Butanone ( M E K) | ND | 300 |
| 2-Chlorotoluene | ND | 35 |
| 4-Chlorotoluene | ND | 35 |
| Benzene | ND | 35 |
| Bromochloromethane | ND | 70 |
| Bromodichloromethane | ND | 70 |
| Bromoform | ND | 70 |
| Bromomethane | ND | 150 |
| Carbon tetrachloride | ND | 35 |
| Chlorobenzene | ND | 35 |
| Chloroethane | ND | 150 |
| Chloroform | ND | 35 |
| Chloromethane | ND | 150 |
| cis-1,2-Dichloroethene | ND | 35 |
| cis-1,3-Dichloropropene | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332170 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4769 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | H0829_08.D | | | |
| | | | **Date** | 09/02/2003 |
| | | | **By** | JEH |

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Dibromochloromethane | ND | 70 |
| Dibromomethane | ND | 150 |
| Dichlorodifluoromethane | ND | 70 |
| Methylene chloride | ND | 150 |
| Tetrachloroethene | ND | 35 |
| trans-1,2-Dichloroethene | ND | 35 |
| trans-1,3-Dichloropropene | ND | 35 |
| Trichloroethene | ND | 35 |
| Trichlorofluoromethane | ND | 70 |
| Vinyl chloride | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332404 Method Blank | | |
| **Prep Batch** | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | VMS 4779 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 8260B |
| **File** | H0903_06.D | | |
| | | **Date** | 09/03/2003 |
| | | **By** | JEH |

QC results affect the following production samples:

3033673002, 3033673003

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 70 |
| 1,1,1-Trichloroethane | ND | 35 |
| 1,1,2,2-Tetrachloroethane | ND | 70 |
| 1,1,2-Trichloroethane | ND | 35 |
| [illegible]ichloroethane | ND | 35 |
| [illegible]ichloroethene | ND | 35 |
| 1,1-Dichloropropene | ND | 35 |
| 1,2,3-Trichlorobenzene | ND | 150 |
| 1,2,3-Trichloropropane | ND | 70 |
| 1,2,4-Trichlorobenzene | ND | 150 |
| 1,2-Dibromo-3-chloropropane | ND | 150 |
| 1,2-Dibromoethane | ND | 150 |
| 1,2-Dichlorobenzene | ND | 70 |
| 1,2-Dichloroethane | ND | 35 |
| 1,2-Dichloropropane | ND | 35 |
| 1,3-Dichlorobenzene | ND | 70 |
| 1,3-Dichloropropane | ND | 35 |
| 1,4-Dichlorobenzene | ND | 70 |
| 2,2-Dichloropropane | ND | 35 |
| 2-Butanone ( M E K ) | ND | 300 |
| 2-Chlorotoluene | ND | 35 |
| 4-Chlorotoluene | ND | 35 |
| Benzene | ND | 35 |
| Bromochloromethane | ND | 70 |
| Bromodichloromethane | ND | 70 |
| Bromoform | ND | 70 |
| Bromomethane | ND | 150 |
| Carbon tetrachloride | ND | 35 |
| Chlorobenzene | ND | 35 |
| Chloroethane | ND | 150 |
| [illegible]roform | ND | 35 |
| Chloromethane | ND | 150 |
| cis-1,2-Dichloroethene | ND | 35 |
| cis-1,3-Dichloropropene | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332404 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4779 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | H0903_06.D | | | |
| | | | **Date** | 09/03/2003 |
| | | | **By** | JEH |

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Dibromochloromethane | ND | 70 |
| Dibromomethane | ND | 150 |
| Dichlorodifluoromethane | ND | 70 |
| Methylene chloride | ND | 150 |
| Tetrachloroethene | ND | 35 |
| trans-1,2-Dichloroethene | ND | 35 |
| trans-1,3-Dichloropropene | ND | 35 |
| Trichloroethene | ND | 35 |
| Trichlorofluoromethane | ND | 70 |
| Vinyl chloride | ND | 35 |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332198 Method Blank | | | | |
| **Prep Batch** | | **Analysis** | | | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | VMS 4771 | | |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 8260B | | |
| **File** | Q0902_06.D | **Instrument** | HP 5972 Series | INSTRU H | |
| | | **Date** | 09/02/2003 | | |
| | | **By** | JEH | | |

QC results affect the following production samples:

3033673001, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K) | ND | 0.050 |
| [illegible]ene | ND | 0.010 |
| [illegible]n tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332310 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4774 | |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B | |
| **File** | Q0903_05.D | | **Instrument** | HP 5972 Series | INSTRU Q |
| | | | **Date** | 09/03/2003 | |
| | | | **By** | JEH | |

QC results affect the following production samples:

3033673004, 3033673005

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone (MEK) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2808 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/02/2003 |
| | | **By** | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 331973 | MB | 32.5 | 49.3 | 50.3 | 24.5 | 68.5 | 80.6 |
| 331974 | LCS | 31.6 | 49.9 | 49.9 | 25.2 | 58.9 | 54.9 |
| 331975 | LCSD | 36 | 58.5 | 57.9 | 27.8 | 75.4 | 77.2 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32684 Sybill, Inc. | Batch | XMS 2811 |
| | | Method | SW-846 8270C |
| Matrix | Aqueous | Instrument | HP 5971 Series |
| | | Date | 09/03/2003 |
| | | By | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033673001 | PS | 42.6 | 63.4 | 67.5 | 33.7 | 65.5 | 48.2 |
| 3033673004 | PS | 35.8 | 34.3 | 55.9 | 28.7 | 64.8 | 61.4 |
| 3033673005 | PS | 23.4 | 27.8 | 38 | 20.3 | 31.9 | 47.8 |
| 3033673007 | PS | 30 | 67.6 | 69.4 | 30 | 55.8 | 65.3 |
| 3033673008 | PS | 51.1 | 73.8 | 77.9 | 83.1 | 83.9 | 77.1 |
| 3033673011 | PS | 53.9 | 74.3 | 78.9 | 42.2 | 78 | 76.1 |
| 332303 | MS | 28.8 | 27.7 | 38.5 | 24.6 | 33.4 | 53.2 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | ( 14-68 ) |
| FBP | = | 2-Fluorobiphenyl Surr | ( 31-99 ) |
| NB2 | = | Nitrobenzene-d5 Surr | ( 33-102 ) |
| PHL | = | Phenol-d5 Surr | ( 13-50 ) |
| TBP | = | 2,4,6-Tribromophenol Surr | ( 31-133 ) |
| TPH | = | Terphenyl-d14 Surr | ( 20-116 ) |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2809 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Solid | **Date** | 09/02/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033673009 PS | 49.5 | 73.2 | 73.9 | 40.9 | 90 | 53.4 |
| 3033673010 PS | 53.7 | 85.1 | 82 | 42.1 | 85.5 | 88.9 |
| 332300 MS | 54 | 75.8 | 80.1 | 39.9 | 96.4 | 61.1 |
| 332301 MS | 43.3 | 77.2 | 71.6 | 33.8 | 81.8 | 71.7 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331974 | Lab Control Spike | | |
| | 331975 | Lab Control Spike Dup | **Analysis** | |
| **Prep Batch** | XXX | 5809 | **Batch** | XMS 2808 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | L0902_05.D | | **Date** | 09/02/2003 |
| | L0902_06.D | | **By** | BPJ |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.12 | 58 | 0.14 | 71 | ( 36-135 ) | 20 | (< 27 ) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.12 | 60 | 0.14 | 71 | ( 32-140 ) | 18 | (< 27 ) |
| [illegible]nitrotoluene | 0.05, 0.05 | 0.029 | 58 | 0.040 | 80 | ( 47-140 ) | 32 | (< 30 ) |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.092 | 46 | 0.11 | 54 | ( 27-119 ) | 16 | (< 33 ) |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.11 | 44 | 0.13 | 51 | ( 25-112 ) | 16 | (< 33 ) |
| Hexachlorobenzene | 0.05, 0.05 | 0.029 | 58 | 0.038 | 76 | ( 36-138 ) | 27 | (< 16 ) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.021 | 42 | 0.026 | 51 | ( 18-122 ) | 20 | (< 26 ) |
| Hexachloroethane | 0.05, 0.05 | 0.020 | 39 | 0.023 | 46 | ( 16-112 ) | 17 | (< 24 ) |
| Nitrobenzene | 0.05, 0.05 | 0.026 | 52 | 0.031 | 61 | ( 27-128 ) | 16 | (< 24 ) |
| Pentachlorophenol | 0.2, 0.2 | 0.13 | 63 | 0.17 | 87 | ( 45-162 ) | 32 | (< 17 ) |
| Pyridine | 0.05, 0.05 | 0.013 | 25 | 0.015 | 30 | ( 12-68 ) | 17 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Sample ID** | 332300 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5909 | **Batch** | XMS 2809 |
| **Original** | 3033673009 | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/02/2003 |
| **File** | F0902_12.D | **By** | BPJ |

QC results affect the following production samples:

3033673009, 3033673010

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.18 | 89 | | | ( 25-137 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.19 | 93 | | | ( 30-128 ) | | |
| 2,4-Dinitrotoluene | 0.05 | ND | 0.042 | 85 | | | ( 38-134 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.15 | 75 | | | ( 16-116 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | ND | 0.18 | 72 | | | ( 18-112 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.041 | 82 | | | ( 31-125 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.039 | 78 | | | ( 14-106 ) | | |
| Hexachloroethane | 0.05 | ND | 0.043 | 86 | | | ( 14-104 ) | | |
| Nitrobenzene | 0.05 | ND | 0.044 | 89 | | | ( 15-129 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.19 | 96 | | | ( 17-156 ) | | |
| Pyridine | 0.05 | ND | 0.024 | 48 | | | ( 10-75 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332301 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 5909 | | **Batch** | XMS 2809 |
| **Original** | 3033673010 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5971 Series |
| **Project** | Project 32684 Sybill, Inc. | | **Date** | 09/02/2003 |
| **File** | F0902_10.D | | **By** | BPJ |

QC results affect the following production samples:

3033673010

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.18 | 90 | | | ( 25-137 ) | | |
| [redacted]richlorophenol | 0.2 | ND | 0.18 | 92 | | | ( 30-128 ) | | |
| 2,[redacted]nitrotoluene | 0.05 | ND | 0.039 | 78 | | | ( 36-134 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.13 | 66 | | | ( 16-116 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | ND | 0.16 | 63 | | | ( 18-112 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.037 | 74 | | | ( 31-125 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.035 | 69 | | | ( 14-106 ) | | |
| Hexachloroethane | 0.05 | ND | 0.038 | 76 | | | ( 14-104 ) | | |
| Nitrobenzene | 0.05 | ND | 0.039 | 79 | | | ( 15-129 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.20 | 99 | | | ( 17-156 ) | | |
| Pyridine | 0.05 | ND | 0.024 | 47 | | | ( 10-75 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332303 | Matrix Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | XXX | 5909 | **Batch** | XMS | 2811 |
| **Original** | 3033673005 | | **Method** | SW-846 8270C | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5971 Series | |
| **Project** | Project 32684 Sybill, Inc. | | **Date** | 09/03/2003 | |
| **File** | F0903_13.D | | **By** | BPJ | |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008, 3033673011

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.083 | 42 | | | ( 39-116 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.089 | 45 | | | ( 39-114 ) | | |
| 2,4-Dinitrotoluene | 0.05 | ND | 0.035 | 69 | | | ( 46-125 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.083 | 42 | | | ( 28-101 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | 0.27 | 0.39 | 46 | | | ( 31-96 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.015 | 30 | | | ( 39-116 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.0099 | 20 | | | ( 24-91 ) | | |
| Hexachloroethane | 0.05 | ND | 0.010 | 21 | | | ( 23-90 ) | | |
| Nitrobenzene | 0.05 | ND | ND | 0 | | | ( 28-113 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.044 | 22 | | | ( 42-136 ) | | |
| Pyridine | 0.05 | ND | ND | 0 | | | ( 4.5-59 ) | | |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331973 | Method Blank | | |
| **Prep Batch** | XXX | 5909 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XMS 2808 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8270C |
| **File** | L0902_04.D | | | |
| | | | **Date** | 09/02/2003 |
| | | | **By** | BPJ |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| [redacted]chlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3807 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 08/29/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033673001 | PS | 70.3 | 71.7 |
| 3033673007 | PS | 66.7 | 60.7 |
| 3033673008 | PS | 78.7 | 46.3 |
| 331746 | MB | 82 | 1.67 |
| [illegible]747 | LCS | 78.3 | 42.7 |
| 331748 | LCSD | 80.3 | 49.3 |

**DCB = Decachlorobiphenyl Surr (14-91)**
**TMX = Tetrachloro-m-xylene Surr (17-94)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3810 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/02/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033673004 | PS | 62.7 | 50.7 |
| 3033673005 | PS | 25 | 22.3 |

**DCB** = **Decachlorobiphenyl Surr** (14-91)
**TMX** = **Tetrachloro-m-xylene Surr** (17-94)

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XGC 3812 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/03/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033673011 | PS | 108 | 45 |

**DCB = Decachlorobiphenyl Surr ( 14-91 )**
**TMX = Tetrachloro-m-xylene Surr ( 17-94 )**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3814 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/04/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 332063 | MB | 85.3 | 38 |
| 332064 | LCS | 86 | 47.3 |
| 332065 | LCSD | 95.7 | 54.3 |

| | | | |
|---|---|---|---|
| **DCB** | = | **Decachlorobiphenyl Surr** | **( 14-91 )** |
| **TMX** | = | **Tetrachloro-m-xylene Surr** | **( 17-94 )** |

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybil, Inc. | **Batch** | XGC 3813 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 09/03/2003 |
| | | **By** | JL |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033673002 | PS | 81.7 | 85 |
| 3033673003 | PS | 86 | 86.7 |
| 3033673006 | PS | 55.3 | 118 |
| 332179 | MB | 69.7 | 87.3 |
| [redacted]80 | LCS | 69 | 82.7 |
| 332181 | LCSD | 71 | 86.7 |
| 332182 | MS | 57.3 | 109 |
| 332183 | MSD | 51.3 | 107 |

**DCB = Decachlorobiphenyl Surr (25-170)**
**TMX = Tetrachloro-m-xylene Surr (25-150)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3805 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 08/28/2003 |
| | | **By** | JL |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033673009 | PS | 116 | 44.7 |
| 3033673010 | PS | 99.7 | 44.3 |
| 331600 | MB | 114 | 26.3 |
| 331601 | LCS | 120 | 43 |
| 331602 | LCSD | 107 | 26.3 |
| 331603 | MS | 100 | 74.7 |
| 331604 | MSD | 117 | 81 |

**DCB = Decachlorobiphenyl Surr ( 10-151 )**
**TMX = Tetrachloro-m-xylene Surr ( 10-140 )**

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 331601 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5897 | **Batch** | XGC 3805 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8082 |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 08/28/2003 |
| | | | **By** | JL |

QC results affect the following production samples:

3033673009, 3033673010

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration ug/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 330, 330 | 260 | 79 | 210 | 63 | ( 35-105 ) | 22 | (< 20 ) |
| Aroclor-1260 | 330, 330 | 260 | 78 | 230 | 70 | ( 54-114 ) | 11 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331747 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5900 | **Batch** | XGC 3807 |
| **Client** | Conestoga-Rovers & Associates | **Method** | EPA 608 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 08/29/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.64 | 64 | 0.68 | 68 | ( 38-158 ) | 6 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.96 | 96 | 1.0 | 101 | ( 10-127 ) | 5 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332180 Lab Control Spike | **Analysis** | |
| **Prep Batch** | XXX 5916 | **Batch** | XGC 3813 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 09/03/2003 |
| | | **By** | JL |

QC results affect the following production samples:

3033673002, 3033673003, 3033673006

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration mg/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.8, 9.8 | 6.1 | 63 | 7.1 | 73 | ( 25-141 ) | 15 | (< 20 ) |
| Aroclor-1260 | 9.8, 9.8 | 6.0 | 61 | 6.7 | 69 | ( 29-170 ) | 12 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332064 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5913 | **Batch** | XGC 3814 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | EPA 608 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U | |
| | | **Date** | 09/04/2003 | |
| | | **By** | ESA | |

QC results affect the following production samples:

3033673011

| Analyte | LCS;LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.53 | 53 | 0.62 | 62 | ( 38-158 ) | 16 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.71 | 71 | 0.77 | 77 | ( 10-127 ) | 8 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331603 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5897 | **Batch** | XGC 3805 |
| **Original** | 3033605001 | **Method** | SW-846 8082 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-U |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 08/28/2003 |
| | | **By** | JL |

QC results affect the following production samples:

3033673009, 3033673010

| Analyte | MS, MSD Spike Added ug/Kg | Sample Conc. ug/Kg | MS Concentration ug/Kg | MS Recovery % | MSD Concentration ug/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1260 | 330, 330 | 480 | 530 | 17 | 640 | 49 | ( 10-135 ) | 18 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 331603 | Matrix Spike | **Analysis** | | |
| | 331604 | Matrix Spike Duplicate | **Batch** | XGC | 3807 |
| **Prep Batch** | XXX | 5897 | **Method** | SW-846 8082 | |
| **Original** | 3033605001 | | **Instrument** | Varian 3400 ECD INST-U | |
| **Client** | Conestoga-Rovers & Associates | | **Date** | 08/29/2003 | |
| **Project** | Project 32664 Sybill, Inc. | | **By** | ESA | |

QC results affect the following production samples:

3033673009, 3033673010

| Analyte | MS, MSD Spike Added ug/Kg | Sample Conc. ug/Kg | MS Concentration ug/Kg | MS Recovery % | MSD Concentration ug/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 330, 330 | 13000 | 8500 | -1280 | 11000 | -600 | ( 10-140 ) | 23 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332182 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 5916 | | **Batch** | XGC 3813 |
| **Original** | 3033710001 | | **Method** | SW-846 8082 |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | Varian 3400 ECD INST-C |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/05/2003 |
| | | | **By** | JL |

QC results affect the following production samples:

3033673002, 3033673003, 3033673006

| Analyte | MS, MSD Spike Added mg/Kg | Sample Conc. mg/Kg | MS Concentration mg/Kg | MS Recovery % | MSD Concentration mg/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.3, 9.7 | ND | 6.7 | 72 | 7.0 | 72 | (22-196) | 5 | (< 20) |
| Aroclor-1260 | 9.3, 9.7 | ND | 5.2 | 56 | 5.2 | 53 | (49-187) | 0 | (< 20) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331600 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5897 | **Batch** | XGC 3805 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 08/28/2003 |
| | | **By** | JL |

QC results affect the following production samples:

3033673009, 3033673010

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Aroclor-1016 | ND | 33 |
| Aroclor-1221 | ND | 33 |
| Aroclor-1232 | ND | 33 |
| Aroclor-1242 | ND | 33 |
| Aroclor-1248 | ND | 33 |
| Aroclor-1254 | ND | 33 |
| Aroclor-1260 | ND | 33 |
| Aroclor-1262 | ND | 33 |
| Aroclor-1268 | ND | 33 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 331746 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5900 | **Batch** | XGC 3807 |
| **Client** | Conestoga-Rovers & Associates | **Method** | EPA 608 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 08/29/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332179 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5916 | **Batch** | XGC 3813 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 09/03/2003 |
| | | **By** | JL |

QC results affect the following production samples:

3033673002, 3033673003, 3033673006

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Aroclor-1016 | ND | 0.95 |
| Aroclor-1221 | ND | 0.95 |
| Aroclor-1232 | ND | 0.95 |
| Aroclor-1242 | ND | 0.95 |
| Aroclor-1248 | ND | 0.95 |
| Aroclor-1254 | ND | 0.95 |
| Aroclor-1260 | ND | 0.95 |
| Aroclor-1262 | ND | 0.95 |
| Aroclor-1268 | ND | 0.95 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332063 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5913 | **Batch** | XGC 3814 |
| **Client** | Conestoga-Rovers & Associates | **Method** | EPA 608 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/04/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3033673011

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332238 | Lab Control Spike TCLP | | |
| | | | **Analysis** | |
| **Prep Batch** | MXX | 11281 | **Batch** | MIM 5671 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\090303\LCS.023 | | **Date** | 09/03/2003 |
| | | | **By** | SRO |

QC results affect the following production samples:

3033673001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.1 | 113 | | | ( 50-150 ) | | |
| Barium | 1 | 1.1 | 111 | | | ( 50-150 ) | | |
| [illegible]um | 1 | 1.1 | 107 | | | ( 50-150 ) | | |
| Chromium | 1 | 1.1 | 113 | | | ( 50-150 ) | | |
| Lead | 1 | 1.1 | 114 | | | ( 50-150 ) | | |
| Selenium | 1 | 1.1 | 111 | | | ( 50-150 ) | | |
| Silver | 1 | 1.1 | 114 | | | ( 50-150 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332253 Lab Control Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11282 | **Batch** | MIM 5672 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\030303\LCS.038 | **Date** | 09/03/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 103 | | | ( 50-150 ) | | |
| Barium | 1 | 1.0 | 101 | | | ( 50-150 ) | | |
| Cadmium | 1 | 1.00 | 100 | | | ( 50-150 ) | | |
| Chromium | 1 | 1.0 | 101 | | | ( 50-150 ) | | |
| Lead | 1 | 1.0 | 103 | | | ( 50-150 ) | | |
| Selenium | 1 | 1.0 | 101 | | | ( 50-150 ) | | |
| Silver | 1 | 1.1 | 106 | | | ( 50-150 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332056 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11274 | **Batch** | MIM 5675 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | n:\icpms\elandata\dataset\090203\LCS.112 | **Date** | 09/02/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033673012

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.1 | 0.10 | 103 | | | ( 83-111 ) | | |
| Barium | 0.1 | 0.10 | 104 | | | ( 80-113 ) | | |
| [illegible]um | 0.1 | 0.10 | 101 | | | ( 83-110 ) | | |
| Chromium | 0.1 | 0.10 | 102 | | | ( 83-112 ) | | |
| Lead | 0.1 | 0.10 | 105 | | | ( 81-117 ) | | |
| Selenium | 0.1 | 0.10 | 102 | | | ( 81-114 ) | | |
| Silver | 0.1 | 0.10 | 105 | | | ( 81-113 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332260 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11282 | **Batch** | MIM 5672 |
| **Original** | 3033673005 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32864 Sybill, Inc. | **Date** | 09/03/2003 |
| **File** | N:\ICPMS\elandata\Dataset\090303\3033673005 MS.065 | **By** | SRO |

QC results affect the following production samples:

3033673004, 3033673005, 3033673007

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 0.018 | 0.67 | 66 | | | ( 50-150 ) | | |
| Barium | 1 | 4.8 | 8.5 | 367 | | | ( 50-150 ) | | |
| Cadmium | 1 | 0.0015J | 1.1 | 109 | | | ( 50-150 ) | | |
| Chromium | 1 | 2.2 | 4.0 | 172 | | | ( 50-150 ) | | |
| Lead | 1 | 0.32 | 1.4 | 105 | | | ( 50-150 ) | | |
| Selenium | 1 | 0.016J | 0.76 | 75 | | | ( 50-150 ) | | |
| Silver | 1 | 0.0049 | 0.11 | 10 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332261 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11282 | **Batch** | MIM 5672 |
| **Original** | 3033673007 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32684 Sybill, Inc. | **Date** | 09/03/2003 |
| **File** | N:\ICPMS\elandata\Dataset\090303\3033673007 MS.070 | **By** | SRO |

QC results affect the following production samples:

3033673007, 3033673008, 3033673009

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 10 | ND | 11 | 112 | | | ( 50-150 ) | | |
| [redacted]m | 10 | 0.036J | 11 | 112 | | | ( 50-150 ) | | |
| [redacted]lium | 10 | ND | 11 | 107 | | | ( 50-150 ) | | |
| Chromium | 10 | ND | 11 | 109 | | | ( 50-150 ) | | |
| Lead | 10 | ND | 11 | 109 | | | ( 50-150 ) | | |
| Selenium | 10 | ND | 12 | 115 | | | ( 50-150 ) | | |
| Silver | 10 | 0.0095J | 2.8 | 28 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332262 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11282 | **Batch** | MIM 5672 |
| **Original** | 3033673009 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/03/2003 |
| **File** | N:\ICPMS\elandata\Dataset\090303\3033673009 MS.073 | **By** | SRO |

QC results affect the following production samples:

3033673008, 3033673009, 3033673010

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1.1 | 0.20 | 1.5 | 118 | | | ( 50-150 ) | | |
| Barium | 1.1 | 0.038 | 1.3 | 112 | | | ( 50-150 ) | | |
| Cadmium | 1.1 | 0.00064J | 1.1 | 100 | | | ( 50-150 ) | | |
| Chromium | 1.1 | 0.12 | 1.3 | 107 | | | ( 50-150 ) | | |
| Lead | 1.1 | 0.014 | 1.2 | 105 | | | ( 50-150 ) | | |
| Selenium | 1.1 | ND | 1.3 | 112 | | | ( 50-150 ) | | |
| Silver | 1.1 | ND | 1.1 | 96 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332263 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11282 | **Batch** | MIM 5672 |
| **Original** | 3033673010 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/03/2003 |
| **File** | N:\ICPMS\elandata\Dataset\090303\3033673010 MS.077 | **By** | SRO |

QC results affect the following production samples:

3033673010, 3033673011

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1.6 | ND | 1.6 | 103 | | | ( 50-150 ) | | |
| [illegible]m | 1.6 | 0.078 | 1.6 | 97 | | | ( 50-150 ) | | |
| [illegible]mium | 1.6 | 0.00045J | 1.5 | 95 | | | ( 50-150 ) | | |
| Chromium | 1.6 | 0.0060J | 1.5 | 94 | | | ( 50-150 ) | | |
| Lead | 1.6 | 0.013 | 1.6 | 98 | | | ( 50-150 ) | | |
| Selenium | 1.6 | ND | 1.7 | 105 | | | ( 50-150 ) | | |
| Silver | 1.6 | ND | 0.86 | 55 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332243 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11281 | **Batch** | MIM 5674 |
| **Original** | 3033673001 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/04/2003 |
| **File** | N:\ICPMS\elandata\Dataset\090303\3033673001 MS.155 | **By** | SRO |

QC results affect the following production samples:

3033673001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 10 | ND | 10 | 102 | | | ( 50-150 ) | | |
| Barium | 10 | 0.095 | 10 | 102 | | | ( 50-150 ) | | |
| Cadmium | 10 | 0.0093J | 9.9 | 99 | | | ( 50-150 ) | | |
| Chromium | 10 | 0.38 | 10 | 98 | | | ( 50-150 ) | | |
| Lead | 10 | ND | 10 | 103 | | | ( 50-150 ) | | |
| Selenium | 10 | ND | 10 | 102 | | | ( 50-150 ) | | |
| Silver | 10 | 0.0087J | 10 | 101 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332057 Matrix Spike | **Analysis** | |
| | 332058 Matrix Spike Duplicate | **Batch** | MIM 5675 |
| **Prep Batch** | MXX 11274 | **Method** | SW-846 6020 |
| **Original** | 3033708001 | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Client** | Conestoga-Rovers & Associates | **Date** | 09/02/2003 |
| **Project** | Project 32664 Sybil, Inc. | **By** | SRO |
| **File** | n:\icpms\elandata\dataset\090203\3033708001 MS.114 | | |
| | n:\icpms\elandata\dataset\090203\3033708001 MSD.115 | | |

QC results affect the following production samples:

3033673012

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.1, 0.1 | 0.035 | 0.26 | 228 | 0.33 | 290 | ( 69-138 ) | 21 | (< 16 ) |
| [redacted]n | 0.1, 0.1 | 0.20 | 0.35 | 150 | 0.37 | 165 | ( 58-146 ) | 4 | (< 16 ) |
| [redacted]nium | 0.1, 0.1 | 0.0018 | 0.10 | 100 | 0.11 | 106 | ( 71-128 ) | 5 | (< 19 ) |
| Chromium | 0.1, 0.1 | 0.022 | 0.14 | 116 | 0.15 | 126 | ( 68-126 ) | 7 | (< 21 ) |
| Lead | 0.1, 0.1 | 0.0085 | 0.11 | 105 | 0.12 | 112 | ( 72-125 ) | 6 | (< 18 ) |
| Selenium | 0.1, 0.1 | 0.11 | 0.58 | 476 | 0.77 | 659 | ( 69-138 ) | 27 | (< 22 ) |
| Silver | 0.1, 0.1 | 0.00043 | 0.099 | 99 | 0.066 | 66 | ( 23-140 ) | 40 | (< 35 ) |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332240 Method Blank | | |
| **Prep Batch** | MXX 11281 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MIM 5671 |
| **Project** | Project 32664 Sybil, Inc. | **Method** | SW-846 6020 |
| **File** | N:\ICPMS\elandata\Dataset\090303\MB.022 | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| | | **Date** | 09/03/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033673001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| Selenium | ND | 0.016 |
| Silver | ND | 0.0040 |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332256 | Method Blank | | |
| **Prep Batch** | MXX | 11282 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | MIM 5672 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SW-846 6020 |
| **File** | N:\ICPMS\elandata\Dataset\090303\MB.037 | | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| | | | **Date** | 09/03/2003 |
| | | | **By** | SRO |

QC results affect the following production samples:

3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| [redacted] | ND | 0.0040 |
| [redacted]lum | ND | 0.016 |
| Silver | ND | 0.0040 |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332055 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11274 | **Batch** | MIM 5675 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | n:\icpms\elandata\dataset\090203\MB.111 | **Date** | 09/02/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033673012

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.0010 |
| Barium | ND | 0.00040 |
| Cadmium | ND | 0.00020 |
| Chromium | ND | 0.00060 |
| Lead | ND | 0.00040 |
| Selenium | ND | 0.0016 |
| Silver | ND | 0.00040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332078 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11276 | **Batch** | MCV 2005 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090203W1.TXT | **Date** | 09/02/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033673012

| Analyte | LCS/LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0021 | 104 | | | ( 86-114 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332326 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11285 | **Batch** | MCV 2007 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32684 Sybil, Inc. | **Instrument** | PSA Millenium |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\090303 | **Date** | 09/03/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | LCS;LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0020 | 100 | | | ( 86-114 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333258 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11316 | **Batch** | MCV 2012 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32684 Sybil, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090903W1.TXT | **Date** | 09/09/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033673012

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0022 | 109 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332079 Matrix Spike | | |
| | 332080 Matrix Spike Duplicate | **Analysis** | |
| **Prep Batch** | MXX 11276 | **Batch** | MCV 2005 |
| **Original** | 3033664001 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/02/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090203W1.TXT | **By** | PSK |
| | M:\Mercury\Millennium\Results\LIMSExp\090203W1.TXT | | |

QC results affect the following production samples:

3033673012

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002, 0.002 | ND | 0.0020 | 100 | 0.0020 | 98 | ( 64-127 ) | 2 | (< 15 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 332327 Matrix Spike TCLP | | |
| | 332328 Matrix Spike Duplicate TCLP | **Analysis** | |
| **Prep Batch** | MXX 11285 | **Batch** | MCV 2007 |
| **Original** | 3033673001 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32684 Sybill, Inc. | **Date** | 09/03/2003 |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\090303W1.TXT | **By** | SKP |
| | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\090303W1.TXT | | |

QC results affect the following production samples:

3033673001, 3033673004

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.1, 0.1 | ND | 0.10 | 103 | 0.10 | 102 | ( 50-150 ) | 0 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 332329 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11285 | **Batch** | MCV 2007 |
| **Original** | 3033673004 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybil, Inc. | **Date** | 09/03/2003 |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\090303W1.TXT | **By** | SKP |

QC results affect the following production samples:

3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | 0.0018J | 0.016 | 71 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 333259 Matrix Spike TCLP | | |
| | 333260 Matrix Spike Duplicate TCLP | **Analysis** | |
| **Prep Batch** | MXX 11316 | **Batch** | MCV 2012 |
| **Original** | 3033673012 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/09/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090903W1.TXT | **By** | PSK |
| | M:\Mercury\Millennium\Results\LIMSExp\090903W1.TXT | | |

QC results affect the following production samples:

3033673012

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02, 0.02 | ND | 0.020 | 102 | 0.020 | 100 | ( 50-150 ) | 2 | (< 20 ) |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332077 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11276 | **Batch** | MCV 2005 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090203W1.TXT | **Date** | 09/02/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033673012

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332325 Method Blank | | |
| **Prep Batch** | MXX 11285 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MCV 2007 |
| **Project** | Project 32684 Sybill, Inc. | **Method** | SW-846 7470A |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\090303 | **Instrument** | PSA Millenium |
| | | **Date** | 09/03/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333257 Method Blank | | |
| **Prep Batch** | MXX 11316 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MCV 2012 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 7470A |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090903W1.TXT | **Instrument** | PSA Millenium |
| | | **Date** | 09/09/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033673012

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

SGS CT&E Environmental Services Inc.
Michigan Division

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332125 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | WXX 3427 | **Batch** | WLA 1451 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| **File** | rcn 9-3-03.xls | **Date** | 09/02/2003 |
| | | **By** | MAH |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 1.4 | 28 | | | ( 2.6-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332124 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3427 | **Batch** | WLA 1451 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| **File** | rcn 9-3-03.xls | **Date** | 09/02/2003 |
| | | **By** | MAH |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332113 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3426 | **Batch** | WAT 1827 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/02/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 390 | 95 | | | ( 57-109 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332112 | Method Blank | **Analysis** | |
| **Prep Batch** | WXX | 3426 | **Batch** | WAT 1827 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/02/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332114 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3426 | **Batch** | WAT 1827 |
| **Original** | 3033673011 | **Method** | SW-846 7.3.4.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | No Instrument, Manual Handling |
| **Project** | Project 32684 Sybil, Inc. | **Date** | 09/02/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 50 | 0.00 | |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 332070 pH Calibration Standard | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2064 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 09/02/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332071 | Quality Control Sample | **Analysis** | | |
| **Prep Batch** | | | **Batch** | WPH 2064 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B | |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A | |
| | | | **Date** | 09/02/2003 | |
| | | | **By** | SRS | |

QC results affect the following production samples:

3033673009, 3033673010

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.95 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 332074 Quality Control Sample | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2064 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 09/02/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 8.04 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332073 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2064 |
| **Original** | 3033673010 | **Method** | SW-846 9040B |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/02/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033673001, 3033673004, 3033673005, 3033673007, 3033673008, 3033673009, 3033673010, 3033673011

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 2.41 | 2.38 | | 1.30 | (< 20) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332444 | Flashpoint Calibration Std. | **Analysis** | |
| **Prep Batch** | | | **Batch** | MXX 11290 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 1010 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/04/2003 |
| | | | **By** | WD |

QC results affect the following production samples:

3033673001, 3033673002, 3033673003, 3033673004, 3033673005, 3033673006, 3033673007, 3033673008, 3033673011

| Analyte | LCS,LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 79 | 99 | | | ( 98-102 ) | | |

## METHOD BLANK SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332034 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | WG1 4656 |
| **Project** | Project 32664 Sybil, Inc. | | **Method** | SM19 2540G |
| | | | **Instrument** | Mettler Balance AE 100 DryWhg. |
| | | | **Date** | 09/03/2003 |
| | | | **By** | SKP |

QC results affect the following production samples:

3033673009, 3033673010

| Analyte | Concentration % | Detection Limit % |
|---|---|---|
| Total Solids | 100 | 0.10 |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332035 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3033673009 | **Batch** | WG1 4656 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SM19 2540G |
| **Project** | Project 32664 Sybill, Inc. | | |
| | | **Date** | 09/03/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3033673009, 3033673010

| Analyte | Original Sample Concentration % | Dilution / Duplicate Concentration % | RDL % | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Solids | 88.8 | 90.2 | 0.10 | 1.50 | (< 20) |

SGS

REC'D CRA
SEP 16 2003
SDG: 9

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033732

ORIGINAL ANALYTICAL REPORT

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

Project#: 32664 Lab#: 3033732
Name: SYBILL, INC.
Description
Event:
Samples: 2 Liquid
Analysis: VOC, PCB
Fax
TAT: 3 day
Lab: SGS
Checked Against Preliminary Data:
Date: 9-16-03 Init.: K.B.
Date of Validation Memo:
Invoice Approval Date:
Comments:

Approval Signature: Tamela M. Johns

Date Issued: 9-15-03
Total Pages: 59

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033732

***Sample Collection and Receipt -***

One sample containing an oil and water phase was collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on August 28, 2003. The sample containers were released to a laboratory courier on September 2, 2003 for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The sample was received at SGS on September 3, 2003 in good condition, on ice and at a temperature of 3°C. Upon receipt, the sample phases were separated into a water sample and an oil sample for analysis. Following log-in, the samples were stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

Per the fax received on August 26, 2003 client sample L-32664-082803-SM-044-Water was analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the sample was extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. The leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals. Client sample L-32664-082803-SM-044-Oil was analyzed for Flashpoint, PCBs and VOCs.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Volatiles Analysis*

The recovery for Chlorobenzene was below the lower control limit in the MS on sample 3033732002 associated with analytical batch VMS 4787. Chlorobenzene in the parent sample may be biased low.

1,2,3-Trichlorobenzene (170 ug/Kg) and 1,2,4-Trichlorobenzene (150 ug/Kg) were detected in the method blank associated with analytical batch VMS 4788. These compounds were not detected in the associated project sample.

*GC/MS Semi-Volatiles Analysis*

The recovery for Nitrobenzene was above the upper control limit in the LCS/LCSD associated with preparation batch XXX 5926. This compound was not detected in the associated project sample.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033732

***Quality Control (QC) –continued***

*GC PCB Analysis*

The surrogate recovery for Decachlorobiphenyl was above the upper control limit in the LCS associated with preparation batch XXX 5914. The alternate surrogate, Tetrachloro-m-xylene, was acceptable.

*Metals Analysis*

The recovery for Silver was below the lower control limits in the MS on sample 3033732002 associated with preparation batch MXX 11291. The Silver result may be biased low in sample 3033732002.

***Sample Reporting –***

The Silver result for laboratory sample 3033732002 was qualified (M) for matrix interference.

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 9-12-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033732

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Total Volatiles | SW-846 8260[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| L-32664-082803-SM-044-Oil | 3033732001 |
| L-32664-082803-SM-044-Water | 3033732002 |

# Explanation of Terms and Data Qualifiers

| Term Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

3033732

CT&E Environmental Services Inc.

167231 COC Serial


# CRA
CONESTOGA-ROVERS & ASSOCIATES, INC.
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123


## CHAIN OF CUSTODY RECORD

SHIPPED TO (Laboratory Name): CT&E
1200 Conrad Industrial Drive, Ludington MI 49431

REFERENCE NUMBER: ~~[illegible]~~ 32664

PROJECT NAME: Sybill

SAMPLER'S SIGNATURE: Shawn McLean   PRINTED NAME: Shawn McLean

| SEQ. No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | TCL VOC | & Freon | Sp. Gravity | PCBs | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8-28-03 | 1100 | L-32664-082803-SM-044-oil | L | 4 | ✓ | ✓ | ✓ | ✓ | ASAP |
| 2 | | | L-32664-082803-SM-044-water | | | | | | | |
| | | | | | | | | | | unable to separate phases in the field |

TOTAL NUMBER OF CONTAINERS: 4

| RELINQUISHED BY | DATE / TIME | RECEIVED BY | DATE / TIME |
|---|---|---|---|
| 1. Shawn McLean | DATE: 8-29-03 TIME: 11:05 | 1. [signature] | DATE: 9/2/03 TIME: 11:05 |
| 2. [signature] | DATE: 9/2/03 TIME: | 2. | DATE: TIME: |
| 3. | DATE: TIME: | 1. | DATE: TIME: |

METHOD OF SHIPMENT: Lab courier   AIR BILL No.

White -Fully Executed Copy   Pink -Shipper Copy
Yellow -Receiving Laboratory Copy   Goldenrod -Sampler Copy

24031

SAMPLE TEAM: SM, KMB

RECEIVED FOR LABORATORY BY: R. Appleton
DATE: 9-3-03 TIME: 845 3°C

1001 (FORM) APRIL 29, 93-REV.0-(C)(F-01)

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of 1

Project Number: 3033732 Date Logged In: 9/3/03 Login Person Initials: PM

This section to be completed when corrective action is required:

Client: CRA
Client Contact: _____

Project Name: _____
Phone Number: _____

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | | |

**COMMENTS/CORRECTIVE ACTION**

2 layers Oil/water

NOTE: Client signed release on 8/29 but told SGS courier to wait until 9/2 to pickup. -JEG

**Containers Created**

| 40 mL Vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Samp. No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

# Laboratory Report

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3033732**<br>**#32664 Sybill** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

**Certification:**

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

9/8/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@agsenvironmental.com

**This report contains** _____ **pages**

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# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033732001 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | L-32684-082803-SM-044 - Oil | Location: | |
| Collected: | 08/28/2003 11:00 | Project: | Project 32684 Sybil, Inc. |
| Received: | 09/03/2003 08:45 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/04/03 12:42 | WD | 4 |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| [illegible]-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| [illegible]-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,2-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 2-Butanone ( MEK ) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| [illegible]hlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| [illegible]nzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033732001 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | L-32664-082803-SM-044 - Oil | Location: | |
| Collected: | 08/28/2003 11:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/03/2003 08:45 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Chloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Dibromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Methylene chloride | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Trichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/03/03 14:00 | 09/05/03 13:22 | JDS | 4 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/04/03 12:43 | 09/04/03 18:35 | JL | 1 |
| Aroclor-1221 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/04/03 12:43 | 09/04/03 18:35 | JL | 1 |
| Aroclor-1232 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/04/03 12:43 | 09/04/03 18:35 | JL | 1 |
| Aroclor-1242 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/04/03 12:43 | 09/04/03 18:35 | JL | 1 |
| Aroclor-1248 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/04/03 12:43 | 09/04/03 18:35 | JL | 1 |
| Aroclor-1254 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/04/03 12:43 | 09/04/03 18:35 | JL | 1 |
| Aroclor-1260 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/04/03 12:43 | 09/04/03 18:35 | JL | 1 |
| Aroclor-1262 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/04/03 12:43 | 09/04/03 18:35 | JL | 1 |
| Aroclor-1268 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/04/03 12:43 | 09/04/03 18:35 | JL | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033732002 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-082803-SM-044 - Water | **Location:** | |
| **Collected:** | 08/28/2003 11:00 | **Project:** | Project 32664 Sybil, Inc. |
| **Received:** | 09/03/2003 08:45 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | 0.0080J | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/04/03 12:35 | 09/05/03 10:05 | MAH | 4 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/04/03 13:02 | 09/05/03 13:04 | KAA | 4 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/05/03 17:19 | SRS | 4 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/04/03 12:42 | WD | 4 |
| [redacted] | 7.07 | | S.U. | | SW-846 9040B | | 09/05/03 17:19 | SRS | 4 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/03/03 14:58 | 09/04/03 10:41 | ESA | 4 |
| Aroclor-1221 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/03/03 14:58 | 09/04/03 10:41 | ESA | 4 |
| Aroclor-1232 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/03/03 14:58 | 09/04/03 10:41 | ESA | 4 |
| Aroclor-1242 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/03/03 14:58 | 09/04/03 10:41 | ESA | 4 |
| Aroclor-1248 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/03/03 14:58 | 09/04/03 10:41 | ESA | 4 |
| Aroclor-1254 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/03/03 14:58 | 09/04/03 10:41 | ESA | 4 |
| Aroclor-1260 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/03/03 14:58 | 09/04/03 10:41 | ESA | 4 |
| Aroclor-1262 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/03/03 14:58 | 09/04/03 10:41 | ESA | 4 |
| Aroclor-1268 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/03/03 14:58 | 09/04/03 10:41 | ESA | 4 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/04/03 12:49 | 09/05/03 01:36 | SRO | 1 |
| Barium | 0.070 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/04/03 12:49 | 09/05/03 01:36 | SRO | 1 |
| Cadmium | 0.013 | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/04/03 12:49 | 09/05/03 01:36 | SRO | 1 |
| Chromium | ND | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/04/03 12:49 | 09/05/03 01:36 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/04/03 14:45 | 09/04/03 17:19 | PSK | 4 |
| [redacted] | 0.0026J | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/04/03 12:49 | 09/05/03 01:36 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/04/03 12:49 | 09/05/03 01:36 | SRO | 1 |
| Silver | 0.0011J M | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/04/03 12:49 | 09/05/03 01:36 | SRO | 1 |

Workorder: 3033732 Conestoga-Rovers & Associates Reported: 9/8/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033732002 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-082803-SM-044 - Water | Location: | |
| Collected: | 08/28/2003 11:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/03/2003 08:45 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/06/03 14:50 | JDS | 4 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/06/03 14:50 | JDS | 4 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/06/03 14:50 | JDS | 4 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/06/03 14:50 | JDS | 4 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/06/03 14:50 | JDS | 4 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/06/03 14:50 | JDS | 4 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/06/03 14:50 | JDS | 4 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/06/03 14:50 | JDS | 4 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/06/03 14:50 | JDS | 4 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/06/03 14:50 | JDS | 4 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/06/03 14:50 | JDS | 4 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/08/03 09:00 | 09/08/03 12:24 | BPJ | 4 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/08/03 09:00 | 09/08/03 12:24 | BPJ | 4 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/08/03 09:00 | 09/08/03 12:24 | BPJ | 4 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/08/03 09:00 | 09/08/03 12:24 | BPJ | 4 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/08/03 09:00 | 09/08/03 12:24 | BPJ | 4 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/08/03 09:00 | 09/08/03 12:24 | BPJ | 4 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/08/03 09:00 | 09/08/03 12:24 | BPJ | 4 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/08/03 09:00 | 09/08/03 12:24 | BPJ | 4 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/08/03 09:00 | 09/08/03 12:24 | BPJ | 4 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/08/03 09:00 | 09/08/03 12:24 | BPJ | 4 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/08/03 09:00 | 09/08/03 12:24 | BPJ | 4 |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4788 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Non Aqueous Liquid | **Date** | 09/05/2003 |
| | | **By** | JDS |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3033732001 | PS | 96.9 | 99.3 | 98.2 | 99.9 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 80-124 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 87-117 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 74-123 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 92-113 )** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | VMS 4788 |
| | | Method | SW-846 8260B |
| Matrix | Solid | Date | 09/05/2003 |
| | | By | JDS |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 332933 | MB | 99.5 | 97.1 | 98.5 | 101 |
| 332934 | LCS | 101 | 94.2 | 94 | 102 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 80-124 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 87-117 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 74-123 ) |
| TOL | = | Toluene-d8 Surr | ( 92-113 ) |

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | VMS 4787 |
| | | Method | SW-846 8260B |
| Matrix | Aqueous | Instrument | HP 5972 Series INSTRU H |
| | | Date | 09/08/2003 |
| | | By | JDS |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3033732002 PS | 94.2 | 112 | 103 | 107 |
| 332912 LCS | 108 | 107 | 113 | 108 |
| 332913 MB | 94.7 | 108 | 101 | 107 |
| 332914 MS | 100 | 112 | 110 | 108 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 79-116 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 72-132 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 77-124 ) |
| TOL | = | Toluene-d8 Surr | ( 87-110 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332934 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4788 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | H0905_03.D | **Date** | 09/05/2003 |
| | | **By** | JDS |

QC results affect the following production samples:

3033732001

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 2500 | 2300 | 92 | | | ( 69-117 ) | | |
| 1,1,1-Trichloroethane | 2500 | 2200 | 88 | | | ( 62-124 ) | | |
| [illegible]2-Tetrachloroethane | 2500 | 2200 | 86 | | | ( 64-127 ) | | |
| [illegible]-Trichloroethane | 2500 | 2200 | 88 | | | ( 73-116 ) | | |
| 1,1-Dichloroethane | 2500 | 2200 | 89 | | | ( 73-113 ) | | |
| 1,1-Dichloroethene | 2500 | 2500 | 98 | | | ( 57-133 ) | | |
| 1,1-Dichloropropene | 2500 | 2300 | 93 | | | ( 78-118 ) | | |
| 1,2,3-Trichlorobenzene | 2500 | 2600 | 104 | | | ( 71-127 ) | | |
| 1,2,3-Trichloropropane | 2500 | 2100 | 85 | | | ( 58-122 ) | | |
| 1,2,4-Trichlorobenzene | 2500 | 2600 | 104 | | | ( 72-126 ) | | |
| 1,2-Dibromo-3-chloropropane | 2500 | 2200 | 89 | | | ( 52-136 ) | | |
| 1,2-Dibromoethane | 2500 | 2300 | 92 | | | ( 69-123 ) | | |
| 1,2-Dichlorobenzene | 2500 | 2400 | 96 | | | ( 70-125 ) | | |
| 1,2-Dichloroethane | 2500 | 2300 | 91 | | | ( 55-120 ) | | |
| 1,2-Dichloropropane | 2500 | 2200 | 89 | | | ( 77-116 ) | | |
| 1,3-Dichlorobenzene | 2500 | 2400 | 95 | | | ( 75-121 ) | | |
| 1,3-Dichloropropane | 2500 | 2300 | 93 | | | ( 78-114 ) | | |
| 1,4-Dichlorobenzene | 2500 | 2300 | 94 | | | ( 73-117 ) | | |
| 2,2-Dichloropropane | 2500 | 2200 | 87 | | | ( 71-116 ) | | |
| 2-Butanone ( M E K ) | 2500 | 2200 | 86 | | | ( 48-168 ) | | |
| 2-Chlorotoluene | 2500 | 2300 | 94 | | | ( 84-115 ) | | |
| 4-Chlorotoluene | 2500 | 2300 | 94 | | | ( 82-121 ) | | |
| Benzene | 2500 | 2300 | 92 | | | ( 74-122 ) | | |
| Bromochloromethane | 2500 | 2200 | 88 | | | ( 71-117 ) | | |
| Bromodichloromethane | 2500 | 2300 | 91 | | | ( 67-122 ) | | |
| [illegible]form | 2500 | 2500 | 102 | | | ( 53-136 ) | | |
| Bromomethane | 2500 | 2400 | 96 | | | ( 25-170 ) | | |
| Carbon tetrachloride | 2500 | 2500 | 98 | | | ( 63-133 ) | | |
| Chlorobenzene | 2500 | 2500 | 98 | | | ( 74-122 ) | | |
| Chloroethane | 2500 | 2400 | 95 | | | ( 49-132 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332934 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | VMS 4788 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | H0905_03.D | | **Date** | 09/05/2003 |
| | | | **By** | JDS |

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 2500 | 2200 | 87 | | | ( 67-114 ) | | |
| Chloromethane | 2500 | 2400 | 94 | | | ( 60-115 ) | | |
| cis-1,2-Dichloroethene | 2500 | 2200 | 87 | | | ( 79-110 ) | | |
| cis-1,3-Dichloropropene | 2500 | 2400 | 94 | | | ( 70-131 ) | | |
| Dibromochloromethane | 2500 | 2500 | 100 | | | ( 68-126 ) | | |
| Dibromomethane | 2500 | 2400 | 95 | | | ( 64-127 ) | | |
| Dichlorodifluoromethane | 2500 | 1700 | 69 | | | ( 27-129 ) | | |
| Methylene chloride | 2500 | 2200 | 90 | | | ( 69-119 ) | | |
| Tetrachloroethene | 2500 | 2200 | 88 | | | ( 51-134 ) | | |
| trans-1,2-Dichloroethene | 2500 | 2200 | 88 | | | ( 74-116 ) | | |
| trans-1,3-Dichloropropene | 2500 | 2600 | 103 | | | ( 68-125 ) | | |
| Trichloroethene | 2500 | 2200 | 89 | | | ( 70-121 ) | | |
| Trichlorofluoromethane | 2500 | 2600 | 103 | | | ( 47-132 ) | | |
| Vinyl chloride | 2500 | 2400 | 96 | | | ( 60-125 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332912 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | VMS 4787 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | HP 5972 Series INSTRU H |
| **File** | S0906_02.D | | **Date** | 09/06/2003 |
| | | | **By** | JDS |

QC results affect the following production samples:

3033732002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.18 | 92 | | | ( 86-121 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.20 | 98 | | | ( 77-114 ) | | |
| [illegible]Dichlorobenzene | 0.2 | 0.18 | 89 | | | ( 83-120 ) | | |
| [illegible]tanone ( M E K ) | 0.2 | 0.20 | 99 | | | ( 83-131 ) | | |
| Benzene | 0.2 | 0.18 | 91 | | | ( 87-112 ) | | |
| Carbon tetrachloride | 0.2 | 0.18 | 90 | | | ( 80-124 ) | | |
| Chlorobenzene | 0.2 | 0.19 | 93 | | | ( 86-117 ) | | |
| Chloroform | 0.2 | 0.18 | 91 | | | ( 83-113 ) | | |
| Tetrachloroethene | 0.2 | 0.15 | 74 | | | ( 59-148 ) | | |
| Trichloroethene | 0.2 | 0.19 | 94 | | | ( 83-111 ) | | |
| Vinyl chloride | 0.2 | 0.19 | 95 | | | ( 68-133 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332914 | Matrix Spike | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4787 | |
| **Original** | 3033732002 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU H |
| **Project** | Project 32664 Sybil, Inc. | | **Date** | 09/06/2003 | |
| **File** | S0906_16.D | | **By** | JDS | |

QC results affect the following production samples:

3033732002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.20 | 102 | | | ( 71-144 ) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.17 | 86 | | | ( 67-121 ) | | |
| 1,4-Dichlorobenzene | 0.2 | ND | 0.16 | 78 | | | ( 51-145 ) | | |
| 2-Butanone ( MEK ) | 0.2 | ND | 0.16 | 79 | | | ( 32-134 ) | | |
| Benzene | 0.2 | ND | 0.17 | 86 | | | ( 76-127 ) | | |
| Carbon tetrachloride | 0.2 | ND | 0.18 | 90 | | | ( 83-130 ) | | |
| Chlorobenzene | 0.2 | ND | 0.17 | 85 | | | ( 86-117 ) | | |
| Chloroform | 0.2 | ND | 0.18 | 88 | | | ( 71-137 ) | | |
| Tetrachloroethene | 0.2 | ND | 0.13 | 63 | | | ( 55-113 ) | | |
| Trichloroethene | 0.2 | ND | 0.17 | 85 | | | ( 80-122 ) | | |
| Vinyl chloride | 0.2 | ND | 0.21 | 104 | | | ( 59-145 ) | | |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332933 Method Blank | | |
| **Prep Batch** | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | VMS 4788 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 8260B |
| **File** | H0905_04.D | | |
| | | **Date** | 09/05/2003 |
| | | **By** | JDS |

QC results affect the following production samples:

3033732001

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 70 |
| 1,1,1-Trichloroethane | ND | 35 |
| 1,1,2,2-Tetrachloroethane | ND | 70 |
| 1,1,2-Trichloroethane | ND | 35 |
| 1,1-Dichloroethane | ND | 35 |
| [illegible]ichloroethene | ND | 35 |
| [illegible]-Dichloropropene | ND | 35 |
| 1,2,3-Trichlorobenzene | 170 | 150 |
| 1,2,3-Trichloropropane | ND | 70 |
| 1,2,4-Trichlorobenzene | 150 | 150 |
| 1,2-Dibromo-3-chloropropane | ND | 150 |
| 1,2-Dibromoethane | ND | 150 |
| 1,2-Dichlorobenzene | ND | 70 |
| 1,2-Dichloroethane | ND | 35 |
| 1,2-Dichloropropane | ND | 35 |
| 1,3-Dichlorobenzene | ND | 70 |
| 1,3-Dichloropropane | ND | 35 |
| 1,4-Dichlorobenzene | ND | 70 |
| 2,2-Dichloropropane | ND | 35 |
| 2-Butanone ( M E K ) | ND | 300 |
| 2-Chlorotoluene | ND | 35 |
| 4-Chlorotoluene | ND | 35 |
| Benzene | ND | 35 |
| Bromochloromethane | ND | 70 |
| Bromodichloromethane | ND | 70 |
| Bromoform | ND | 70 |
| Bromomethane | ND | 150 |
| Carbon tetrachloride | ND | 35 |
| Chlorobenzene | ND | 35 |
| Chloroethane | ND | 150 |
| [illegible]loroform | ND | 35 |
| [illegible]oromethane | ND | 150 |
| cis-1,2-Dichloroethene | ND | 35 |
| cis-1,3-Dichloropropene | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332933 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4788 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | H0905_04.D | | | |
| | | | **Date** | 09/05/2003 |
| | | | **By** | JDS |

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Dibromochloromethane | ND | 70 |
| Dibromomethane | ND | 150 |
| Dichlorodifluoromethane | ND | 70 |
| Methylene chloride | ND | 150 |
| Tetrachloroethene | ND | 35 |
| trans-1,2-Dichloroethene | ND | 35 |
| trans-1,3-Dichloropropene | ND | 35 |
| Trichloroethene | ND | 35 |
| Trichlorofluoromethane | ND | 70 |
| Vinyl chloride | ND | 35 |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332913 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4787 | |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B | |
| **File** | S0906_04.D | | **Instrument** | HP 5972 Series | INSTRU H |
| | | | **Date** | 09/06/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3033732002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybil, Inc. | Batch | XMS 2813 |
| | | Method | SW-846 8270C |
| Matrix | Aqueous | Date | 09/04/2003 |
| | | By | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 332888 | MB | 47.7 | 66.7 | 71.8 | 33.8 | 69.9 | 64.4 |
| 332889 | LCS | 54.6 | 74.6 | 81.2 | 39.1 | 76 | 66.5 |
| 332890 | LCSD | 55.9 | 74.4 | 82.3 | 40.6 | 76.7 | 70.3 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | ( 14-68 ) |
| FBP | = | 2-Fluorobiphenyl Surr | ( 31-99 ) |
| [illegible] | = | Nitrobenzene-d5 Surr | ( 33-102 ) |
| [illegible] | = | Phenol-d5 Surr | ( 13-50 ) |
| TBP | = | 2,4,6-Tribromophenol Surr | ( 31-133 ) |
| TPH | = | Terphenyl-d14 Surr | ( 20-116 ) |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2815 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/08/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033732002 PS | 51.2 | 68.3 | 77.5 | 37.8 | 76 | 54.2 |
| 332991 MS | 47.9 | 66.6 | 75.6 | 35.6 | 70.1 | 56.5 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332889 | Lab Control Spike | **Analysis** | | |
| | 332890 | Lab Control Spike Dup | **Batch** | XMS | 2813 |
| **Prep Batch** | XXX | 5926 | **Method** | SW-846 8270C | |
| **Client** | Conestoga-Rovers & Associates | | | | |
| **Project** | Project 32684 Sybill, Inc. | | | | |
| **File** | L0904_05.D | | **Date** | 09/04/2003 | |
| | L0904_06.D | | **By** | BPJ | |

QC results affect the following production samples:

3033732002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.17 | 83 | 0.17 | 85 | (36-135) | 2 | (< 27) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.17 | 85 | 0.17 | 85 | (32-140) | 1 | (< 27) |
| [illegible]Dinitrotoluene | 0.05, 0.05 | 0.040 | 79 | 0.041 | 82 | (47-140) | 3 | (< 30) |
| [illegible]thylphenol (o-Cresol) | 0.2, 0.2 | 0.14 | 71 | 0.14 | 72 | (27-119) | 1 | (< 33) |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.16 | 65 | 0.17 | 66 | (25-112) | 1 | (< 33) |
| Hexachlorobenzene | 0.05, 0.05 | 0.039 | 78 | 0.040 | 79 | (36-136) | 2 | (< 16) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.037 | 74 | 0.039 | 78 | (18-122) | 6 | (< 26) |
| Hexachloroethane | 0.05, 0.05 | 0.035 | 71 | 0.038 | 76 | (16-112) | 7 | (< 24) |
| Nitrobenzene | 0.05, 0.05 | 0.087 | 174 | 0.089 | 178 | (27-128) | 3 | (< 24) |
| Pentachlorophenol | 0.2, 0.2 | 0.15 | 73 | 0.15 | 76 | (45-162) | 4 | (< 17) |
| Pyridine | 0.05, 0.05 | 0.020 | 40 | 0.022 | 45 | (12-68) | 11 | (< 20) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332991 | Matrix Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5926 | **Batch** | XMS 2815 |
| **Original** | 3033732002 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/08/2003 |
| **File** | L0908_06.D | | **By** | BPJ |

QC results affect the following production samples:

3033732002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.15 | 76 | | | ( 39-116 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.15 | 76 | | | ( 39-114 ) | | |
| 2,4-Dinitrotoluene | 0.05 | ND | 0.034 | 69 | | | ( 46-125 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.13 | 63 | | | ( 28-101 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | ND | 0.15 | 60 | | | ( 31-98 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.032 | 63 | | | ( 39-116 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.034 | 68 | | | ( 24-91 ) | | |
| Hexachloroethane | 0.05 | ND | 0.034 | 69 | | | ( 23-90 ) | | |
| Nitrobenzene | 0.05 | ND | 0.040 | 79 | | | ( 28-113 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.14 | 69 | | | ( 42-136 ) | | |
| Pyridine | 0.05 | ND | 0.013 | 27 | | | ( 4.5-59 ) | | |

Workorder: 3033732 Conestoga-Rovers & Associates Reported: 9/10/2003

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332888 Method Blank | | | |
| **Prep Batch** | XXX 5926 | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | XMS 2813 | |
| **Project** | Project 32684 Sybill, Inc. | **Method** | SW-846 8270C | |
| **File** | L0904_04.D | | | |
| | | **Date** | 09/04/2003 | |
| | | **By** | BPJ | |

QC results affect the following production samples:

3033732002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3814 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/04/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033732002 | PS | 72.7 | 50.7 |
| 332109 | MB | 77.3 | 46 |
| 332110 | LCS | 97 | 65.3 |
| 332111 | LCSD | 90 | 63.7 |

[redacted] = Decachlorobiphenyl Surr (14-91)
[redacted] = Tetrachloro-m-xylene Surr (17-94)

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XGC 3813 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 09/04/2003 |
| | | **By** | JL |

| Sample ID(s) | Surrogate Recovery % | |
|---|---|---|
| | DCB | TMX |
| 3033732001 PS | 71 | 80 |
| 332184 MB | 62.3 | 85 |
| 332185 LCS | 63.3 | 78 |
| 332186 LCSD | 64.7 | 86.7 |

**DCB = Decachlorobiphenyl Surr (25-170)**
**TMX = Tetrachloro-m-xylene Surr (25-150)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybil, Inc. | **Batch** | XGC 3818 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 09/06/2003 |
| | | **By** | JL |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 332187 | MS | 41.3 | 101 |
| 332188 | MSD | 50 | 109 |

**DCB = Decachlorobiphenyl Surr (25-170)**
**TMX = Tetrachloro-m-xylene Surr (25-150)**

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332185 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5917 | **Batch** | XGC 3813 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Varian 3400 ECD INST-C |
| | | | **Date** | 09/04/2003 |
| | | | **By** | JL |

QC results affect the following production samples:

3033732001

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration mg/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.6, 9.7 | 5.9 | 61 | 7.1 | 73 | ( 25-141 ) | 19 | (< 20 ) |
| Aroclor-1260 | 9.6, 9.7 | 6.0 | 62 | 6.6 | 67 | ( 29-170 ) | 9 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332110 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5914 | **Batch** | XGC 3814 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | EPA 608 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 09/04/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3033732002

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.65 | 65 | 0.66 | 66 | ( 36-158 ) | 2 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.87 | 87 | 0.74 | 74 | ( 10-127 ) | 16 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332187 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5917 | **Batch** | XGC 3818 |
| **Original** | 3033710016 | **Method** | SW-846 8082 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-C |
| **Project** | Project 32884 Sybill, Inc. | **Date** | 09/06/2003 |
| | | **By** | JL |

QC results affect the following production samples:

3033732001

| Analyte | MS, MSD Spike Added mg/Kg | Sample Conc. mg/Kg | MS Concentration mg/Kg | MS Recovery % | MSD Concentration mg/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.7, 9.9 | ND | 6.1 | 63 | 7.0 | 71 | ( 22-196 ) | 13 | (< 20 ) |
| Aroclor-1260 | 9.7, 9.9 | ND | 4.7 | 49 | 5.5 | 56 | ( 49-187 ) | 16 | (< 20 ) |

Workorder: 3033732 Conestoga-Rovers & Associates Reported: 9/10/2003

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332184 | Method Blank | | |
| **Prep Batch** | XXX | 5917 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XGC 3813 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SW-846 8082 |
| | | | **Instrument** | Varian 3400 ECD INST-C |
| | | | **Date** | 09/04/2003 |
| | | | **By** | JL |

QC results affect the following production samples:

3033732001

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Aroclor-1016 | ND | 0.90 |
| Aroclor-1221 | ND | 0.90 |
| Aroclor-1232 | ND | 0.90 |
| Aroclor-1242 | ND | 0.90 |
| Aroclor-1248 | ND | 0.90 |
| Aroclor-1254 | ND | 0.90 |
| Aroclor-1260 | ND | 0.90 |
| Aroclor-1262 | ND | 0.90 |
| Aroclor-1268 | ND | 0.90 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332109 | Method Blank | | |
| **Prep Batch** | XXX | 5914 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XGC 3814 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | EPA 608 |
| | | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 09/04/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3033732002

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332452 Lab Control Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11291 | **Batch** | MIM 5680 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\090403\LCS.074 | **Date** | 09/04/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033732002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 101 | | | (50-150) | | |
| Barium | 1 | 1.0 | 101 | | | (50-150) | | |
| Cadmium | 1 | 0.97 | 97 | | | (50-150) | | |
| Chromium | 1 | 1.0 | 103 | | | (50-150) | | |
| Lead | 1 | 1.0 | 105 | | | (50-150) | | |
| Selenium | 1 | 1.0 | 103 | | | (50-150) | | |
| Silver | 1 | 1.0 | 103 | | | (50-150) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332458 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11291 | **Batch** | MIM 5680 |
| **Original** | 3033732002 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/05/2003 |
| **File** | N:\ICPMS\elandata\Dataset\090403\3033732002 MS.102 | **By** | SRO |

QC results affect the following production samples:

3033732002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | ND | 1.0 | 102 | | | ( 50-150 ) | | |
| Barium | 1 | 0.070 | 1.1 | 100 | | | ( 50-150 ) | | |
| Cadmium | 1 | 0.013 | 0.98 | 96 | | | ( 50-150 ) | | |
| Chromium | 1 | ND | 0.98 | 98 | | | ( 50-150 ) | | |
| Lead | 1 | 0.0026J | 1.0 | 102 | | | ( 50-150 ) | | |
| Selenium | 1 | ND | 1.0 | 100 | | | ( 50-150 ) | | |
| Silver | 1 | 0.0011J | 0.27 | 27 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332451 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11291 | **Batch** | MIM 5680 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\090403\MB.073 | **Date** | 09/04/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033732002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| Selenium | ND | 0.016 |
| Silver | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332541 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11295 | **Batch** | MCV 2009 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090403W1.TXT | **Date** | 09/04/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033732002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0020 | 102 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 332542 Matrix Spike TCLP | **Analysis** | |
| | 332543 Matrix Spike Duplicate TCLP | **Batch** | MCV 2009 |
| **Prep Batch** | MXX 11295 | **Method** | SW-846 7470A |
| **Original** | 3033732002 | **Instrument** | PSA Millenium |
| **Client** | Conestoga-Rovers & Associates | **Date** | 09/04/2003 |
| **Project** | Project 32664 Sybill, Inc. | **By** | PSK |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090403W1.TXT | | |
| | M:\Mercury\Millennium\Results\LIMSExp\090403W1.TXT | | |

QC results affect the following production samples:

3033732002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02, 0.02 | ND | 0.020 | 101 | 0.021 | 104 | (50-150) | 2 | (< 20) |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332540 Method Blank | | |
| **Prep Batch** | MXX 11295 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MCV 2009 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 7470A |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\090403W1.TXT | **Instrument** | PSA Millenium |
| | | **Date** | 09/04/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033732002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332676 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | WXX 3431 | **Batch** | WLA 1457 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| **File** | CN-9-5-03.xls | **Date** | 09/05/2003 |
| | | **By** | MAH |

QC results affect the following production samples:

3033732002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 0.64 | 13 | | | ( 2.6-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332677 Method Blank | | |
| **Prep Batch** | WXX 3431 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | WLA 1457 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 7.3.3.2 |
| **File** | CN-9-5-03.xls | **Instrument** | Quick Chem 8000 Lachat |
| | | **Date** | 09/05/2003 |
| | | **By** | MAH |

QC results affect the following production samples:

3033732002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332686 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | WXX 3432 | **Batch** | WAT 1828 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.4.2 | |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | No Instrument, Manual Handling | |
| | | **Date** | 09/05/2003 | |
| | | **By** | KAA | |

QC results affect the following production samples:

3033732002

| Analyte | LCS/LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 380 | 90 | | | ( 57-109 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332685 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3432 | **Batch** | WAT 1628 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 09/05/2003 |
| | | **By** | KAA |

QC results affect the following production samples:

3033732002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332687 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3432 | **Batch** | WAT 1828 |
| **Original** | 3033567010 | **Method** | SW-846 7.3.4.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | No Instrument, Manual Handling |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/05/2003 |
| | | **By** | KAA |

QC results affect the following production samples:

3033732002

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 70 | 0.00 | |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 332852 | pH Calibration Standard | **Analysis** | | |
| **Prep Batch** | | | **Batch** | WPH 2066 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A | |
| | | | **Date** | 09/05/2003 | |
| | | | **By** | SRS | |

QC results affect the following production samples:

3033732002

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332853 | Quality Control Sample | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2066 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 09/05/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033732002

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.97 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332855 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3033732002 | **Batch** | WPH 2068 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 09/05/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033732002

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 7.07 | 7.04 | | 0.43 | (< 20) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 332444 Flashpoint Calibration Std. | **Analysis** | |
| **Prep Batch** | | **Batch** | MXX 11290 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 1010 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 09/04/2003 |
| | | **By** | WD |

QC results affect the following production samples:

3033732001, 3033732002

| Analyte | LCS,LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 79 | 99 | | | ( 98-102 ) | | |

SGS

REC'D CRA
SEP 18 [illegible]
SDG: 11

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033838

ORIGINAL ANALYTICAL RE

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

Project#: 32664 Lab#: 3033838
Name: SYBILL, INC.
Description
Event:
Samples: 2 SOLID
Analysis: RCE, PCB, TCLP MTL, TCLP VOC + SVOC
TAT: 2 day
Lab: SGS
Checked Against Preliminary Data:
Date: 9-18-03 Init.: K.B.
Date of Validation Memo: 9-19-03
Invoice Approval Date:
Comments:

Approval Signature: Pamela M. Johnson

Date Issued: 9-17-03
Total Pages: 53

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033838

***Sample Collection and Receipt -***

Two samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on September 8, 2003. The sample containers were released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on September 9, 2003 in good condition, on ice and at a temperature of 6°C. Following log-in, the sample was stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

The samples were analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the sample was extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. The leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Semi-Volatile Analysis*

The recovery for the surrogates 2-Fluorophenol, Nitrobenzene-d5 and Phenol-d5 were above the upper control limits in laboratory samples 3033838001 and 3033838002 associated with analytical batch XMS 2813. The results were confirmed by the associated matrix spike. Also, the surrogate recovery for 2-Fluorobiphenyl was above the upper control limit in laboratory sample 3033838002.

The recovery for Nitrobenzene was above the upper control limit in the LCS/LCSD associated with preparation batch XXX 5926. This compound was not detected in the associated project samples.

The recovery for 3&4-Methylphenol and Nitrobenzene were below the lower control limits in the MS on sample 3033838001 associated with preparation batch XXX 5926.

*GC PCB Analysis*

The relative percent difference (RPD) was below QC acceptance criteria for Aroclor-1248 and Aroclor-1260 in the MS/MSD associated with preparation batch XXX 5937. The MS/MSD were not performed on a sample from this sample delivery group.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033838

***Quality Control (QC) –continued***

*Metals Analysis*

The recovery for Silver was below the lower control limits in the MS on sample 3033838001 associated with preparation batch MXX 11322. The Silver result may be biased low in sample 3033838001.

***Sample Reporting –***

The percent solids for samples 3033838001 and 3033838002 were determined and the PCB and Reactive Cyanide and Sulfide results corrected to a dry-weight reporting basis.

The Silver result for laboratory sample 3033838001 was qualified (M) for matrix interference due to low spike recovery.

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone*: (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 9-17-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033838

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| S-32664-090803-SM-048 | 3033838001 |
| S-32664-090803-SM-049 | 3033838002 |

# Explanation of Terms and Data Qualifiers

| Term/Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

CT&E Environmental Services Inc.

# CRA

167374 COC Serial CT&E (CSGS) 231-843-1877

CONESTOGA-ROVERS & ASSOCIATES, INC.
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

1200 Conrad Industrial Drive, Ludington MI 49431

REFERENCE NUMBER: 32664

PROJECT NAME: Sybil, Inc. 30338.38

## CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: [signature] PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | PARAMETERS: FM TCLP | RCI | PCBs | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 9-8-03 | 1100 | L-32664-090803-SM- 045 | L | 4 | ✓ | ✓ | ✓ | |
| 2 | | | " " 046 | L | 4 | ✓ | ✓ | ✓ | ASAP |
| 3 | | | " " 047 | L | 4 | ✓ | ✓ | ✓ | |
| 4 | | | " " 048 | sludge | 1 | ✓ | ✓ | ✓ | 3303 |
| 5 | | | 049 | | 1 | ✓ | ✓ | ✓ | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |

TOTAL NUMBER OF CONTAINERS

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. Shawn McLean | DATE: 9-8-03 TIME: 1400 | RECEIVED BY: 1. [signature] | DATE: 9/8/03 TIME: 1400 |
| RELINQUISHED BY: 2. [signature] | DATE: 9/8/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: lab courier AIR BILL No.

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24071

SAMPLE TEAM: SM

RECEIVED FOR LABORATORY BY: [signature]
DATE: 9/9/03 TIME: 830 6°C

1001 (FOR APRIL 29, 93-REV.0-(C)(F-01)

SGS CT&E Environmental Services Inc.
Michigan Division

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3033838**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

9/12/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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SGS Member of the SGS Group (Societe Generale de Surveillance)

# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of 1

Project Number: 3033838 Date Logged In: 9/9/03 Login Person Initials: KS

*This section to be completed when corrective action is required:*

Client: CRA Project Name: _____
Client Contact: _____ Phone Number: _____

| | YES | NO |
|---|---|---|
| *If no to any, notify the project manager and project manager documents client response below.* | | |
| 1. Were custody seals/original packing tape intact? | ✓ | |
| 2. Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. Are samples within holding times? | ✓ | |
| 4. Were the samples received on ice (ice in direct contact with the samples)? | ✓ | |
| *If yes, and Wisconsin samples, do not record the sample temperature.* | | |
| 5. Is the temperature of the samples between 2-6°C? | ✓ | |
| *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | | |
| 6. Do the samples match the COC? | ✓ | |
| 7. Were the proper containers used? | ✓ | |
| 8 Were the samples collected in CT&E Environmental Services containers? | ✓ | |
| *No corrective action required.* | ✓ | |
| 9. Is there adequate sample volume for requested analyses and QC? | | |
| 10. Do water VOC samples contain headspace less than the size of a pea? | | |
| 11. Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* | | |
| *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | ✓ | |
| 12. Is the chain of custody signed? | | |
| 13. Is sub-sampling required? *(note bottles created and preserved below)* | | |
| 14. Were proper sample weights met for Wisconsin soil samples? | | |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Samp. no. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

# Laboratory Report

Work Order: 3033838 Conestoga-Rovers & Associates Reported: 9/12/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033838001 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-090803-SM-048 | **Location:** | |
| **Collected:** | 09/08/2003 11:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/09/2003 08:30 | **Sampled By:** | SM |

**Comments:** Results reported on Dry Weight basis.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).
PCB: Sample required additional cleanups.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/11/03 11:07 | 09/11/03 13:27 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 70 | SW-846 7.3.4.2[1] | 09/11/03 15:46 | 09/11/03 15:49 | KAA | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 09/10/03 17:48 | SRS | 1 |
| Ignitability | Non | | | | SW-846 7.1[1] | | 09/10/03 11:14 | WD | 1 |
| [redacted] | 7.44 | | S.U. | | SW-846 9045C | | 09/10/03 17:48 | SRS | 1 |
| Total Solids | 71.5 | | % | 0.10 | SM19 2540G[1] | | 09/10/03 08:45 | SKP | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/Kg | 260 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:25 | JL | 1 |
| Aroclor-1221 | ND | | ug/Kg | 260 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:25 | JL | 1 |
| Aroclor-1232 | ND | | ug/Kg | 260 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:25 | JL | 1 |
| Aroclor-1242 | ND | | ug/Kg | 260 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:25 | JL | 1 |
| Aroclor-1248 | ND | | ug/Kg | 260 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:25 | JL | 1 |
| Aroclor-1254 | ND | | ug/Kg | 260 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:25 | JL | 1 |
| Aroclor-1260 | ND | | ug/Kg | 260 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:25 | JL | 1 |
| Aroclor-1262 | ND | | ug/Kg | 260 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:25 | JL | 1 |
| Aroclor-1268 | ND | | ug/Kg | 260 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:25 | JL | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 10:28 | SRO | 1 |
| Barium | 0.13 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 10:28 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 10:28 | SRO | 1 |
| [redacted]mium | 0.014 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 10:28 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/10/03 12:00 | 09/10/03 16:21 | PSK | 1 |
| Lead | 0.021 | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 10:28 | SRO | 1 |

Workorder: 3033838 Conestoga-Rovers & Associates Reported: 9/12/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033838001 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-090803-SM-048 | **Location:** | |
| **Collected:** | 09/08/2003 11:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/09/2003 08:30 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 10:28 | SRO | 1 |
| Silver | ND M | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 10:28 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:05 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:05 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:05 | JEH | 1 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/10/03 21:05 | JEH | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:05 | JEH | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:05 | JEH | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:05 | JEH | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:05 | JEH | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:05 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:05 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:05 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.060 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 19:54 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.060 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 19:54 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 19:54 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.060 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 19:54 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | 0.48 | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 19:54 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 19:54 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 19:54 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 19:54 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 19:54 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.060 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 19:54 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 19:54 | BPJ | 1 |

Workorder: 3033838 Conestoga-Rovers & Associates Reported: 9/12/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033838002 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-090803-SM-049 | **Location:** | |
| **Collected:** | 09/08/2003 11:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/09/2003 08:30 | **Sampled By:** | SM |

**Comments:** Results reported on Dry Weight basis.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).
PCB: Sample required additional cleanups.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 40 | SW-846 7.3.3.2[1] | 09/11/03 11:07 | 09/11/03 13:27 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 70 | SW-846 7.3.4.2[1] | 09/11/03 15:46 | 09/11/03 15:49 | KAA | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 09/10/03 17:48 | SRS | 1 |
| Ignitability | Non | | | | SW-846 7.1[1] | | 09/10/03 11:14 | WD | 1 |
| [redacted] | 6.15 | | S.U. | | SW-846 9045C | | 09/10/03 17:48 | SRS | 1 |
| Total Solids | 67.6 | | % | 0.10 | SM19 2540G[1] | | 09/10/03 08:45 | SKP | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/Kg | 290 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:55 | JL | 1 |
| Aroclor-1221 | ND | | ug/Kg | 290 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:55 | JL | 1 |
| Aroclor-1232 | ND | | ug/Kg | 290 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:55 | JL | 1 |
| Aroclor-1242 | ND | | ug/Kg | 290 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:55 | JL | 1 |
| Aroclor-1248 | ND | | ug/Kg | 290 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:55 | JL | 1 |
| Aroclor-1254 | ND | | ug/Kg | 290 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:55 | JL | 1 |
| Aroclor-1260 | ND | | ug/Kg | 290 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:55 | JL | 1 |
| Aroclor-1262 | ND | | ug/Kg | 290 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:55 | JL | 1 |
| Aroclor-1268 | ND | | ug/Kg | 290 | SW-846 8082 / SW-846 3550B | 09/10/03 18:05 | 09/12/03 00:55 | JL | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.0093J | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 10:37 | SRO | 1 |
| Barium | 0.17 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 10:37 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 10:37 | SRO | 1 |
| [redacted]mium | 0.011 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 10:37 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/10/03 12:00 | 09/10/03 16:24 | PSK | 1 |
| Lead | 0.050 | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 10:37 | SRO | 1 |

Workorder: 3033838 Conestoga-Rovers & Associates Reported: 9/12/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033838002 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-090803-SM-049 | **Location:** | |
| **Collected:** | 09/08/2003 11:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/09/2003 08:30 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 10:37 | SRO | 1 |
| Silver | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 10:37 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:42 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:42 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:42 | JEH | 1 |
| 2-Butanone ( M E K ) | 0.041J | 200 | mg/L | 0.050 | SW-846 8260B | | 09/10/03 21:42 | JEH | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:42 | JEH | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:42 | JEH | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:42 | JEH | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:42 | JEH | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:42 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:42 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 21:42 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 21:25 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 21:25 | BPJ | 1 |
| 2,4-Dinitrotoluene | 0.0011J | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 21:25 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | 0.0024J | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 21:25 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | 0.24 | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 21:25 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 21:25 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 21:25 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 21:25 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 21:25 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 21:25 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/11/03 21:25 | BPJ | 1 |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4805 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Aqueous | **Instrument** | HP 5972 Series |
| | | **Date** | 09/10/2003 |
| | | **By** | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 333617 | LCS | 102 | 119 | 110 | 106 |
| 333618 | MB | 92.8 | 111 | 103 | 102 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | VMS 4805 |
| | | Method | SW-846 8260B |
| Matrix | Solid | Instrument | HP 5972 Series |
| | | Date | 09/11/2003 |
| | | By | JEH |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3033838001 PS | 96.6 | 116 | 103 | 101 |
| 3033838002 PS | 97.2 | 117 | 104 | 103 |
| 333619 MS | 98.2 | 106 | 106 | 104 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 79-116 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 72-132 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 77-124 ) |
| TOL | = | Toluene-d8 Surr | ( 87-110 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333617 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | VMS 4805 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | HP 5972 Series |
| **File** | S0910_02.D | | **Date** | 09/10/2003 |
| | | | **By** | JEH |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.21 | 103 | | | ( 86-121 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.20 | 100 | | | ( 77-114 ) | | |
| 1,4-Dichlorobenzene | 0.2 | 0.19 | 93 | | | ( 83-120 ) | | |
| 2-Butanone ( M E K ) | 0.2 | 0.21 | 108 | | | ( 63-131 ) | | |
| Benzene | 0.2 | 0.19 | 95 | | | ( 87-112 ) | | |
| Carbon tetrachloride | 0.2 | 0.17 | 87 | | | ( 80-124 ) | | |
| Chlorobenzene | 0.2 | 0.19 | 93 | | | ( 85-117 ) | | |
| Chloroform | 0.2 | 0.20 | 102 | | | ( 83-113 ) | | |
| Tetrachloroethene | 0.2 | 0.14 | 72 | | | ( 59-148 ) | | |
| Trichloroethene | 0.2 | 0.19 | 93 | | | ( 83-111 ) | | |
| Vinyl chloride | 0.2 | 0.22 | 108 | | | ( 68-133 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| **Sample ID** | 333619 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4805 |
| **Original** | 3033838001 | **Method** | SW-846 8260B |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | HP 5972 Series |
| **Project** | Project 32684 Sybill, Inc. | **Date** | 09/11/2003 |
| **File** | S0910_16.D | **By** | JEH |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.22 | 111 | | | ( 71-144 ) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.18 | 92 | | | ( 67-121 ) | | |
| [illegible]chlorobenzene | 0.2 | ND | 0.17 | 83 | | | ( 51-145 ) | | |
| 2-Butanone ( M E K ) | 0.2 | ND | 0.22 | 87 | | | ( 32-134 ) | | |
| Benzene | 0.2 | ND | 0.19 | 93 | | | ( 76-127 ) | | |
| Carbon tetrachloride | 0.2 | ND | 0.18 | 92 | | | ( 83-130 ) | | |
| Chlorobenzene | 0.2 | ND | 0.18 | 90 | | | ( 86-117 ) | | |
| Chloroform | 0.2 | ND | 0.18 | 89 | | | ( 71-137 ) | | |
| Tetrachloroethene | 0.2 | ND | 0.13 | 67 | | | ( 55-113 ) | | |
| Trichloroethene | 0.2 | ND | 0.19 | 93 | | | ( 80-122 ) | | |
| Vinyl chloride | 0.2 | ND | 0.22 | 109 | | | ( 59-145 ) | | |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 333618 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4805 | |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B | |
| **File** | S0910_04.D | | **Instrument** | HP 5972 Series | INSTRU H |
| | | | **Date** | 09/10/2003 | |
| | | | **By** | JEH | |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K ) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XMS | 2813 |
| | | **Method** | SW-846 8270C | |
| **Matrix** | Aqueous | **Date** | 09/04/2003 | |
| | | **By** | BPJ | |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 332888 | MB | 47.7 | 66.7 | 71.8 | 33.8 | 69.9 | 64.4 |
| 332889 | LCS | 54.6 | 74.6 | 81.2 | 39.1 | 76 | 66.5 |
| 332890 | LCSD | 55.9 | 74.4 | 82.3 | 40.6 | 76.7 | 70.3 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2819 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Solid | **Date** | 09/11/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033838001 PS | 80 | 95.5 | 108 | 58.8 | 109 | 84.3 |
| 3033838002 PS | 93.6 | 110 | 125 | 67.2 | 114 | 109 |
| 333700 MS | 75.9 | 92.1 | 104 | 55.6 | 96.9 | 66.3 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **N[redacted]** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332889 | Lab Control Spike | | |
| | 332890 | Lab Control Spike Dup | **Analysis** | |
| **Prep Batch** | XXX | 5926 | **Batch** | XMS 2813 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | L0904_05.D | | **Date** | 09/04/2003 |
| | L0904_06.D | | **By** | BPJ |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.17 | 83 | 0.17 | 85 | ( 36-135 ) | 2 | (< 27 ) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.17 | 85 | 0.17 | 85 | ( 32-140 ) | 1 | (< 27 ) |
| 2,4-Dinitrotoluene | 0.05, 0.05 | 0.040 | 79 | 0.041 | 82 | ( 47-140 ) | 3 | (< 30 ) |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.14 | 71 | 0.14 | 72 | ( 27-119 ) | 1 | (< |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.16 | 65 | 0.17 | 68 | ( 25-112 ) | 1 | (< 33 ) |
| Hexachlorobenzene | 0.05, 0.05 | 0.039 | 78 | 0.040 | 79 | ( 36-138 ) | 2 | (< 16 ) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.037 | 74 | 0.039 | 78 | ( 18-122 ) | 6 | (< 26 ) |
| Hexachloroethane | 0.05, 0.05 | 0.035 | 71 | 0.038 | 76 | ( 16-112 ) | 7 | (< 24 ) |
| Nitrobenzene | 0.05, 0.05 | 0.087 | 174 | 0.089 | 178 | ( 27-128 ) | 3 | (< 24 ) |
| Pentachlorophenol | 0.2, 0.2 | 0.15 | 73 | 0.15 | 76 | ( 45-162 ) | 4 | (< 17 ) |
| Pyridine | 0.05, 0.05 | 0.020 | 40 | 0.022 | 45 | ( 12-68 ) | 11 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333700 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 5926 | | **Batch** | XMS 2819 |
| **Original** | 3033838001 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/11/2003 |
| **File** | L0911_22.D | | **By** | BPJ |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.17 | 54 | | | ( 25-137 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.17 | 56 | | | ( 30-128 ) | | |
| [redacted]nitrotoluene | 0.05 | ND | 0.039 | 52 | | | ( 36-134 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.16 | 52 | | | ( 16-116 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | 0.48 | 0.53 | 17 | | | ( 18-112 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.037 | 49 | | | ( 31-125 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.037 | 50 | | | ( 14-108 ) | | |
| Hexachloroethane | 0.05 | ND | 0.039 | 53 | | | ( 14-104 ) | | |
| Nitrobenzene | 0.05 | ND | ND | 0 | | | ( 15-129 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.14 | 50 | | | ( 17-156 ) | | |
| Pyridine | 0.05 | ND | 0.020 | 28 | | | ( 10-75 ) | | |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Sample ID** | 332888 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5926 | **Batch** | XMS 2813 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | L0904_04.D | **Date** | 09/04/2003 |
| | | **By** | BPJ |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3822 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 09/10/2003 |
| | | **By** | JL |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 333286 | MB | 81.7 | 59 |
| 333287 | LCS | 82.7 | 56.3 |
| 333288 | LCSD | 81 | 54 |

**DCB = Decachlorobiphenyl Surr (10-151)**
**TMX = Tetrachloro-m-xylene Surr (10-140)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3827 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 09/12/2003 |
| | | **By** | JL |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033838001 | PS | 139 | 96 |
| 3033838002 | PS | 104 | 83.3 |

**DCB = Decachlorobiphenyl Surr (10-151)**
**T[redacted] = Tetrachloro-m-xylene Surr (10-140)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XGC 3834 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 09/15/2003 |
| | | **By** | JL |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 333289 | MS | 81.7 | 73.7 |
| 333290 | MSD | 69.3 | 49.3 |

**DCB** = **Decachlorobiphenyl Surr** **( 10-151 )**
**TMX** = **Tetrachloro-m-xylene Surr** **( 10-140 )**

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333287 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5837 | **Batch** | XGC 3822 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-C | |
| | | **Date** | 09/10/2003 | |
| | | **By** | JL | |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration ug/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 330, 330 | 190 | 58 | 210 | 62 | ( 35-105 ) | 7 | (< 20 ) |
| Aroclor-1260 | 330, 330 | 250 | 76 | 250 | 75 | ( 54-114 ) | 1 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333289 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5937 | **Batch** | XGC 3834 |
| **Original** | 3033814005 | **Method** | SW-846 8082 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-C |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/15/2003 |
| | | **By** | JL |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | MS, MSD Spike Added ug/Kg | Sample Conc. ug/Kg | MS Concentration ug/Kg | MS Recovery % | MSD Concentration ug/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 440, 440 | ND | 300 | 68 | 220 | 50 | ( 10-140 ) | 31 | (< 20 ) |
| Aroclor-1260 | 440, 440 | ND | 360 | 81 | 280 | 63 | ( 10-135 ) | 24 | (< 20 ) |

Order: 3033838 Conestoga-Rovers & Associates Reported: 9/16/2003

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333286 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5937 | **Batch** | XGC 3822 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 09/10/2003 |
| | | **By** | JL |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Aroclor-1016 | ND | 33 |
| Aroclor-1221 | ND | 33 |
| Aroclor-1232 | ND | 33 |
| Aroclor-1242 | ND | 33 |
| Aroclor-1248 | ND | 33 |
| Aroclor-1254 | ND | 33 |
| Aroclor-1260 | ND | 33 |
| Aroclor-1262 | ND | 33 |
| Aroclor-1268 | ND | 33 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333363 Lab Control Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11322 | **Batch** | MIM 5690 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\091003\ | **Date** | 09/11/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 101 | | | (50-150) | | |
| Barium | 1 | 1.0 | 103 | | | (50-150) | | |
| [illegible]ium | 1 | 0.98 | 98 | | | (50-150) | | |
| Chromium | 1 | 1.0 | 102 | | | (50-150) | | |
| Lead | 1 | 1.0 | 104 | | | (50-150) | | |
| Selenium | 1 | 1.0 | 104 | | | (50-150) | | |
| Silver | 1 | 1.0 | 103 | | | (50-150) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333366 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11322 | **Batch** | MIM 5690 |
| **Original** | 3033838001 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32684 Sybill, Inc. | **Date** | 09/11/2003 |
| **File** | N:\ICPMS\elandata\Dataset\091003\3033838001 MS.154 | **By** | SRO |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1.4 | ND | 1.5 | 107 | | | ( 50-150 ) | | |
| Barium | 1.4 | 0.13 | 1.7 | 108 | | | ( 50-150 ) | | |
| Cadmium | 1.4 | ND | 1.4 | 101 | | | ( 50-150 ) | | |
| Chromium | 1.4 | 0.014 | 1.4 | 100 | | | ( 50-150 ) | | |
| Lead | 1.4 | 0.021 | 1.5 | 105 | | | ( 50-150 ) | | |
| Selenium | 1.4 | ND | 1.5 | 110 | | | ( 50-150 ) | | |
| Silver | 1.4 | ND | 0.65 | 47 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333362 | Method Blank | | |
| **Prep Batch** | MXX | 11322 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | MIM 5690 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 6020 |
| **File** | N:\ICPMS\elandata\Dataset\091003\ | | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| | | | **Date** | 09/11/2003 |
| | | | **By** | SRO |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| [illegible]enium | ND | 0.016 |
| [illegible]er | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333437 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11323 | **Batch** | MCV 2013 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\091003W1.TXT | **Date** | 09/10/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0020 | 99 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333441 Matrix Spike TCLP | | **Analysis** | |
| **Prep Batch** | MXX 11323 | | **Batch** | MCV 2013 |
| **Original** | 3033838002 | | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | PSA Millenium |
| **Project** | Project 32684 Sybill, Inc. | | **Date** | 09/10/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\091003W1.TXT | | **By** | PSK |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.019 | 97 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333436 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11323 | **Batch** | MCV 2013 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\091003W1.TXT | **Date** | 09/10/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333691 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | WXX 3443 | **Batch** | WLA 1479 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat | |
| **File** | cn 09-11-2003.xls | **Date** | 09/11/2003 | |
| | | **By** | MAH | |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 0.32 | 6 | | | ( 2.6-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333690 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3443 | **Batch** | WLA 1479 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| **File** | cn 09-11-2003.xls | **Date** | 09/11/2003 |
| | | **By** | MAH |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333717 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3444 | **Batch** | WAT 1830 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/11/2003 |
| | | | **By** | KAA |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 360 | 87 | | | ( 57-109 ) | | |

Work Order: 3033838 Conestoga-Rovers & Associates Reported: 9/16/2003

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333716 | Method Blank | **Analysis** | |
| **Prep Batch** | WXX | 3444 | **Batch** | WAT 1830 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybil, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/11/2003 |
| | | | **By** | KAA |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333718 | Matrix Duplicate | | |
| **Prep Batch** | WXX | 3444 | | |
| **Original** | 3033889001 | | | |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | | |

| | |
|---|---|
| **Analysis** | |
| **Batch** | WAT 1830 |
| **Method** | SW-846 7.3.4.2 |
| **Instrument** | No Instrument, Manual Handling |
| **Date** | 09/11/2003 |
| **By** | KAA |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 100 | 0.00 | (< 20) |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333489 | pH Calibration Standard | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2067 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 09/10/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333475 | Quality Control Sample | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2067 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 09/10/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.95 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333474 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3033839003 | **Batch** | WPH 2067 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 09/10/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 7.50 | 7.53 | | 0.40 | (< 20 ) |

## METHOD BLANK SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333281 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | WG1 4680 |
| **Project** | Project 32864 Sybill, Inc. | | **Method** | SM19 2540G |
| | | | **Date** | 09/10/2003 |
| | | | **By** | SKP |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | Concentration % | Detection Limit % |
|---|---|---|
| Total Solids | 100 | 0.10 |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333282 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3033852001 | **Batch** | WG1 4680 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SM19 2540G |
| **Project** | Project 32664 Sybill, Inc. | | |
| | | **Date** | 09/10/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3033838001, 3033838002

| Analyte | Original Sample Concentration % | Dilution / Duplicate Concentration % | RDL % | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Solids | 76.4 | 75.3 | 0.10 | 1.40 | (< 20 ) |

SGS

REC'D CRA
SEP 23
SDG: 12

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033839

**ORIGINAL ANALYTICAL REPORT**

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

Project#: 32664 Lab#: 3033839
Name: SYBILL, Inc.
Description
Event:
Samples: 3 LIQUID
Analysis: TCLP VOC, SVOC, MTL PCB, RCI
TAT: 2 day
Lab: SGS
Checked Against Preliminary Data:
Date: 9-24-03 Init.: K.B.
Date of Validation Memo: 10-8-03
Invoice Approval Date:
Comments:

Approval Signature: Pamela M. Polan

Date Issued: 9-19-03
Total Pages: 52

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033839

***Sample Collection and Receipt -***

Three samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on September 8, 2003. The sample containers were released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on September 9, 2003 in good condition, on ice and at a temperature of 6°C. Following log-in, the sample was stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

The samples were analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the samples were extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. The leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Semi-Volatile Analysis*

The recovery for Nitrobenzene was above the upper control limit in the LCS/LCSD associated with preparation batch XXX 5926. Nitrobenzene was not detected in the associated project samples.

The recovery for Nitrobenzene was above the upper control limit in the MS on sample 3033839001 associated with preparation batch XXX 5926. Nitrobenzene was not detected in the parent sample.

*GC PCB Analysis*

The surrogate recovery was below the lower control limit for Tetrachloro-m-xylene in the MB and LCS/LCSD associated with analytical batch XGC 3824. The alternate surrogate, Decachlorobiphenyl, was acceptable.

The relative percent difference (RPD) was above QC acceptance criteria for Aroclor-1248 in the LCS/LCSD associated with preparation batch XXX 5936. No corrective action was initiated on the basis of the RPD results.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033839

***Quality Control (QC) –continued***

*Metals Analysis*

The recovery for Silver was below the lower control limits in the MS/MSD on sample 3033839001 associated with preparation batch MXX 11322. The Silver result may be biased low in sample 3033839001.

***Sample Reporting –***

The Silver result for laboratory sample 3033839001 was qualified (M) for matrix interference due to low spike recovery.

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 9-18-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033839

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| L-32664-090803-SM-045 | 3033839001 |
| L-32664-090803-SM-046 | 3033839002 |
| L-32664-090803-SM-047 | 3033839003 |

# Explanation of Terms and Data Qualifiers

| Term/Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

CT&E Environmental Services Inc.

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

SHIPPED TO (Laborat 167377 COC Serial 1-843-1877
1200 Conrad Industrial Drive, Ludington MI 49431

REFERENCE NUMBER: 32664

PROJECT NAME: Sybill, Inc. 3033839

# CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: _____ PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | PARAMETERS: Full TCLP | RCT | PCBs | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 9-8-03 | 1100 | L-32664-090803-SM-045 | L | 4 | ✓ | ✓ | ✓ | |
| 2 | | | " " 046 | L | 4 | ✓ | ✓ | ✓ | ASAP |
| 3 | | | " " 047 | L | 4 | ✓ | ✓ | ✓ | |
| 4 | | | " " 048 | Sludge | 1 | ✓ | ✓ | ✓ | 3203 |
| 5 | | | 049 | | 1 | ✓ | ✓ | ✓ | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |

TOTAL NUMBER OF CONTAINERS

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. Shawn McLean | DATE: 9-8-03 TIME: 1400 | RECEIVED BY: 1. | DATE: 9/8/03 TIME: 1400 |
| RELINQUISHED BY: 2. | DATE: 9/8/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: lab courier AIR BILL No.

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24071

SAMPLE TEAM: SM

RECEIVED FOR LABORATORY BY:
DATE: 9/9/03 TIME: 8:30 6°C

1001 (FOR -APRIL 29, 93-REV.0-(C)(F-01)

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of 1

Project Number: 3033839 Date Logged In: 9/9/03 Login Person Initials: PA

This section to be completed when corrective action is required:

Client: CRA Project Name: _____
Client Contact: _____ Phone Number: _____

| *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|
| 1. Were custody seals/original packing tape intact? | ✓ | |
| 2. Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. Are samples within holding times? | ✓ | |
| 4. Were the samples received on ice (Ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. Do the samples match the COC? | ✓ | |
| 7. Were the proper containers used? | ✓ | |
| 8 Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. Do water VOC samples contain headspace less than the size of a pea? | | |
| 11. Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | | |
| 12. Is the chain of custody signed? | ✓ | |
| 13. Is sub-sampling required? *(note bottles created and preserved below)* | | |
| 14. Were proper sample weights met for Wisconsin soil samples? | | |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Sample No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

# Laboratory Report

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3033839**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

9/17/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

Workorder: 3033839 Conestoga-Rovers & Associates Reported: 9/17/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033839001 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-090803-SM-045 | Location: | |
| Collected: | 09/08/2003 11:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/09/2003, 08:30 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/11/03 11:07 | 09/11/03 13:33 | MAH | 4 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/11/03 15:46 | 09/11/03 15:49 | KAA | 4 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/10/03 17:48 | SRS | 4 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/12/03 13:09 | WD | 4 |
| pH | 7.45 | | S.U. | | SW-846 9040B | | 09/10/03 17:48 | SRS | 4 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/10/03 23:45 | ESA | 4 |
| Aroclor-1221 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/10/03 23:45 | ESA | 4 |
| Aroclor-1232 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/10/03 23:45 | ESA | 4 |
| Aroclor-1242 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/10/03 23:45 | ESA | 4 |
| Aroclor-1248 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/10/03 23:45 | ESA | 4 |
| Aroclor-1254 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/10/03 23:45 | ESA | 4 |
| Aroclor-1260 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/10/03 23:45 | ESA | 4 |
| Aroclor-1262 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/10/03 23:45 | ESA | 4 |
| Aroclor-1268 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/10/03 23:45 | ESA | 4 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:29 | SRO | 1 |
| Barium | 0.062 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:29 | SRO | 1 |
| Cadmium | 0.0016J | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:29 | SRO | 1 |
| Chromium | ND | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:29 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/10/03 12:00 | 09/10/03 16:35 | PSK | 4 |
| Lead | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:29 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:29 | SRO | 1 |
| Silver | ND M | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:29 | SRO | 1 |

Workorder: 3033839 Conestoga-Rovers & Associates Reported: 9/17/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033839001 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-090803-SM-045 | Location: | |
| Collected: | 09/08/2003 11:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/09/2003 08:30 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:19 | JDS | 4 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:19 | JDS | 4 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:19 | JDS | 4 |
| 2-Butanone ( M E K) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/10/03 22:19 | JDS | 4 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:19 | JDS | 4 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:19 | JDS | 4 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:19 | JDS | 4 |
| Chloroform | 0.020 | 6 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:19 | JDS | 4 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:19 | JDS | 4 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:19 | JDS | 4 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:19 | JDS | 4 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/12/03 18:32 | BPJ | 4 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/12/03 18:32 | BPJ | 4 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/12/03 18:32 | BPJ | 4 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/12/03 18:32 | BPJ | 4 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/12/03 18:32 | BPJ | 4 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/12/03 18:32 | BPJ | 4 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/12/03 18:32 | BPJ | 4 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/12/03 18:32 | BPJ | 4 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/12/03 18:32 | BPJ | 4 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/12/03 18:32 | BPJ | 4 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/12/03 18:32 | BPJ | 4 |

Workorder: 3033839 Conestoga-Rovers & Associates Reported: 9/17/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033839002 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-090803-SM-046 | Location: | |
| Collected: | 09/08/2003 11:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/09/2003 08:30 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/11/03 11:07 | 09/11/03 13:33 | MAH | 4 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/11/03 15:46 | 09/11/03 15:49 | KAA | 4 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/10/03 17:48 | SRS | 4 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/12/03 13:09 | WD | 4 |
| pH | 7.47 | | S.U. | | SW-846 9040B | | 09/10/03 17:48 | SRS | 4 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:13 | ESA | 4 |
| Aroclor-1221 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:13 | ESA | 4 |
| Aroclor-1232 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:13 | ESA | 4 |
| Aroclor-1242 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:13 | ESA | 4 |
| Aroclor-1248 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:13 | ESA | 4 |
| Aroclor-1254 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:13 | ESA | 4 |
| Aroclor-1260 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:13 | ESA | 4 |
| Aroclor-1262 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:13 | ESA | 4 |
| Aroclor-1268 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:13 | ESA | 4 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:42 | SRO | 1 |
| Barium | 0.062 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:42 | SRO | 1 |
| Cadmium | 0.0018J | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:42 | SRO | 1 |
| Chromium | 0.0019J | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:42 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/10/03 12:00 | 09/10/03 16:38 | PSK | 4 |
| Lead | 0.0013J | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:42 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:42 | SRO | 1 |
| Silver | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:42 | SRO | 1 |

Workorder: 3033839 Conestoga-Rovers & Associates Reported: 9/17/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033839002 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-090803-SM-046 | Location: | |
| Collected: | 09/08/2003 11:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/09/2003 08:30 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:57 | JDS | 4 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:57 | JDS | 4 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:57 | JDS | 4 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/10/03 22:57 | JDS | 4 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:57 | JDS | 4 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:57 | JDS | 4 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:57 | JDS | 4 |
| Chloroform | 0.020 | 6 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:57 | JD[redacted] | 4 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:57 | JD[redacted] | 4 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:57 | JDS | 4 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 22:57 | JDS | 4 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 15:30 | BPJ | 4 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 15:30 | BPJ | 4 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 15:30 | BPJ | 4 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 15:30 | BPJ | 4 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 15:30 | BPJ | 4 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 15:30 | BPJ | 4 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 15:30 | BPJ | 4 |
| Hexachloroethane | 0.0014J | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 15:30 | BPJ | 4 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 15:30 | BPJ | 4 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 15:30 | BPJ | 4 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 15:30 | BPJ | 4 |

Workorder: 3033839 Conestoga-Rovers & Associates Reported: 9/17/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033839003 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-090803-SM-047 | **Location:** | |
| **Collected:** | 09/08/2003 11:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/09/2003 08:30 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/11/03 11:07 | 09/11/03 13:33 | MAH | 4 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/11/03 15:46 | 09/11/03 15:49 | KAA | 4 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/10/03 17:48 | SRS | 4 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/12/03 13:09 | WD | 4 |
| pH | 7.50 | | S.U. | | SW-846 9040B | | 09/10/03 17:48 | SRS | 4 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:41 | ESA | 4 |
| Aroclor-1221 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:41 | ESA | 4 |
| Aroclor-1232 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:41 | ESA | 4 |
| Aroclor-1242 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:41 | ESA | 4 |
| Aroclor-1248 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:41 | ESA | 4 |
| Aroclor-1254 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:41 | ESA | 4 |
| Aroclor-1260 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:41 | ESA | 4 |
| Aroclor-1262 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:41 | ESA | 4 |
| Aroclor-1268 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 09/10/03 17:49 | 09/11/03 00:41 | ESA | 4 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:47 | SRO | 1 |
| Barium | 0.058 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:47 | SRO | 1 |
| Cadmium | 0.0018J | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:47 | SRO | 1 |
| Chromium | 0.0021J | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:47 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/10/03 12:00 | 09/10/03 16:41 | PSK | 4 |
| Lead | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:47 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:47 | SRO | 1 |
| Silver | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/12/03 14:35 | 09/11/03 09:47 | SRO | 1 |

Workorder: 3033839 Conestoga-Rovers & Associates Reported: 9/17/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033839003 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-090803-SM-047 | **Location:** | |
| **Collected:** | 09/08/2003 11:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/09/2003 08:30 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 23:34 | JDS | 4 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 23:34 | JDS | 4 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 23:34 | JDS | 4 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/10/03 23:34 | JDS | 4 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 23:34 | JDS | 4 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 23:34 | JDS | 4 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 23:34 | JDS | 4 |
| Chloroform | 0.032 | 6 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 23:34 | JDS | 4 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 23:34 | JDS | 4 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 23:34 | JDS | 4 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/10/03 23:34 | JDS | 4 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 16:16 | BPJ | 4 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 16:16 | BPJ | 4 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 16:16 | BPJ | 4 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 16:16 | BPJ | 4 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 16:16 | BPJ | 4 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 16:16 | BPJ | 4 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 16:16 | BPJ | 4 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 16:16 | BPJ | 4 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 16:16 | BPJ | 4 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 16:16 | BPJ | 4 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/11/03 15:29 | 09/15/03 16:16 | BPJ | 4 |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4806 | |
| | | **Method** | SW-846 8260B | |
| **Matrix** | Aqueous | **Instrument** | HP 5972 Series | INSTRU H |
| | | **Date** | 09/11/2003 | |
| | | **By** | JDS | |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3033839001 PS | 94.2 | 115 | 106 | 102 |
| 3033839002 PS | 92.7 | 113 | 108 | 103 |
| 3033839003 PS | 91.6 | 114 | 107 | 103 |
| 333703 MS | 99.7 | 108 | 110 | 103 |
| 333706 LCS | 102 | 119 | 110 | 106 |
| 333707 MB | 92.8 | 111 | 103 | 102 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 333706 | Lab Control Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4806 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU H |
| **File** | S0910_02.D | | **Date** | 09/10/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.21 | 103 | | | ( 88-121 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.20 | 100 | | | ( 77-114 ) | | |
| [illegible]ichlorobenzene | 0.2 | 0.19 | 93 | | | ( 83-120 ) | | |
| 2-Butanone ( M E K ) | 0.2 | 0.21 | 106 | | | ( 63-131 ) | | |
| Benzene | 0.2 | 0.19 | 95 | | | ( 87-112 ) | | |
| Carbon tetrachloride | 0.2 | 0.17 | 87 | | | ( 80-124 ) | | |
| Chlorobenzene | 0.2 | 0.19 | 93 | | | ( 85-117 ) | | |
| Chloroform | 0.2 | 0.20 | 102 | | | ( 83-113 ) | | |
| Tetrachloroethene | 0.2 | 0.14 | 72 | | | ( 59-148 ) | | |
| Trichloroethene | 0.2 | 0.19 | 93 | | | ( 83-111 ) | | |
| Vinyl chloride | 0.2 | 0.22 | 108 | | | ( 68-133 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 333703 Matrix Spike | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4806 | |
| **Original** | 3033839001 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU H |
| **Project** | Project 32684 Sybill, Inc. | | **Date** | 09/11/2003 | |
| **File** | S0910_17.D | | **By** | JDS | |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.22 | 110 | | | ( 71-144 ) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.18 | 92 | | | ( 67-121 ) | | |
| 1,4-Dichlorobenzene | 0.2 | ND | 0.17 | 85 | | | ( 51-145 ) | | |
| 2-Butanone ( M E K ) | 0.2 | ND | 0.17 | 83 | | | ( 32-134 ) | | |
| Benzene | 0.2 | ND | 0.18 | 92 | | | ( 76-127 ) | | |
| Carbon tetrachloride | 0.2 | ND | 0.19 | 93 | | | ( 83-130 ) | | |
| Chlorobenzene | 0.2 | ND | 0.18 | 91 | | | ( 86-117 ) | | |
| Chloroform | 0.2 | 0.020 | 0.20 | 92 | | | ( 71-137 ) | | |
| Tetrachloroethene | 0.2 | ND | 0.14 | 70 | | | ( 55-113 ) | | |
| Trichloroethene | 0.2 | ND | 0.18 | 91 | | | ( 80-122 ) | | |
| Vinyl chloride | 0.2 | ND | 0.22 | 110 | | | ( 59-145 ) | | |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 333707 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4806 | |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B | |
| **File** | S0910_04.D | | **Instrument** | HP 5972 Series | INSTRU H |
| | | | **Date** | 09/10/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K ) | ND | 0.050 |
| Benzene | ND | 0.010 |
| [illegible]on tetrachloride | ND | 0.010 |
| [illegible]orobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2813 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/04/2003 |
| | | **By** | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 332888 | MB | 47.7 | 66.7 | 71.8 | 33.8 | 69.9 | 64.4 |
| 332889 | LCS | 54.6 | 74.6 | 81.2 | 39.1 | 76 | 66.5 |
| 332890 | LCSD | 55.9 | 74.4 | 82.3 | 40.6 | 76.7 | 70.3 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2822 | |
| | | **Method** | SW-846 8270C | |
| **Matrix** | Aqueous | **Instrument** | HP 5972 Series | INSTRU L |
| | | **Date** | 09/12/2003 | |
| | | **By** | BPJ | |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033839001 | PS | 42.1 | 69.2 | 71.6 | 31.2 | 77.5 | 74.1 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2823 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/15/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033839002 PS | 62.8 | 86 | 91.3 | 44.3 | 95.3 | 96.7 |
| 3033839003 PS | 50.7 | 78 | 80.1 | 36.6 | 89.3 | 90.8 |
| 333701 MS | 58.8 | 83.7 | 87.5 | 43.6 | 87 | 93.4 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332889 | Lab Control Spike | | |
| | 332890 | Lab Control Spike Dup | **Analysis** | |
| **Prep Batch** | XXX | 5926 | **Batch** | XMS 2813 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | L0904_05.D | | **Date** | 09/04/2003 |
| | L0904_06.D | | **By** | BPJ |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.17 | 83 | 0.17 | 85 | ( 36-135 ) | 2 | (< 27 ) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.17 | 85 | 0.17 | 85 | ( 32-140 ) | 1 | (< 27 ) |
| 2,4-Dinitrotoluene | 0.05, 0.05 | 0.040 | 79 | 0.041 | 82 | ( 47-140 ) | 3 | (< 30 ) |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.14 | 71 | 0.14 | 72 | ( 27-119 ) | 1 | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.16 | 65 | 0.17 | 66 | ( 25-112 ) | 1 | (< 33 ) |
| Hexachlorobenzene | 0.05, 0.05 | 0.039 | 78 | 0.040 | 79 | ( 36-138 ) | 2 | (< 16 ) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.037 | 74 | 0.039 | 78 | ( 18-122 ) | 6 | (< 28 ) |
| Hexachloroethane | 0.05, 0.05 | 0.035 | 71 | 0.038 | 76 | ( 16-112 ) | 7 | (< 24 ) |
| Nitrobenzene | 0.05, 0.05 | 0.087 | 174 | 0.089 | 178 | ( 27-128 ) | 3 | (< 24 ) |
| Pentachlorophenol | 0.2, 0.2 | 0.15 | 73 | 0.15 | 76 | ( 45-162 ) | 4 | (< 17 ) |
| Pyridine | 0.05, 0.05 | 0.020 | 40 | 0.022 | 45 | ( 12-68 ) | 11 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333701 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 5928 | | **Batch** | XMS 2823 |
| **Original** | 3033839001 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/15/2003 |
| **File** | L0915_07.D | | **By** | BPJ |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.19 | 97 | | | ( 39-116 ) | | |
| [redacted]Trichlorophenol | 0.2 | ND | 0.19 | 97 | | | ( 39-114 ) | | |
| [redacted]nitrotoluene | 0.05 | ND | 0.045 | 91 | | | ( 46-125 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.16 | 78 | | | ( 28-101 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | ND | 0.18 | 70 | | | ( 31-96 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.045 | 90 | | | ( 39-116 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.040 | 79 | | | ( 24-91 ) | | |
| Hexachloroethane | 0.05 | ND | 0.037 | 75 | | | ( 23-90 ) | | |
| Nitrobenzene | 0.05 | ND | 0.079 | 157 | | | ( 28-113 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.17 | 87 | | | ( 42-136 ) | | |
| Pyridine | 0.05 | ND | 0.025 | 50 | | | ( 4.5-59 ) | | |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 332888 | Method Blank | | |
| **Prep Batch** | XXX | 5926 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XMS 2813 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8270C |
| **File** | L0904_04.D | | | |
| | | | **Date** | 09/04/2003 |
| | | | **By** | BPJ |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3823 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-T |
| | | **Date** | 09/10/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033839001 | PS | 64 | 24.7 |
| 3033839002 | PS | 64 | 69.3 |
| 3033839003 | PS | 55.7 | 57.7 |

| | | | |
|---|---|---|---|
| **DCB** | = | **Decachlorobiphenyl Surr** | **( 14-91 )** |
| **TMX** | = | **Tetrachloro-m-xylene Surr** | **( 17-94 )** |

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3824 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/11/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 333283 | MB | 76.3 | 2 |
| 333284 | LCS | 74.7 | 1.67 |
| 333285 | LCSD | 81 | 7.33 |

**DCB = Decachlorobiphenyl Surr (14-91)**
**TMX = Tetrachloro-m-xylene Surr (17-94)**

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333284 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5836 | **Batch** | XGC 3824 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | EPA 608 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U | |
| | | **Date** | 09/11/2003 | |
| | | **By** | ESA | |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.61 | 61 | 0.79 | 79 | ( 38-158 ) | 25 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.68 | 68 | 0.75 | 75 | ( 10-127 ) | 9 | (< 20 ) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333283 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5936 | **Batch** | XGC 3824 |
| **Client** | Conestoga-Rovers & Associates | **Method** | EPA 608 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/11/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333363 Lab Control Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11322 | **Batch** | MIM 5690 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\091003\ | **Date** | 09/11/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 101 | | | ( 50-150 ) | | |
| Barium | 1 | 1.0 | 103 | | | ( 50-150 ) | | |
| [illegible]mium | 1 | 0.98 | 98 | | | ( 50-150 ) | | |
| [illegible]omium | 1 | 1.0 | 102 | | | ( 50-150 ) | | |
| Lead | 1 | 1.0 | 104 | | | ( 50-150 ) | | |
| Selenium | 1 | 1.0 | 104 | | | ( 50-150 ) | | |
| Silver | 1 | 1.0 | 103 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333369 | Matrix Spike TCLP | | |
| | 333370 | Matrix Spike Duplicate TCLP | **Analysis** | |
| **Prep Batch** | MXX | 11322 | **Batch** | MIM 5690 |
| **Original** | 3033839001 | | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybil, Inc. | | **Date** | 09/11/2003 |
| **File** | N:\ICPMS\elandata\Dataset\091003\ | | **By** | SRO |
| | N:\ICPMS\elandata\Dataset\091003\ | | | |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1, 1 | ND | 1.0 | 103 | 1.0 | 105 | ( 50-150 ) | 2 | (< 20 ) |
| Barium | 1, 1 | 0.062 | 1.1 | 103 | 1.1 | 107 | ( 50-150 ) | 3 | (< 20 ) |
| Cadmium | 1, 1 | 0.0016J | 0.97 | 97 | 1.0 | 100 | ( 50-150 ) | 3 | (< 20 ) |
| Chromium | 1, 1 | ND | 1.0 | 100 | 1.0 | 103 | ( 50-150 ) | 3 | |
| Lead | 1, 1 | ND | 1.0 | 103 | 1.1 | 106 | ( 50-150 ) | 3 | (< 20 ) |
| Selenium | 1, 1 | ND | 1.0 | 102 | 1.1 | 107 | ( 50-150 ) | 5 | (< 20 ) |
| Silver | 1, 1 | ND | 0.16 | 17 | 0.20 | 20 | ( 50-150 ) | 21 | (< 20 ) |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333362 Method Blank | | |
| **Prep Batch** | MXX 11322 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MIM 5690 |
| **Project** | Project 32684 Sybill, Inc. | **Method** | SW-846 6020 |
| **File** | N:\ICPMS\elandata\Dataset\091003\ | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| | | **Date** | 09/11/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| [illegible]nium | ND | 0.016 |
| [illegible]er | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333437 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | MXX 11323 | **Batch** | MCV 2013 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A | |
| **Project** | Project 32864 Sybill, Inc. | **Instrument** | PSA Millenium | |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\091003W1.TXT | **Date** | 09/10/2003 | |
| | | **By** | PSK | |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0020 | 99 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 333444 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11323 | **Batch** | MCV 2013 |
| **Original** | 3033839003 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/10/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\091003W1.TXT | **By** | PSK |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.020 | 98 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333436 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11323 | **Batch** | MCV 2013 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\091003W1.TXT | **Date** | 09/10/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333691 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | WXX 3443 | **Batch** | WLA 1479 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| **File** | cn 09-11-2003.xls | **Date** | 09/11/2003 |
| | | **By** | MAH |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 0.32 | 6 | | | ( 2.6-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333690 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3443 | **Batch** | WLA 1479 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| **File** | cn 09-11-2003.xls | **Date** | 09/11/2003 |
| | | **By** | MAH |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333717 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3444 | **Batch** | WAT 1830 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybil, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/11/2003 |
| | | | **By** | KAA |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 360 | 87 | | | ( 57-109 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333716 | Method Blank | | |
| **Prep Batch** | WXX | 3444 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | WAT 1830 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 7.3.4.2 |
| | | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/11/2003 |
| | | | **By** | KAA |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333718 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3444 | **Batch** | WAT 1830 |
| **Original** | 3033889001 | **Method** | SW-846 7.3.4.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | No Instrument, Manual Handling |
| **Project** | Project 32684 Sybill, Inc. | **Date** | 09/11/2003 |
| | | **By** | KAA |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 100 | 0.00 | (< 20 ) |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333469 | pH Calibration Standard | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2067 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 09/10/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333472 | Quality Control Sample | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2067 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 09/10/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | LCS/LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.98 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 333474 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3033839003 | **Batch** | WPH 2067 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 09/10/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 7.50 | 7.53 | | 0.40 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333885 | Flashpoint Calibration Std. | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | MXX 11337 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 1010 |
| **Project** | Project 32684 Sybil, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/12/2003 |
| | | | **By** | WD |

QC results affect the following production samples:

3033839001, 3033839002, 3033839003

| Analyte | LCS,LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 81 | 101 | | | ( 98-102 ) | | |

SGS

RECD CRA
SEP 29 2003
SDG: 13

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033926

ORIGINAL ANALYTICAL REPORT

Project#: 32664 Lab#: 3033926
Name: SYBILL, INC.
Description
Event:
Samples: 3 Liquid
Analysis: TCLP VOC, SVOC, MTL, REG, PCB
TAT: 5 day
Lab: SGS
Checked Against Preliminary Data:
Date: 9-30-03 Init.: K.B.
Date of Validation Memo: 10-9-03
Invoice Approval Date:
Comments:

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

Approval Signature: Pamela M. Johnson

Date Issued: 9-24-03
Total Pages: 52

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033926

***Sample Collection and Receipt -***

Three samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on September 9 and 10, 2003. The sample containers were released to a laboratory courier on September 11, 2003 for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on September 12, 2003 in good condition, on ice and at a temperature of 5°C. The COC indicated the samples were collected on September 11, 2003, however, the samples were logged-in according to the sample date on the sample containers. Following log-in, the samples were stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

The samples were analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the samples were extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. Each leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

Laboratory sample 3033926001 was analyzed for SVOCs at a X10 dilution due to matrix interference.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Semi-Volatile Analysis*

The surrogate recovery was above the upper control limit for Terphenyl-d14 in sample 3033926002. The high surrogate recovery was confirmed by the matrix spike analysis.

The recovery for Nitrobenzene was above the upper control limit in the MS on sample 3033926002 associated with preparation batch XXX 5960. Nitrobenzene was not detected in the parent sample.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033926

***Quality Control (QC) –continued***

*Metals Analysis*

The recovery for Silver was below the lower control limits in the MS/MSD on sample 3033926002 associated with preparation batch MXX 11356. The Silver result may be biased low in sample 3033926002.

Barium (0.013 mg/L) and Selenium (0.031 mg/L) were detected in the method blank associated with preparation batch MXX 11356. The associated project samples were flagged for blank contamination on results within five times the blank value.

***Sample Reporting –***

The Silver result for laboratory sample 3033926002 was qualified (M) for matrix interference due to low spike recovery.

The Barium result for samples 3033926001, 3033926002 and 3033926003 was qualified (B) for blank contamination.

The SVOC results for laboratory sample 3033926001 were qualified for dilution (D) due matrix interference (M).

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 9-24-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033926

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| L-32664-090903-SM-050 | 3033926001 |
| L-32664-090903-SM-051 | 3033926002 |
| L-32664-091003-SM-052 | 3033926003 |

# Explanation of Terms and Data Qualifiers

| Term/Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

CT&E Environmental Services Inc.

3033926

(231)843-1877

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

SI 167524 COC Serial

800 Conrad Industrial Drive, Ludington MI 49431

# CHAIN OF CUSTODY RECORD

REFERENCE NUMBER: 32664

PROJECT NAME: Sybill, Inc.

SAMPLER'S SIGNATURE: [signature] PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | PARAMETERS: Full TCLP | RCT | PCB's | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 9-11-03 | | L-32664-090903-SM-050 | L | 4 | ✓ | ✓ | ✓ | |
| 2 | " | | L-32664-090903-SM-051 | L | 4 | ✓ | ✓ | ✓ | |
| 3 | " | | L-32664-091003-SM-052 | L | 4 | ✓ | ✓ | ✓ | 5 day tat |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |
| | | | | | | | | | |

TOTAL NUMBER OF CONTAINERS

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. Shawn McLean | DATE: 9/11/03 TIME: 11:00 AM | RECEIVED BY: 1. [signature] | DATE: 9/4/03 TIME: 11:00 Am |
| RELINQUISHED BY: 2. [signature] | DATE: 9/11/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: AIR BILL No.

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24072

SAMPLE TEAM: [signature]

RECEIVED FOR LABORATORY BY: [signature]

DATE: 9-4-03 TIME: 8:30 5°C

1001 (FOR APRIL 29, 93-REV.0-(C)(F-01)

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of 1

Project Number: 3033926 Date Logged In: 9/12/03 Login Person Initials: PA

This section to be completed when corrective action is required:

Client: CRA
Client Contact: _____

Project Name: _____
Phone Number: _____

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | ✓ | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | ✓ | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | ✓ | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | ✓ | |

**COMMENTS/CORRECTIVE ACTION**
Sample ID indicate samples were collected on 9/9 + 9/10; COC indicates 9/11. Logged 9/9 & 9/10.

**Containers Created**

| 40 ml vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Samp. No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

# Laboratory Report

SGS CT&E Environmental Services Inc.
Michigan Division

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3033926**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

9/24/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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SGS Member of the SGS Group (Societe Generale de Surveillance)

# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

Workorder: 3033926 Conestoga-Rovers & Associates Reported: 9/24/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033926001 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-090903-SM-050 | Location: | |
| Collected: | 09/09/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/12/2003 08:30 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).
8270/tclp: Sample was diluted due to matrix interference.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/17/03 14:12 | 09/17/03 14:15 | JB | 4 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/17/03 08:30 | 09/18/03 08:37 | JB | 4 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/15/03 14:36 | SRS | 4 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/12/03 13:09 | WD | 4 |
| | 6.96 | | S.U. | | SW-846 9040B | | 09/15/03 14:36 | SRS | 4 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 06:53 | JL | 4 |
| Aroclor-1221 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 06:53 | JL | 4 |
| Aroclor-1232 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 06:53 | JL | 4 |
| Aroclor-1242 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 06:53 | JL | 4 |
| Aroclor-1248 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 06:53 | JL | 4 |
| Aroclor-1254 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 06:53 | JL | 4 |
| Aroclor-1260 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 06:53 | JL | 4 |
| Aroclor-1262 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 06:53 | JL | 4 |
| Aroclor-1268 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 06:53 | JL | 4 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 22:40 | SRO | 1 |
| Barium | 0.036 B | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 22:40 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 22:40 | SRO | 1 |
| Chromium | ND | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 22:40 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/17/03 11:00 | 09/17/03 14:59 | PSK | 4 |
| Lead | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 22:40 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 22:40 | SRO | 1 |
| Silver | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 22:40 | SRO | 1 |

Workorder: 3033926 Conestoga-Rovers & Associates Reported: 9/24/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033926001 | Matrix: | Aqueous |
| Client Sample ID: | L-32684-090903-SM-050 | Location: | |
| Collected: | 09/09/2003 00:00 | Project: | Project 32684 Sybill, Inc. |
| Received: | 09/12/2003 08:30 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 19:39 | JDS | 4 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 19:39 | JDS | 4 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 19:39 | JDS | 4 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/17/03 19:39 | JDS | 4 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 19:39 | JDS | 4 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 19:39 | JDS | 4 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 19:39 | JDS | 4 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 19:39 | JDS | 4 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 19:39 | JDS | 4 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 19:39 | JDS | 4 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 19:39 | JDS | 4 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND D,M | 400 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 16:12 | BPJ | 4 |
| 2,4,6-Trichlorophenol | ND D,M | 2 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 16:12 | BPJ | 4 |
| 2,4-Dinitrotoluene | ND D,M | 0.13 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 16:12 | BPJ | 4 |
| 2-Methylphenol (o-Cresol) | ND D,M | 200 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 16:12 | BPJ | 4 |
| 3&4-Methylphenol (p&m-Cresol) | ND D,M | 200 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 16:12 | BPJ | 4 |
| Hexachlorobenzene | ND D,M | 0.13 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 16:12 | BPJ | 4 |
| Hexachlorobutadiene | ND D,M | 0.5 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 16:12 | BPJ | 4 |
| Hexachloroethane | ND D,M | 3 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 16:12 | BPJ | 4 |
| Nitrobenzene | ND D,M | 2 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 16:12 | BPJ | 4 |
| Pentachlorophenol | ND D,M | 100 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 16:12 | BPJ | 4 |
| Pyridine | ND D,M | 5 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 16:12 | BPJ | 4 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033926002 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-090903-SM-051 | **Location:** | |
| **Collected:** | 09/09/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/12/2003 08:30 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/17/03 14:12 | 09/17/03 14:15 | JB | 4 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/17/03 08:30 | 09/18/03 08:37 | JB | 4 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/15/03 14:36 | SRS | 4 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/12/03 13:09 | WD | 4 |
| [illegible] | 5.70 | | S.U. | | SW-846 9040B | | 09/15/03 14:36 | SRS | 4 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:21 | JL | 4 |
| Aroclor-1221 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:21 | JL | 4 |
| Aroclor-1232 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:21 | JL | 4 |
| Aroclor-1242 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:21 | JL | 4 |
| Aroclor-1248 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:21 | JL | 4 |
| Aroclor-1254 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:21 | JL | 4 |
| Aroclor-1260 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:21 | JL | 4 |
| Aroclor-1262 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:21 | JL | 4 |
| Aroclor-1268 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:21 | JL | 4 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 22:45 | SRO | 1 |
| Barium | 0.016 B | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 22:45 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 22:45 | SRO | 1 |
| Chromium | 0.0097 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 22:45 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/17/03 11:00 | 09/17/03 15:02 | PSK | 4 |
| [illegible]d | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 22:45 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 22:45 | SRO | 1 |
| Silver | ND M | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 22:45 | SRO | 1 |

Workorder: 3033926 Conestoga-Rovers & Associates Reported: 9/24/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033926002 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-090903-SM-051 | **Location:** | |
| **Collected:** | 09/09/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/12/2003 08:30 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:06 | JDS | 4 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:06 | JDS | 4 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:06 | JDS | 4 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/17/03 20:06 | JDS | 4 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:06 | JDS | 4 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:06 | JDS | 4 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:06 | JDS | 4 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:06 | JDS | 4 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:06 | JDS | 4 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:06 | JDS | 4 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:06 | JDS | 4 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/16/03 23:25 | BPJ | 4 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/16/03 23:25 | BPJ | 4 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/16/03 23:25 | BPJ | 4 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/16/03 23:25 | BPJ | 4 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/16/03 23:25 | BPJ | 4 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/16/03 23:25 | BPJ | 4 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/16/03 23:25 | BPJ | 4 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/16/03 23:25 | BPJ | 4 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/16/03 23:25 | BPJ | 4 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/16/03 23:25 | BPJ | 4 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/16/03 23:25 | BPJ | 4 |

Workorder: 3033926 Conestoga-Rovers & Associates Reported: 9/24/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033926003 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-091003-SM-052 | Location: | |
| Collected: | 09/10/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/12/2003 08:30 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/17/03 14:12 | 09/17/03 14:15 | JB | 4 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/17/03 08:30 | 09/18/03 08:37 | JB | 4 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/15/03 14:36 | SRS | 4 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/12/03 13:09 | WD | 4 |
| pH | 6.06 | | S.U. | | SW-846 9040B | | 09/15/03 14:36 | SRS | 4 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:49 | JL | 4 |
| Aroclor-1221 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:49 | JL | 4 |
| Aroclor-1232 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:49 | JL | 4 |
| Aroclor-1242 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:49 | JL | 4 |
| Aroclor-1248 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:49 | JL | 4 |
| Aroclor-1254 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:49 | JL | 4 |
| Aroclor-1260 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:49 | JL | 4 |
| Aroclor-1262 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:49 | JL | 4 |
| Aroclor-1268 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/18/03 07:49 | JL | 4 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 23:17 | SRO | 1 |
| Barium | 0.023 B | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 23:17 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 23:17 | SRO | 1 |
| Chromium | ND | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 23:17 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/17/03 11:00 | 09/17/03 15:08 | PSK | 4 |
| Lead | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 23:17 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 23:17 | SRO | 1 |
| Silver | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/16/03 13:44 | 09/17/03 23:17 | SRO | 1 |

Workorder: 3033926 | Conestoga-Rovers & Associates | Reported: 9/24/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033926003 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-091003-SM-052 | Location: | |
| Collected: | 09/10/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/12/2003 08:30 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:33 | JDS | 4 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:33 | JDS | 4 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:33 | JDS | 4 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/17/03 20:33 | JDS | 4 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:33 | JDS | 4 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:33 | JDS | 4 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:33 | JDS | 4 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:33 | JDS | 4 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:33 | JDS | 4 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:33 | JDS | 4 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 20:33 | JDS | 4 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 00:55 | BPJ | 4 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 00:55 | BPJ | 4 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 00:55 | BPJ | 4 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 00:55 | BPJ | 4 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 00:55 | BPJ | 4 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 00:55 | BPJ | 4 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 00:55 | BPJ | 4 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 00:55 | BPJ | 4 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 00:55 | BPJ | 4 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 00:55 | BPJ | 4 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/16/03 12:17 | 09/17/03 00:55 | BPJ | 4 |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4832 | |
| | | **Method** | SW-846 8260B | |
| **Matrix** | Aqueous | **Instrument** | HP 5972 Series | INSTRU Q |
| | | **Date** | 09/17/2003 | |
| | | **By** | JDS | |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3033926001 | PS | 103 | 93.7 | 98.8 | 101 |
| 3033926002 | PS | 104 | 101 | 101 | 95.8 |
| 3033926003 | PS | 104 | 99.1 | 101 | 97.2 |
| 334779 | MS | 103 | 102 | 95.3 | 93.4 |
| 334785 | LCS | 101 | 92.5 | 99.8 | 102 |
| 334786 | MB | 105 | 91.8 | 95.1 | 100 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 334785 | Lab Control Spike | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4832 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU Q |
| **File** | Q0917_13.D | | **Date** | 09/17/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | LCS/LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.20 | 99 | | | ( 86-121 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.20 | 100 | | | ( 77-114 ) | | |
| [illegible]chlorobenzene | 0.2 | 0.20 | 100 | | | ( 83-120 ) | | |
| 2-Butanone ( M E K ) | 0.2 | 0.17 | 85 | | | ( 63-131 ) | | |
| Benzene | 0.2 | 0.19 | 96 | | | ( 87-112 ) | | |
| Carbon tetrachloride | 0.2 | 0.18 | 91 | | | ( 80-124 ) | | |
| Chlorobenzene | 0.2 | 0.21 | 103 | | | ( 85-117 ) | | |
| Chloroform | 0.2 | 0.18 | 88 | | | ( 83-113 ) | | |
| Tetrachloroethene | 0.2 | 0.22 | 109 | | | ( 59-148 ) | | |
| Trichloroethene | 0.2 | 0.19 | 96 | | | ( 83-111 ) | | |
| Vinyl chloride | 0.2 | 0.20 | 98 | | | ( 68-133 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 334779 | Matrix Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4832 | |
| **Original** | 3033926001 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU Q |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/17/2003 | |
| **File** | Q0917_29.D | | **By** | JDS | |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.22 | 109 | | | (71-144) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.19 | 96 | | | (67-121) | | |
| 1,4-Dichlorobenzene | 0.2 | ND | 0.19 | 96 | | | (51-145) | | |
| 2-Butanone (MEK) | 0.2 | ND | 0.19 | 88 | | | (32-134) | | |
| Benzene | 0.2 | ND | 0.19 | 95 | | | (76-127) | | |
| Carbon tetrachloride | 0.2 | ND | 0.18 | 92 | | | (83-130) | | |
| Chlorobenzene | 0.2 | ND | 0.20 | 101 | | | (86-117) | | |
| Chloroform | 0.2 | ND | 0.19 | 93 | | | (71-137) | | |
| Tetrachloroethene | 0.2 | ND | 0.18 | 88 | | | (55-113) | | |
| Trichloroethene | 0.2 | ND | 0.19 | 96 | | | (80-122) | | |
| Vinyl chloride | 0.2 | ND | 0.22 | 112 | | | (59-145) | | |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 334786 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4832 | |
| **Project** | Project 32664 Sybil, Inc. | | **Method** | SW-846 8260B | |
| **File** | Q0917_15.D | | **Instrument** | HP 5972 Series | INSTRU Q |
| | | | **Date** | 09/17/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K ) | ND | 0.050 |
| Benzene | ND | 0.010 |
| [redacted]on tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XMS 2825 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/16/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033926002 PS | 55 | 78.7 | 88.2 | 45.5 | 97.1 | 117 |
| 3033926003 PS | 54 | 85.6 | 87.8 | 43.6 | 97.9 | 113 |
| 334304 MB | 54 | 84.9 | 84 | 42.6 | 90.6 | 71.7 |
| 334305 LCS | 51 | 77.8 | 78.8 | 38 | 90.6 | 74.7 |
| [illegible]306 LCSD | 48.6 | 74.4 | 77.1 | 36.1 | 86.7 | 69.7 |
| 334384 MS | 58.4 | 85.8 | 87 | 47.6 | 106 | 123 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **(14-68)** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **(31-99)** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **(33-102)** |
| **PHL** | = | **Phenol-d5 Surr** | **(13-50)** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **(31-133)** |
| **TPH** | = | **Terphenyl-d14 Surr** | **(20-116)** |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32684 Sybill, Inc. | Batch | XMS 2826 |
| | | Method | SW-846 8270C |
| Matrix | Aqueous | Date | 09/17/2003 |
| | | By | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033926001 | PS | 46.4 | 83.8 | 84.5 | 39.8 | 89.8 | 60.3 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | (14-68) |
| FBP | = | 2-Fluorobiphenyl Surr | (31-99) |
| NB2 | = | Nitrobenzene-d5 Surr | (33-102) |
| PHL | = | Phenol-d5 Surr | (13-50) |
| TBP | = | 2,4,6-Tribromophenol Surr | (31-133) |
| TPH | = | Terphenyl-d14 Surr | (20-116) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 334305 | Lab Control Spike | | | |
| | 334306 | Lab Control Spike Dup | **Analysis** | | |
| **Prep Batch** | XXX | 5980 | **Batch** | XMS | 2825 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C | |
| **Project** | Project 32664 Sybill, Inc. | | | | |
| **File** | F0916_05.D | | **Date** | 09/16/2003 | |
| | F0916_06.D | | **By** | BPJ | |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.16 | 80 | 0.16 | 80 | ( 36-135 ) | 0 | (< 27 ) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.17 | 87 | 0.17 | 86 | ( 32-140 ) | 1 | (< 27 ) |
| 2,4-Dinitrotoluene | 0.05, 0.05 | 0.047 | 94 | 0.045 | 89 | ( 47-140 ) | 5 | (< 30 ) |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.14 | 72 | 0.14 | 70 | ( 27-119 ) | 3 | (< 33 ) |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.18 | 70 | 0.17 | 67 | ( 25-112 ) | 6 | (< 33 ) |
| Hexachlorobenzene | 0.05, 0.05 | 0.043 | 86 | 0.042 | 84 | ( 36-138 ) | 3 | (< 16 ) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.035 | 69 | 0.035 | 70 | ( 18-122 ) | 1 | (< 26 ) |
| Hexachloroethane | 0.05, 0.05 | 0.036 | 72 | 0.035 | 71 | ( 16-112 ) | 2 | (< 24 ) |
| Nitrobenzene | 0.05, 0.05 | 0.046 | 91 | 0.043 | 86 | ( 27-128 ) | 6 | (< 24 ) |
| Pentachlorophenol | 0.2, 0.2 | 0.17 | 87 | 0.17 | 84 | ( 45-162 ) | 4 | (< 17 ) |
| Pyridine | 0.05, 0.05 | 0.017 | 34 | 0.016 | 33 | ( 12-68 ) | 3 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Sample ID** | 334384 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5980 | **Batch** | XMS 2825 |
| **Original** | 3033926002 | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/17/2003 |
| **File** | F0916_16.D | **By** | BPJ |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.19 | 96 | | | ( 39-116 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.19 | 97 | | | ( 39-114 ) | | |
| 2,4-Dinitrotoluene | 0.05 | ND | 0.051 | 89 | | | ( 46-125 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.17 | 84 | | | ( 28-101 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | ND | 0.20 | 79 | | | ( 31-96 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.044 | 88 | | | ( 39-116 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.037 | 74 | | | ( 24-91 ) | | |
| Hexachloroethane | 0.05 | ND | 0.042 | 84 | | | ( 23-90 ) | | |
| Nitrobenzene | 0.05 | ND | 0.061 | 122 | | | ( 28-113 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.22 | 108 | | | ( 42-136 ) | | |
| Pyridine | 0.05 | ND | 0.027 | 53 | | | ( 4.5-59 ) | | |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334304 | Method Blank | | |
| **Prep Batch** | XXX | 5960 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XMS 2825 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8270C |
| **File** | F0916_04.D | | | |
| | | | **Date** | 09/16/2003 |
| | | | **By** | BPJ |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | XGC 3837 |
| | | Method | EPA 608 |
| Matrix | Aqueous | Instrument | Varian 3400 ECD INST-C |
| | | Date | 09/16/2003 |
| | | By | JL |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 334173 | MB | 59 | 72.7 |
| 334174 | LCS | 74.3 | 77.7 |
| 334175 | LCSD | 76 | 78.7 |

| | | | |
|---|---|---|---|
| DCB | = | Decachlorobiphenyl Surr | ( 14-91 ) |
| TMX | = | Tetrachloro-m-xylene Surr | ( 17-94 ) |

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3843 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-D |
| | | **Date** | 09/18/2003 |
| | | **By** | JL |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033926001 | PS | 48.3 | 62.3 |
| 3033926002 | PS | 42.7 | 61 |
| 3033926003 | PS | 32.7 | 53.3 |

**DCB = Decachlorobiphenyl Surr (14-91)**
**TMX = Tetrachloro-m-xylene Surr (17-94)**

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334174 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5958 | **Batch** | XGC 3837 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | EPA 608 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Varian 3400 ECD INST-C |
| | | | **Date** | 09/16/2003 |
| | | | **By** | JL |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1,1 | 0.69 | 69 | 0.70 | 70 | (38-158) | 2 | (< 20) |
| Aroclor-1260 | 1,1 | 0.67 | 67 | 0.70 | 70 | (10-127) | 4 | (< 20) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334173 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5958 | **Batch** | XGC 3837 |
| **Client** | Conestoga-Rovers & Associates | **Method** | EPA 608 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 09/16/2003 |
| | | **By** | JL |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| [redacted]r-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334421 Lab Control Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11356 | **Batch** | MIM 5717 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\091703\LCS.111 | **Date** | 09/17/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 104 | | | ( 50-150 ) | | |
| Barium | 1 | 1.0 | 102 | | | ( 50-150 ) | | |
| [illegible]nium | 1 | 0.98 | 99 | | | ( 50-150 ) | | |
| Chromium | 1 | 1.0 | 103 | | | ( 50-150 ) | | |
| Lead | 1 | 1.1 | 107 | | | ( 50-150 ) | | |
| Selenium | 1 | 1.0 | 103 | | | ( 50-150 ) | | |
| Silver | 1 | 1.0 | 104 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334422 | Matrix Spike TCLP | | |
| | 334423 | Matrix Spike Duplicate TCLP | **Analysis** | |
| **Prep Batch** | MXX | 11356 | **Batch** | MIM 5717 |
| **Original** | 3033926002 | | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32864 Sybill, Inc. | | **Date** | 09/17/2003 |
| **File** | N:\ICPMS\elandata\Dataset\091703\3033926002 MS.117 | | **By** | SRO |
| | N:\ICPMS\elandata\Dataset\091703\3033926002 MSD.118 | | | |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1, 1 | ND | 1.0 | 103 | 1.0 | 103 | (50-150) | 0 | (< 20) |
| Barium | 1, 1 | 0.016 | 1.1 | 104 | 1.1 | 104 | (50-150) | 0 | (< 20) |
| Cadmium | 1, 1 | ND | 1.00 | 100 | 1.0 | 100 | (50-150) | 1 | (< |
| Chromium | 1, 1 | 0.0097 | 1.1 | 105 | 1.1 | 106 | (50-150) | 1 | (< |
| Lead | 1, 1 | ND | 1.1 | 108 | 1.1 | 109 | (50-150) | 0 | (< 20) |
| Selenium | 1, 1 | ND | 1.0 | 103 | 1.0 | 105 | (50-150) | 2 | (< 20) |
| Silver | 1, 1 | ND | 0.27 | 27 | 0.28 | 28 | (50-150) | 4 | (< 20) |

Order: 3033926 Conestoga-Rovers & Associates *Reported:* *9/23/2003*

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334424 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11356 | **Batch** | MIM 5717 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\091703\MB.110 | **Date** | 09/17/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | 0.013 | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| [illegible]um | 0.031 | 0.016 |
| Silver | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334802 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11364 | **Batch** | MCV 2016 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | PSA Milenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\091703W1.TXT | **Date** | 09/17/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0021 | 105 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 334803 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11364 | **Batch** | MCV 2018 |
| **Original** | 3033926002 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/17/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\091703W1.TXT | **By** | PSK |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.020 | 98 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334801 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11364 | **Batch** | MCV 2018 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\091703W1.TXT | **Date** | 09/17/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334634 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3448 | **Batch** | WLA 1490 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Quick Chem 8000 Lachat |
| | | | **Date** | 09/17/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 0.83 | 17 | | | ( 2.6-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334635 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3448 | **Batch** | WLA 1490 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| | | **Date** | 09/17/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334726 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3450 | **Batch** | WAT 1831 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/18/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 360 | 87 | | | (57-109) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334727 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3450 | **Batch** | WAT 1831 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 09/18/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 334729 | Matrix Duplicate | **Analysis** | | |
| **Prep Batch** | WXX | 3460 | **Batch** | WAT | 1831 |
| **Original** | 3033961002 | | **Method** | SW-846 7.3.4.2 | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | No Instrument, Manual Handling | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/18/2003 | |
| | | | **By** | JB | |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 50 | 0.00 | (< 20 ) |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 334158 | pH Calibration Standard | **Analysis** | | |
| **Prep Batch** | | | **Batch** | WPH 2069 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A | |
| | | | **Date** | 09/15/2003 | |
| | | | **By** | SRS | |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | LCS/LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 334159 · Quality Control Sample | | |
| **Prep Batch** | | **Analysis Batch** | WPH 2089 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 09/15/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033926001

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.97 | | | | (99-101) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334162 | Quality Control Sample | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2069 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 09/15/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3033926002, 3033926003

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.95 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334161 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3033807001 | **Batch** | WPH 2069 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 09/15/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 6.13 | 6.15 | | 0.33 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 333885 | Flashpoint Calibration Std. | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | MXX 11337 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 1010 |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/12/2003 |
| | | | **By** | WD |

QC results affect the following production samples:

3033926001, 3033926002, 3033926003

| Analyte | LCS,LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 81 | 101 | | | ( 98-102 ) | | |

SGS

REC'D CRA
OCT - 2
SDG: 14

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033960

ORIGINAL ANALYTICAL REPORT

Project#: 32664 Lab#: 3033960
Name: Sybill
Description
Event:
Samples: 4 liquid
Analysis: PCB, RCT, TCLP
VOC, SVOC, MTL
TAT: 7 day
Lab: SGS
Checked Against Preliminary Data:
Date: 10-6-03 Init.: KB
Date of Validation Memo: 10-9-03
Invoice Approval Date:
Comments:

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

Approval Signature: Tamela M. Johnson

Date Issued: 10-1-03
Total Pages: 64

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033960

***Sample Collection and Receipt -***

Four samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on September 11, 2003. The sample containers were released to a laboratory courier on September 12, 2003 for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on September 13, 2003 in good condition, on ice and at a temperature of 6°C. Following log-in, the samples were stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

Laboratory samples 3033960001 and 3033960003 were analyzed for Polychlorinated Biphenyls (PCBs), Flashpoint and volatile organic compounds (VOC).

Laboratory samples 3033960002 and 3033960004 were analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the samples were extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. Each leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

Laboratory samples 3033960002 and 3033960004 were analyzed for SVOCs at a X10 dilution due to matrix interference.

Laboratory sample 3033960004 was extracted with 250 milliliters to a final volume of five milliliters resulting in a 20X extraction dilution for the PCB preparation. The sample was analyzed for PCBs at an additional X20 dilution due to matrix interference.

Sample 3033960004 was extracted for SVOCs to a final volume of 10ml resulting in a 10X dilution. Also, sample 3033960004 was extracted for PCBs at a 4X dilution to a final volume of 5ml resulting in a 20X dilution.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Semi-Volatile Analysis*

Surrogate recoveries were above the upper control limits for Nitrobenzene-d5, Phenol-d5 and Terphenyl-d14 in sample 3033960004. Also, the surrogate recoveries for Nitrobenzene-d5 and Phenol-d5 were above the upper control limits in sample 3033960002. The matrix spike on sample 3033960002 had surrogate recoveries that were similar.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033960

***Quality Control (QC) - continued***

*GC/MS Semi-Volatile Analysis, continued*

The recovery for Nitrobenzene was above the upper control limit in the MS on sample 3033960002 associated with preparation batch XXX 5960. Nitrobenzene was not detected in the parent sample.

*GC PCB Analysis*

Due to matrix interference, sample 3033960004 was analyzed at a X400 dilution. No surrogates were reportable at this dilution.

*Metals Analysis*

The Arsenic and Selenium results for sample 3033960004 had the relative standard deviation (RSD) of the analysis replicates greater than twenty percent.

***Sample Reporting -***

The Arsenic and Selenium results for sample 3033960004 were qualified as estimated (J) due to an RSD greater than twenty.

The SVOC results for laboratory samples 3033960002 and 3033960004 were qualified for dilution (D) due to matrix interference (M).

The PCB results for laboratory sample 3033960004 were qualified for dilution (D) due to matrix interference (M).

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 10-1-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3033960

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| Total Volatiles | SW-846 8260[1] |
| PCBs | SW-846 8082[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| L-32664-091103-SM-053A | 3033960001 |
| L-32664-091103-SM-053B | 3033960002 |
| L-32664-091103-SM-054A | 3033960003 |
| L-32664-091103-SM-054B | 3033960004 |

# Explanation of Terms and Data Qualifiers

| Term/Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

SHIPPI 1200 167556 [redacted] COC Serial

CT&E Environmental Services Inc.
(231)-843-1877
MI 49431

REFERENCE NUMBER: 32664

PROJECT NAME: Sybil 3033960

# CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: [signature] PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | PARAMETERS: TCL VOC & Freon | TAL Metals | PCB's | Full TCLP | RCI | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | L-32664-091103-SM- 053A | L | 4 | ✓ | ✓ | ✓ | | | |
| 2 | | | " " - 053B | L | 4 | | | ✓ | ✓ | ✓ | |
| 3 | | | " " - 054A | L | 4 | ✓ | ✓ | ✓ | | | 5day tat |
| 4 | | | " " 054B | L | 4 | | | ✓ | ✓ | ✓ | please |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
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| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | TOTAL NUMBER OF CONTAINERS | | 16 | | | | | | |

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. Shawn McLean | DATE: 9-12-03 TIME: 1200 | RECEIVED BY: 1. [signature] | DATE: 9/12/03 TIME: 12:00 |
| RELINQUISHED BY: 2. [signature] | DATE: 9/12/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. [signature] | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: lab courier AIR BILL No.

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24073

SAMPLE TEAM: SM

RECEIVED FOR LABORATORY BY: [signature]
DATE: 9/13/03 TIME: 9.00 6°C

1001 (FORM APRIL 29, 93-REV.0-(C)(F-01)

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of ___

Project Number: 3033960 Date Logged In: 9/15/03 Login Person Initials: KE

This section to be completed when corrective action is required:

Client: CKA Project Name: ___
Client Contact: ___ Phone Number: ___

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | ✓ | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | ✓ | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | ✓ | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | ✓ | |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 ml vial | 1 Liter amber | 250 ml plastic | 500 ml plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Samp. No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

*G:\guest\shipping\login checklist rev 2.doc 2/14/2002*

# Laboratory Report

SGS CT&E Environmental Services Inc.
Michigan Division

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3033960**<br>**#32664 Sybill** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

**Certification:**

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

9/22/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

This report shall not be reproduced, in whole or in part, without the written approval of CT&E Environmental Services Inc.

# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

Workorder: 3033960 Conestoga-Rovers & Associates Reported: 9/22/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033960001 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | L-32664-091103-SM-053A | Location: | |
| Collected: | 09/11/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/13/2003 09:00 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/19/03 13:35 | WD | |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,1,2-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,2-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 2-Butanone (MEK) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| 4-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Benzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |

Workorder: 3033960 Conestoga-Rovers & Associates Reported: 9/22/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033960001 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-091103-SM-053A | **Location:** | |
| **Collected:** | 09/11/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/13/2003 09:00 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Chloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Dibromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Methylene chloride | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Trichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:31 | JDS | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 12:54 | ESA | |
| Aroclor-1221 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 12:54 | ESA | |
| Aroclor-1232 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 12:54 | ESA | |
| Aroclor-1242 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 12:54 | ESA | |
| Aroclor-1248 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 12:54 | ESA | |
| Aroclor-1254 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 12:54 | ESA | |
| Aroclor-1260 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 12:54 | ESA | |
| Aroclor-1262 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 12:54 | ESA | |
| Aroclor-1268 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 12:54 | ESA | |

Workorder: 3033960 Conestoga-Rovers & Associates Reported: 9/22/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3033960002 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-091103-SM-053B | Location: | |
| Collected: | 09/11/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/13/2003 09:00 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/17/03 14:12 | 09/17/03 14:15 | JB | 3 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/17/03 08:30 | 09/18/03 08:37 | JB | 3 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/17/03 13:17 | SKP | 3 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/19/03 13:35 | WD | 3 |
| pH | 4.22 | | S.U. | | SW-846 9040B | | 09/17/03 13:17 | SKP | 3 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 11:43 | ESA | 4 |
| Aroclor-1221 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 11:43 | ESA | 4 |
| Aroclor-1232 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 11:43 | ESA | 4 |
| Aroclor-1242 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 11:43 | ESA | 4 |
| Aroclor-1248 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 11:43 | ESA | 4 |
| Aroclor-1254 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 11:43 | ESA | 4 |
| Aroclor-1260 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 11:43 | ESA | 4 |
| Aroclor-1262 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 11:43 | ESA | 4 |
| Aroclor-1268 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 11:43 | ESA | 4 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/18/03 13:33 | 09/19/03 14:01 | SRO | 1 |
| Barium | 0.031 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/18/03 13:33 | 09/19/03 14:01 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/18/03 13:33 | 09/19/03 14:01 | SRO | 1 |
| Chromium | 0.016 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/18/03 13:33 | 09/19/03 14:01 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/17/03 11:00 | 09/17/03 15:23 | PSK | 2 |
| Lead | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/18/03 13:33 | 09/19/03 14:01 | SRO | 1 |
| [illegible]ium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/18/03 13:33 | 09/19/03 14:01 | SRO | 1 |
| Silver | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/18/03 13:33 | 09/19/03 14:01 | SRO | 1 |

Workorder: 3033960 Conestoga-Rovers & Associates Reported: 9/22/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033960002 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-091103-SM-053B | **Location:** | |
| **Collected:** | 09/11/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/13/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | | |
| 1,1-Dichloroethene | ND | | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:22 | JDS | 2 |
| 1,2-Dichloroethane | ND | | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:22 | JDS | 2 |
| 1,4-Dichlorobenzene | ND | | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:22 | JDS | 2 |
| 2-Butanone ( M E K ) | 0.39 | | 200 | mg/L | 0.050 | SW-846 8260B | | 09/17/03 22:22 | JDS | 2 |
| Benzene | ND | | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:22 | JDS | 2 |
| Carbon tetrachloride | ND | | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:22 | JDS | 2 |
| Chlorobenzene | ND | | 100 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:22 | JDS | 2 |
| Chloroform | ND | | 6 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:22 | JDS | 2 |
| Tetrachloroethene | ND | | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:22 | JDS | 2 |
| Trichloroethene | ND | | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:22 | JDS | 2 |
| Vinyl chloride | ND | | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:22 | JDS | 2 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | D,M | 400 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/19/03 17:59 | BPJ | 2 |
| 2,4,6-Trichlorophenol | ND | D,M | 2 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/19/03 17:59 | BPJ | 2 |
| 2,4-Dinitrotoluene | ND | D,M | 0.13 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/19/03 17:59 | BPJ | 2 |
| 2-Methylphenol (o-Cresol) | ND | D,M | 200 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/19/03 17:59 | BPJ | 2 |
| 3&4-Methylphenol (p&m-Cresol) | ND | D,M | 200 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/19/03 17:59 | BPJ | 2 |
| Hexachlorobenzene | ND | D,M | 0.13 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/19/03 17:59 | BPJ | 2 |
| Hexachlorobutadiene | ND | D,M | 0.5 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/19/03 17:59 | BPJ | 2 |
| Hexachloroethane | ND | D,M | 3 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/19/03 17:59 | BPJ | 2 |
| Nitrobenzene | ND | D,M | 2 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/19/03 17:59 | BPJ | 2 |
| Pentachlorophenol | ND | D,M | 100 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/19/03 17:59 | BPJ | 2 |
| Pyridine | ND | D,M | 5 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/19/03 17:59 | BPJ | 2 |

Workorder: 3033960 Conestoga-Rovers & Associates Reported: 9/22/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033960003 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-091103-SM-054A | **Location:** | |
| **Collected:** | 09/11/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/13/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/19/03 13:35 | WD | |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,1,2-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| [redacted]-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,2-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 2-Butanone ( M E K ) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| 4-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| [redacted]ne | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033960003 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-091103-SM-054A | **Location:** | |
| **Collected:** | 09/11/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/13/2003 09:00 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Chloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Dibromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Methylene chloride | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Trichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/15/03 14:30 | 09/17/03 12:00 | JDS | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 1.00 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 13:21 | ESA | |
| Aroclor-1221 | ND | | mg/Kg | 1.00 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 13:21 | ESA | |
| Aroclor-1232 | ND | | mg/Kg | 1.00 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 13:21 | ESA | |
| Aroclor-1242 | ND | | mg/Kg | 1.00 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 13:21 | ESA | |
| Aroclor-1248 | ND | | mg/Kg | 1.00 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 13:21 | ESA | |
| Aroclor-1254 | ND | | mg/Kg | 1.00 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 13:21 | ESA | |
| Aroclor-1260 | ND | | mg/Kg | 1.00 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 13:21 | ESA | |
| Aroclor-1262 | ND | | mg/Kg | 1.00 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 13:21 | ESA | |
| Aroclor-1268 | ND | | mg/Kg | 1.00 | SW-846 8082 / SW-846 3580A | 09/19/03 14:07 | 09/22/03 13:21 | ESA | |

Workorder: 3033960 Conestoga-Rovers & Associates Reported: 9/22/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033960004 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-091103-SM-054B | **Location:** | |
| **Collected:** | 09/11/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/13/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).
8270/tclp: Sample was diluted due to matrix interference.
PCB: Sample was diluted due to matrix interference.
PCB: Sample too dilute to quantify surrogate.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/17/03 14:12 | 09/17/03 14:15 | JB | 3 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/17/03 08:30 | 09/18/03 08:37 | JB | 3 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/17/03 13:17 | SKP | 3 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/19/03 13:35 | WD | 3 |
| pH | 4.52 | | S.U. | | SW-846 9040B | | 09/17/03 13:17 | SKP | 3 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND D,M | | ug/L | 40 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 12:34 | ESA | 4 |
| Aroclor-1221 | ND D,M | | ug/L | 40 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 12:34 | ESA | 4 |
| Aroclor-1232 | ND D,M | | ug/L | 40 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 12:34 | ESA | 4 |
| Aroclor-1242 | ND D,M | | ug/L | 40 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 12:34 | ESA | 4 |
| Aroclor-1248 | ND D,M | | ug/L | 40 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 12:34 | ESA | 4 |
| Aroclor-1254 | ND D,M | | ug/L | 40 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 12:34 | ESA | 4 |
| Aroclor-1260 | ND D,M | | ug/L | 40 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 12:34 | ESA | 4 |
| Aroclor-1262 | ND D,M | | ug/L | 40 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 12:34 | ESA | 4 |
| Aroclor-1268 | ND D,M | | ug/L | 40 | SW-846 8082 / SW-846 3510C | 09/15/03 17:05 | 09/22/03 12:34 | ESA | 4 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.21 J | 5 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/18/03 13:33 | 09/19/03 14:24 | SRO | 1 |
| Barium | 0.31 | 100 | mg/L | 0.0080 | SW-846 6020 / SW-846 3010A | 09/18/03 13:33 | 09/19/03 14:24 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/18/03 13:33 | 09/19/03 14:24 | SRO | 1 |
| Chromium | 0.31 | 5 | mg/L | 0.012 | SW-846 6020 / SW-846 3010A | 09/18/03 13:33 | 09/19/03 14:24 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/17/03 11:00 | 09/17/03 15:29 | PSK | 2 |
| Lead | 0.14 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/18/03 13:33 | 09/19/03 14:24 | SRO | 1 |

Workorder: 3033960 Conestoga-Rovers & Associates Reported: 9/22/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3033960004 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-091103-SM-054B | **Location:** | |
| **Collected:** | 09/11/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/13/2003 09:00 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Selenium | 0.034 J | 1 | mg/L | 0.032 | SW-846 6020 / SW-846 3010A | 09/18/03 13:33 | 09/19/03 14:24 | SRO | 1 |
| Silver | ND | 5 | mg/L | 0.0080 | SW-846 6020 / SW-846 3010A | 09/18/03 13:33 | 09/19/03 14:24 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:49 | JDS | 2 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:49 | JDS | 2 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:49 | JDS | 2 |
| 2-Butanone ( MEK ) | 0.85 | 200 | mg/L | 0.050 | SW-846 8260B | | 09/17/03 22:49 | JDS | 2 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:49 | JDS | 2 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:49 | JDS | 2 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:49 | JDS | 2 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:49 | JDS | 2 |
| Tetrachloroethene | 0.016 | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:49 | JDS | 2 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:49 | JDS | 2 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/17/03 22:49 | JDS | 2 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND D,M | 400 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/18/03 23:21 | BPJ | 2 |
| 2,4,6-Trichlorophenol | ND D,M | 2 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/18/03 23:21 | BPJ | 2 |
| 2,4-Dinitrotoluene | ND D,M | 0.13 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/18/03 23:21 | BPJ | 2 |
| 2-Methylphenol (o-Cresol) | ND D,M | 200 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/18/03 23:21 | BPJ | 2 |
| 3&4-Methylphenol (p&m-Cresol) | ND D,M | 200 | mg/L | 2.0 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/18/03 23:21 | BPJ | 2 |
| Hexachlorobenzene | ND D,M | 0.13 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/18/03 23:21 | BPJ | 2 |
| Hexachlorobutadiene | ND D,M | 0.5 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/18/03 23:21 | BPJ | 2 |
| Hexachloroethane | ND D,M | 3 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/18/03 23:21 | BPJ | 2 |
| Nitrobenzene | ND D,M | 2 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/18/03 23:21 | BPJ | 2 |
| Pentachlorophenol | ND D,M | 100 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/18/03 23:21 | BPJ | 2 |
| Pyridine | ND D,M | 5 | mg/L | 2.0 | SW-846 8270C / SW-846 3510C | 09/18/03 11:04 | 09/18/03 23:21 | BPJ | 2 |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4835 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Non Aqueous Liquid | **Date** | 09/17/2003 |
| | | **By** | JDS |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3033960001 | PS | 93.8 | 98.6 | 84.4 | 98 |
| 3033960003 | PS | 106 | 106 | 94.1 | 96.2 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **(80-124)** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **(87-117)** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **(74-123)** |
| **TOL** | = | **Toluene-d8 Surr** | **(92-113)** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | VMS 4835 |
| | | Method | SW-846 8260B |
| Matrix | Solid | Date | 09/17/2003 |
| | | By | JDS |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 335021 | MB | 98.6 | 102 | 93.4 | 99 |
| 335022 | LCS | 102 | 98.3 | 90 | 98.1 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 80-124 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 87-117 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 74-123 ) |
| TOL | = | Toluene-d8 Surr | ( 92-113 ) |

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4832 | |
| | | **Method** | SW-846 8260B | |
| **Matrix** | Aqueous | **Instrument** | HP 5972 Series | INSTRU Q |
| | | **Date** | 09/18/2003 | |
| | | **By** | JDS | |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3033960002 | PS | 105 | 94.1 | 99.4 | 101 |
| 3033960004 | PS | 113 | 100 | 105 | 91.8 |
| 334780 | MS | 103 | 100 | 96.5 | 94 |
| 334785 | LCS | 101 | 92.5 | 99.8 | 102 |
| 334786 | MB | 105 | 91.8 | 95.1 | 100 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336022 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | VMS 4835 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | H0916_15.D | | **Date** | 09/17/2003 |
| | | | **By** | JDS |

QC results affect the following production samples:

3033960001, 3033960003

| Analyte | LCS/LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 2500 | 2100 | 86 | | | ( 69-117 ) | | |
| 1,1,1-Trichloroethane | 2500 | 2200 | 89 | | | ( 62-124 ) | | |
| 1,1,2,2-Tetrachloroethane | 2500 | 1900 | 77 | | | ( 64-127 ) | | |
| 1,1,2-Trichloroethane | 2500 | 2200 | 88 | | | ( 73-116 ) | | |
| 1,1-Dichloroethane | 2500 | 2200 | 86 | | | ( 73-113 ) | | |
| 1,1-Dichloroethene | 2500 | 2300 | 93 | | | ( 57-133 ) | | |
| 1,1-Dichloropropene | 2500 | 2400 | 96 | | | ( 78-118 ) | | |
| 1,2,3-Trichlorobenzene | 2500 | 2200 | 88 | | | ( 71-127 ) | | |
| 1,2,3-Trichloropropane | 2500 | 2000 | 79 | | | ( 58-122 ) | | |
| 1,2,4-Trichlorobenzene | 2500 | 2300 | 92 | | | ( 72-128 ) | | |
| 1,2-Dibromo-3-chloropropane | 2500 | 2200 | 86 | | | ( 52-136 ) | | |
| 1,2-Dibromoethane | 2500 | 2300 | 92 | | | ( 69-123 ) | | |
| 1,2-Dichlorobenzene | 2500 | 2200 | 86 | | | ( 70-125 ) | | |
| 1,2-Dichloroethane | 2500 | 2200 | 87 | | | ( 55-120 ) | | |
| 1,2-Dichloropropane | 2500 | 2100 | 86 | | | ( 77-116 ) | | |
| 1,3-Dichlorobenzene | 2500 | 2200 | 87 | | | ( 75-121 ) | | |
| 1,3-Dichloropropane | 2500 | 2200 | 89 | | | ( 78-114 ) | | |
| 1,4-Dichlorobenzene | 2500 | 2100 | 86 | | | ( 73-117 ) | | |
| 2,2-Dichloropropane | 2500 | 2000 | 80 | | | ( 71-116 ) | | |
| 2-Butanone ( M E K ) | 2500 | 2000 | 80 | | | ( 48-168 ) | | |
| 2-Chlorotoluene | 2500 | 2200 | 87 | | | ( 84-115 ) | | |
| 4-Chlorotoluene | 2500 | 2200 | 87 | | | ( 82-121 ) | | |
| Benzene | 2500 | 2300 | 92 | | | ( 74-122 ) | | |
| Bromochloromethane | 2500 | 2300 | 93 | | | ( 71-117 ) | | |
| Bromodichloromethane | 2500 | 2200 | 89 | | | ( 67-122 ) | | |
| Bromoform | 2500 | 2400 | 94 | | | ( 53-136 ) | | |
| Bromomethane | 2500 | 2200 | 89 | | | ( 25-170 ) | | |
| Carbon tetrachloride | 2500 | 2300 | 92 | | | ( 63-133 ) | | |
| Chlorobenzene | 2500 | 2300 | 94 | | | ( 74-122 ) | | |
| Chloroethane | 2500 | 2400 | 95 | | | ( 49-132 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335022 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | VMS 4835 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybil, Inc. | | | |
| **File** | H0916_15.D | | **Date** | 09/17/2003 |
| | | | **By** | JDS |

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 2500 | 2200 | 89 | | | ( 67-114 ) | | |
| Chloromethane | 2500 | 2100 | 82 | | | ( 60-115 ) | | |
| cis-1,2-Dichloroethene | 2500 | 2200 | 87 | | | ( 79-110 ) | | |
| cis-1,3-Dichloropropene | 2500 | 2300 | 92 | | | ( 70-131 ) | | |
| Dibromochloromethane | 2500 | 2300 | 94 | | | ( 68-126 ) | | |
| Dibromomethane | 2500 | 2400 | 97 | | | ( 64-127 ) | | |
| Dichlorodifluoromethane | 2500 | 2200 | 86 | | | ( 27-129 ) | | |
| Methylene chloride | 2500 | 2200 | 88 | | | ( 69-119 ) | | |
| Tetrachloroethene | 2500 | 2400 | 98 | | | ( 51-134 ) | | |
| trans-1,2-Dichloroethene | 2500 | 2300 | 92 | | | ( 74-116 ) | | |
| trans-1,3-Dichloropropene | 2500 | 2400 | 95 | | | ( 68-125 ) | | |
| Trichloroethene | 2500 | 2400 | 96 | | | ( 70-121 ) | | |
| Trichlorofluoromethane | 2500 | 2500 | 98 | | | ( 47-132 ) | | |
| Vinyl chloride | 2500 | 2300 | 92 | | | ( 60-125 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 334785 | Lab Control Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4832 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU Q |
| **File** | Q0917_13.D | | **Date** | 09/17/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.20 | 99 | | | ( 86-121 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.20 | 100 | | | ( 77-114 ) | | |
| [illegible]Dichlorobenzene | 0.2 | 0.20 | 100 | | | ( 83-120 ) | | |
| [illegible]utanone ( M E K ) | 0.2 | 0.17 | 85 | | | ( 63-131 ) | | |
| Benzene | 0.2 | 0.19 | 96 | | | ( 87-112 ) | | |
| Carbon tetrachloride | 0.2 | 0.18 | 91 | | | ( 80-124 ) | | |
| Chlorobenzene | 0.2 | 0.21 | 103 | | | ( 85-117 ) | | |
| Chloroform | 0.2 | 0.18 | 88 | | | ( 83-113 ) | | |
| Tetrachloroethene | 0.2 | 0.22 | 109 | | | ( 59-148 ) | | |
| Trichloroethene | 0.2 | 0.19 | 96 | | | ( 83-111 ) | | |
| Vinyl chloride | 0.2 | 0.20 | 98 | | | ( 68-133 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 334780 | Matrix Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4832 | |
| **Original** | 3033960002 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU Q |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/18/2003 | |
| **File** | Q0917_33.D | | **By** | JDS | |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.22 | 112 | | | ( 71-144 ) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.20 | 98 | | | ( 67-121 ) | | |
| 1,4-Dichlorobenzene | 0.2 | ND | 0.20 | 101 | | | ( 51-145 ) | | |
| 2-Butanone ( M E K ) | 0.2 | 0.39 | 0.64 | 124 | | | ( 32-134 ) | | |
| Benzene | 0.2 | ND | 0.20 | 100 | | | ( 76-127 ) | | |
| Carbon tetrachloride | 0.2 | ND | 0.20 | 98 | | | ( 83-130 ) | | |
| Chlorobenzene | 0.2 | ND | 0.21 | 105 | | | ( 86-117 ) | | |
| Chloroform | 0.2 | ND | 0.19 | 97 | | | ( 71-137 ) | | |
| Tetrachloroethene | 0.2 | ND | 0.19 | 95 | | | ( 55-113 ) | | |
| Trichloroethene | 0.2 | ND | 0.20 | 100 | | | ( 80-122 ) | | |
| Vinyl chloride | 0.2 | ND | 0.23 | 114 | | | ( 59-145 ) | | |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335021 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4835 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | H0916_18.D | | | |
| | | | **Date** | 09/17/2003 |
| | | | **By** | JDS |

QC results affect the following production samples:

3033960001, 3033960003

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 70 |
| 1,1,1-Trichloroethane | ND | 35 |
| 1,1,2,2-Tetrachloroethane | ND | 70 |
| 1,1,2-Trichloroethane | ND | 35 |
| 1,1-Dichloroethane | ND | 35 |
| 1,1-Dichloroethene | ND | 35 |
| 1,1-Dichloropropene | ND | 35 |
| 1,2,3-Trichlorobenzene | ND | 150 |
| 1,2,3-Trichloropropane | ND | 70 |
| 1,2,4-Trichlorobenzene | ND | 150 |
| 1,2-Dibromo-3-chloropropane | ND | 150 |
| 1,2-Dibromoethane | ND | 150 |
| 1,2-Dichlorobenzene | ND | 70 |
| 1,2-Dichloroethane | ND | 35 |
| 1,2-Dichloropropane | ND | 35 |
| 1,3-Dichlorobenzene | ND | 70 |
| 1,3-Dichloropropane | ND | 35 |
| 1,4-Dichlorobenzene | ND | 70 |
| 2,2-Dichloropropane | ND | 35 |
| 2-Butanone (MEK) | ND | 300 |
| 2-Chlorotoluene | ND | 35 |
| 4-Chlorotoluene | ND | 35 |
| Benzene | ND | 35 |
| Bromochloromethane | ND | 70 |
| Bromodichloromethane | ND | 70 |
| Bromoform | ND | 70 |
| Bromomethane | ND | 150 |
| Carbon tetrachloride | ND | 35 |
| Chlorobenzene | ND | 35 |
| Chloroethane | ND | 150 |
| Chloroform | ND | 35 |
| Chloromethane | ND | 150 |
| cis-1,2-Dichloroethene | ND | 35 |
| cis-1,3-Dichloropropene | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335021 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4835 |
| **Project** | Project 32664 Sybil, Inc. | | **Method** | SW-846 8260B |
| **File** | H0916_18.D | | | |
| | | | **Date** | 09/17/2003 |
| | | | **By** | JDS |

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Dibromochloromethane | ND | 70 |
| Dibromomethane | ND | 150 |
| Dichlorodifluoromethane | ND | 70 |
| Methylene chloride | ND | 150 |
| Tetrachloroethene | ND | 35 |
| trans-1,2-Dichloroethene | ND | 35 |
| trans-1,3-Dichloropropene | ND | 35 |
| Trichloroethene | ND | 35 |
| Trichlorofluoromethane | ND | 70 |
| Vinyl chloride | ND | 35 |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 334786 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4832 | |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B | |
| **File** | Q0917_15.D | | **Instrument** | HP 5972 Series | INSTRU Q |
| | | | **Date** | 09/17/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K ) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2825 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/16/2003 |
| | | **By** | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 334304 | MB | 54 | 84.9 | 84 | 42.6 | 90.6 | 71.7 |
| 334305 | LCS | 51 | 77.8 | 78.8 | 38 | 90.6 | 74.7 |
| 334306 | LCSD | 48.6 | 74.4 | 77.1 | 36.1 | 86.7 | 69.7 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | XMS 2828 |
| | | Method | SW-846 8270C |
| Matrix | Aqueous | Date | 09/18/2003 |
| | | By | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033980004 | PS | 48.5 | 93 | 109 | 71.5 | 66.5 | 216 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | (14-68) |
| FBP | = | 2-Fluorobiphenyl Surr | (31-99) |
| NB2 | = | Nitrobenzene-d5 Surr | (33-102) |
| PHL | = | Phenol-d5 Surr | (13-50) |
| TBP | = | 2,4,6-Tribromophenol Surr | (31-133) |
| TPH | = | Terphenyl-d14 Surr | (20-116) |

## SURROGATE SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32864 Sybill, Inc. | Batch | XMS 2829 |
| | | Method | SW-846 8270C |
| Matrix | Aqueous | Date | 09/19/2003 |
| | | By | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3033960002 PS | 68.4 | 98.4 | 119 | 53.3 | 122 | 69 |
| 334719 MS | 60.8 | 99.7 | 122 | 47.6 | 107 | 69.7 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | ( 14-68 ) |
| FBP | = | 2-Fluorobiphenyl Surr | ( 31-99 ) |
| [illegible]2 | = | Nitrobenzene-d5 Surr | ( 33-102 ) |
| [illegible]L | = | Phenol-d5 Surr | ( 13-50 ) |
| TBP | = | 2,4,6-Tribromophenol Surr | ( 31-133 ) |
| TPH | = | Terphenyl-d14 Surr | ( 20-116 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 334305 | Lab Control Spike | **Analysis** | | |
| | 334306 | Lab Control Spike Dup | **Batch** | XMS | 2825 |
| **Prep Batch** | XXX | 5960 | **Method** | SW-846 8270C | |
| **Client** | Conestoga-Rovers & Associates | | | | |
| **Project** | Project 32664 Sybill, Inc. | | | | |
| **File** | F0916_05.D | | **Date** | 09/16/2003 | |
| | F0916_06.D | | **By** | BPJ | |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.16 | 80 | 0.16 | 80 | ( 36-135 ) | 0 | (< 27 ) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.17 | 87 | 0.17 | 86 | ( 32-140 ) | 1 | (< 27 ) |
| 2,4-Dinitrotoluene | 0.05, 0.05 | 0.047 | 94 | 0.045 | 89 | ( 47-140 ) | 5 | ( [redacted] |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.14 | 72 | 0.14 | 70 | ( 27-119 ) | 3 | ( [redacted] |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.18 | 70 | 0.17 | 67 | ( 25-112 ) | 6 | (< 33 ) |
| Hexachlorobenzene | 0.05, 0.05 | 0.043 | 86 | 0.042 | 84 | ( 36-138 ) | 3 | (< 16 ) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.035 | 69 | 0.035 | 70 | ( 18-122 ) | 1 | (< 26 ) |
| Hexachloroethane | 0.05, 0.05 | 0.036 | 72 | 0.035 | 71 | ( 16-112 ) | 2 | (< 24 ) |
| Nitrobenzene | 0.05, 0.05 | 0.046 | 91 | 0.043 | 86 | ( 27-128 ) | 6 | (< 24 ) |
| Pentachlorophenol | 0.2, 0.2 | 0.17 | 87 | 0.17 | 84 | ( 45-162 ) | 4 | (< 17 ) |
| Pyridine | 0.05, 0.05 | 0.017 | 34 | 0.016 | 33 | ( 12-68 ) | 3 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334719 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 5960 | | **Batch** | XMS 2829 |
| **Original** | 3033960002 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32684 Sybill, Inc. | | **Date** | 09/19/2003 |
| **File** | F0919_10.D | | **By** | BPJ |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.21 | 96 | | | ( 39-116 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.22 | 109 | | | ( 39-114 ) | | |
| 2,4-Dinitrotoluene | 0.05 | ND | 0.058 | 116 | | | ( 46-125 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.18 | 89 | | | ( 28-101 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | ND | 0.24 | 83 | | | ( 31-96 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.038 | 75 | | | ( 39-116 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.040 | 80 | | | ( 24-91 ) | | |
| Hexachloroethane | 0.05 | ND | 0.045 | 89 | | | ( 23-90 ) | | |
| Nitrobenzene | 0.05 | ND | 0.085 | 171 | | | ( 28-113 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.20 | 86 | | | ( 42-136 ) | | |
| Pyridine | 0.05 | ND | ND | 28 | | | ( 4.5-59 ) | | |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Sample ID** | 334304 Method Blank | | |
| **Prep Batch** | XXX 5960 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | XMS 2825 |
| **Project** | Project 32664 Sybil, Inc. | **Method** | SW-846 8270C |
| **File** | F0916_04.D | | |
| | | **Date** | 09/16/2003 |
| | | **By** | BPJ |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3837 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 09/16/2003 |
| | | **By** | JL |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 334173 | MB | 59 | 72.7 |
| 334174 | LCS | 74.3 | 77.7 |
| 334175 | LCSD | 76 | 78.7 |

**DCB = Decachlorobiphenyl Surr (14-91)**
**TMX = Tetrachloro-m-xylene Surr (17-94)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3846 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/22/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033960002 | PS | 47 | 29.7 |
| 3033960004 | PS | 0 | 0 |

**DCB = Decachlorobiphenyl Surr (14-91)**
**TMX = Tetrachloro-m-xylene Surr (17-94)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3846 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/22/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3033960001 | PS | 83.7 | 75.7 |
| 3033960003 | PS | 83.3 | 96.7 |
| 335004 | MB | 81.3 | 77.7 |
| 335005 | LCS | 75 | 62 |
| 335006 | LCSD | 72.7 | 59.7 |
| 335007 | MS | 77.7 | 70.7 |
| 335008 | MSD | 80 | 67 |

**DCB = Decachlorobiphenyl Surr (25-170)**
**TMX = Tetrachloro-m-xylene Surr (25-150)**

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334174 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5958 | **Batch** | XGC 3837 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | EPA 608 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Varian 3400 ECD INST-C |
| | | | **Date** | 09/16/2003 |
| | | | **By** | JL |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.69 | 69 | 0.70 | 70 | ( 38-158 ) | 2 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.67 | 67 | 0.70 | 70 | ( 10-127 ) | 4 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335005 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5974 | **Batch** | XGC 3846 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 09/22/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3033960001, 3033960003

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration mg/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.9, 9.8 | 6.8 | 69 | 6.6 | 67 | (25-141) | 3 | (< 20) |
| Aroclor-1260 | 9.9, 9.8 | 6.2 | 63 | 6.0 | 62 | (29-170) | 3 | (< 20) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335007 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5974 | **Batch** | XGC 3846 |
| **Original** | 3033961001 | **Method** | SW-846 8082 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-U |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/22/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3033960001, 3033960003

| Analyte | MS, MSD Spike Added mg/Kg | Sample Conc. mg/Kg | MS Concentration mg/Kg | MS Recovery % | MSD Concentration mg/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.8, 9.9 | ND | 8.0 | 82 | 7.9 | 79 | ( 22-196 ) | 2 | (< 20 ) |
| Aroclor-1260 | 9.8, 9.9 | ND | 6.8 | 70 | 6.8 | 68 | ( 49-187 ) | 1 | (< 20 ) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334173 | Method Blank | | |
| **Prep Batch** | XXX | 5958 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XGC 3837 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | EPA 608 |
| | | | **Instrument** | Varian 3400 ECD INST-C |
| | | | **Date** | 09/16/2003 |
| | | | **By** | JL |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335004 | Method Blank | | |
| **Prep Batch** | XXX | 5974 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XGC 3846 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8082 |
| | | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 09/22/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3033960001, 3033960003

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Aroclor-1016 | ND | 1.00 |
| Aroclor-1221 | ND | 1.00 |
| Aroclor-1232 | ND | 1.00 |
| Aroclor-1242 | ND | 1.00 |
| Aroclor-1248 | ND | 1.00 |
| Aroclor-1254 | ND | 1.00 |
| Aroclor-1260 | ND | 1.00 |
| Aroclor-1262 | ND | 1.00 |
| Aroclor-1268 | ND | 1.00 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334835 Lab Control Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11367 | **Batch** | MIM 5720 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\091903\LCS.032 | **Date** | 09/19/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.1 | 109 | | | ( 50-150 ) | | |
| Barium | 1 | 0.98 | 98 | | | ( 50-150 ) | | |
| [illegible]mium | 1 | 0.99 | 99 | | | ( 50-150 ) | | |
| [illegible]mium | 1 | 1.0 | 101 | | | ( 50-150 ) | | |
| Lead | 1 | 0.98 | 98 | | | ( 50-150 ) | | |
| Selenium | 1 | 1.1 | 108 | | | ( 50-150 ) | | |
| Silver | 1 | 1.0 | 103 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334836 Matrix Spike TCLP | **Analysis** | |
| | 334837 Matrix Spike Duplicate TCLP | **Batch** | MIM 5720 |
| **Prep Batch** | MXX 11367 | **Method** | SW-846 6020 |
| **Original** | 3033960002 | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Client** | Conestoga-Rovers & Associates | **Date** | 09/19/2003 |
| **Project** | Project 32684 Sybill, Inc. | **By** | SRO |
| **File** | N:\ICPMS\elandata\Dataset\091903\3033960002 MS.015 | | |
| | N:\ICPMS\elandata\Dataset\091903\3033960002 MSD.016 | | |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1, 1 | ND | 1.1 | 111 | 1.1 | 112 | ( 50-150 ) | 1 | (< 20 ) |
| Barium | 1, 1 | 0.031 | 1.1 | 102 | 1.1 | 102 | ( 50-150 ) | 0 | ( |
| Cadmium | 1, 1 | ND | 1.0 | 104 | 1.0 | 104 | ( 50-150 ) | 0 | ) |
| Chromium | 1, 1 | 0.016 | 1.1 | 108 | 1.1 | 107 | ( 50-150 ) | 1 | (< 20 ) |
| Lead | 1, 1 | ND | 1.0 | 101 | 1.0 | 101 | ( 50-150 ) | 1 | (< 20 ) |
| Selenium | 1, 1 | ND | 1.1 | 115 | 1.1 | 114 | ( 50-150 ) | 1 | (< 20 ) |
| Silver | 1, 1 | ND | 0.54 | 55 | 0.59 | 60 | ( 50-150 ) | 10 | (< 20 ) |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334834 Method Blank | | |
| **Prep Batch** | MXX 11367 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MIM 5720 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 6020 |
| **File** | N:\ICPMS\elandata\Dataset\091903\MB.012 | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| | | **Date** | 09/19/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| Selenium | ND | 0.016 |
| Silver | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334802 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11364 | **Batch** | MCV 2018 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\091703W1.TXT | **Date** | 09/17/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | LCS;LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0021 | 105 | | | (86-114) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 334805 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11364 | **Batch** | MCV 2018 |
| **Original** | 3033960002 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/17/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\091703W1.TXT | **By** | PSK |

**QC results affect the following production samples:**

3033960002, 3033960004

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.019 | 94 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334801 Method Blank | | |
| **Prep Batch** | MXX 11364 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MCV 2018 |
| **Project** | Project 32664 Sybil, Inc. | **Method** | SW-846 7470A |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\091703W1.TXT | **Instrument** | PSA Millenium |
| | | **Date** | 09/17/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334634 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3448 | **Batch** | WLA 1490 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | Quick Chem 8000 Lachat |
| | | | **Date** | 09/17/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 0.83 | 17 | | | ( 2.6-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334635 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3448 | **Batch** | WLA 1490 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| | | **Date** | 09/17/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334728 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3450 | **Batch** | WAT 1831 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/18/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 360 | 87 | | | ( 57-109 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334727 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3450 | **Batch** | WAT 1831 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 09/18/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334729 | Matrix Duplicate | | |
| **Prep Batch** | WXX | 3450 | | |
| **Original** | 3033961002 | | | |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32684 Sybill, Inc. | | | |

| **Analysis** | |
|---|---|
| **Batch** | WAT 1831 |
| **Method** | SW-846 7.3.4.2 |
| **Instrument** | No Instrument, Manual Handling |
| **Date** | 09/18/2003 |
| **By** | JB |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 50 | 0.00 | (< 20 ) |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334603 | pH Calibration Standard | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2070 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 09/17/2003 |
| | | | **By** | SKP |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 6.99 | | | | ( 99-101 ) | | |
| pH Cal. Check pH10 | 10 | 9.99 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334604 | Quality Control Sample | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2070 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 09/17/2003 |
| | | | **By** | SKP |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.99 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 334605 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3033960002 | **Batch** | WPH 2070 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 09/17/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3033960002, 3033960004

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 4.22 | 4.21 | | 0.24 | (< 20) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335119 | Flashpoint Calibration Std. | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | MXX 11373 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 1010 |
| **Project** | Project 32684 Sybil, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/19/2003 |
| | | | **By** | WD |

QC results affect the following production samples:

3033960001, 3033960002, 3033960003, 3033960004

| Analyte | LCS,LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 81 | 101 | | | ( 98-102 ) | | |

SGS

REC'D CRA
OCT - 2 2003
SDG: 15

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034069

ORIGINAL ANALYTICAL REPORT

Project#: 32664 Lab#: 3034069

Name: SYBILL, INC.

Description

Event: _____

Samples: 8 mix

Analysis: TCLP VOC, SVOC, PCB PCE, MTL

TAT: 5 day

Lab: SGS

Checked Against Preliminary Data:

Date: 10-6-03 Init.: K.B.

Date of Validation Memo: 10-8-03

Invoice Approval Date: _____

Comments: _____

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

Approval Signature: Tameka M. Johnson

Date Issued: 10-1-03

Total Pages: 100

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034069

***Sample Collection and Receipt -***

Eight samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on September 18, 2003. A discrepancy was noted between the collection data listed on the chain-of-custody (COC) and the date included in the sample name for select samples. The collection date was reported according to the COC. The sample containers were released to a laboratory courier for shipment under COC record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on September 19, 2003 in good condition, on ice and at a temperature of 9°C, which was above the required temperature range. Following log-in, the samples were stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

Samples 3034069001, 3034069002, 3034069003, 3034069006 and 3034069008 were analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Ignitability/Flashpoint). Additionally, the samples were extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. Each leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals.

Laboratory samples 3034069004, 3034069005 and 3034069007 were analyzed for Polychlorinated Biphenyls (PCBs), Flashpoint and volatile organic compounds (VOC).

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

***Quality Control (QC) -***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Volatile Analysis*

The recovery for the surrogate Toluene-d8 was just below the lower control limit in laboratory sample 3034069004. No corrective action was initiated on the basis of this result.

*GC/MS TCLP Volatile Analysis*

The recovery for the surrogate 4-Bromofluorobenzene was above the upper control limit in laboratory sample 3034069008. The surrogate result was confirmed by reanalysis.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034069

***Quality Control (QC) - continued***

*GC/MS Semi-Volatile Analysis*

Laboratory sample 3034069003 only concentrated to a final volume of ten milliliters instead of one milliliter resulting in a 10X extraction dilution.

The analyses for laboratory samples 3034069003, 3034069006 and 3034069008 were performed at a 10X dilution due to matrix interference.

The recovery for the surrogate 2-Fluorophenol was below the lower control limit in laboratory sample 3034069003. No corrective action was initiated on the basis of this result.

The recovery for the surrogate Nitrobenzene-d5 was above the upper control limit in laboratory sample 3034069008. No corrective action was initiated on the basis of this result.

*GC PCB Analysis*

The recovery for Aroclor-1248 was above the upper control limit in the MS associated with preparation batch XXX 5983. Also, the relative percent difference (RPD) was above QC acceptance criteria in the MS/MSD. The MS/MSD were not performed on a sample from this sample delivery group (SDG).

The RPD was above QC acceptance criteria for Aroclor-1260 in the MS/MSD associated with preparation batch XXX 5977. The MS/MSD were not performed on a sample from this SDG.

*Metals Analysis*

Select metals results in laboratory samples 3034069002 and 3034069006 had the relative standard deviation (RSD) of the analysis replicates greater than twenty percent.

The recovery for Silver was below the lower control limits in the MS/MSD on sample 3034069001 associated with preparation batch MXX 11387. The Silver result may be biased low in sample 3034069001.

For laboratory sample 3034069008, the Mercury analysis was performed at a 4X dilution due to analyte level.

***Sample Reporting -***

The temperature exceedance noted upon receipt was documented on the sample report.

Select metals results for samples 3034069002 and 3034069006 were qualified as estimated (J) due to an RSD greater than twenty percent.

The Silver result for sample 3034069001 was qualified (M) for matrix interference due to low spike recovery.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034069

***Sample Reporting - continued***

The SVOC results for laboratory samples 3034069003, 3034069006 and 3034069008 were qualified for dilution (D) due to matrix interference (M).

The Mercury result for laboratory sample 3034069008 was qualified for dilution (D) due to analyte level.

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Tamela M. Johnson *Phone:* (231) 843-1877
Tamela M. Johnson, Reporting Group Supervisor

*Date:* 10-1-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034069

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Total Volatiles | SW-846 8260[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Ignitability | SW-846 7.1[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| L-32664-091603-SM-010R | 3034069001 |
| S-32664-091603-SM-055 | 3034069002 |
| S-32664-091603-SM-056 | 3034069003 |
| L-32664-091803-SM-057 | 3034069004 |
| L-32664-091803-SM-058A | 3034069005 |
| S-32664-091803-SM-058B | 3034069006 |
| L-32664-091803-SM-059A | 3034069007 |
| S-32664-091803-SM-059B | 3034069008 |

# Explanation of Terms and Data Qualifiers

| Term Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water *MCLs* or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

3034069

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

SHIPPED T CT&E Environmental Services Inc. 231-843-1877
1200 Con 167726 COC Serial 49431

# CHAIN OF CUSTODY RECORD

REFERENCE NUMBER: 032664

PROJECT NAME: Sybill, Inc.

SAMPLER'S SIGNATURE: [signature] PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | Full TCLP | RCI | PCB's | | TLC vacuum | Ignitability | PCB's | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9-18-03 | | L-32664-091603-SM-010R 1 | L | 4 | ✓ | ✓ | ✓ | | | | | | | | |
| 2 | | | S-32664-091603-SM-055 2 | S | 1 | ✓ | ✓ | ✓ | | | | | | | | 5 day tat |
| 3 | | | S-32664-091603-SM-056 2 | S | 1 | ✓ | ✓ | ✓ | | | | | | | | |
| 4 | | | L-32664-091803-SM-057 3 | L | 4 | | | | | ✓ | ✓ | ✓ | | | | please |
| 5 | | | L-32664-091803-SM-058A 3 | L | 4 | | | | | ✓ | ✓ | ✓ | | | | |
| 6 | | | S-32664-091803-SM-058B 3 | sludge | 1 | ✓ | ✓ | ✓ | | | | | | | | |
| 7 | | | L-32664-091803-SM-059A 3 | L | 4 | | | | | ✓ | ✓ | ✓ | | | | |
| 8 | | | S-32664-091803-SM-059B 3 | sludge | 2 | ✓ | ✓ | ✓ | | | | | | | | |
| | | | TOTAL NUMBER OF CONTAINERS | | 21 | | | | | | | | | | | |

| RELINQUISHED BY: | DATE: | TIME: | RECEIVED BY: | DATE: | TIME: |
|---|---|---|---|---|---|
| 1. Shawn McLean | 9-18-03 | 12:00 | 1. [signature] | 9/18/03 | 12:00 |
| 2. [signature] | 9/18/03 | | 2. | | |
| 3. | | | 1. | | |

METHOD OF SHIPMENT: lab courier AIR BILL No.

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24074

SAMPLE TEAM: [signature]

RECEIVED FOR LABORATORY BY: [signature]
DATE: 9/19/03 TIME: 8:30 9°C

1001 (FORMS)-APRIL 29, 93-REV.0-(C)(F-01)

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of 1

Project Number: 3034069 Date Logged In: 9/19/03 Login Person Initials: KE

This section to be completed when corrective action is required:

Client: CRA Project Name: _____
Client Contact: _____ Phone Number: _____

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | | ✓ |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | | |

COMMENTS/CORRECTIVE ACTION
COC date for some is different than ID date. Logged sample ID date. DDH 10/1/03

**Containers Created**

| 40 ml. vial | 1 Liter amber | 250 ml. plastic | 500 ml. plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Samp. No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl.* DDH 9/30/03

CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)
9/30/03: Change client ID's: S-57A to L-57, S-58A to L58A & S59A to L-59A.

G:\guest\shipping\login checklist rev 2.doc 2/14/2002

# Laboratory Report

SGS CT&E Environmental Services Inc.
Michigan Division

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3034069**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

10/1/2003
Date

**This report contains** _____ **pages**

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SGS Member of the SGS Group (Societe Generale de Surveillance)

# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

SGS CT&E Environmental Services Inc.
Michigan Division

*Workorder:* *3034069* Conestoga-Rovers & Associates *Reported:* *10/1/2003*

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069001 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-091603-SM-010R | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).
Sample received above required temperature range.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/23/03 12:27 | 09/23/03 14:36 | JB | 4 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/23/03 10:59 | 09/24/03 11:05 | JB | 4 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/24/03 14:47 | SRS | 4 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/24/03 13:32 | WD | 4 |
| pH | 7.85 | | S.U. | | SW-846 9040B | | 09/24/03 14:47 | SR[redacted] | 4 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/24/03 10:58 | 09/25/03 16:52 | ESA | 4 |
| Aroclor-1221 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/24/03 10:58 | 09/25/03 16:52 | ESA | 4 |
| Aroclor-1232 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/24/03 10:58 | 09/25/03 16:52 | ESA | 4 |
| Aroclor-1242 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/24/03 10:58 | 09/25/03 16:52 | ESA | 4 |
| Aroclor-1248 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/24/03 10:58 | 09/25/03 16:52 | ESA | 4 |
| Aroclor-1254 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/24/03 10:58 | 09/25/03 16:52 | ESA | 4 |
| Aroclor-1260 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/24/03 10:58 | 09/25/03 16:52 | ESA | 4 |
| Aroclor-1262 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/24/03 10:58 | 09/25/03 16:52 | ESA | 4 |
| Aroclor-1268 | ND | | ug/L | 0.12 | SW-846 8082 / SW-846 3510C | 09/24/03 10:58 | 09/25/03 16:52 | ESA | 4 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:30 | SRO | 1 |
| Barium | 0.065 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:30 | SRO | 1 |
| Cadmium | 0.0021 | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:30 | SRO | 1 |
| Chromium | ND | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:30 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/23/03 13:00 | 09/23/03 15:44 | PSK | 4 |
| Lead | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:30 | SR[redacted] | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:30 | SRO | 1 |
| Silver | ND M | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:30 | SRO | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069001 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-091603-SM-010R | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:13 | JDS | 4 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:13 | JDS | 4 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:13 | JDS | 4 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/25/03 15:13 | JDS | 4 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:13 | JDS | 4 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:13 | JDS | 4 |
| [illegible]robenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:13 | JDS | 4 |
| Chloroform | 0.016 | 6 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:13 | JDS | 4 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:13 | JDS | 4 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:13 | JDS | 4 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:13 | JDS | 4 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:12 | BPJ | 4 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:12 | BPJ | 4 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:12 | BPJ | 4 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:12 | BPJ | 4 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:12 | BPJ | 4 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:12 | BPJ | 4 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:12 | BPJ | 4 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:12 | BPJ | 4 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:12 | BPJ | 4 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:12 | BPJ | 4 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:12 | BPJ | 4 |

Workorder: 3034069 Conestoga-Rovers & Associates Reported: 10/1/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034069002 | Matrix: | Solid |
| Client Sample ID: | S-32664-091603-SM-055 | Location: | |
| Collected: | 09/18/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/19/2003 08:30 | Sampled By: | SM |

Comments: Results reported on Dry Weight basis.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).
Sample received above required temperature range.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/23/03 12:27 | 09/23/03 14:36 | JB | 1 |
| Reactive Sulfide | ND | | mg/Kg | 60 | SW-846 7.3.4.2[1] | 09/23/03 10:59 | 09/24/03 11:05 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 09/24/03 14:47 | SRS | 1 |
| Ignitability | Non | | | | SW-846 7.1[1] | | 09/25/03 09:41 | WD | 1 |
| pH | 4.23 | | S.U. | | SW-846 9045C | | 09/24/03 14:47 | SR[illegible] | 1 |
| Total Solids | 78.3 | | % | 0.10 | SM19 2540G[1] | | 09/22/03 06:39 | SKP | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/Kg | 240 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/25/03 20:53 | ESA | 1 |
| Aroclor-1221 | ND | | ug/Kg | 240 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/25/03 20:53 | ESA | 1 |
| Aroclor-1232 | ND | | ug/Kg | 240 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/25/03 20:53 | ESA | 1 |
| Aroclor-1242 | ND | | ug/Kg | 240 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/25/03 20:53 | ESA | 1 |
| Aroclor-1248 | ND | | ug/Kg | 240 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/25/03 20:53 | ESA | 1 |
| Aroclor-1254 | ND | | ug/Kg | 240 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/25/03 20:53 | ESA | 1 |
| Aroclor-1260 | ND | | ug/Kg | 240 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/25/03 20:53 | ESA | 1 |
| Aroclor-1262 | ND | | ug/Kg | 240 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/25/03 20:53 | ESA | 1 |
| Aroclor-1268 | ND | | ug/Kg | 240 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/25/03 20:53 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.095 J | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:39 | SRO | 1 |
| Barium | 0.11 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:39 | SRO | 1 |
| Cadmium | 0.065 | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:39 | SRO | 1 |
| Chromium | 0.16 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:39 | SR[illegible] | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/23/03 13:00 | 09/23/03 15:52 | PSK | 1 |
| Lead | 3.4 | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:39 | SRO | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069002 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-091603-SM-055 | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Selenium | 0.037 J | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:39 | SRO | 1 |
| Silver | 0.018 J | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:39 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:40 | JDS | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:40 | JDS | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:40 | JDS | 1 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/25/03 15:40 | JDS | 1 |
| [illegible]zene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:40 | JDS | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:40 | JDS | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:40 | JDS | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:40 | JDS | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:40 | JDS | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:40 | JDS | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 15:40 | JDS | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:57 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:57 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:57 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:57 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:57 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:57 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:57 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:57 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:57 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:57 | BPJ | 1 |
| [illegible]ine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 14:57 | BPJ | 1 |

Workorder: 3034069 Conestoga-Rovers & Associates Reported: 10/1/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034069003 | Matrix: | Solid |
| Client Sample ID: | S-32664-091603-SM-056 | Location: | |
| Collected: | 09/18/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/19/2003 08:30 | Sampled By: | SM |

Comments: Results reported on Dry Weight basis.
8270/tclp: Sample fails acceptance criteria for (1) surrogate.
Sample received above required temperature range.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 50 | SW-846 7.3.3.2[1] | 09/23/03 12:27 | 09/23/03 14:36 | JB | 1 |
| Reactive Sulfide | ND | | mg/Kg | 100 | SW-846 7.3.4.2[1] | 09/23/03 10:59 | 09/24/03 11:05 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 09/24/03 14:47 | SRS | 1 |
| Ignitability | Non | | | | SW-846 7.1[1] | | 09/25/03 09:41 | WD | 1 |
| pH | 12.7 | | S.U. | | SW-846 9045C | | 09/24/03 14:47 | SRS | 1 |
| Total Solids | 52.6 | | % | 0.10 | SM19 2540G[1] | | 09/22/03 08:39 | SKP | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/Kg | 360 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/26/03 16:03 | ESA | 1 |
| Aroclor-1221 | ND | | ug/Kg | 360 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/26/03 16:03 | ESA | 1 |
| Aroclor-1232 | ND | | ug/Kg | 360 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/26/03 16:03 | ESA | 1 |
| Aroclor-1242 | ND | | ug/Kg | 360 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/26/03 16:03 | ESA | 1 |
| Aroclor-1248 | ND | | ug/Kg | 360 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/26/03 16:03 | ESA | 1 |
| Aroclor-1254 | ND | | ug/Kg | 360 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/26/03 16:03 | ESA | 1 |
| Aroclor-1260 | ND | | ug/Kg | 360 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/26/03 16:03 | ESA | 1 |
| Aroclor-1262 | ND | | ug/Kg | 360 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/26/03 16:03 | ESA | 1 |
| Aroclor-1268 | ND | | ug/Kg | 360 | SW-846 8082 / SW-846 3550B | 09/23/03 09:54 | 09/26/03 16:03 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.061 | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:58 | SRO | 1 |
| Barium | 0.95 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:58 | SRO | 1 |
| Cadmium | 0.016 | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:58 | SRO | 1 |
| Chromium | 0.24 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:58 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/23/03 13:00 | 09/23/03 15:58 | PSK | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069003 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-091603-SM-056 | **Location:** | |
| **Collected:** | 09/16/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Lead | 0.33 | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:58 | SRO | 1 |
| Selenium | 0.018 | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:58 | SRO | 1 |
| Silver | ND | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:58 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:07 | JDS | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:07 | JDS | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:07 | JDS | 1 |
| [illegible]tanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/25/03 16:07 | JDS | 1 |
| [illegible]zene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:07 | JDS | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:07 | JDS | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:07 | JDS | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:07 | JDS | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:07 | JDS | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:07 | JDS | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:07 | JDS | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND D,M | 400 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 18:42 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND D,M | 2 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 18:42 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND D,M | 0.13 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 18:42 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND D,M | 200 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 18:42 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | ND D,M | 200 | mg/L | 2.0 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 18:42 | BPJ | 1 |
| Hexachlorobenzene | ND D,M | 0.13 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 18:42 | BPJ | 1 |
| Hexachlorobutadiene | ND D,M | 0.5 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 18:42 | BPJ | 1 |
| Hexachloroethane | ND D,M | 3 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 18:42 | BPJ | 1 |
| Nitrobenzene | ND D,M | 2 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 18:42 | BPJ | 1 |
| [illegible]achlorophenol | ND D,M | 100 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 18:42 | BPJ | 1 |
| Pyridine | ND D,M | 5 | mg/L | 2.0 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 18:42 | BPJ | 1 |

Workorder: 3034069 Conestoga-Rovers & Associates Reported: 10/1/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069004 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-091803-SM-057 | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).
Sample received above required temperature range.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/24/03 13:32 | WD | 2 |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,1,2-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,2-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 2-Butanone ( M E K ) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| 4-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Benzene | 350 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069004 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32684-091803-SM-057 | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32684 Sybill, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Chloromethane | ND | | ug/Kg | 370 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| ,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| ,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Dibromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Methylene chloride | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Trichloroethene | 285 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:19 | JEH | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:13 | JL | 2 |
| Aroclor-1221 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:13 | JL | 2 |
| Aroclor-1232 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:13 | JL | 2 |
| Aroclor-1242 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:13 | JL | 2 |
| Aroclor-1248 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:13 | JL | 2 |
| clor-1254 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:13 | JL | 2 |
| Aroclor-1260 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:13 | JL | 2 |
| Aroclor-1262 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:13 | JL | 2 |

Workorder: 3034069 Conestoga-Rovers & Associates Reported: 10/1/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069004 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-091803-SM-057 | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1268 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:13 | JL | 2 |

Workorder: 3034069 Conestoga-Rovers & Associates Reported: 10/1/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069005 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-091803-SM-058A | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).
Sample received above required temperature range.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/24/03 13:32 | WD | 2 |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| [illegible]-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,2-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 2-Butanone ( M E K ) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| [illegible]hlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Benzene | 429 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069005 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-091803-SM-058A | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Chloromethane | ND | | ug/Kg | 370 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Dibromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Methylene chloride | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Trichloroethene | 330 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 17:50 | JEH | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:41 | JL | 2 |
| Aroclor-1221 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:41 | JL | 2 |
| Aroclor-1232 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:41 | JL | 2 |
| Aroclor-1242 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:41 | JL | 2 |
| Aroclor-1248 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:41 | JL | 2 |
| Aroclor-1254 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:41 | JL | 2 |
| Aroclor-1260 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:41 | JL | 2 |
| Aroclor-1262 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:41 | JL | 2 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069005 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-091803-SM-058A | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32664 Sybil, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1268 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/23/03 05:41 | JL | 2 |

*Workorder:* *3034069* Conestoga-Rovers & Associates *Reported:* *10/1/2003*

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069006 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-091803-SM-058B | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

**Comments:** Results reported on Dry Weight basis.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).
Sample received above required temperature range.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/23/03 12:27 | 09/23/03 14:36 | JB | 1 |
| Reactive Sulfide | ND | | mg/Kg | 70 | SW-846 7.3.4.2[1] | 09/23/03 10:59 | 09/24/03 11:05 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 09/24/03 14:47 | SRS | 1 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/24/03 13:32 | WD | |
| pH | 4.74 | | S.U. | | SW-846 9045C | | 09/24/03 14:47 | SRS | 1 |
| Total Solids | 73.1 | | % | 0.10 | SM19 2540G[1] | | 09/22/03 06:39 | SKP | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/Kg | 1400 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 15:59 | ESA | 1 |
| Aroclor-1221 | ND | | ug/Kg | 1400 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 15:59 | ESA | 1 |
| Aroclor-1232 | ND | | ug/Kg | 1400 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 15:59 | ESA | 1 |
| Aroclor-1242 | ND | | ug/Kg | 1400 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 15:59 | ESA | 1 |
| Aroclor-1248 | ND | | ug/Kg | 1400 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 15:59 | ESA | 1 |
| Aroclor-1254 | ND | | ug/Kg | 1400 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 15:59 | ESA | 1 |
| Aroclor-1260 | ND | | ug/Kg | 1400 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 15:59 | ESA | 1 |
| Aroclor-1262 | ND | | ug/Kg | 1400 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 15:59 | ESA | 1 |
| Aroclor-1268 | ND | | ug/Kg | 1400 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 15:59 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.42 | 5 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 12:02 | SRO | 1 |
| Barium | 1.2 J | 100 | mg/L | 0.0080 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 12:02 | SRO | 1 |
| Cadmium | 0.053 J | 1 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 12:02 | SRO | 1 |
| Chromium | 0.17 J | 5 | mg/L | 0.012 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 12:02 | SRO | 1 |
| Mercury | 0.0024 | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/23/03 13:00 | 09/23/03 16:11 | PS | 1 |
| Lead | 0.15 J | 5 | mg/L | 0.0080 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 12:02 | SRO | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069006 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-091803-SM-058B | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Selenium | 0.054 J | 1 | mg/L | 0.032 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 12:02 | SRO | 1 |
| Silver | 0.033 J | 5 | mg/L | 0.0080 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 12:02 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:34 | JDS | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:34 | JDS | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:34 | JDS | 1 |
| 2-Butanone ( M E K) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/25/03 16:34 | JDS | 1 |
| [illegible]zene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:34 | JDS | 1 |
| [illegible]on tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:34 | JDS | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:34 | JDS | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:34 | JDS | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:34 | JDS | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:34 | JDS | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 16:34 | JDS | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND D,M | 400 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 20:58 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND D,M | 2 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 20:58 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND D,M | 0.13 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 20:58 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND D,M | 200 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 20:58 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | ND D,M | 200 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 20:58 | BPJ | 1 |
| Hexachlorobenzene | ND D,M | 0.13 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 20:58 | BPJ | 1 |
| Hexachlorobutadiene | ND D,M | 0.5 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 20:58 | BPJ | 1 |
| Hexachloroethane | ND D,M | 3 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 20:58 | BPJ | 1 |
| Nitrobenzene | ND D,M | 2 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 20:58 | BPJ | 1 |
| Pentachlorophenol | ND D,M | 100 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 20:58 | BPJ | 1 |
| [illegible]ridine | ND D,M | 5 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/24/03 15:58 | 09/25/03 20:58 | BPJ | 1 |

Workorder: 3034069 Conestoga-Rovers & Associates Reported: 10/1/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034069007 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | L-32664-091803-SM-059A | Location: | |
| Collected: | 09/18/2003 00:00 | Project: | Project 32664 Sybil, Inc. |
| Received: | 09/19/2003 08:30 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).
Sample received above required temperature range.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/24/03 13:32 | WD | 2 |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,1,2-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,2-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 2-Butanone ( M E K ) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| 4-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Benzene | 420 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069007 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-091803-SM-059A | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Chloromethane | ND | | ug/Kg | 370 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Dibromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Methylene chloride | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Trichloroethene | 321 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/19/03 15:30 | 09/27/03 18:22 | JEH | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/25/03 13:46 | ESA | 2 |
| Aroclor-1221 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/25/03 13:46 | ESA | 2 |
| Aroclor-1232 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/25/03 13:46 | ESA | 2 |
| Aroclor-1242 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/25/03 13:46 | ESA | 2 |
| Aroclor-1248 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/25/03 13:46 | ESA | 2 |
| Aroclor-1254 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/25/03 13:46 | ESA | 2 |
| Aroclor-1260 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/25/03 13:46 | ESA | 2 |
| Aroclor-1262 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/25/03 13:46 | ESA | 2 |

Workorder: 3034069 Conestoga-Rovers & Associates Reported: 10/1/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069007 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-091803-SM-059A | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32664 Sybil, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1268 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 09/19/03 17:35 | 09/25/03 13:46 | ESA | 2 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069008 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-091803-SM-059B | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

**Comments:** Results reported on Dry Weight basis.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).
8260 TCLP: High surrogate recovery due to matrix, confirmed by 2nd analysis.
Sample received above required temperature range.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/23/03 12:27 | 09/23/03 14:36 | JB | 2 |
| Reactive Sulfide | ND | | mg/Kg | 60 | SW-846 7.3.4.2[1] | 09/23/03 10:59 | 09/24/03 11:05 | JB | 2 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 09/24/03 14:47 | SRS | 2 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/24/03 13:32 | WD | |
| pH | 4.95 | | S.U. | | SW-846 9045C | | 09/24/03 14:47 | SRS | 2 |
| Total Solids | 82.3 | | % | 0.10 | SM19 2540G[1] | | 09/22/03 08:39 | SKP | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/Kg | 1000 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/26/03 02:43 | ESA | 2 |
| Aroclor-1221 | ND | | ug/Kg | 1000 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/26/03 02:43 | ESA | 2 |
| Aroclor-1232 | ND | | ug/Kg | 1000 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/26/03 02:43 | ESA | 2 |
| Aroclor-1242 | ND | | ug/Kg | 1000 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/26/03 02:43 | ESA | 2 |
| Aroclor-1248 | ND | | ug/Kg | 1000 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/26/03 02:43 | ESA | 2 |
| Aroclor-1254 | ND | | ug/Kg | 1000 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/26/03 02:43 | ESA | 2 |
| Aroclor-1260 | ND | | ug/Kg | 1000 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/26/03 02:43 | ESA | 2 |
| Aroclor-1262 | ND | | ug/Kg | 1000 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/26/03 02:43 | ESA | 2 |
| Aroclor-1268 | ND | | ug/Kg | 1000 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/26/03 02:43 | ESA | 2 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 11 | 5 | mg/L | 0.50 | SW-846 6020 / SW-846 3010A | 09/24/03 11:28 | 09/25/03 20:03 | SRO | 1 |
| Barium | 27 | 100 | mg/L | 0.20 | SW-846 6020 / SW-846 3010A | 09/24/03 11:28 | 09/25/03 20:03 | SRO | 1 |
| Cadmium | 0.39 | 1 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 09/24/03 11:28 | 09/25/03 20:03 | SRO | 1 |
| Chromium | 7.2 | 5 | mg/L | 0.30 | SW-846 6020 / SW-846 3010A | 09/24/03 11:28 | 09/25/03 20:03 | SRO | 1 |
| Mercury | 0.46 D | 0.2 | mg/L | 0.040 | SW-846 7470A | 09/23/03 13:00 | 09/23/03 16:34 | PSK | 2 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034069008 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-091803-SM-059B | **Location:** | |
| **Collected:** | 09/18/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/19/2003 08:30 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Lead | 6.7 | 5 | mg/L | 0.20 | SW-846 6020 / SW-846 3010A | 09/24/03 11:28 | 09/25/03 20:03 | SRO | 1 |
| Selenium | 1.4 | 1 | mg/L | 0.80 | SW-846 6020 / SW-846 3010A | 09/24/03 11:28 | 09/25/03 20:03 | SRO | 1 |
| Silver | 0.53 | 5 | mg/L | 0.20 | SW-846 6020 / SW-846 3010A | 09/24/03 11:28 | 09/25/03 20:03 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.0080 | SW-846 8260B / SW-846 5030B | 09/24/03 09:45 | 09/27/03 19:26 | JDS | |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.0080 | SW-846 8260B / SW-846 5030B | 09/24/03 09:45 | 09/27/03 19:26 | JDS | |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.0080 | SW-846 8260B / SW-846 5030B | 09/24/03 09:45 | 09/27/03 19:26 | JDS | |
| 2-Butanone (MEK) | 0.26 | 200 | mg/L | 0.045 | SW-846 8260B / SW-846 5030B | 09/24/03 09:45 | 09/27/03 19:26 | JDS | |
| Benzene | 0.72 | 0.5 | mg/L | 0.0080 | SW-846 8260B / SW-846 5030B | 09/24/03 09:45 | 09/27/03 19:26 | JDS | |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.0080 | SW-846 8260B / SW-846 5030B | 09/24/03 09:45 | 09/27/03 19:26 | JDS | |
| Chlorobenzene | ND | 100 | mg/L | 0.0080 | SW-846 8260B / SW-846 5030B | 09/24/03 09:45 | 09/27/03 19:26 | JDS | |
| Chloroform | ND | 6 | mg/L | 0.0080 | SW-846 8260B / SW-846 5030B | 09/24/03 09:45 | 09/27/03 19:26 | JDS | |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.0080 | SW-846 8260B / SW-846 5030B | 09/24/03 09:45 | 09/27/03 19:26 | JDS | |
| Trichloroethene | ND | 0.5 | mg/L | 0.0080 | SW-846 8260B / SW-846 5030B | 09/24/03 09:45 | 09/27/03 19:26 | JDS | |
| Vinyl chloride | ND | 0.2 | mg/L | 0.0080 | SW-846 8260B / SW-846 5030B | 09/24/03 09:45 | 09/27/03 19:26 | JDS | |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND D,M | 400 | mg/L | 500 | SW-846 8270C / SW-846 3580A | 09/25/03 10:16 | 09/25/03 19:27 | BPJ | |
| 2,4,6-Trichlorophenol | ND D,M | 2 | mg/L | 500 | SW-846 8270C / SW-846 3580A | 09/25/03 10:16 | 09/25/03 19:27 | BPJ | |
| 2,4-Dinitrotoluene | ND D,M | 0.13 | mg/L | 500 | SW-846 8270C / SW-846 3580A | 09/25/03 10:16 | 09/25/03 19:27 | BPJ | |
| 2-Methylphenol (o-Cresol) | ND D,M | 200 | mg/L | 500 | SW-846 8270C / SW-846 3580A | 09/25/03 10:16 | 09/25/03 19:27 | BPJ | |
| 3&4-Methylphenol (p&m-Cresol) | ND D,M | 200 | mg/L | 990 | SW-846 8270C / SW-846 3580A | 09/25/03 10:16 | 09/25/03 19:27 | BPJ | |
| Hexachlorobenzene | ND D,M | 0.13 | mg/L | 500 | SW-846 8270C / SW-846 3580A | 09/25/03 10:16 | 09/25/03 19:27 | BPJ | |
| Hexachlorobutadiene | ND D,M | 0.5 | mg/L | 500 | SW-846 8270C / SW-846 3580A | 09/25/03 10:16 | 09/25/03 19:27 | BPJ | |
| Hexachloroethane | ND D,M | 3 | mg/L | 500 | SW-846 8270C / SW-846 3580A | 09/25/03 10:16 | 09/25/03 19:27 | BPJ | |
| Nitrobenzene | ND D,M | 2 | mg/L | 500 | SW-846 8270C / SW-846 3580A | 09/25/03 10:16 | 09/25/03 19:27 | BPJ | |
| Pentachlorophenol | ND D,M | 100 | mg/L | 500 | SW-846 8270C / SW-846 3580A | 09/25/03 10:16 | 09/25/03 19:27 | BPJ | |
| Pyridine | ND D,M | 5 | mg/L | 990 | SW-846 8270C / SW-846 3580A | 09/25/03 10:16 | 09/25/03 19:27 | BPJ | |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32864 Sybill, Inc. | **Batch** | VMS 4859 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Solid | **Date** | 09/27/2003 |
| | | **By** | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 336440 | LCS | 96.2 | 97.2 | 98.9 | 94.2 |
| 336441 | MB | 91.1 | 99.8 | 100 | 94 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 80-124 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 87-117 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 74-123 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 92-113 )** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | | |
| **Project** | Project 32664 Sybil, Inc. | **Batch** | VMS 4859 | | |
| | | **Method** | SW-846 8260B | | |
| **Matrix** | Non Aqueous Liquid | **Instrument** | HP 5972 Series | INSTRU H | |
| | | **Date** | 09/27/2003 | | |
| | | **By** | JEH | | |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3034069004 | PS | 101 | 99.7 | 99.2 | 91.9 |
| 3034069005 | PS | 101 | 94.4 | 91.3 | 93.5 |
| 3034069007 | PS | 101 | 98.2 | 96.7 | 92.4 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 80-124 )** |
| **[redacted]M** | = | **Dibromofluoromethane Surr** | **( 87-117 )** |
| **[redacted]** | = | **1,2-Dichloroethane-D4 Surr** | **( 74-123 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 92-113 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336440 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4859 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32684 Sybill, Inc. | | |
| **File** | H0927_03.D | **Date** | 09/27/2003 |
| | | **By** | JEH |

QC results affect the following production samples:

3034069004, 3034069005, 3034069007

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 2500 | 2300 | 93 | | | (69-117) | | |
| 1,1,1-Trichloroethane | 2500 | 2400 | 94 | | | (62-124) | | |
| 1,1,2,2-Tetrachloroethane | 2500 | 2100 | 84 | | | (64-127) | | |
| 1,1,2-Trichloroethane | 2500 | 2100 | 84 | | | (73-116) | | |
| 1,1-Dichloroethane | 2500 | 2200 | 89 | | | (73-113) | | |
| 1,1-Dichloroethene | 2500 | 2500 | 99 | | | (57-133) | | |
| 1,1-Dichloropropene | 2500 | 2300 | 94 | | | (78-118) | | |
| 1,2,3-Trichlorobenzene | 2500 | 2300 | 93 | | | (71-127) | | |
| 1,2,3-Trichloropropane | 2500 | 2200 | 88 | | | (58-122) | | |
| 1,2,4-Trichlorobenzene | 2500 | 2300 | 92 | | | (72-128) | | |
| 1,2-Dibromo-3-chloropropane | 2500 | 2200 | 89 | | | (52-136) | | |
| 1,2-Dibromoethane | 2500 | 2200 | 88 | | | (69-123) | | |
| 1,2-Dichlorobenzene | 2500 | 2300 | 91 | | | (70-125) | | |
| 1,2-Dichloroethane | 2500 | 2400 | 97 | | | (55-120) | | |
| 1,2-Dichloropropane | 2500 | 2100 | 86 | | | (77-116) | | |
| 1,3-Dichlorobenzene | 2500 | 2200 | 89 | | | (75-121) | | |
| 1,3-Dichloropropane | 2500 | 2100 | 86 | | | (78-114) | | |
| 1,4-Dichlorobenzene | 2500 | 2200 | 89 | | | (73-117) | | |
| 2,2-Dichloropropane | 2500 | 2400 | 96 | | | (71-116) | | |
| 2-Butanone (MEK) | 2500 | 2200 | 89 | | | (48-168) | | |
| 2-Chlorotoluene | 2500 | 2200 | 87 | | | (84-115) | | |
| 4-Chlorotoluene | 2500 | 2200 | 88 | | | (82-121) | | |
| Benzene | 2500 | 2100 | 85 | | | (74-122) | | |
| Bromochloromethane | 2500 | 2200 | 87 | | | (71-117) | | |
| Bromodichloromethane | 2500 | 2300 | 92 | | | (67-122) | | |
| Bromoform | 2500 | 2400 | 95 | | | (53-136) | | |
| Bromomethane | 2500 | 2400 | 94 | | | (25-170) | | |
| Carbon tetrachloride | 2500 | 2300 | 92 | | | (63-133) | | |
| Chlorobenzene | 2500 | 2300 | 91 | | | (74-122) | | |
| Chloroethane | 2500 | 2300 | 90 | | | (49-132) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336440 Lab Control Spike | | |
| **Prep Batch** | | **Analysis Batch** | VMS 4859 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | H0927_03.D | **Date** | 09/27/2003 |
| | | **By** | JEH |

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 2500 | 2300 | 91 | | | ( 67-114 ) | | |
| Chloromethane | 2500 | 2500 | 100 | | | ( 60-115 ) | | |
| cis-1,2-Dichloroethene | 2500 | 2200 | 87 | | | ( 79-110 ) | | |
| cis-1,3-Dichloropropene | 2500 | 2300 | 91 | | | ( 70-131 ) | | |
| Dibromochloromethane | 2500 | 2500 | 99 | | | ( 68-126 ) | | |
| Bromomethane | 2500 | 2200 | 90 | | | ( 64-127 ) | | |
| Dichlorodifluoromethane | 2500 | 2400 | 97 | | | ( 27-129 ) | | |
| Methylene chloride | 2500 | 1900 | 77 | | | ( 69-119 ) | | |
| Tetrachloroethene | 2500 | 2100 | 84 | | | ( 51-134 ) | | |
| trans-1,2-Dichloroethene | 2500 | 2300 | 94 | | | ( 74-116 ) | | |
| trans-1,3-Dichloropropene | 2500 | 2500 | 100 | | | ( 68-125 ) | | |
| Trichloroethene | 2500 | 2200 | 89 | | | ( 70-121 ) | | |
| Trichlorofluoromethane | 2500 | 2600 | 106 | | | ( 47-132 ) | | |
| Vinyl chloride | 2500 | 2300 | 93 | | | ( 60-125 ) | | |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336441 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4859 |
| **Project** | Project 32664 Sybil, Inc. | | **Method** | SW-846 8260B |
| **File** | H0927_06.D | | | |
| | | | **Date** | 09/27/2003 |
| | | | **By** | JEH |

QC results affect the following production samples:

3034069004, 3034069005, 3034069007

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 70 |
| 1,1,1-Trichloroethane | ND | 35 |
| 1,1,2,2-Tetrachloroethane | ND | 70 |
| 1,1,2-Trichloroethane | ND | 35 |
| 1,1-Dichloroethane | ND | 35 |
| 1,1-Dichloroethene | ND | 35 |
| 1,1-Dichloropropene | ND | 35 |
| 1,2,3-Trichlorobenzene | ND | 150 |
| 1,2,3-Trichloropropane | ND | 70 |
| 1,2,4-Trichlorobenzene | ND | 150 |
| 1,2-Dibromo-3-chloropropane | ND | 150 |
| 1,2-Dibromoethane | ND | 150 |
| 1,2-Dichlorobenzene | ND | 70 |
| 1,2-Dichloroethane | ND | 35 |
| 1,2-Dichloropropane | ND | 35 |
| 1,3-Dichlorobenzene | ND | 70 |
| 1,3-Dichloropropane | ND | 35 |
| 1,4-Dichlorobenzene | ND | 70 |
| 2,2-Dichloropropane | ND | 35 |
| 2-Butanone (M.E.K.) | ND | 300 |
| 2-Chlorotoluene | ND | 35 |
| 4-Chlorotoluene | ND | 35 |
| Benzene | ND | 35 |
| Bromochloromethane | ND | 70 |
| Bromodichloromethane | ND | 70 |
| Bromoform | ND | 70 |
| Bromomethane | ND | 150 |
| Carbon tetrachloride | ND | 35 |
| Chlorobenzene | ND | 35 |
| Chloroethane | ND | 150 |
| Chloroform | ND | 35 |
| Chloromethane | ND | 150 |
| cis-1,2-Dichloroethene | ND | 35 |
| cis-1,3-Dichloropropene | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336441 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4859 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | H0927_06.D | | | |
| | | | **Date** | 09/27/2003 |
| | | | **By** | JEH |

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Dibromochloromethane | ND | 70 |
| Dibromomethane | ND | 150 |
| Dichlorodifluoromethane | ND | 70 |
| Methylene chloride | ND | 150 |
| Tetrachloroethene | ND | 35 |
| trans-1,2-Dichloroethene | ND | 35 |
| trans-1,3-Dichloropropene | ND | 35 |
| Trichloroethene | ND | 35 |
| [illegible]lorofluoromethane | ND | 70 |
| Vinyl chloride | ND | 35 |

# TCLP Volatile Organic Compounds Quality Control Summary

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4852 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Aqueous | **Instrument** | HP 5972 Series INSTRU Q |
| | | **Date** | 09/25/2003 |
| | | **By** | JDS |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3034069001 PS | 93.4 | 84.6 | 86.9 | 100 |
| 336195 MS | 93.3 | 86.9 | 82.3 | 97.8 |
| 336197 LCS | 93.5 | 97.9 | 88.7 | 92.3 |
| 336198 MB | 94 | 92.5 | 89.2 | 94.5 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32664 Sybil, Inc. | **Batch** | VMS 4852 | |
| | | **Method** | SW-846 8260B | |
| **Matrix** | Solid | **Instrument** | HP 5972 Series | INSTRU Q |
| | | **Date** | 09/25/2003 | |
| | | **By** | JDS | |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3034069002 | PS | 93.8 | 92 | 90.4 | 95.5 |
| 3034069003 | PS | 94 | 84.9 | 87.4 | 99.5 |
| 3034069006 | PS | 93.7 | 92.8 | 89 | 92.3 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **(79-116)** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **(72-132)** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **(77-124)** |
| **TOL** | = | **Toluene-d8 Surr** | **(87-110)** |

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | | |
| Project | Project 32664 Sybil, Inc. | Batch | VMS 4872 | |
| | | Method | SW-846 8260B | |
| Matrix | Solid | Instrument | HP 5972 Series | INSTRU H |
| | | Date | 09/27/2003 | |
| | | By | JDS | |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3034069008 PS | 157 | 90.6 | 98.9 | 91.2 |
| 336706 LCS | 96.2 | 97.2 | 98.9 | 94.2 |
| 336707 MB | 91.1 | 99.8 | 100 | 94 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 79-116 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 72-132 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 77-124 ) |
| TOL | = | Toluene-d8 Surr | ( 87-110 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336197 | Lab Control Spike | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4852 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU Q |
| **File** | Q0925_04.D | | **Date** | 09/25/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.20 | 102 | | | ( 86-121 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.19 | 96 | | | ( 77-114 ) | | |
| 1,4-Dichlorobenzene | 0.2 | 0.19 | 97 | | | ( 83-120 ) | | |
| 2-Butanone ( M E K ) | 0.2 | 0.20 | 100 | | | ( 63-131 ) | | |
| Benzene | 0.2 | 0.19 | 94 | | | ( 87-112 ) | | |
| Carbon tetrachloride | 0.2 | 0.18 | 92 | | | ( 80-124 ) | | |
| Chlorobenzene | 0.2 | 0.19 | 96 | | | ( 86-117 ) | | |
| Chloroform | 0.2 | 0.18 | 92 | | | ( 83-113 ) | | |
| Tetrachloroethene | 0.2 | 0.16 | 78 | | | ( 59-148 ) | | |
| Trichloroethene | 0.2 | 0.19 | 93 | | | ( 83-111 ) | | |
| Vinyl chloride | 0.2 | 0.23 | 115 | | | ( 68-133 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336706 | Lab Control Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4872 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32884 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU H |
| **File** | H0927_03.D | | **Date** | 09/27/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3034069008

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.5 | 0.49 | 99 | | | (57-133) | | |
| 1,2-Dichloroethane | 0.5 | 0.49 | 97 | | | (55-120) | | |
| [redacted]chlorobenzene | 0.5 | 0.44 | 89 | | | (73-117) | | |
| 2-Butanone (MEK) | 0.5 | 0.45 | 89 | | | (48-168) | | |
| Benzene | 0.5 | 0.42 | 85 | | | (74-122) | | |
| Carbon tetrachloride | 0.5 | 0.46 | 92 | | | (63-133) | | |
| Chlorobenzene | 0.5 | 0.45 | 91 | | | (74-122) | | |
| Chloroform | 0.5 | 0.46 | 91 | | | (67-114) | | |
| Tetrachloroethene | 0.5 | 0.42 | 84 | | | (51-134) | | |
| Trichloroethene | 0.5 | 0.44 | 89 | | | (70-121) | | |
| Vinyl chloride | 0.5 | 0.47 | 93 | | | (60-125) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336195 | Matrix Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4852 | |
| **Original** | 3034069001 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU Q |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/25/2003 | |
| **File** | Q0925_23.D | | **By** | JDS | |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.18 | 89 | | | ( 71-144 ) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.16 | 82 | | | ( 67-121 ) | | |
| 1,4-Dichlorobenzene | 0.2 | ND | 0.18 | 91 | | | ( 51-145 ) | | |
| 2-Butanone ( M E K ) | 0.2 | ND | 0.15 | 77 | | | ( 32-134 ) | | |
| Benzene | 0.2 | ND | 0.17 | 86 | | | ( 76-127 ) | | |
| Carbon tetrachloride | 0.2 | ND | 0.17 | 84 | | | ( 83-130 ) | | |
| Chlorobenzene | 0.2 | ND | 0.18 | 92 | | | ( 86-117 ) | | |
| Chloroform | 0.2 | 0.016 | 0.17 | 77 | | | ( 71-137 ) | | |
| Tetrachloroethene | 0.2 | ND | 0.15 | 76 | | | ( 55-113 ) | | |
| Trichloroethene | 0.2 | ND | 0.17 | 86 | | | ( 80-122 ) | | |
| Vinyl chloride | 0.2 | ND | 0.20 | 100 | | | ( 59-145 ) | | |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336198 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4852 | |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B | |
| **File** | Q0925_08.D | | **Instrument** | HP 5972 Series | INSTRU Q |
| | | | **Date** | 09/25/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336707 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4872 | |
| **Project** | Project 32664 Sybil, Inc. | | **Method** | SW-846 8260B | |
| **File** | H0927_06.D | | **Instrument** | HP 5972 Series | INSTRU H |
| | | | **Date** | 09/27/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3034069008

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone (MEK) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# TCLP Semivolatile Organic Compounds Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2835 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/25/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3034069001 PS | 44.2 | 77.5 | 75.9 | 38.3 | 86.2 | 80.6 |
| 335752 MB | 53 | 81.3 | 82.7 | 41.3 | 91.6 | 89.8 |
| 335753 LCS | 52 | 75.5 | 80.7 | 38.5 | 87.9 | 82.5 |
| 335754 LCSD | 46.8 | 71.8 | 78.1 | 35 | 79.6 | 70.9 |
| 335755 MS | 52.6 | 82 | 87.9 | 41.1 | 93.8 | 85.6 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **(14-68)** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **(31-99)** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **(33-102)** |
| **PHL** | = | **Phenol-d5 Surr** | **(13-50)** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **(31-133)** |
| **TPH** | = | **Terphenyl-d14 Surr** | **(20-116)** |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2798 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Non Aqueous Liquid | **Date** | 08/22/2003 |
| | | **By** | BWR |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 330933 MB | 94.2 | 103 | 101 | 95.4 | 103 | 94.9 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 10-111 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 22-114 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 19-113 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 10-127 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 32-125 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 24-178 )** |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XMS 2835 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Solid | **Instrument** | HP 5971 Series |
| | | **Date** | 09/25/2003 |
| | | **By** | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3034069002 | PS | 54 | 84 | 91.5 | 42.1 | 95.5 | 47.7 |
| 3034069003 | PS | 0 | 67 | 78 | 13 | 34.5 | 77 |
| 3034069006 | PS | 39.5 | 71.8 | 92.2 | 34.2 | 56.9 | 76.9 |
| 335758 | MS | 47.4 | 71 | 77.1 | 37.9 | 81.4 | 46.8 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **(14-68)** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **(31-99)** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **(33-102)** |
| **PHL** | = | **Phenol-d5 Surr** | **(13-50)** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **(31-133)** |
| **TPH** | = | **Terphenyl-d14 Surr** | **(20-116)** |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | XMS 2835 |
| | | Method | SW-846 8270C |
| Matrix | Non Aqueous Liquid | Instrument | HP 5971 Series |
| | | Date | 09/25/2003 |
| | | By | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3034069008 | PS | 97.2 | 96 | 116 | 106 | 84.7 | 107 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | (10-111) |
| FBP | = | 2-Fluorobiphenyl Surr | (22-114) |
| NB2 | = | Nitrobenzene-d5 Surr | (19-113) |
| PHL | = | Phenol-d5 Surr | (10-127) |
| TBP | = | 2,4,6-Tribromophenol Surr | (32-125) |
| TPH | = | Terphenyl-d14 Surr | (24-178) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 335753 | Lab Control Spike | **Analysis** | | |
| | 335754 | Lab Control Spike Dup | **Batch** | XMS | 2835 |
| **Prep Batch** | XXX | 5991 | **Method** | SW-846 8270C | |
| **Client** | Conestoga-Rovers & Associates | | | | |
| **Project** | Project 32664 Sybill, Inc. | | | | |
| **File** | F0925_05.D | | **Date** | 09/25/2003 | |
| | F0925_06.D | | **By** | BPJ | |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.15 | 76 | 0.14 | 71 | (38-135) | 7 | (<27) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.16 | 81 | 0.15 | 76 | (32-140) | 6 | (<27) |
| 2,4-Dinitrotoluene | 0.05, 0.05 | 0.043 | 86 | 0.039 | 78 | (47-140) | 9 | ( |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.14 | 71 | 0.13 | 67 | (27-119) | 5 | ( |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.17 | 69 | 0.16 | 65 | (25-112) | 6 | (<33) |
| Hexachlorobenzene | 0.05, 0.05 | 0.039 | 79 | 0.036 | 72 | (36-138) | 9 | (<16) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.033 | 65 | 0.032 | 65 | (18-122) | 1 | (<26) |
| Hexachloroethane | 0.05, 0.05 | 0.036 | 72 | 0.036 | 73 | (16-112) | 1 | (<24) |
| Nitrobenzene | 0.05, 0.05 | 0.043 | 85 | 0.042 | 84 | (27-128) | 1 | (<24) |
| Pentachlorophenol | 0.2, 0.2 | 0.17 | 87 | 0.16 | 78 | (45-162) | 11 | (<17) |
| Pyridine | 0.05, 0.05 | 0.021 | 41 | 0.019 | 37 | (12-68) | 10 | (<20) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335755 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 5991 | | **Batch** | XMS 2835 |
| **Original** | 3034069001 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybil, Inc. | | **Date** | 09/25/2003 |
| **File** | F0925_10.D | | **By** | BPJ |

QC results affect the following production samples:

3034069001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.17 | 83 | | | ( 39-116 ) | | |
| [illegible]-Trichlorophenol | 0.2 | ND | 0.17 | 85 | | | ( 39-114 ) | | |
| [illegible]nitrotoluene | 0.05 | ND | 0.043 | 86 | | | ( 46-125 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.15 | 77 | | | ( 28-101 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | ND | 0.19 | 75 | | | ( 31-96 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.041 | 82 | | | ( 39-116 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.035 | 70 | | | ( 24-91 ) | | |
| Hexachloroethane | 0.05 | ND | 0.040 | 81 | | | ( 23-90 ) | | |
| Nitrobenzene | 0.05 | ND | 0.048 | 96 | | | ( 28-113 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.16 | 80 | | | ( 42-136 ) | | |
| Pyridine | 0.05 | ND | 0.021 | 42 | | | ( 4.5-59 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335756 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 5991 | | **Batch** | XMS 2835 |
| **Original** | 3034069002 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/25/2003 |
| **File** | F0925_11.D | | **By** | BPJ |

QC results affect the following production samples:

3034069002, 3034069003, 3034069006

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.15 | 76 | | | ( 25-137 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.16 | 81 | | | ( 30-128 ) | | |
| 2,4-Dinitrotoluene | 0.05 | ND | 0.039 | 77 | | | ( 36-134 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.13 | 67 | | | ( 16-116 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | ND | 0.16 | 65 | | | ( 18-112 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.032 | 63 | | | ( 31-125 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.031 | 61 | | | ( 14-106 ) | | |
| Hexachloroethane | 0.05 | ND | 0.036 | 72 | | | ( 14-104 ) | | |
| Nitrobenzene | 0.05 | ND | 0.043 | 85 | | | ( 15-129 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.16 | 79 | | | ( 17-156 ) | | |
| Pyridine | 0.05 | ND | 0.017 | 34 | | | ( 10-75 ) | | |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 330933 | Method Blank | | |
| **Prep Batch** | XXX | 5881 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XMS 2798 |
| **Project** | Project 32664 Sybil, Inc. | | **Method** | SW-846 8270C |
| **File** | F0822_05.D | | | |
| | | | **Date** | 08/22/2003 |
| | | | **By** | BWR |

QC results affect the following production samples:

3034069008

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 50 |
| 2,4,6-Trichlorophenol | ND | 50 |
| 2,4-Dinitrotoluene | ND | 50 |
| 2-Methylphenol (o-Cresol) | ND | 50 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 100 |
| Hexachlorobenzene | ND | 50 |
| Hexachlorobutadiene | ND | 50 |
| Hexachloroethane | ND | 50 |
| Nitrobenzene | ND | 50 |
| Pentachlorophenol | ND | 50 |
| Pyridine | ND | 100 |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335752 Method Blank | | | |
| **Prep Batch** | XXX 5991 | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | XMS 2835 | |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 8270C | |
| **File** | F0925_04.D | | | |
| | | **Date** | 09/25/2003 | |
| | | **By** | BPJ | |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3853 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/25/2003 |
| | | **By** | ESA |

| Sample ID(s) | Surrogate Recovery % | |
|---|---|---|
| | DCB | TMX |
| 3034069001 PS | 70.3 | 54 |
| 335629 MB | 59.3 | 42 |
| 335630 LCS | 70 | 48 |
| 335631 LCSD | 61.7 | 50 |

**DCB = Decachlorobiphenyl Surr (14-91)**
**TMX = Tetrachloro-m-xylene Surr (17-94)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3848 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-D |
| | | **Date** | 09/22/2003 |
| | | **By** | JL |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3034069004 | PS | 73.7 | 74 |
| 3034069005 | PS | 73 | 79.7 |
| 335127 | MB | 63 | 72.7 |
| 335128 | LCS | 58 | 60.3 |
| 335129 | LCSD | 48.3 | 66.3 |
| 335130 | MS | 64.7 | 67.3 |
| 335131 | MSD | 44 | 65.3 |

**DCB = Decachlorobiphenyl Surr (25-170)**
**TMX = Tetrachloro-m-xylene Surr (25-150)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3854 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-T |
| | | **Date** | 09/25/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3034069007 | PS | 71.3 | 90 |

**DCB** = **Decachlorobiphenyl Surr** **( 25-170 )**
**TMX** = **Tetrachloro-m-xylene Surr** **( 25-150 )**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XGC 3853 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/25/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3034069002 | PS | 49.7 | 59.3 |
| 3034069006 | PS | 79.3 | 66.3 |
| 3034069008 | PS | 77 | 76.3 |
| 335448 | MB | 89.7 | 26 |
| 335449 | LCS | 88 | 29 |
| 335450 | LCSD | 87.3 | 22.3 |

**DCB = Decachlorobiphenyl Surr (10-151)**
**TMX = Tetrachloro-m-xylene Surr (10-140)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3858 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/26/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3034069003 | PS | 103 | 86 |

**DCB** = **Decachlorobiphenyl Surr** **( 10-151 )**
**TMX** = **Tetrachloro-m-xylene Surr** **( 10-140 )**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3860 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-T |
| | | **Date** | 09/29/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 335451 | MS | 79.3 | 96.7 |
| 335452 | MSD | 79.7 | 77 |

| | | | |
|---|---|---|---|
| **DCB** | = | **Decachlorobiphenyl Surr** | **( 10-151 )** |
| **TMX** | = | **Tetrachloro-m-xylene Surr** | **( 10-140 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335630 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5987 | **Batch** | XGC 3853 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | EPA 608 |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 09/25/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3034069001

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.67 | 67 | 0.72 | 72 | ( 38-158 ) | 6 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.56 | 56 | 0.56 | 56 | ( 10-127 ) | 1 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335449 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5983 | **Batch** | XGC 3853 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 09/25/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3034069002, 3034069003, 3034069006, 3034069008

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration ug/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 330, 330 | 190 | 58 | 190 | 58 | ( 35-105 ) | 0 | (< 20 ) |
| Aroclor-1260 | 330, 330 | 240 | 72 | 240 | 71 | ( 54-114 ) | 0 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335128 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5977 | **Batch** | XGC 3848 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybil, Inc. | | **Instrument** | Varian 3400 ECD INST-D |
| | | | **Date** | 09/22/2003 |
| | | | **By** | JL |

QC results affect the following production samples:

3034069004, 3034069005, 3034069007

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration mg/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 10, 9.9 | 6.5 | 66 | 7.1 | 72 | ( 25-141 ) | 9 | (< 20 ) |
| Aroclor-1260 | 10, 9.9 | 6.3 | 63 | 5.7 | 58 | ( 29-170 ) | 10 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335451 Matrix Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5983 | **Batch** | XGC 3860 | |
| **Original** | 3034046001 | **Method** | SW-846 8082 | |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-T | |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/29/2003 | |
| | | **By** | ESA | |

QC results affect the following production samples:

3034069002, 3034069003, 3034069006, 3034069008

| Analyte | MS, MSD Spike Added ug/Kg | Sample Conc. ug/Kg | MS Concentration ug/Kg | MS Recovery % | MSD Concentration ug/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1100, 1000 | 2200 | 3900 | 158 | 2500 | 26 | ( 10-140 ) | 44 | (< 20 ) |
| Aroclor-1260 | 1100, 1000 | 220 | 1000 | 79 | 940 | 69 | ( 10-135 ) | 11 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335130 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 5977 | | **Batch** | XGC 3848 |
| **Original** | 3034057001 | | **Method** | SW-846 8082 |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | Varian 3400 ECD INST-D |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/23/2003 |
| | | | **By** | JL |

QC results affect the following production samples:

3034069004, 3034069005, 3034069007

| Analyte | MS, MSD Spike Added mg/Kg | Sample Conc. mg/Kg | MS Concentration mg/Kg | MS Recovery % | MSD Concentration mg/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.9, 9.9 | ND | 8.5 | 86 | 7.7 | 78 | ( 22-196 ) | 10 | (< 20 ) |
| Aroclor-1260 | 9.9, 9.9 | ND | 9.2 | 93 | 7.3 | 74 | ( 49-187 ) | 23 | (< 20 ) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335629 | Method Blank | | |
| **Prep Batch** | XXX | 5987 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XGC 3853 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | EPA 608 |
| | | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 09/25/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3034069001

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335448 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5983 | **Batch** | XGC 3853 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/25/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3034069002, 3034069003, 3034069006, 3034069008

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Aroclor-1016 | ND | 33 |
| Aroclor-1221 | ND | 33 |
| Aroclor-1232 | ND | 33 |
| Aroclor-1242 | ND | 33 |
| Aroclor-1248 | ND | 33 |
| Aroclor-1254 | ND | 33 |
| Aroclor-1260 | ND | 33 |
| Aroclor-1262 | ND | 33 |
| Aroclor-1268 | ND | 33 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335127 | Method Blank | | |
| **Prep Batch** | XXX | 5977 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XGC 3848 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SW-846 8082 |
| | | | **Instrument** | Varian 3400 ECD INST-D |
| | | | **Date** | 09/22/2003 |
| | | | **By** | JL |

**QC results affect the following production samples:**

3034069004, 3034069005, 3034069007

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Aroclor-1016 | ND | 0.96 |
| Aroclor-1221 | ND | 0.96 |
| Aroclor-1232 | ND | 0.96 |
| Aroclor-1242 | ND | 0.96 |
| Aroclor-1248 | ND | 0.96 |
| Aroclor-1254 | ND | 0.96 |
| Aroclor-1260 | ND | 0.96 |
| Aroclor-1262 | ND | 0.96 |
| Aroclor-1268 | ND | 0.96 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335559 Lab Control Spike TCLP | | | |
| | | **Analysis** | | |
| **Prep Batch** | MXX 11387 | **Batch** | MIM 5727 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 | |
| **Project** | Project 32684 Sybil, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS | |
| **File** | N:\ICPMS\elandata\Dataset\092303\LCS.207 | **Date** | 09/24/2003 | |
| | | **By** | SRO | |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 101 | | | ( 50-150 ) | | |
| Barium | 1 | 0.96 | 96 | | | ( 50-150 ) | | |
| Cadmium | 1 | 0.96 | 96 | | | ( 50-150 ) | | |
| Chromium | 1 | 0.97 | 97 | | | ( 50-150 ) | | |
| Lead | 1 | 1.0 | 102 | | | ( 50-150 ) | | |
| Selenium | 1 | 1.0 | 100 | | | ( 50-150 ) | | |
| Silver | 1 | 0.99 | 99 | | | ( 50-150 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335707 Lab Control Spike TCLP | | | |
| | | **Analysis** | | |
| **Prep Batch** | MXX 11394 | **Batch** | MIM 5732 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 | |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS | |
| **File** | N:\ICPMS\elandata\Dataset\092503\LCS.032 | **Date** | 09/25/2003 | |
| | | **By** | SRO | |

QC results affect the following production samples:

3034069008

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 104 | | | ( 50-150 ) | | |
| Barium | 1 | 0.97 | 97 | | | ( 50-150 ) | | |
| Cadmium | 1 | 0.97 | 97 | | | ( 50-150 ) | | |
| Chromium | 1 | 1.0 | 103 | | | ( 50-150 ) | | |
| Lead | 1 | 1.0 | 102 | | | ( 50-150 ) | | |
| Selenium | 1 | 1.1 | 107 | | | ( 50-150 ) | | |
| Silver | 1 | 1.0 | 102 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335580 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11387 | **Batch** | MIM 5727 |
| **Original** | 3034069001 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill; Inc. | **Date** | 09/24/2003 |
| **File** | N:\ICPMS\elandata\Dataset\092303\ | **By** | SRO |

QC results affect the following production samples:

3034069001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | ND | 1.1 | 106 | | | ( 50-150 ) | | |
| [illegible]m | 1 | 0.065 | 1.0 | 98 | | | ( 50-150 ) | | |
| [illegible]mium | 1 | 0.0021 | 0.97 | 97 | | | ( 50-150 ) | | |
| Chromium | 1 | ND | 1.00 | 100 | | | ( 50-150 ) | | |
| Lead | 1 | ND | 1.0 | 102 | | | ( 50-150 ) | | |
| Selenium | 1 | ND | 1.0 | 104 | | | ( 50-150 ) | | |
| Silver | 1 | ND | 0.36 | 36 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335562 Matrix Spike TCLP | | | |
| | | | **Analysis** | |
| **Prep Batch** | MXX 11387 | | **Batch** | MIM 5727 |
| **Original** | 3034069002 | | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybil, Inc. | | **Date** | 09/24/2003 |
| **File** | N:\ICPMS\elandata\Dataset\092303\ | | **By** | SRO |

QC results affect the following production samples:

3034069002, 3034069003, 3034069006

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1.3 | 0.095 | 1.3 | 93 | | | (50-150) | | |
| Barium | 1.3 | 0.11 | 1.4 | 99 | | | (50-150) | | |
| Cadmium | 1.3 | 0.065 | 1.3 | 96 | | | (50-150) | | |
| Chromium | 1.3 | 0.16 | 1.4 | 94 | | | (50-150) | | |
| Lead | 1.3 | 3.4 | 6.0 | 129 | | | (50-150) | | |
| Selenium | 1.3 | 0.037 | 1.2 | 94 | | | (50-150) | | |
| Silver | 1.3 | 0.018 | 1.1 | 84 | | | (50-150) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335706 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11394 | **Batch** | MIM 5732 |
| **Original** | 3034069008 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/25/2003 |
| **File** | N:\ICPMS\elandata\Dataset\09250313034096008 MS.034 | **By** | SRO |

QC results affect the following production samples:

3034069008

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 61 | 11 | 73 | 99 | | | ( 50-150 ) | | |
| [illegible]m | 61 | 27 | 92 | 97 | | | ( 50-150 ) | | |
| [illegible]mium | 61 | 0.39 | 59 | 96 | | | ( 50-150 ) | | |
| Chromium | 61 | 7.2 | 70 | 101 | | | ( 50-150 ) | | |
| Lead | 61 | 6.7 | 71 | 103 | | | ( 50-150 ) | | |
| Selenium | 61 | 1.4 | 62 | 99 | | | ( 50-150 ) | | |
| Silver | 61 | 0.53 | 60 | 98 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335561 Method Blank | | |
| **Prep Batch** | MXX 11387 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MIM 5727 |
| **Project** | Project 32684 Sybill, Inc. | **Method** | SW-846 6020 |
| **File** | N:\ICPMS\elandata\Dataset\092303\MB.206 | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| | | **Date** | 09/24/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| Selenium | ND | 0.016 |
| Silver | ND | 0.0040 |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335711 Method Blank | | |
| **Prep Batch** | MXX 11394 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MIM 5732 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 6020 |
| **File** | N:\ICPMS\elandata\Dataset\092503\MB.031 | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| | | **Date** | 09/25/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3034069008

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| [illegible]nium | ND | 0.016 |
| Silver | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335683 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11393 | **Batch** | MCV 2021 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\092303 | **Date** | 09/23/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006, 3034069008

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0023 | 113 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 335686 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11393 | **Batch** | MCV 2021 |
| **Original** | 3034069001 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32684 Sybil, Inc. | **Date** | 09/23/2003 |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\092303W1.TXT | **By** | PSK |

QC results affect the following production samples:

3034069001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.022 | 110 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 335687 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11393 | **Batch** | MCV 2021 |
| **Original** | 3034069002 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32864 Sybil, Inc. | **Date** | 09/23/2003 |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\092303W1.TXT | **By** | PSK |

QC results affect the following production samples:

3034069002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.023 | 116 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335688 Matrix Spike TCLP | | | |
| | | | **Analysis** | |
| **Prep Batch** | MXX 11393 | | **Batch** | MCV 2021 |
| **Original** | 3034069003 | | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | PSA Millenium |
| **Project** | Project 32684 Sybill, Inc. | | **Date** | 09/23/2003 |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\092303W1.TXT | | **By** | PSK |

QC results affect the following production samples:

3034069003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.020 | 100 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 335689 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11393 | **Batch** | MCV 2021 |
| **Original** | 3034069006 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/23/2003 |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\092303W1.TXT | **By** | PSK |

QC results affect the following production samples:

3034069006

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | 0.0024 | 0.024 | 108 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335690 Matrix Spike TCLP | | | |
| | | **Analysis** | | |
| **Prep Batch** | MXX 11393 | **Batch** | MCV 2021 | |
| **Original** | 3034069008 | **Method** | SW-846 7470A | |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium | |
| **Project** | Project 32664 Sybil, Inc. | **Date** | 09/23/2003 | |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\092303W1.TXT | **By** | PSK | |

QC results affect the following production samples:

3034069008

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.1 | 0.46 | 0.54 | 79 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335682 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11393 | **Batch** | MCV 2021 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\092303 | **Date** | 09/23/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006, 3034069008

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335505 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3456 | **Batch** | WLA 1501 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Quick Chem 8000 Lachat |
| | | | **Date** | 09/23/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006, 3034069008

| Analyte | LCS;LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 1.3 | 25 | | | ( 2.6-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335506 | Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3456 | | **Batch** | WLA 1501 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Quick Chem 8000 Lachat |
| | | | **Date** | 09/23/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006, 3034069008

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335670 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3459 | **Batch** | WAT 1832 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/24/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006, 3034069008

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 350 | 85 | | | (57-109) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335669 Method Blank | | | |
| **Prep Batch** | WXX 3459 | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | WAT 1832 | |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 7.3.4.2 | |
| | | **Instrument** | No Instrument, Manual Handling | |
| | | **Date** | 09/24/2003 | |
| | | **By** | JB | |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006, 3034069008

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335935 | pH Calibration Standard | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2073 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 09/24/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006, 3034069008

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335936 | Quality Control Sample | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2073 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 09/24/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3034069001, 3034069006, 3034069008

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.98 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 335938 | Quality Control Sample | **Analysis** | | |
| **Prep Batch** | | | **Batch** | WPH 2073 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A | |
| | | | **Date** | 09/24/2003 | |
| | | | **By** | SRS | |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006, 3034069008

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.96 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335937 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3034069001 | **Batch** | WPH 2073 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 09/24/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3034069001, 3034069002, 3034069003, 3034069006, 3034069008

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 7.85 | 7.83 | | 0.26 | (< 20) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335759 | Flashpoint Calibration Std. | **Analysis** | |
| **Prep Batch** | | | **Batch** | MXX 11398 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 1010 |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/24/2003 |
| | | | **By** | WD |

QC results affect the following production samples:

3034069001, 3034069004, 3034069005, 3034069006, 3034069007, 3034069008

| Analyte | LCS,LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 81 | 101 | | | ( 98-102 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335224 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3034069002 | **Batch** | WG1 4705 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SM19 2540G |
| **Project** | Project 32664 Sybill, Inc. | | |
| | | **Date** | 09/22/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3034069002, 3034069003, 3034069006, 3034069008

| Analyte | Original Sample Concentration % | Dilution / Duplicate Concentration % | RDL % | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Solids | 78.3 | 79.6 | 0.10 | 1.70 | (< 20) |

## METHOD BLANK SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335223 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | WG1 4705 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SM19 2540G |
| | | | **Date** | 09/22/2003 |
| | | | **By** | SKP |

QC results affect the following production samples:

3034069002, 3034069003, 3034069006, 3034069008

| Analyte | Concentration % | Detection Limit % |
|---|---|---|
| Total Solids | 100 | 0.10 |

SGS

REC'D CRA
OCT - 2 2003
SDG: 16

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034090

ORIGINAL ANALYTICAL REPORT

Project#: 32664 Lab#: 3034090

Name: SYBILL

Description

Event:

Samples: 3 MIX

Analysis: TCLP VOC, SVOC, MTL BCI, PCB

TAT: 2 day

Lab: SGS

Checked Against Preliminary Data:

Date: 10-6-03 Init.: K.B

Date of Validation Memo: 10-9-03

Invoice Approval Date:

Comments:

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc
1200 Conrad Industrial Drive
Ludington, MI 49431

Approval Signature: Tameka M. Johnson

Date Issued: 9-30-03
Total Pages: 70

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034090

***Sample Collection and Receipt -***

Three samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on September 19, 2003. The sample containers were released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on September 20, 2003 in good condition, on ice and at a temperature of 5°C. Following log-in, the samples were stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

Samples 3034090001 and 3034090003 were analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the samples were extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. Each leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals.

Laboratory sample 3034090002 was analyzed for Polychlorinated Biphenyls (PCBs), Flashpoint and volatile organic compounds (VOC).

The client requested analysis within forty-eight hours, per the COC.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Semi-Volatile Analysis*

The recovery for 2,4-Dinitrotoluene and Pyridine were below the lower control limits in the MS on sample 3034090003 associated with preparation batch XXX 5960. The 2,4-Dinitrotoluene and Pyridine results for sample 3034090003 may be biased low.

*GC PCB Analysis*

The recovery for Aroclor-1248 was above the upper control limit in the MS associated with preparation batch XXX 5983. Also, the relative percent difference (RPD) was above QC acceptance criteria in the MS/MSD. The MS/MSD were not performed on a sample from this sample delivery group.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034090

***Quality Control (QC) –continued***

*Metals Analysis*

The Chromium, Selenium and Silver results for sample 3034090001 were flagged as estimated because the relative standard deviation (RSD) of the analysis replicates were greater than twenty percent.

The recovery for Silver was below the lower control limits in the MS/MSD on sample 3034090003 associated with preparation batch MXX 11387. The Silver result may be biased low in sample 3034090003.

***Sample Reporting –***

The Chromium, Selenium and Silver results for sample 3034090001 were qualified as estimated (J) due to a relative standard deviation (RSD) greater than twenty.

The Silver result for sample 3034090003 was qualified (M) for matrix interference due to low spike recovery.

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 9-30-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034090

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Total Volatiles | SW-846 8260[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| S-32664-091903-SM-060 | 3034090001 |
| L-32664-091903-SM-061A | 3034090002 |
| L-32664-091903-SM-061B | 3034090003 |

# Explanation of Terms and Data Qualifiers

| Term/Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

CT&E Environmental Services Inc.

167750 COC Serial

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

# CHAIN OF CUSTODY RECORD

SHIPPED TO: 1200 Cour[illegible] Drive, [illegible] MI 49431

REFERENCE NUMBER: 32664

PROJECT NAME: Sybill 3034090

SAMPLER'S SIGNATURE: SM PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | Full TCLP | RCI | PCBs | TCL VOC & Freon | Ignitibility | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9-19-03 | | S-32664-091903-SM-060 | sludge | 2 | ✓ | ✓ | ✓ | | | | | | | | |
| 2 | | | L-32664-091903-SM-061A | L | 4 | | | ✓ | ✓ | ✓ | | | | | | 48 hr tat |
| 3 | | | 061B | L | 4 | ✓ | ✓ | ✓ | | | | | | | | |
| | | | TOTAL NUMBER OF CONTAINERS | | 10 | | | | | | | | | | | |

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. Shawn McLean | DATE: 9-19-03 TIME: | RECEIVED BY: 1. [signature] | DATE: 9/19/03 TIME: 12:00 |
| RELINQUISHED BY: 2. [signature] | DATE: 9/19/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: lab Courier AIR BILL No.

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24075

SAMPLE TEAM: SM

RECEIVED FOR LABORATORY BY: [signature]

DATE: 9/20/03 TIME: 9.30 5°C

1001 (FOR[illegible] APRIL 29, 93-REV.0-(C)(F-01)

7

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of ___

Project Number: 3034090 Date Logged In: 9/22/03 Login Person Initials: KE

This section to be completed when corrective action is required:

Client: CRA Project Name: _____
Client Contact: _____ Phone Number: _____

| | | YES | NO |
|---|---|---|---|
| | *If no to any, notify the project manager and project manager documents client response below.* | | |
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | = | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | = | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | = | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | = | |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Samp. No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

# Laboratory Report

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3034090**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

9/30/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

Workorder: 3034090 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034090001 | Matrix: | Solid |
| Client Sample ID: | S-32664-091903-SM-060 | Location: | |
| Collected: | 09/19/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/20/2003 09:30 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/23/03 12:27 | 09/23/03 14:36 | JB | |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/23/03 10:59 | 09/24/03 11:05 | JB | |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 09/24/03 14:47 | SRS | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/24/03 13:32 | WD | |
| pH | 5.63 | | S.U. | | SW-846 9045C | | 09/24/03 14:47 | SRS | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/Kg | 770 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 06:59 | ESA | |
| Aroclor-1221 | ND | | ug/Kg | 770 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 06:59 | ESA | |
| Aroclor-1232 | ND | | ug/Kg | 770 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 06:59 | ESA | |
| Aroclor-1242 | ND | | ug/Kg | 770 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 06:59 | ESA | |
| Aroclor-1248 | ND | | ug/Kg | 770 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 06:59 | ESA | |
| Aroclor-1254 | ND | | ug/Kg | 770 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 06:59 | ESA | |
| Aroclor-1260 | ND | | ug/Kg | 770 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 06:59 | ESA | |
| Aroclor-1262 | ND | | ug/Kg | 770 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 06:59 | ESA | |
| Aroclor-1268 | ND | | ug/Kg | 770 | SW-846 8082 / SW-846 3550B | 09/23/03 09:58 | 09/25/03 06:59 | ESA | |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.11 | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:16 | SRO | |
| Barium | 0.14 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:16 | SRO | |
| Cadmium | 0.024 | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:16 | SRO | |
| Chromium | 0.087 J | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:16 | SRO | |
| Mercury | 0.0045 | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/23/03 13:00 | 09/23/03 16:50 | PSK | |
| Lead | 0.071 | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:16 | SRO | |
| Selenium | 0.047 J | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:16 | SRO | |
| Silver | 0.016 J | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:16 | SRO | |

Workorder: 3034090 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034090001 | Matrix: | Solid |
| Client Sample ID: | S-32664-091903-SM-060 | Location: | |
| Collected: | 09/19/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/20/2003 09:30 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:28 | JDS | |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:28 | JDS | |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:28 | JDS | |
| 2-Butanone ( M E K ) | 0.16 | 200 | mg/L | 0.050 | SW-846 8260B | | 09/25/03 17:28 | JDS | |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:28 | JDS | |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:28 | JDS | |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:28 | JDS | |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:28 | JDS | |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:28 | JDS | |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:28 | JDS | |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:28 | JDS | |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 12:44 | BPJ | |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 12:44 | BPJ | |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 12:44 | BPJ | |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 12:44 | BPJ | |
| 3&4-Methylphenol (p&m-Cresol) | 0.35 | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 12:44 | BPJ | |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 12:44 | BPJ | |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 12:44 | BPJ | |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 12:44 | BPJ | |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 12:44 | BPJ | |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 12:44 | BPJ | |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 12:44 | BPJ | |

Work Order: 3034090 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034090002 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-091903-SM-061A | **Location:** | |
| **Collected:** | 09/19/2003 00:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/20/2003 09:30 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/24/03 13:32 | WD | |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,1,2-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| [redacted]Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,2-Dichloroethane | 256 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 2-Butanone (MEK) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| 4-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| [redacted]nzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |

Workorder: 3034090 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034090002 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | L-32664-091903-SM-061A | Location: | |
| Collected: | 09/19/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/20/2003 09:30 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Bromomethane | ND | | ug/Kg | 370 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Chloroethane | ND | | ug/Kg | 370 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Chloroform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Chloromethane | ND | | ug/Kg | 370 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Dibromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Dichlorodifluoromethane | ND | | ug/Kg | 370 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Methylene chloride | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Trichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Trichlorofluoromethane | ND | | ug/Kg | 370 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/21/03 11:30 | 09/27/03 16:47 | JEH | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/24/03 12:17 | 09/25/03 13:21 | ESA | |
| Aroclor-1221 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/24/03 12:17 | 09/25/03 13:21 | ESA | |
| Aroclor-1232 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/24/03 12:17 | 09/25/03 13:21 | ESA | |
| Aroclor-1242 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/24/03 12:17 | 09/25/03 13:21 | ESA | |
| Aroclor-1248 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/24/03 12:17 | 09/25/03 13:21 | ESA | |
| Aroclor-1254 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/24/03 12:17 | 09/25/03 13:21 | ESA | |
| Aroclor-1260 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/24/03 12:17 | 09/25/03 13:21 | ESA | |
| Aroclor-1262 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/24/03 12:17 | 09/25/03 13:21 | ESA | |
| Aroclor-1268 | ND | | mg/Kg | 0.96 | SW-846 8082 / SW-846 3580A | 09/24/03 12:17 | 09/25/03 13:21 | ESA | |

Work Order: 3034090 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034090003 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32864-091903-SM-061B | **Location:** | |
| **Collected:** | 09/19/2003 00:00 | **Project:** | Project 32864 Sybill, Inc. |
| **Received:** | 09/20/2003 09:30 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/23/03 12:27 | 09/23/03 14:36 | JB | 2 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/23/03 10:59 | 09/24/03 11:05 | JB | 2 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/24/03 14:47 | SRS | 2 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/24/03 13:32 | WD | 2 |
| pH | 4.16 | | S.U. | | SW-846 9040B | | 09/24/03 14:47 | SRS | 2 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/23/03 15:54 | 09/25/03 15:05 | ESA | 3 |
| Aroclor-1221 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/23/03 15:54 | 09/25/03 15:05 | ESA | 3 |
| Aroclor-1232 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/23/03 15:54 | 09/25/03 15:05 | ESA | 3 |
| Aroclor-1242 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/23/03 15:54 | 09/25/03 15:05 | ESA | 3 |
| Aroclor-1248 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/23/03 15:54 | 09/25/03 15:05 | ESA | 3 |
| Aroclor-1254 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/23/03 15:54 | 09/25/03 15:05 | ESA | 3 |
| Aroclor-1260 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/23/03 15:54 | 09/25/03 15:05 | ESA | 3 |
| Aroclor-1262 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/23/03 15:54 | 09/25/03 15:05 | ESA | 3 |
| Aroclor-1268 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/23/03 15:54 | 09/25/03 15:05 | ESA | 3 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.039 | 5 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:02 | SRO | 1 |
| Barium | 0.069 | 100 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:02 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.0020 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:02 | SRO | 1 |
| Chromium | 0.051 | 5 | mg/L | 0.0060 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:02 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/23/03 13:00 | 09/23/03 15:38 | PSK | 1 |
| Lead | 0.031 | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:02 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.016 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:02 | SRO | 1 |
| Silver | ND M | 5 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 09/23/03 15:05 | 09/24/03 11:02 | SRO | 1 |

Workorder: 3034090 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034090003 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-091903-SM-061B | Location: | |
| Collected: | 09/19/2003 00:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/20/2003 09:30 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:55 | JDS | 1 |
| 1,2-Dichloroethane | 0.016 | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:55 | JDS | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:55 | JDS | 1 |
| 2-Butanone ( M E K ) | 0.34 | 200 | mg/L | 0.050 | SW-846 8260B | | 09/25/03 17:55 | JDS | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:55 | JDS | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:55 | JDS | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:55 | JDS | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:55 | JDS | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:55 | JDS | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:55 | JDS | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:55 | JDS | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 13:30 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 13:30 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 13:30 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 13:30 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | 0.031 | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 13:30 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 13:30 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 13:30 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 13:30 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 13:30 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 13:30 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/23/03 15:57 | 09/24/03 13:30 | BPJ | 1 |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32664 Sybil, Inc. | **Batch** | VMS 4859 | |
| | | **Method** | SW-846 8260B | |
| **Matrix** | Non Aqueous Liquid | **Instrument** | HP 5972 Series | INSTRU H |
| | | **Date** | 09/27/2003 | |
| | | **By** | JEH | |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3034090002 | PS | 88 | 101 | 101 | 94.1 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 80-124 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 87-117 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 74-123 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 92-113 )** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybil, Inc. | Batch | VMS 4859 |
| | | Method | SW-846 8260B |
| Matrix | Solid | Date | 09/27/2003 |
| | | By | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 336440 | LCS | 96.2 | 97.2 | 98.9 | 94.2 |
| 336441 | MB | 91.1 | 99.8 | 100 | 94 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 80-124 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 87-117 ) |
| [illegible]A | = | 1,2-Dichloroethane-D4 Surr | ( 74-123 ) |
| [illegible]L | = | Toluene-d8 Surr | ( 92-113 ) |

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4852 | |
| | | **Method** | SW-846 8260B | |
| **Matrix** | Aqueous | **Instrument** | HP 5972 Series | INSTRU Q |
| | | **Date** | 09/25/2003 | |
| | | **By** | JDS | |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3034090003 PS | 93.4 | 89.5 | 85.4 | 94.2 |
| 336197 LCS | 93.5 | 97.9 | 88.7 | 92.3 |
| 336198 MB | 94 | 92.5 | 89.2 | 94.5 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32684 Sybil, Inc. | Batch | VMS 4852 |
| | | Method | SW-846 8260B |
| Matrix | Solid | Instrument | HP 5972 Series INSTRU Q |
| | | Date | 09/25/2003 |
| | | By | JDS |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3034090001 PS | 93.1 | 92.5 | 87.6 | 93 |
| 336194 MS | 92.3 | 96.8 | 85.8 | 92.6 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 79-116 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 72-132 ) |
| D[redacted] | = | 1,2-Dichloroethane-D4 Surr | ( 77-124 ) |
| T[redacted] | = | Toluene-d8 Surr | ( 87-110 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336440 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4859 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | H0927_03.D | **Date** | 09/27/2003 |
| | | **By** | JEH |

QC results affect the following production samples:

3034090002

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 2500 | 2300 | 93 | | | ( 69-117 ) | | |
| 1,1,1-Trichloroethane | 2500 | 2400 | 94 | | | ( 62-124 ) | | |
| 1,1,2,2-Tetrachloroethane | 2500 | 2100 | 84 | | | ( 64-127 ) | | |
| 1,1,2-Trichloroethane | 2500 | 2100 | 84 | | | ( 73-116 ) | | |
| 1,1-Dichloroethane | 2500 | 2200 | 89 | | | ( 73-113 ) | | |
| 1,1-Dichloroethene | 2500 | 2500 | 99 | | | ( 57-133 ) | | |
| 1,1-Dichloropropene | 2500 | 2300 | 94 | | | ( 78-118 ) | | |
| 1,2,3-Trichlorobenzene | 2500 | 2300 | 93 | | | ( 71-127 ) | | |
| 1,2,3-Trichloropropane | 2500 | 2200 | 88 | | | ( 58-122 ) | | |
| 1,2,4-Trichlorobenzene | 2500 | 2300 | 92 | | | ( 72-128 ) | | |
| 1,2-Dibromo-3-chloropropane | 2500 | 2200 | 89 | | | ( 52-136 ) | | |
| 1,2-Dibromoethane | 2500 | 2200 | 88 | | | ( 69-123 ) | | |
| 1,2-Dichlorobenzene | 2500 | 2300 | 91 | | | ( 70-125 ) | | |
| 1,2-Dichloroethane | 2500 | 2400 | 97 | | | ( 55-120 ) | | |
| 1,2-Dichloropropane | 2500 | 2100 | 86 | | | ( 77-116 ) | | |
| 1,3-Dichlorobenzene | 2500 | 2200 | 89 | | | ( 75-121 ) | | |
| 1,3-Dichloropropane | 2500 | 2100 | 86 | | | ( 78-114 ) | | |
| 1,4-Dichlorobenzene | 2500 | 2200 | 89 | | | ( 73-117 ) | | |
| 2,2-Dichloropropane | 2500 | 2400 | 96 | | | ( 71-116 ) | | |
| 2-Butanone ( M E K ) | 2500 | 2200 | 89 | | | ( 48-168 ) | | |
| 2-Chlorotoluene | 2500 | 2200 | 87 | | | ( 84-115 ) | | |
| 4-Chlorotoluene | 2500 | 2200 | 88 | | | ( 82-121 ) | | |
| Benzene | 2500 | 2100 | 85 | | | ( 74-122 ) | | |
| Bromochloromethane | 2500 | 2200 | 87 | | | ( 71-117 ) | | |
| Bromodichloromethane | 2500 | 2300 | 92 | | | ( 67-122 ) | | |
| Bromoform | 2500 | 2400 | 95 | | | ( 53-136 ) | | |
| Bromomethane | 2500 | 2400 | 94 | | | ( 25-170 ) | | |
| Carbon tetrachloride | 2500 | 2300 | 92 | | | ( 63-133 ) | | |
| Chlorobenzene | 2500 | 2300 | 91 | | | ( 74-122 ) | | |
| Chloroethane | 2500 | 2300 | 90 | | | ( 49-132 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

**Sample ID** 336440 Lab Control Spike

**Prep Batch**
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.
**File** H0927_03.D

**Analysis**
**Batch** VMS 4859
**Method** SW-846 8260B

**Date** 09/27/2003
**By** JEH

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 2500 | 2300 | 91 | | | ( 67-114 ) | | |
| Chloromethane | 2500 | 2500 | 100 | | | ( 60-115 ) | | |
| cis-1,2-Dichloroethene | 2500 | 2200 | 87 | | | ( 79-110 ) | | |
| cis-1,3-Dichloropropene | 2500 | 2300 | 91 | | | ( 70-131 ) | | |
| Dibromochloromethane | 2500 | 2500 | 99 | | | ( 68-126 ) | | |
| [illegible]romomethane | 2500 | 2200 | 90 | | | ( 64-127 ) | | |
| [illegible]lorodifluoromethane | 2500 | 2400 | 97 | | | ( 27-129 ) | | |
| Methylene chloride | 2500 | 1900 | 77 | | | ( 69-119 ) | | |
| Tetrachloroethene | 2500 | 2100 | 84 | | | ( 51-134 ) | | |
| trans-1,2-Dichloroethene | 2500 | 2300 | 94 | | | ( 74-116 ) | | |
| trans-1,3-Dichloropropene | 2500 | 2500 | 100 | | | ( 68-125 ) | | |
| Trichloroethene | 2500 | 2200 | 89 | | | ( 70-121 ) | | |
| Trichlorofluoromethane | 2500 | 2600 | 106 | | | ( 47-132 ) | | |
| Vinyl chloride | 2500 | 2300 | 93 | | | ( 60-125 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

**Sample ID** 336197 Lab Control Spike

**Prep Batch**
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.
**File** Q0925_04.D

**Analysis**
**Batch** VMS 4852
**Method** SW-846 8260B
**Instrument** HP 5972 Series INSTRU Q
**Date** 09/25/2003
**By** JDS

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.20 | 102 | | | ( 86-121 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.19 | 96 | | | ( 77-114 ) | | |
| 1,4-Dichlorobenzene | 0.2 | 0.19 | 97 | | | ( 83-120 ) | | |
| 2-Butanone ( M E K ) | 0.2 | 0.20 | 100 | | | ( 63-131 ) | | |
| Benzene | 0.2 | 0.19 | 94 | | | ( 87-112 ) | | |
| Carbon tetrachloride | 0.2 | 0.18 | 92 | | | ( 80-124 ) | | |
| Chlorobenzene | 0.2 | 0.19 | 96 | | | ( 85-117 ) | | |
| Chloroform | 0.2 | 0.18 | 92 | | | ( 83-113 ) | | |
| Tetrachloroethene | 0.2 | 0.16 | 78 | | | ( 59-148 ) | | |
| Trichloroethene | 0.2 | 0.19 | 93 | | | ( 83-111 ) | | |
| Vinyl chloride | 0.2 | 0.23 | 115 | | | ( 68-133 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 338194 | Matrix Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4852 | |
| **Original** | 3034090001 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU Q |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/25/2003 | |
| **File** | Q0925_24.D | | **By** | JDS | |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.20 | 98 | | | ( 71-144 ) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.17 | 87 | | | ( 67-121 ) | | |
| [illegible]chlorobenzene | 0.2 | ND | 0.18 | 91 | | | ( 51-145 ) | | |
| 2-Butanone ( M E K ) | 0.2 | 0.16 | 0.32 | 80 | | | ( 32-134 ) | | |
| Benzene | 0.2 | ND | 0.18 | 90 | | | ( 76-127 ) | | |
| Carbon tetrachloride | 0.2 | ND | 0.17 | 86 | | | ( 83-130 ) | | |
| Chlorobenzene | 0.2 | ND | 0.18 | 91 | | | ( 86-117 ) | | |
| Chloroform | 0.2 | ND | 0.17 | 87 | | | ( 71-137 ) | | |
| Tetrachloroethene | 0.2 | ND | 0.14 | 70 | | | ( 55-113 ) | | |
| Trichloroethene | 0.2 | ND | 0.18 | 89 | | | ( 80-122 ) | | |
| Vinyl chloride | 0.2 | ND | 0.22 | 112 | | | ( 59-145 ) | | |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336441 Method Blank | | |
| **Prep Batch** | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | VMS 4859 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 8260B |
| **File** | H0927_06.D | | |
| | | **Date** | 09/27/2003 |
| | | **By** | JEH |

QC results affect the following production samples:

3034090002

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 70 |
| 1,1,1-Trichloroethane | ND | 35 |
| 1,1,2,2-Tetrachloroethane | ND | 70 |
| 1,1,2-Trichloroethane | ND | 35 |
| 1,1-Dichloroethane | ND | 35 |
| 1,1-Dichloroethene | ND | 35 |
| 1,1-Dichloropropene | ND | 35 |
| 1,2,3-Trichlorobenzene | ND | 150 |
| 1,2,3-Trichloropropane | ND | 70 |
| 1,2,4-Trichlorobenzene | ND | 150 |
| 1,2-Dibromo-3-chloropropane | ND | 150 |
| 1,2-Dibromoethane | ND | 150 |
| 1,2-Dichlorobenzene | ND | 70 |
| 1,2-Dichloroethane | ND | 35 |
| 1,2-Dichloropropane | ND | 35 |
| 1,3-Dichlorobenzene | ND | 70 |
| 1,3-Dichloropropane | ND | 35 |
| 1,4-Dichlorobenzene | ND | 70 |
| 2,2-Dichloropropane | ND | 35 |
| 2-Butanone ( M E K ) | ND | 300 |
| 2-Chlorotoluene | ND | 35 |
| 4-Chlorotoluene | ND | 35 |
| Benzene | ND | 35 |
| Bromochloromethane | ND | 70 |
| Bromodichloromethane | ND | 70 |
| Bromoform | ND | 70 |
| Bromomethane | ND | 150 |
| Carbon tetrachloride | ND | 35 |
| Chlorobenzene | ND | 35 |
| Chloroethane | ND | 150 |
| Chloroform | ND | 35 |
| Chloromethane | ND | 150 |
| cis-1,2-Dichloroethene | ND | 35 |
| cis-1,3-Dichloropropene | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336441 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4859 |
| **Project** | Project 32664 Sybil, Inc. | | **Method** | SW-846 8260B |
| **File** | H0927_06.D | | | |
| | | | **Date** | 09/27/2003 |
| | | | **By** | JEH |

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Dibromochloromethane | ND | 70 |
| Dibromomethane | ND | 150 |
| Dichlorodifluoromethane | ND | 70 |
| Methylene chloride | ND | 150 |
| Tetrachloroethene | ND | 35 |
| trans-1,2-Dichloroethene | ND | 35 |
| trans-1,3-Dichloropropene | ND | 35 |
| Trichloroethene | ND | 35 |
| [illegible]lorofluoromethane | ND | 70 |
| [illegible]chloride | ND | 35 |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336198 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4852 | |
| **Project** | Project 32664 Sybil, Inc. | | **Method** | SW-846 8260B | |
| **File** | Q0925_08.D | | **Instrument** | HP 5972 Series | INSTRU Q |
| | | | **Date** | 09/25/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybil, Inc. | **Batch** | XMS 2825 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/16/2003 |
| | | **By** | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 334304 | MB | 54 | 84.9 | 84 | 42.6 | 90.6 | 71.7 |
| 334305 | LCS | 51 | 77.8 | 78.8 | 38 | 90.6 | 74.7 |
| 334306 | LCSD | 48.6 | 74.4 | 77.1 | 36.1 | 86.7 | 69.7 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32684 Sybill, Inc. | Batch | XMS 2833 |
| | | Method | SW-846 8270C |
| Matrix | Aqueous | Date | 09/24/2003 |
| | | By | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3034090003 PS | 43.9 | 62.3 | 72.3 | 48.4 | 103 | 55.9 |
| 335595 MS | 43.2 | 51.3 | 69.8 | 49.9 | 93.3 | 45.1 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | (14-68) |
| FBP | = | 2-Fluorobiphenyl Surr | (31-99) |
| NB2 | = | Nitrobenzene-d5 Surr | (33-102) |
| [redacted] | = | Phenol-d5 Surr | (13-50) |
| TBP | = | 2,4,6-Tribromophenol Surr | (31-133) |
| TPH | = | Terphenyl-d14 Surr | (20-116) |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32684 Sybill, Inc. | Batch | XMS 2833 |
| | | Method | SW-846 8270C |
| Matrix | Solid | Date | 09/24/2003 |
| | | By | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3034090001 | PS | 37.1 | 63.3 | 60.3 | 28.4 | 76.1 | 72.3 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | ( 14-68 ) |
| FBP | = | 2-Fluorobiphenyl Surr | ( 31-99 ) |
| NB2 | = | Nitrobenzene-d5 Surr | ( 33-102 ) |
| PHL | = | Phenol-d5 Surr | ( 13-50 ) |
| TBP | = | 2,4,6-Tribromophenol Surr | ( 31-133 ) |
| TPH | = | Terphenyl-d14 Surr | ( 20-116 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 334305 | Lab Control Spike | | | |
| | 334306 | Lab Control Spike Dup | **Analysis** | | |
| **Prep Batch** | XXX | 5980 | **Batch** | XMS | 2825 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C | |
| **Project** | Project 32664 Sybill, Inc. | | | | |
| **File** | F0916_05.D | | **Date** | 09/16/2003 | |
| | F0916_06.D | | **By** | BPJ | |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.16 | 80 | 0.16 | 80 | ( 36-135 ) | 0 | (< 27 ) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.17 | 87 | 0.17 | 86 | ( 32-140 ) | 1 | (< 27 ) |
| 2,4-Dinitrotoluene | 0.05, 0.05 | 0.047 | 94 | 0.045 | 89 | ( 47-140 ) | 5 | (< 30 ) |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.14 | 72 | 0.14 | 70 | ( 27-119 ) | 3 | (< 33 ) |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.18 | 70 | 0.17 | 67 | ( 25-112 ) | 6 | (< 33 ) |
| Hexachlorobenzene | 0.05, 0.05 | 0.043 | 86 | 0.042 | 84 | ( 36-138 ) | 3 | (< 16 ) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.035 | 69 | 0.035 | 70 | ( 18-122 ) | 1 | (< 26 ) |
| Hexachloroethane | 0.05, 0.05 | 0.036 | 72 | 0.035 | 71 | ( 16-112 ) | 2 | (< 24 ) |
| Nitrobenzene | 0.05, 0.05 | 0.046 | 91 | 0.043 | 86 | ( 27-128 ) | 6 | (< 24 ) |
| Pentachlorophenol | 0.2, 0.2 | 0.17 | 87 | 0.17 | 84 | ( 45-162 ) | 4 | (< 17 ) |
| Pyridine | 0.05, 0.05 | 0.017 | 34 | 0.016 | 33 | ( 12-68 ) | 3 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335595 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 5960 | | **Batch** | XMS 2833 |
| **Original** | 3034090003 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/24/2003 |
| **File** | E0924_08.D | | **By** | BPJ |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.16 | 80 | | | ( 39-116 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.18 | 88 | | | ( 39-114 ) | | |
| 2,4-Dinitrotoluene | 0.05 | ND | 0.013 | 26 | | | ( 46-125 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.11 | 55 | | | ( 28-101 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | 0.031 | 0.18 | 58 | | | ( 31-96 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.027 | 54 | | | ( 39-116 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.020 | 39 | | | ( 24-91 ) | | |
| Hexachloroethane | 0.05 | ND | 0.025 | 50 | | | ( 23-90 ) | | |
| Nitrobenzene | 0.05 | ND | 0.032 | 65 | | | ( 28-113 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.14 | 70 | | | ( 42-136 ) | | |
| Pyridine | 0.05 | ND | ND | 3 | | | ( 4.5-59 ) | | |

## METHOD BLANK SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 334304 | Method Blank | | |
| **Prep Batch** | XXX | 5960 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XMS 2825 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8270C |
| **File** | F0916_04.D | | | |
| | | | **Date** | 09/16/2003 |
| | | | **By** | BPJ |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| [redacted]chlorobenzene | ND | 0.010 |
| [redacted]chlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3853 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/25/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3034090003 | PS | 47.3 | 56 |
| 335456 | MB | 78.3 | 57 |
| 335457 | LCS | 70 | 54.3 |
| 335458 | LCSD | 73.3 | 55 |

| | | | |
|---|---|---|---|
| **DCB** | = | **Decachlorobiphenyl Surr** | **( 14-91 )** |
| **TMX** | = | **Tetrachloro-m-xylene Surr** | **( 17-94 )** |

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3854 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-T |
| | | **Date** | 09/25/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3034090002 | PS | 69.3 | 73.7 |

**DCB** = **Decachlorobiphenyl Surr** **( 25-170 )**
**TMX** = **Tetrachloro-m-xylene Surr** **( 25-150 )**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3857 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-T |
| | | **Date** | 09/26/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 335632 | MB | 72.3 | 87.3 |
| 335633 | LCS | 68.7 | 78 |
| 335634 | LCSD | 68.3 | 75.7 |

| | | | |
|---|---|---|---|
| **DCB** | = | **Decachlorobiphenyl Surr** | **( 25-170 )** |
| **TMX** | = | **Tetrachloro-m-xylene Surr** | **( 25-150 )** |

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3880 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-T |
| | | **Date** | 09/28/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 335635 | MS | 69.3 | 94.7 |
| 335636 | MSD | 68.7 | 93.3 |

**DCB** = **Decachlorobiphenyl Surr** **( 25-170 )**
**TMX** = **Tetrachloro-m-xylene Surr** **( 25-150 )**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XGC 3853 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/25/2003 |
| | | **By** | ESA |

| Sample ID(s) | Surrogate Recovery % | |
|---|---|---|
| | DCB | TMX |
| 3034090001 PS | 74 | 66 |
| 335448 MB | 89.7 | 26 |
| 335449 LCS | 88 | 29 |
| 335450 LCSD | 87.3 | 22.3 |

**DCB = Decachlorobiphenyl Surr (10-151)**
**TMX = Tetrachloro-m-xylene Surr (10-140)**

## SURROGATE SUMMARY

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3860 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-T |
| | | **Date** | 09/29/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 335451 | MS | 79.3 | 96.7 |
| 335452 | MSD | 79.7 | 77 |

| | | | |
|---|---|---|---|
| **DCB** | = | **Decachlorobiphenyl Surr** | **( 10-151 )** |
| **TMX** | = | **Tetrachloro-m-xylene Surr** | **( 10-140 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335449 | Lab Control Spike | | |
| **Prep Batch** | XXX | 5983 | **Analysis Batch** | XGC 3853 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 09/25/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3034090001

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration ug/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 330, 330 | 190 | 58 | 190 | 58 | ( 35-105 ) | 0 | (< 20 ) |
| Aroclor-1260 | 330, 330 | 240 | 72 | 240 | 71 | ( 54-114 ) | 0 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335457 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5985 | **Batch** | XGC 3853 |
| **Client** | Conestoga-Rovers & Associates | **Method** | EPA 608 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/25/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3034090003

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.71 | 71 | 0.74 | 74 | ( 38-158 ) | 4 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.74 | 74 | 0.67 | 67 | ( 10-127 ) | 9 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335633 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5988 | **Batch** | XGC 3857 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 | |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-T | |
| | | **Date** | 09/26/2003 | |
| | | **By** | ESA | |

QC results affect the following production samples:

3034090002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration mg/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.9, 9.9 | 5.9 | 60 | 6.0 | 61 | ( 25-141 ) | 2 | (< 20 ) |
| Aroclor-1260 | 9.9, 9.9 | 6.2 | 63 | 6.4 | 65 | ( 29-170 ) | 3 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335451 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5983 | **Batch** | XGC 3860 |
| **Original** | 3034046001 | **Method** | SW-846 8082 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-T |
| **Project** | Project 32684 Sybill, Inc. | **Date** | 09/29/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3034090001

| Analyte | MS, MSD Spike Added ug/Kg | Sample Conc. ug/Kg | MS Concentration ug/Kg | MS Recovery % | MSD Concentration ug/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1100, 1000 | 2200 | 3900 | 158 | 2500 | 26 | ( 10-140 ) | 44 | (< 20 ) |
| Aroclor-1260 | 1100, 1000 | 220 | 1000 | 79 | 940 | 69 | ( 10-135 ) | 11 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335635 Matrix Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5988 | **Batch** | XGC 3860 | |
| **Original** | 3034090002 | **Method** | SW-846 8082 | |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-T | |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/28/2003 | |
| | | **By** | ESA | |

QC results affect the following production samples:

3034090002

| Analyte | MS, MSD Spike Added mg/Kg | Sample Conc. mg/Kg | MS Concentration mg/Kg | MS Recovery % | MSD Concentration mg/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.7, 9.9 | ND | 14 | 143 | 15 | 150 | ( 22-196 ) | 7 | (< 20 ) |
| Aroclor-1260 | 9.7, 9.9 | ND | 7.6 | 79 | 6.8 | 68 | ( 49-187 ) | 11 | (< 20 ) |

Workorder: 3034090 Conestoga-Rovers & Associates Reported: 9/30/2003

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335448 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5983 | **Batch** | XGC 3853 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/25/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3034090001

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Aroclor-1016 | ND | 33 |
| Aroclor-1221 | ND | 33 |
| Aroclor-1232 | ND | 33 |
| Aroclor-1242 | ND | 33 |
| Aroclor-1248 | ND | 33 |
| Aroclor-1254 | ND | 33 |
| Aroclor-1260 | ND | 33 |
| Aroclor-1262 | ND | 33 |
| Aroclor-1268 | ND | 33 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335456 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5985 | **Batch** | XGC 3853 |
| **Client** | Conestoga-Rovers & Associates | **Method** | EPA 608 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/25/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3034090003

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335632 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5988 | **Batch** | XGC 3857 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-T |
| | | **Date** | 09/26/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3034090002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Aroclor-1016 | ND | 0.98 |
| Aroclor-1221 | ND | 0.98 |
| Aroclor-1232 | ND | 0.98 |
| Aroclor-1242 | ND | 0.98 |
| Aroclor-1248 | ND | 0.98 |
| Aroclor-1254 | ND | 0.98 |
| Aroclor-1260 | ND | 0.98 |
| Aroclor-1262 | ND | 0.98 |
| Aroclor-1268 | ND | 0.98 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335559 Lab Control Spike TCLP | | | |
| | | | **Analysis** | |
| **Prep Batch** | MXX 11387 | | **Batch** | MIM 5727 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 6020 |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\092303\LCS.207 | | **Date** | 09/24/2003 |
| | | | **By** | SRO |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 101 | | | (50-150) | | |
| Barium | 1 | 0.96 | 96 | | | (50-150) | | |
| Cadmium | 1 | 0.96 | 96 | | | (50-150) | | |
| [illegible]nium | 1 | 0.97 | 97 | | | (50-150) | | |
| Lead | 1 | 1.0 | 102 | | | (50-150) | | |
| Selenium | 1 | 1.0 | 100 | | | (50-150) | | |
| Silver | 1 | 0.99 | 99 | | | (50-150) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335563 Matrix Spike TCLP | **Analysis** | |
| | 335564 Matrix Spike Duplicate TCLP | **Batch** | MIM 5727 |
| **Prep Batch** | MXX 11387 | **Method** | SW-846 6020 |
| **Original** | 3034090003 | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Client** | Conestoga-Rovers & Associates | **Date** | 09/24/2003 |
| **Project** | Project 32864 Sybil, Inc. | **By** | SRO |
| **File** | N:\ICPMS\elandata\Dataset\092303\ | | |
| | N:\ICPMS\elandata\Dataset\092303\ | | |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1, 1 | 0.039 | 1.0 | 97 | 1.1 | 103 | (50-150) | 5 | (< 20) |
| Barium | 1, 1 | 0.069 | 1.1 | 99 | 1.1 | 100 | (50-150) | 2 | (< 20) |
| Cadmium | 1, 1 | ND | 0.97 | 97 | 0.99 | 98 | (50-150) | 2 | (< 20) |
| Chromium | 1, 1 | 0.051 | 1.0 | 99 | 1.1 | 101 | (50-150) | 2 | (< |
| Lead | 1, 1 | 0.031 | 1.1 | 103 | 1.1 | 106 | (50-150) | 3 | (< |
| Selenium | 1, 1 | ND | 1.0 | 100 | 1.0 | 104 | (50-150) | 4 | (< 20) |
| Silver | 1, 1 | ND | 0.36 | 36 | 0.43 | 43 | (50-150) | 18 | (< 20) |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335561 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11387 | **Batch** | MIM 5727 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\092303\MB.206 | **Date** | 09/24/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| Selenium | ND | 0.016 |
| [illegible] | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335683 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11393 | **Batch** | MCV 2021 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\092303 | **Date** | 09/23/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0023 | 113 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 335691 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11393 | **Batch** | MCV 2021 |
| **Original** | 3034090003 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/23/2003 |
| **File** | \\Nas01\metals\Mercury\Millennium\Results\LIMSExp\092303W1.TXT | **By** | PSK |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.023 | 114 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335682 Method Blank | | |
| **Prep Batch** | MXX 11393 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MCV 2021 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 7470A |
| **File** | \\Was01\metals\Mercury\Millennium\Results\LIMSExp\092303 | **Instrument** | PSA Millenium |
| | | **Date** | 09/23/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335505 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3456 | **Batch** | WLA 1501 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | Quick Chem 8000 Lachat |
| | | | **Date** | 09/23/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 1.3 | 25 | | | ( 2.6-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335506 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3456 | **Batch** | WLA 1501 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| | | **Date** | 09/23/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335670 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3459 | **Batch** | WAT 1832 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/24/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 350 | 85 | | | ( 57-109 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335669 | Method Blank | | |
| **Prep Batch** | WXX | 3459 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | WAT 1832 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 7.3.4.2 |
| | | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/24/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335668 Matrix Duplicate | | |
| **Prep Batch** | WXX 3459 | **Analysis** | |
| **Original** | 3034007001 | **Batch** | WAT 1832 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 09/24/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 50 | 0.00 | (< 20) |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 335935 pH Calibration Standard | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2073 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 09/24/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335936 | Quality Control Sample | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2073 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybil, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 09/24/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3034090003

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.98 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335938 | Quality Control Sample | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2073 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 09/24/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH-QC pH 8 | 8 | 7.96 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335837 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2073 |
| **Original** | 3034069001 | **Method** | SW-846 9040B |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/24/2003 |
| | | **By** | SRS |

QC results affect the following production samples:

3034090001, 3034090003

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 7.85 | 7.83 | | 0.26 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

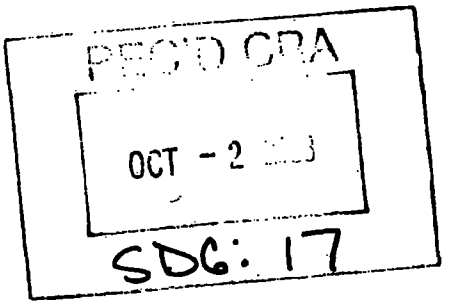
| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335759 | Flashpoint Calibration Std. | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | MXX 11398 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 1010 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/24/2003 |
| | | | **By** | WD |

QC results affect the following production samples:

3034090001, 3034090002, 3034090003

| Analyte | LCS,LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 81 | 101 | | | ( 98-102 ) | | |

SGS




Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034119

ORIGINAL ANALYTICAL REPORT

Project#: 32664 Lab#: 3034119

Prepared For:

Name: Sybill, Inc.

Description

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Event: _____
Samples: 2 mix
Analysis: TCLP VOC, SVOC, MTC RCI, PCB
TAT: 2 DAY

Prepared By:

Lab: SGS

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

Checked Against Preliminary Data:
Date: 10-6-03 Init.: K.B.
Date of Validation Memo: 10-9-03
Invoice Approval Date: _____
Comments: _____

Approval Signature: Tamela M. Johnson

Date Issued: 10-1-03
Total Pages: 64

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034119

***Sample Collection and Receipt -***

Two samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on September 23, 2003. The sample containers were released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on September 24, 2003 in good condition, on ice and at a temperature of 4°C. Following log-in, the samples were stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

The samples were analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Ignitability/Flashpoint). Additionally, the samples were extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. Each leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

Sample analysis was performed on a forty-eight hour rush turnaround basis as requested on the COC.

Laboratory samples 3034119001 and 3034119002 were analyzed for Metals at a X50 dilution due to matrix interference.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Semi-Volatile Analysis*

The recovery for Pyridine was below the lower control limit in the MS on sample 3034119001 associated with preparation batch XXX 5991. The Pyridine result may be biased low for sample 3034119001.

*GC PCB Analysis*

The recovery for Aroclor-1248 was above the control limits in the MS/MSD on sample 3034119001 associated with preparation batch XXX 5990. Aroclor-1248 was not detected in the parent sample.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034119

***Quality Control (QC) –continued***

***Metals Analysis***

The Arsenic, Cadmium, Chromium, Lead and Silver results for sample 3034119001 and the Arsenic and Cadmium results for sample 3034119002 had the relative standard deviation (RSD) of the analysis replicates greater than twenty percent.

The recoveries for Selenium and Silver were below the lower control limits in the MS on sample 3034119002 associated with preparation batch MXX 11405. The Selenium and Silver results may be biased low for sample 3034119002.

***Sample Reporting –***

The percent solids for sample 3034119001 were determined and the PCB and Reactive Cyanide and Sulfide results corrected to a dry-weight reporting basis.

The Arsenic, Cadmium, Chromium, Lead and Silver results for sample 3034119001 and the Arsenic and Cadmium results for sample 3034119002 were qualified as estimated (J) due to a relative standard deviation (RSD) greater than twenty.

The Metals results for laboratory samples 3034119001 and 3034119002, excluding Mercury, were qualified for dilution (D) due matrix interference (M).

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 10-1-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034119

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| Total Volatiles | SW-846 8260[1] |
| PCBs | SW-846 8082[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Ignitability | SW-846 7.1[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA<br>Sample Number | CTE-MI<br>Sample Number |
|---|---|
| S-32664-092303-SM-062 | 3034119001 |
| L-32664-092303-SM-063 | 3034119002 |

# Explanation of Terms and Data Qualifiers

| Term/Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

# CHAIN OF CUSTODY RECORD

SHIPPED TO (Laboratory N

CT&E Environmental Services Inc.

170016 COC Serial

1200 Conrad Industrial Drive Ludington MI 49431

REFERENCE NUMBER: ~~[illegible]~~ 032664

PROJECT NAME: Sybill 3034119

SAMPLER'S SIGNATURE: SM PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | PARAMETERS: Full TCLP | RCI | PCB's | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9-23-03 | 0800 | S-32664-092303-SM-062 | soil | 1 | ✓ | ✓ | ✓ | | | | | | | | |
| 2 | | 0900 | L-32664-092303-SM-063 | aqueous | 4 | ✓ | ✓ | ✓ | | | | | | | | 48 hr tat |

TOTAL NUMBER OF CONTAINERS

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. Shawn McLean | DATE: 092303 TIME: 14:15 | RECEIVED BY: 1. [signature] | DATE: 9/23/03 TIME: 14:15 |
| RELINQUISHED BY: 2. [signature] | DATE: 9/23/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: AIR BILL No.

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24076

SAMPLE TEAM: SM

RECEIVED FOR LABORATORY BY: [signature]

DATE: 9/24/03 TIME: 8.45 4°C

1001 (FO[illegible])-APRIL 29, 93-REV.0-(C)(F-01)

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of 1

Project Number: 303419 Date Logged In: 9/24/03 Login Person Initials: KE

This section to be completed when corrective action is required:

Client: CRA Project Name: _____
Client Contact: _____ Phone Number: _____

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (Ice in direct contact with the samples)? | ✓ | |
| | *If yes, and Wisconsin samples, do not record the sample temperature.* | | |
| 5. | Is the temperature of the samples between 2-6°C? | ✓ | |
| | *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? | ✓ | |
| | *No corrective action required.* | | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | = | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* | = | |
| | *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | = | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | = | |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Sample No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

# Laboratory Report

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3034119**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

**Certification:**

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

9/29/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

Order: 3034119 Conestoga-Rovers & Associates Reported: 9/29/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034119001 | Matrix: | Solid |
| Client Sample ID: | S-32664-092303-SM-062 | Location: | |
| Collected: | 09/23/2003 08:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/24/2003 08:45 | Sampled By: | SM |

Comments: Results reported on Dry Weight basis.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/26/03 10:18 | 09/26/03 10:46 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 70 | SW-846 7.3.4.2[1] | 09/26/03 10:56 | 09/26/03 10:58 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 09/24/03 14:47 | SRS | 1 |
| Ignitability | Non | | | | SW-846 7.1[1] | | 09/25/03 09:41 | WD | 1 |
| pH | 7.74 | | S.U. | | SW-846 9045C | | 09/24/03 14:47 | SRS | 1 |
| Solids | 71.9 | | % | 0.10 | SM19 2540G[1] | | 09/24/03 11:12 | SKP | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 09/24/03 13:21 | 09/27/03 23:01 | ESA | 1 |
| Aroclor-1221 | ND | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 09/24/03 13:21 | 09/27/03 23:01 | ESA | 1 |
| Aroclor-1232 | ND | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 09/24/03 13:21 | 09/27/03 23:01 | ESA | 1 |
| Aroclor-1242 | ND | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 09/24/03 13:21 | 09/27/03 23:01 | ESA | 1 |
| Aroclor-1248 | ND | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 09/24/03 13:21 | 09/27/03 23:01 | ESA | 1 |
| Aroclor-1254 | 390 | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 09/24/03 13:21 | 09/27/03 23:01 | ESA | 1 |
| Aroclor-1260 | ND | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 09/24/03 13:21 | 09/27/03 23:01 | ESA | 1 |
| Aroclor-1262 | ND | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 09/24/03 13:21 | 09/27/03 23:01 | ESA | 1 |
| Aroclor-1268 | ND | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 09/24/03 13:21 | 09/27/03 23:01 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.27 J,D,M | 5 | mg/L | 0.050 | SW-846 6020 / SW-846 3010A | 09/25/03 15:12 | 09/26/03 15:53 | SRO | 1 |
| Barium | 0.46 D,M | 100 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/25/03 15:12 | 09/26/03 15:53 | SRO | 1 |
| Cadmium | 0.051 J,D,M | 1 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/25/03 15:12 | 09/26/03 15:53 | SRO | 1 |
| Chromium | 0.12 J,D,M | 5 | mg/L | 0.030 | SW-846 6020 / SW-846 3010A | 09/25/03 15:12 | 09/26/03 15:53 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/25/03 13:50 | 09/25/03 16:04 | PSK | 1 |
| Lead | 0.026 J,D,M | 5 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/25/03 15:12 | 09/26/03 15:53 | SRO | 1 |
| Selenium | ND D,M | 1 | mg/L | 0.080 | SW-846 6020 / SW-846 3010A | 09/25/03 15:12 | 09/26/03 15:53 | SRO | 1 |

Workorder: 3034119 | Conestoga-Rovers & Associates | Reported: 9/29/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034119001 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32684-092303-SM-062 | **Location:** | |
| **Collected:** | 09/23/2003 08:00 | **Project:** | Project 32684 Sybill, Inc. |
| **Received:** | 09/24/2003 08:45 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preperation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Silver | 0.037 J,D,M | 5 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/25/03 15:12 | 09/26/03 15:53 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:22 | JDS | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:22 | JDS | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:22 | JDS | 1 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/25/03 18:22 | JDS | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:22 | JDS | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:22 | JDS | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:22 | JDS | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:22 | JDS | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:22 | JDS | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:22 | JDS | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:22 | JDS | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 21:50 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 21:50 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 21:50 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 21:50 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 21:50 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 21:50 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 21:50 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 21:50 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 21:50 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 21:50 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 21:50 | BPJ | 1 |

Workorder: 3034119 Conestoga-Rovers & Associates Reported: 9/29/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034119002 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-092303-SM-063 | Location: | |
| Collected: | 09/23/2003 09:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/24/2003 08:45 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column; SW-846 Method 3665 Sulfuric Acid) and Sulfur (SW-846 Method 3660 Copper).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/26/03 10:18 | 09/26/03 10:46 | MAH | 4 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/26/03 10:56 | 09/26/03 10:58 | JB | 4 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/24/03 14:47 | SRS | 4 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/26/03 12:35 | WD | 4 |
| | 7.48 | | S.U. | | SW-846 9040B | | 09/24/03 14:47 | SRS | 4 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/25/03 12:25 | 09/27/03 22:34 | ESA | 4 |
| Aroclor-1221 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/25/03 12:25 | 09/27/03 22:34 | ESA | 4 |
| Aroclor-1232 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/25/03 12:25 | 09/27/03 22:34 | ESA | 4 |
| Aroclor-1242 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/25/03 12:25 | 09/27/03 22:34 | ESA | 4 |
| Aroclor-1248 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/25/03 12:25 | 09/27/03 22:34 | ESA | 4 |
| Aroclor-1254 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/25/03 12:25 | 09/27/03 22:34 | ESA | 4 |
| Aroclor-1260 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/25/03 12:25 | 09/27/03 22:34 | ESA | 4 |
| Aroclor-1262 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/25/03 12:25 | 09/27/03 22:34 | ESA | 4 |
| Aroclor-1268 | ND | | ug/L | 1.0 | SW-846 8082 / SW-846 3510C | 09/25/03 12:25 | 09/27/03 22:34 | ESA | 4 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.12 J,D,M | 5 | mg/L | 0.050 | SW-846 6020 / SW-846 3010A | 09/25/03 15:12 | 09/26/03 16:07 | SRO | 1 |
| Barium | 0.086 D,M | 100 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/25/03 15:12 | 09/26/03 16:07 | SRO | 1 |
| Cadmium | 0.015 J,D,M | 1 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/25/03 15:12 | 09/26/03 16:07 | SRO | 1 |
| Chromium | 0.100 D,M | 5 | mg/L | 0.030 | SW-846 6020 / SW-846 3010A | 09/25/03 15:12 | 09/26/03 16:07 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/25/03 13:50 | 09/25/03 16:10 | PSK | 4 |
| | ND D,M | 5 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/25/03 15:12 | 09/26/03 16:07 | SRO | 1 |
| Selenium | ND D,M | 1 | mg/L | 0.080 | SW-846 6020 / SW-846 3010A | 09/25/03 15:12 | 09/26/03 16:07 | SRO | 1 |
| Silver | ND D,M | 5 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/25/03 15:12 | 09/26/03 16:07 | SRO | 1 |

Workorder: 3034119 Conestoga-Rovers & Associates Reported: 9/29/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034119002 | Matrix: | Aqueous |
| Client Sample ID: | L-32684-092303-SM-063 | Location: | |
| Collected: | 09/23/2003 09:00 | Project: | Project 32684 Sybil, Inc. |
| Received: | 09/24/2003 08:45 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:49 | JDS | 4 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:49 | JDS | 4 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:49 | JDS | 4 |
| 2-Butanone (MEK) | 0.068 | 200 | mg/L | 0.050 | SW-846 8260B | | 09/25/03 18:49 | JDS | 4 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:49 | JDS | 4 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:49 | JDS | 4 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:49 | JDS | 4 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:49 | JDS | 4 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:49 | JDS | 4 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:49 | JDS | 4 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 18:49 | JDS | 4 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 23:22 | BPJ | 4 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 23:22 | BPJ | 4 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 23:22 | BPJ | 4 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 23:22 | BPJ | 4 |
| 3&4-Methylphenol (p&m-Cresol) | 0.38 | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 23:22 | BPJ | 4 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 23:22 | BPJ | 4 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 23:22 | BPJ | 4 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 23:22 | BPJ | 4 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 23:22 | BPJ | 4 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 23:22 | BPJ | 4 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/25/03 12:28 | 09/25/03 23:22 | BPJ | 4 |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32684 Sybil, Inc. | Batch | VMS 4852 |
| | | Method | SW-846 8260B |
| | | Instrument | HP 5972 Series INSTRU Q |
| Matrix | Aqueous | Date | 09/25/2003 |
| | | By | JDS |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3034119002 PS | 93.4 | 87.3 | 85.7 | 96.6 |
| 336197 LCS | 93.5 | 97.9 | 88.7 | 92.3 |
| 336198 MB | 94 | 92.5 | 89.2 | 94.5 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 79-116 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 72-132 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 77-124 ) |
| TOL | = | Toluene-d8 Surr | ( 87-110 ) |

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32664 Sybil, Inc. | **Batch** | VMS 4852 | |
| | | **Method** | SW-846 8260B | |
| **Matrix** | Solid | **Instrument** | HP 5972 Series | INSTRU Q |
| | | **Date** | 09/25/2003 | |
| | | **By** | JDS | |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3034119001 PS | 95.6 | 91.2 | 87.3 | 93.9 |
| 336253 MS | 93.8 | 94.7 | 85.3 | 92.8 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336197 | Lab Control Spike | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4852 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU Q |
| **File** | Q0925_04.D | | **Date** | 09/25/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.20 | 102 | | | (86-121) | | |
| 1,2-Dichloroethane | 0.2 | 0.19 | 96 | | | (77-114) | | |
| 1,4-Dichlorobenzene | 0.2 | 0.19 | 97 | | | (83-120) | | |
| 2-Butanone (MEK) | 0.2 | 0.20 | 100 | | | (63-131) | | |
| Benzene | 0.2 | 0.19 | 94 | | | (87-112) | | |
| Carbon tetrachloride | 0.2 | 0.18 | 92 | | | (80-124) | | |
| Chlorobenzene | 0.2 | 0.19 | 96 | | | (85-117) | | |
| Chloroform | 0.2 | 0.18 | 92 | | | (83-113) | | |
| Tetrachloroethene | 0.2 | 0.16 | 78 | | | (59-148) | | |
| Trichloroethene | 0.2 | 0.19 | 93 | | | (83-111) | | |
| Vinyl chloride | 0.2 | 0.23 | 115 | | | (68-133) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336253 | Matrix Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4852 | |
| **Original** | 3034119001 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU Q |
| **Project** | Project 32864 Sybill, Inc. | | **Date** | 09/25/2003 | |
| **File** | Q0925_25.D | | **By** | JDS | |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.19 | 94 | | | ( 71-144 ) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.17 | 85 | | | ( 67-121 ) | | |
| [illegible]ichlorobenzene | 0.2 | ND | 0.18 | 91 | | | ( 51-145 ) | | |
| 2-Butanone ( M E K ) | 0.2 | ND | 0.18 | 83 | | | ( 32-134 ) | | |
| Benzene | 0.2 | ND | 0.18 | 89 | | | ( 76-127 ) | | |
| Carbon tetrachloride | 0.2 | ND | 0.17 | 87 | | | ( 83-130 ) | | |
| Chlorobenzene | 0.2 | ND | 0.18 | 90 | | | ( 86-117 ) | | |
| Chloroform | 0.2 | ND | 0.16 | 82 | | | ( 71-137 ) | | |
| Tetrachloroethene | 0.2 | ND | 0.13 | 67 | | | ( 55-113 ) | | |
| Trichloroethene | 0.2 | ND | 0.18 | 88 | | | ( 80-122 ) | | |
| Vinyl chloride | 0.2 | ND | 0.21 | 104 | | | ( 59-145 ) | | |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336198 | Method Blank | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4852 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybil, Inc. | | **Instrument** | HP 5972 Series | INSTRU Q |
| **File** | Q0925_08.D | | **Date** | 09/25/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone (MEK) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybil, Inc. | Batch | XMS 2835 |
| | | Method | SW-846 8270C |
| Matrix | Aqueous | Date | 09/25/2003 |
| | | By | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 335752 | MB | 53 | 81.3 | 82.7 | 41.3 | 91.6 | 89.8 |
| 335753 | LCS | 52 | 75.5 | 80.7 | 38.5 | 87.9 | 82.5 |
| 335754 | LCSD | 46.8 | 71.8 | 78.1 | 35 | 79.6 | 70.9 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | (14-68) |
| FBP | = | 2-Fluorobiphenyl Surr | (31-99) |
| NB2 | = | Nitrobenzene-d5 Surr | (33-102) |
| PHL | = | Phenol-d5 Surr | (13-50) |
| TBP | = | 2,4,6-Tribromophenol Surr | (31-133) |
| TPH | = | Terphenyl-d14 Surr | (20-116) |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XMS 2836 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/26/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3034119002 PS | 25.7 | 63 | 53.1 | 25.8 | 67.9 | 70 |
| 335900 MS | 29.5 | 64.2 | 57.4 | 31.7 | 78.6 | 92.8 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | XMS 2836 |
| | | Method | SW-846 8270C |
| Matrix | Solid | Date | 09/25/2003 |
| | | By | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3034119001 PS | 29.5 | 67.9 | 56.4 | 28.2 | 77.1 | 71.4 |
| 335901 MS | 32.9 | 73.2 | 64 | 30 | 77.8 | 79.1 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | ( 14-68 ) |
| FBP | = | 2-Fluorobiphenyl Surr | ( 31-99 ) |
| NB2 | = | Nitrobenzene-d5 Surr | ( 33-102 ) |
| PHL | = | Phenol-d5 Surr | ( 13-50 ) |
| TBP | = | 2,4,6-Tribromophenol Surr | ( 31-133 ) |
| TPH | = | Terphenyl-d14 Surr | ( 20-116 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335753 | Lab Control Spike | | |
| | 335754 | Lab Control Spike Dup | **Analysis** | |
| **Prep Batch** | XXX | 5991 | **Batch** | XMS 2835 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C |
| **Project** | Project 32884 Sybill, Inc. | | | |
| **File** | F0925_05.D | | **Date** | 09/25/2003 |
| | F0925_06.D | | **By** | BPJ |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.15 | 76 | 0.14 | 71 | ( 36-135 ) | 7 | (< 27 ) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.16 | 81 | 0.15 | 76 | ( 32-140 ) | 6 | (< 27 ) |
| [illegible] Dinitrotoluene | 0.05, 0.05 | 0.043 | 86 | 0.039 | 78 | ( 47-140 ) | 9 | (< 30 ) |
| [illegible]thylphenol (o-Cresol) | 0.2, 0.2 | 0.14 | 71 | 0.13 | 67 | ( 27-119 ) | 5 | (< 33 ) |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.17 | 69 | 0.16 | 65 | ( 25-112 ) | 6 | (< 33 ) |
| Hexachlorobenzene | 0.05, 0.05 | 0.039 | 79 | 0.036 | 72 | ( 36-138 ) | 9 | (< 16 ) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.033 | 65 | 0.032 | 65 | ( 18-122 ) | 1 | (< 26 ) |
| Hexachloroethane | 0.05, 0.05 | 0.036 | 72 | 0.036 | 73 | ( 16-112 ) | 1 | (< 24 ) |
| Nitrobenzene | 0.05, 0.05 | 0.043 | 85 | 0.042 | 84 | ( 27-128 ) | 1 | (< 24 ) |
| Pentachlorophenol | 0.2, 0.2 | 0.17 | 87 | 0.16 | 78 | ( 45-162 ) | 11 | (< 17 ) |
| Pyridine | 0.05, 0.05 | 0.021 | 41 | 0.019 | 37 | ( 12-68 ) | 10 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335901 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 5991 | | **Batch** | XMS 2836 |
| **Original** | 3034119001 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/25/2003 |
| **File** | E0925_15.D | | **By** | BPJ |

QC results affect the following production samples:

3034119001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.17 | 83 | | | ( 25-137 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.17 | 84 | | | ( 30-128 ) | | |
| 2,4-Dinitrotoluene | 0.05 | ND | 0.039 | 77 | | | ( 38-134 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.12 | 58 | | | ( 16-116 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | ND | 0.15 | 60 | | | ( 18-112 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.037 | 74 | | | ( 31-125 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.033 | 67 | | | ( 14-106 ) | | |
| Hexachloroethane | 0.05 | ND | 0.030 | 60 | | | ( 14-104 ) | | |
| Nitrobenzene | 0.05 | ND | 0.034 | 69 | | | ( 15-129 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.14 | 70 | | | ( 17-156 ) | | |
| Pyridine | 0.05 | ND | 0.0027 | 5 | | | ( 10-75 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335900 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 5991 | | **Batch** | XMS 2836 |
| **Original** | 3034119002 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/26/2003 |
| **File** | E0925_17.D | | **By** | BPJ |

QC results affect the following production samples:

3034119002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.15 | 74 | | | ( 39-116 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.16 | 80 | | | ( 39-114 ) | | |
| [redacted]nitrotoluene | 0.05 | ND | 0.033 | 65 | | | ( 46-125 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.12 | 58 | | | ( 28-101 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | 0.38 | 0.55 | 69 | | | ( 31-96 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.037 | 74 | | | ( 39-116 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.033 | 65 | | | ( 24-91 ) | | |
| Hexachloroethane | 0.05 | ND | 0.030 | 61 | | | ( 23-90 ) | | |
| Nitrobenzene | 0.05 | ND | 0.030 | 61 | | | ( 28-113 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.12 | 59 | | | ( 42-136 ) | | |
| Pyridine | 0.05 | ND | 0.0028F | 6 | | | ( 4.5-59 ) | | |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335752 | Method Blank | | |
| **Prep Batch** | XXX | 5991 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XMS 2835 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SW-846 8270C |
| **File** | F0925_04.D | | | |
| | | | **Date** | 09/25/2003 |
| | | | **By** | BPJ |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3858 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/26/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3034119002 | PS | 73.7 | 71.3 |
| 335861 | MB | 86.7 | 70.7 |
| 335862 | LCS | 82.3 | 68.3 |
| 335863 | LCSD | 77.3 | 72.3 |

**DCB = Decachlorobiphenyl Surr (14-91)**
**TMX = Tetrachloro-m-xylene Surr (17-94)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3881 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/29/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 335864 | MS | 83.7 | 65.3 |
| 335865 | MSD | 86 | 24.3 |

**DCB = Decachlorobiphenyl Surr (14-91)**
**TMX = Tetrachloro-m-xylene Surr (17-94)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XGC 3853 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/26/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 335745 | MB | 82.7 | 16 |
| 335746 | LCS | 81.7 | 28 |
| 335747 | LCSD | 83.7 | 36.7 |

**DCB = Decachlorobiphenyl Surr (10-151)**
**TMX = Tetrachloro-m-xylene Surr (10-140)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XGC 3858 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/27/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3034119001 | PS | 75.7 | 51 |

| | | | |
|---|---|---|---|
| **DCB** | = | **Decachlorobiphenyl Surr** | **( 10-151 )** |
| **TMX** | = | **Tetrachloro-m-xylene Surr** | **( 10-140 )** |

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XGC 3861 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/29/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 335748 | MS | 85 | 55.7 |
| 335749 | MSD | 93.3 | 57 |

**DCB** = **Decachlorobiphenyl Surr** **( 10-151 )**
**TMX** = **Tetrachloro-m-xylene Surr** **( 10-140 )**

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335746 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 6990 | **Batch** | XGC 3853 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U | |
| | | **Date** | 09/26/2003 | |
| | | **By** | ESA | |

QC results affect the following production samples:

3034119001

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration ug/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 330, 330 | 260 | 77 | 250 | 74 | ( 35-105 ) | 4 | (< 20 ) |
| Aroclor-1260 | 330, 330 | 230 | 70 | 220 | 67 | ( 54-114 ) | 5 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335862 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5994 | **Batch** | XGC 3858 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | EPA 608 |
| **Project** | Project 32884 Sybill, Inc. | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 09/26/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3034119002

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.87 | 87 | 0.91 | 91 | ( 38-158 ) | 4 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.66 | 66 | 0.69 | 69 | ( 10-127 ) | 4 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335748 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5990 | **Batch** | XGC 3861 |
| **Original** | 3034119001 | **Method** | SW-846 8082 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-U |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/29/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3034119001

| Analyte | MS, MSD Spike Added ug/Kg | Sample Conc. ug/Kg | MS Concentration ug/Kg | MS Recovery % | MSD Concentration ug/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 460, 460 | ND | 710 | 153 | 680 | 146 | ( 10-140 ) | 4 | (< 20 ) |
| Aroclor-1260 | 460, 460 | ND | 540 | 117 | 550 | 119 | ( 10-135 ) | 1 | (< 20 ) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335745 | Method Blank | | |
| **Prep Batch** | XXX | 5990 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XGC 3853 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8082 |
| | | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 09/26/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3034119001

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Aroclor-1016 | ND | 33 |
| Aroclor-1221 | ND | 33 |
| Aroclor-1232 | ND | 33 |
| Aroclor-1242 | ND | 33 |
| Aroclor-1248 | ND | 33 |
| Aroclor-1254 | ND | 33 |
| Aroclor-1260 | ND | 33 |
| Aroclor-1262 | ND | 33 |
| Aroclor-1268 | ND | 33 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335881 | Method Blank | | |
| **Prep Batch** | XXX | 5994 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XGC 3858 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | EPA 608 |
| | | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 09/26/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3034119002

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335954 Lab Control Spike TCLP | | | |
| | | | **Analysis** | |
| **Prep Batch** | MXX 11405 | | **Batch** | MIM 5734 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 6020 |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\092503\ | | **Date** | 09/25/2003 |
| | | | **By** | SRO |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.2 | 118 | | | ( 50-150 ) | | |
| Barium | 1 | 1.1 | 109 | | | ( 50-150 ) | | |
| Cadmium | 1 | 1.1 | 107 | | | ( 50-150 ) | | |
| Chromium | 1 | 1.1 | 114 | | | ( 50-150 ) | | |
| Lead | 1 | 1.2 | 115 | | | ( 50-150 ) | | |
| Selenium | 1 | 1.2 | 115 | | | ( 50-150 ) | | |
| Silver | 1 | 1.1 | 112 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335958 | Matrix Spike TCLP | | |
| | 335959 | Matrix Spike Duplicate TCLP | **Analysis** | |
| **Prep Batch** | MXX | 11405 | **Batch** | MIM 5733 |
| **Original** | 3034119001 | | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/26/2003 |
| **File** | N:\ICPMS\elandata\Dataset\092603\3034119001 MS.015 | | **By** | SRO |
| | N:\ICPMS\elandata\Dataset\092603\3034119001 MSD.016 | | | |

QC results affect the following production samples:

3034119001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1.4, 1.4 | 0.27 | 2.1 | 123 | 2.0 | 113 | (50-150) | 7 | (< 20) |
| Barium | 1.4, 1.4 | 0.46 | ND | 101 | ND | 101 | (50-150) | 0 | (< 20) |
| Cadmium | 1.4, 1.4 | 0.051 | 1.5 | 103 | 1.5 | 100 | (50-150) | 3 | ( |
| Chromium | 1.4, 1.4 | 0.12 | ND | 106 | ND | 106 | (50-150) | 0 | ( |
| Lead | 1.4, 1.4 | 0.026 | ND | 101 | ND | 102 | (50-150) | 0 | (< 20) |
| Selenium | 1.4, 1.4 | ND | ND | 144 | ND | 132 | (50-150) | 9 | (< 20) |
| Silver | 1.4, 1.4 | 0.037 | ND | 76 | ND | 71 | (50-150) | 8 | (< 20) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335960 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11405 | **Batch** | MIM 5733 |
| **Original** | 3034119002 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/26/2003 |
| **File** | N:\ICPMS\elandata\Dataset\092603\3034119002 MS.018 | **By** | SRO |

QC results affect the following production samples:

3034119002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 0.12 | 1.2 | 113 | | | ( 50-150 ) | | |
| Barium | 1 | 0.086 | 1.0 | 93 | | | ( 50-150 ) | | |
| [illegible]nium | 1 | 0.015 | 0.97 | 95 | | | ( 50-150 ) | | |
| [illegible]romium | 1 | 0.100 | 1.1 | 100 | | | ( 50-150 ) | | |
| Lead | 1 | ND | 1.0 | 102 | | | ( 50-150 ) | | |
| Selenium | 1 | ND | 0.53 | 45 | | | ( 50-150 ) | | |
| Silver | 1 | ND | 0.083 | 7 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335957 Method Blank | | |
| **Prep Batch** | MXX 11405 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MIM 5734 |
| **Project** | Project 32684 Sybil, Inc. | **Method** | SW-846 6020 |
| **File** | N:\ICPMS\elandata\Dataset\092503\MB.042 | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| | | **Date** | 09/25/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| Selenium | ND | 0.016 |
| Silver | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336005 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11408 | **Batch** | MCV 2022 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\092503W1.TXT | **Date** | 09/25/2003 |
| | | **By** | PSK |

**QC results affect the following production samples:**

3034119001, 3034119002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0021 | 106 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 336010 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11408 | **Batch** | MCV 2022 |
| **Original** | 3034119001 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybil, Inc. | **Date** | 09/25/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\092503W1.TXT | **By** | PSK |

QC results affect the following production samples:

3034119001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.023 | 115 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 336011 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11408 | **Batch** | MCV 2022 |
| **Original** | 3034119002 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32864 Sybill, Inc. | **Date** | 09/25/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\092503W1.TXT | **By** | PSK |

QC results affect the following production samples:

3034119002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.023 | 115 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336004 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11408 | **Batch** | MCV 2022 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\092503W1.TXT | **Date** | 09/25/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336218 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | WXX 3466 | **Batch** | WLA 1512 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat | |
| **File** | CN09263A.FDT | **Date** | 09/26/2003 | |
| | | **By** | MAH | |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 1.7 | 34 | | | ( 2.6-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336217 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3466 | **Batch** | WLA 1512 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| **File** | CN09263A.FDT | **Date** | 09/26/2003 |
| | | **By** | MAH |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336219 Matrix Duplicate | | | |
| **Prep Batch** | WXX 3466 | **Analysis** | | |
| **Original** | 3034160001 | **Batch** | WLA 1512 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 | |
| **Project** | Project 32684 Sybil, Inc. | **Instrument** | Quick Chem 8000 Lachat | |
| **File** | CN09263A.FDT | **Date** | 09/26/2003 | |
| | | **By** | MAH | |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Cyanide | ND | ND | 30 | 0.00 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336115 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3463 | **Batch** | WAT 1833 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/26/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | LCS/LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 370 | 89 | | | ( 57-109 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336114 | Method Blank | | |
| **Prep Batch** | WXX | 3463 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | WAT 1833 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SW-846 7.3.4.2 |
| | | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/26/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336116 Matrix Duplicate | | | |
| **Prep Batch** | WXX 3463 | **Analysis** | | |
| **Original** | 3034160001 | **Batch** | WAT 1833 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.4.2 | |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | No Instrument, Manual Handling | |
| | | **Date** | 09/26/2003 | |
| | | **By** | JB | |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 50 | 0.00 | (< 20 ) |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 335935 | pH Calibration Standard | **Analysis** | | |
| **Prep Batch** | | | **Batch** | WPH 2073 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B | |
| **Project** | Project 32884 Sybil, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A | |
| | | | **Date** | 09/24/2003 | |
| | | | **By** | SRS | |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335938 | Quality Control Sample | | |
| **Prep Batch** | | | **Analysis Batch** | WPH 2073 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ26A |
| | | | **Date** | 09/24/2003 |
| | | | **By** | SRS |

QC results affect the following production samples:

3034119001, 3034119002

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 7.96 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335939 Matrix Duplicate | | | |
| **Prep Batch** | | **Analysis** | | |
| **Original** | 3034093002 | **Batch** | WPH 2073 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A | |
| | | **Date** | 09/24/2003 | |
| | | **By** | SRS | |

**QC results affect the following production samples:**

3034119001, 3034119002

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 5.99 | 6.00 | | 0.17 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336152 | Flashpoint Calibration Std. | **Analysis** | |
| **Prep Batch** | | | **Batch** | MXX 11412 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 1010 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/26/2003 |
| | | | **By** | WD |

QC results affect the following production samples:

3034119002

| Analyte | LCS,LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 80 | 100 | | | ( 98-102 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335681 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3034119001 | **Batch** | WG1 4713 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SM19 2540G |
| **Project** | Project 32664 Sybill, Inc. | | |
| | | **Date** | 09/24/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3034119001

| Analyte | Original Sample Concentration % | Dilution / Duplicate Concentration % | RDL % | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Solids | 71.9 | 71.4 | 0.10 | 0.76 | (< 20 ) |

## METHOD BLANK SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335680 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | WG1 4713 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SM19 2540G |
| | | | **Date** | 09/24/2003 |
| | | | **By** | SKP |

**QC results affect the following production samples:**

3034119001

| Analyte | Concentration % | Detection Limit % |
|---|---|---|
| Total Solids | 100.0 | 0.10 |

SGS

REC'D CRA
OCT - 6 2003
SDG: 18

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034143

ORIGINAL ANALYTICAL REPORT

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

Project#: 32664 Lab#: 3034143
Name: SYBILL, INC.
Description
Event:
Samples: 3 mix
Analysis: VOC, SVOC, TCLP mtl
VOC, SVOC, RCI, PCB
TAT: 2 day
Lab: SGS
Checked Against Preliminary Data:
Date: 10-7-03 Init.: K.B.
Date of Validation Memo: 10-9-03
Invoice Approval Date:
Comments:

Approval Signature: Tamela M. Johnson

Date Issued: 10-3-03
Total Pages: 107

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034143

***Sample Collection and Receipt -***

Three samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on September 24, 2003. The sample containers were released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on September 25, 2003 in good condition, on ice and at a temperature of 5°C. Following log-in, the samples were stored at 4°C until sample preparation and/or analysis.

The sample type for L-32664-092403-SM-064 was listed on the COC as a sludge sample, however, S-32664-092403-SM-065 was the sludge sample and –064 was a liquid sample.

***Sample Preparation and Analysis -***

Laboratory samples 3034143001 and 3034143003 were analyzed for Polychlorinated Biphenyls (PCBs), and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the samples were extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. Each leachate was analyzed for RCRA metals. The samples were also analyzed for volatile organic compounds (VOC) and semivolatile organic compounds (SVOC).

Laboratory sample 3034143002 was analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the sample was extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. The leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals.

It was requested on the COC that samples be analyzed within forty-eight hours.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

Laboratory sample 3034143001 was analyzed for SVOCs at a X10 dilution due to matrix interference. Also, select SVOC compounds for sample 3034143002 were analyzed at a X10 dilution due to matrix interference.

Laboratory sample 3034143003 was analyzed for VOCs at a X50 dilution due to matrix interference.

Select Metals for laboratory sample 3034143001 were analyzed at a X2000 dilution due to matrix interference.

Sample 3034143001 was extracted for SVOCs with an initial volume of 100ml resulting in a 5X dilution and sample 3034143003 was extracted for SVOCs with an initial volume of 25ml resulting in a 40X dilution.

Samples 3034143001 and 3034143003 were extracted for PCBs with initial volumes of 25ml resulting in 40X dilutions.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034143

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Volatile Analysis*

The surrogate recovery was below the lower control limit for Dibromofluoromethane in sample 3034143001 associated with analytical batch VMS 4852. The low surrogate recovery was confirmed by the matrix spike analysis.

Surrogate recoveries for Dibromofluoromethane and Toluene-d8 were outside the control limits in sample 3034143003 associated with analytical batch VMS 4870. Sample 3034143003 was diluted due to matrix interference.

The recoveries for 1,2,4-Trimethylbenzene, 4-Isopropyltoluene, Hexachloroethane and n-Butylbenzene were below the lower control limits in the LCS associated with analytical batch VMS 4859. These compounds may be biased low in sample 3034143002.

The recoveries for Acrolein, Methyl iodide and trans-1,2-Dichloroethene were outside the control limits in the LCS associated with analytical batch VMS 4863.

The recovery for Acrolein was below the lower control limit in the LCS associated with analytical batch VMS 4870. The Acrolein result may be biased low in sample 3034143003.

The recoveries for eight compounds were outside the control limits in the MS and/or MSD associated with preparation batch VXX 3749. The MS/MSD were not performed on a sample from this sample delivery group (SDG).

The recoveries for Carbon Tetrachloride, Tetrachloroethene and Trichloroethene were outside the control limits in the MS on sample 3034143001 associated with analytical batch VMS 4852. These compounds may be biased in the parent sample 3034143001.

*GC/MS Semi-Volatile Analysis*

The recoveries for 2,4-Dinitrotoluene and Pentachlorophenol were below the lower control limits in the MS on sample 3034143001 associated with preparation batch XXX 5991. These compounds may be biased low in the parent sample 3034143001.

*Metals Analysis*

The Arsenic result for sample 3034143002 and the Arsenic, Cadmium, Lead and Silver results for sample 3034143003 had the relative standard deviation (RSD) of the analysis replicates greater than twenty percent. These metals were flagged as estimated.

The recovery for Silver was below the lower control limit in the MS on samples 3034143001 and 3034143002 associated with preparation batch MXX 11413. Silver may be biased low in the parent samples, 3034143001 and 3034143002.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034143

***Quality Control (QC) –continued***

*Metals Analysis-continued*

The recoveries for Arsenic and Selenium were above the upper control limit in the MS on sample 3034143001 associated with preparation batch MXX 11413. The parent sample was analyzed for Arsenic and Selenium at a X2000 dilution due to matrix interference.

***Sample Reporting –***

The Arsenic result for sample 3034143002 and the Arsenic, Cadmium, Lead and Silver results for sample 3034143003 were qualified as estimated (J) due to a relative standard deviation (RSD) greater than twenty.

The Arsenic, Chromium and Selenium results for sample 3034143001 were qualified (D,M) for dilution due to matrix interference.

The Silver result for samples 3034143001 and 3034143002 was qualified (M) for matrix interference due to low spike recoveries.

The SVOC results for samples 3034143001 and select SVOC compounds for sample 3034143002 were qualified (D,M) for dilution due to matrix interference.

The VOC results for laboratory sample 3034143003 were qualified (D,M) for dilution due to matrix interference.

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 10-3-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034143

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| Total Volatiles | SW-846 8260[1] |
| Total Semivolatiles | SW-846 8270[1] |
| PCBs | SW-846 8082[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| L-32664-092403-SM-064 | 3034143001 |
| S-32664-092403-SM-065 | 3034143002 |
| L-32664-092403-SM-066 | 3034143003 |

# Explanation of Terms and Data Qualifiers

| Term/Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

CT&E Environmental Services Inc.

**CRA**
CONESTOGA-ROVERS & ASSOCIATES, INC.
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

SHIPPED TO (Laboratory Name): 170041 [redacted] COC Serial 7

1200 Conrad Industrial Drive, Ludington MI 49431

REFERENCE NUMBER: 032664

PROJECT NAME: Sybill 3034143

# CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: SM PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | # & SIZE OF CONTAINERS | PARAMETERS: Full TCLP | RCI | PCBs | TCLP metals | total VOCs | total SVOCs | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9-24-03 | 0830 | L-32664-092403-SM-064 | Sludge | 42 | ✓ | ✓ | ✓ | | | | |
| 2 | 1 | 0900 | L-32664-092403-SM-065 MW | Aqueous | 24 | | ✓ | ✓ | ✓ | ✓ | ✓ | 48 hr tat |
| 3 | 1 | 0900 | L-32664-092403-SM-066 | aqueous | 1 | | ✓ | ✓ | ✓ | ✓ | ✓ | |
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| | | | | | | | | | | | | |
| | | | TOTAL NUMBER OF CONTAINERS | | 7 | | | | | | | |

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. SM | DATE: 9-24-03 TIME: 10:25 | RECEIVED BY: 1. [signature] | DATE: 9/24/03 TIME: 10:25 |
| RELINQUISHED BY: 2. [signature] | DATE: 9/24/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: lab courier AIR BILL No.

White - Fully Executed Copy; Yellow - Receiving Laboratory Copy; Pink - Shipper Copy; Goldenrod - Sampler Copy

24078

SAMPLE TEAM: SM

RECEIVED FOR LABORATORY BY: [signature]

DATE: 9/25/03 TIME: 9:15 5°C

1001 (FORMS)-APRIL 29, 93-REV.0-(C)(F-01)

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist



Project Number: 3034143 Date Logged In: 9/25/03 Login Person Initials: KE

This section to be completed when corrective action is required:

Client: CRA Project Name: _____
Client Contact: _____ Phone Number: _____

| | YES | NO |
|---|---|---|
| *If no to any, notify the project manager and project manager documents client response below.* | | |
| 1. Were custody seals/original packing tape intact? | ✓ | |
| 2. Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. Are samples within holding times? | ✓ | |
| 4. Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. Do the samples match the COC? | ✓ | |
| 7. Were the proper containers used? | ✓ | |
| 8 Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. Do water VOC samples contain headspace less than the size of a pea? | | |
| 11. Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | | |
| 12. Is the chain of custody signed? | ✓ | |
| 13. Is sub-sampling required? *(note bottles created and preserved below)* | | |
| 14. Were proper sample weights met for Wisconsin soil samples? | | |

**COMMENTS/CORRECTIVE ACTION**

COC indicates -064 is sludge, its actually aqueous, sample-065 is actually NAPL.

**Containers Created**

| 40 mL vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Samp. No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
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| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

# Laboratory Report

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3034143**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

9/30/2003
Date

**This report contains _____ pages**

This report shall not be reproduced, in whole or in part, without the written approval of CT&E Environmental Services Inc.

# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

Workorder: 3034143 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034143001 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-092403-SM-064 | Location: | |
| Collected: | 09/24/2003 08:38 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/25/2003 09:15 | Sampled By: | SM |

Comments: Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).
8260 TCLP: Low surrogate recovery, confirmed by MS analysis.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/26/03 10:18 | 09/26/03 10:48 | MAH | 2 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/26/03 10:56 | 09/26/03 10:58 | JB | 2 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/29/03 09:18 | SKP | 2 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/26/03 12:35 | WD | 2 |
| pH | 11.2 | | S.U. | | SW-846 9040B | | 09/29/03 09:18 | SKP | 2 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:24 | ESA | 2 |
| Aroclor-1221 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:24 | ESA | 2 |
| Aroclor-1232 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:24 | ESA | 2 |
| Aroclor-1242 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:24 | ESA | 2 |
| Aroclor-1248 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:24 | ESA | 2 |
| Aroclor-1254 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:24 | ESA | 2 |
| Aroclor-1260 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:24 | ESA | 2 |
| Aroclor-1262 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:24 | ESA | 2 |
| Aroclor-1268 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:24 | ESA | 2 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 4.9 D,M | 5 | mg/L | 2.0 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 18:56 | SRO | |
| Barium | 3.7 | 100 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 01:58 | SRO | 1 |
| Cadmium | 1.7 | 1 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 01:58 | SRO | 1 |
| Chromium | 2.7 D,M | 5 | mg/L | 1.2 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 18:56 | SRO | |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/26/03 11:58 | 09/26/03 15:52 | PSK | 2 |
| Lead | 0.62 | 5 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 01:58 | SRO | |
| Selenium | ND D,M | 1 | mg/L | 3.2 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 18:56 | SRO | |
| Silver | 1.2 M | 5 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 01:58 | SRO | 1 |

Workorder: 3034143 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034143001 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-092403-SM-064 | Location: | |
| Collected: | 09/24/2003 08:38 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/25/2003 09:15 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:01 | JDS | 2 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:01 | JDS | 2 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:01 | JDS | 2 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/25/03 17:01 | JDS | 2 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:01 | JDS | 2 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:01 | JDS | 2 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:01 | JDS | 2 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:01 | JDS | 2 |
| [redacted]chloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:01 | JDS | 2 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:01 | JDS | 2 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/25/03 17:01 | JDS | 2 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND D,M | 400 | mg/L | 0.50 | SW-846 8270C / SW-846 3510C | 09/26/03 14:29 | 09/29/03 14:43 | BPJ | 2 |
| 2,4,6-Trichlorophenol | ND D,M | 2 | mg/L | 0.50 | SW-846 8270C / SW-846 3510C | 09/26/03 14:29 | 09/29/03 14:43 | BPJ | 2 |
| 2,4-Dinitrotoluene | ND D,M | 0.13 | mg/L | 0.50 | SW-846 8270C / SW-846 3510C | 09/26/03 14:29 | 09/29/03 14:43 | BPJ | 2 |
| 2-Methylphenol (o-Cresol) | ND D,M | 200 | mg/L | 0.50 | SW-846 8270C / SW-846 3510C | 09/26/03 14:29 | 09/29/03 14:43 | BPJ | 2 |
| 3&4-Methylphenol (p&m-Cresol) | ND D,M | 200 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/26/03 14:29 | 09/29/03 14:43 | BPJ | 2 |
| Hexachlorobenzene | ND D,M | 0.13 | mg/L | 0.50 | SW-846 8270C / SW-846 3510C | 09/26/03 14:29 | 09/29/03 14:43 | BPJ | 2 |
| Hexachlorobutadiene | ND D,M | 0.5 | mg/L | 0.50 | SW-846 8270C / SW-846 3510C | 09/26/03 14:29 | 09/29/03 14:43 | BPJ | 2 |
| Hexachloroethane | ND D,M | 3 | mg/L | 0.50 | SW-846 8270C / SW-846 3510C | 09/26/03 14:29 | 09/29/03 14:43 | BPJ | 2 |
| Nitrobenzene | ND D,M | 2 | mg/L | 0.50 | SW-846 8270C / SW-846 3510C | 09/26/03 14:29 | 09/29/03 14:43 | BPJ | 2 |
| Pentachlorophenol | ND D,M | 100 | mg/L | 0.50 | SW-846 8270C / SW-846 3510C | 09/26/03 14:29 | 09/29/03 14:43 | BPJ | 2 |
| Pyridine | ND D,M | 5 | mg/L | 1.0 | SW-846 8270C / SW-846 3510C | 09/26/03 14:29 | 09/29/03 14:43 | BPJ | 2 |

Workorder: 3034143 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034143002 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | S-32664-092403-SM-065 | **Location:** | |
| **Collected:** | 09/24/2003 09:08 | **Project:** | Project 32664 Sybil, Inc. |
| **Received:** | 09/25/2003 09:15 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/26/03 10:18 | 09/26/03 10:55 | MAH | 3 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/26/03 10:56 | 09/26/03 10:58 | JB | 3 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/29/03 09:18 | SKP | 3 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/26/03 12:35 | WD | 3 |
| pH | 9.24 | | S.U. | | SW-846 9040B | | 09/29/03 09:18 | SKP | 3 |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,1,2-Trichloro-1,2,2-fluoroet | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,1-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,1-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,1-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,2,4-Trimethylbenzene | 9600 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,2-Dibromoethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,2-Dichloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,3,5-Trimethylbenzene | 2630 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |

Workorder: 3034143 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034143002 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | S-32664-092403-SM-065 | Location: | |
| Collected: | 09/24/2003 09:08 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/25/2003 09:15 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,3-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 2,2-Dichloropropane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 2-Butanone ( M E K) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 2-Chloroethylvinyl ether | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 2-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 2-Hexanone | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 2-Methylnaphthalene | 17000 | | ug/Kg | 600 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 4-Chlorotoluene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| 4-Isopropyltoluene | 1530 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| [illegible]ethyl-2-pentanone ( MIBK ) | 676 | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Acetone | 1780 | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Acrolein (2-Propenal) | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Acrylonitrile | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Allyl chloride | ND | | ug/Kg | 100 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Benzene | 187 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Bromobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Bromochloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Bromodichloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Bromoform | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Bromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Carbon disulfide | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Carbon tetrachloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Chlorobenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Chloroethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Chloroform | 328 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Chloromethane | ND | | ug/Kg | 370 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| D[illegible]chloromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Dibromomethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |

Workorder: 3034143 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034143002 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | S-32664-092403-SM-065 | **Location:** | |
| **Collected:** | 09/24/2003 09:08 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/25/2003 09:15 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Dichlorodifluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Diethyl Ether | ND | | ug/Kg | 600 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Diisopropyl ether | ND | | ug/Kg | 100 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Ethylbenzene | 1170 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Hexachlorobutadiene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Hexachloroethane | ND | | ug/Kg | 600 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Isopropylbenzene | 526 | | ug/Kg | 130 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Methyl Iodide | ND | | ug/Kg | 600 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Methyl-t-butyl ether | ND | | ug/Kg | 100 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Methylene chloride | ND | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| n-Butylbenzene | 2500 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| n-Propylbenzene | 1330 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Naphthalene | 5080 | | ug/Kg | 620 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| o-Xylene | 1910 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| P & M -Xylene | 4580 | | ug/Kg | 250 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| sec-Butylbenzene | 1610 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Styrene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| tert-Butylbenzene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Tetrachloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Tetrahydrofuran | ND | | ug/Kg | 600 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Toluene | 4190 | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| trans-1,4-Dichloro-2-Butene | ND | | ug/Kg | 100 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Trichloroethene | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Trichlorofluoromethane | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Vinyl acetate | ND | | ug/Kg | 600 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |
| Vinyl chloride | ND | | ug/Kg | 120 | SW-846 8260B / SW-846 5030B | 09/22/03 11:00 | 09/27/03 18:54 | JEH | 2 |

**GC/MS SEMIVOLATILE ORGANIC ANALYSIS**

Workorder: 3034143 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034143002 | Matrix: | Non Aqueous Liquid |
| Client Sample ID: | S-32664-092403-SM-065 | Location: | |
| Collected: | 09/24/2003 09:08 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/25/2003 09:15 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | | mg/Kg | 190 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 1,2-Dichlorobenzene | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 1,2-Diphenylhydrazine | ND | | mg/Kg | 930 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 1,3-Dichlorobenzene | ND | | mg/Kg | 190 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 1,4-Dichlorobenzene | ND | | mg/Kg | 190 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 1-Methylnaphthalene | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 2,4,5-Trichlorophenol | ND | D,M | mg/Kg | 700 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 2,4,6-Trichlorophenol | ND | D,M | mg/Kg | 460 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 2,4-Dichlorophenol | ND | | mg/Kg | 460 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 2,4-Dimethylphenol | ND | | mg/Kg | 700 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| [redacted]Dinitrophenol | ND | | mg/Kg | 370 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 2,4-Dinitrotoluene | ND | D,M | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 2,6-Dinitrotoluene | ND | | mg/Kg | 420 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 2-Chloronaphthalene | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 2-Chlorophenol | ND | | mg/Kg | 460 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 2-Methylnaphthalene | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 2-Methyl-4,6-dinitrophenol | ND | | mg/Kg | 280 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 2-Methylphenol (o-Cresol) | ND | D,M | mg/Kg | 460 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 2-Nitroaniline | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 2-Nitrophenol | ND | | mg/Kg | 460 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 3&4-Methylphenol (p&m-Cresol) | ND | D,M | mg/Kg | 700 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 3,3-Dichlorobenzidine | ND | | mg/Kg | 1200 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 3-Nitroaniline | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 4-Bromophenyl phenyl ether | ND | | mg/Kg | 280 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 4-Chloro-3-methylphenol | ND | | mg/Kg | 460 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 4-Chloroaniline | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 4-Chlorophenyl phenyl ether | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| 4-Nitroaniline | ND | | mg/Kg | 280 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| [redacted]Nitrophenol | ND | | mg/Kg | 330 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| [redacted]aphthene | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Acenaphthylene | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034143002 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | S-32664-092403-SM-065 | **Location:** | |
| **Collected:** | 09/24/2003 09:08 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/25/2003 09:15 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Acetophenone | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A[1] | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Aniline | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Anthracene | ND | | mg/Kg | 330 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Atrazine (Aatrex) | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A[1] | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Benzaldehyde | ND | | mg/Kg | 700 | SW-846 8270C / SW-846 3580A[1] | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Benzidine | ND | | mg/Kg | 3700 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Benzo(a)anthracene | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Benzo[a]pyrene | ND | | mg/Kg | 93 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Benzo[b]fluoranthene | ND | | mg/Kg | 140 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Benzo[g,h,i]perylene | ND | | mg/Kg | 280 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Benzo[k]fluoranthene | ND | | mg/Kg | 280 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Benzoic acid | ND | | mg/Kg | 190 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Benzyl alcohol | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Biphenyl | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A[1] | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Bis(2-chloroethoxy)methane | ND | | mg/Kg | 190 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Bis(2-chloroethyl) ether | ND | | mg/Kg | 460 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Bis(2-chloroisopropyl) ether | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Bis(2-ethylhexyl) phthalate | ND | | mg/Kg | 190 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Butyl benzyl phthalate | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Caprolactam | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A[1] | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Carbazole | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Chrysene | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Di-n-butylphthalate | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| di-n-Octylphthalate | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Dibenzo[a,h]anthracene | ND | | mg/Kg | 190 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Dibenzofuran | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Diethylphthalate | ND | | mg/Kg | 700 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Dimethylphthalate | ND | | mg/Kg | 280 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Fluoranthene | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Fluorene | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Hexachlorobenzene | ND | D,M | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |

Order: 3034143 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034143002 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | S-32664-092403-SM-065 | **Location:** | |
| **Collected:** | 09/24/2003 09:08 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/25/2003 09:15 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Hexachlorobutadiene | ND D,M | | mg/Kg | 190 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Hexachlorocyclopentadiene | ND | | mg/Kg | 140 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Hexachloroethane | ND D,M | | mg/Kg | 190 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Indeno[1,2,3-c,d] pyrene | ND | | mg/Kg | 190 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Isophorone | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| N-Nitrosodi-n-propylamine | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| N-Nitrosodimethylamine | ND | | mg/Kg | 190 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| N-Nitrosodiphenylamine | ND | | mg/Kg | 280 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Naphthalene | ND | | mg/Kg | 460 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Nitrobenzene | ND D,M | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| [redacted]chlorophenol | ND D,M | | mg/Kg | 460 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Phenanthrene | ND | | mg/Kg | 280 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Phenol | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Pyrene | ND | | mg/Kg | 230 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| Pyridine | ND D,M | | mg/Kg | 190 | SW-846 8270C / SW-846 3580A | 09/26/03 14:26 | 09/29/03 12:16 | BPJ | 3 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/25/03 13:56 | 09/27/03 23:11 | ESA | 1 |
| Aroclor-1221 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/25/03 13:56 | 09/27/03 23:11 | ESA | 1 |
| Aroclor-1232 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/25/03 13:56 | 09/27/03 23:11 | ESA | 1 |
| Aroclor-1242 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/25/03 13:56 | 09/27/03 23:11 | ESA | 1 |
| Aroclor-1248 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/25/03 13:56 | 09/27/03 23:11 | ESA | 1 |
| Aroclor-1254 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/25/03 13:56 | 09/27/03 23:11 | ESA | 1 |
| Aroclor-1260 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/25/03 13:56 | 09/27/03 23:11 | ESA | 1 |
| Aroclor-1262 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/25/03 13:56 | 09/27/03 23:11 | ESA | 1 |
| Aroclor-1268 | ND | | mg/Kg | 0.98 | SW-846 8082 / SW-846 3580A | 09/25/03 13:56 | 09/27/03 23:11 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| [redacted]ic | ND J | 5 | mg/L | 0.50 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 02:08 | SRO | |
| [redacted]um | ND | 100 | mg/L | 0.20 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 02:08 | SRO | |

Workorder: 3034143 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034143002 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | S-32664-092403-SM-065 | **Location:** | |
| **Collected:** | 09/24/2003 09:08 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/25/2003 09:15 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Cadmium | ND | 1 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 02:08 | SRO | |
| Chromium | ND | 5 | mg/L | 0.30 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 02:08 | SRO | |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/26/03 11:58 | 09/26/03 16:00 | PSK | |
| Lead | ND | 5 | mg/L | 0.20 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 02:08 | SRO | |
| Selenium | ND | 1 | mg/L | 0.80 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 02:08 | SRO | |
| Silver | ND M | 5 | mg/L | 0.20 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 02:08 | SRO | |

Order: 3034143 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034143003 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-092403-SM-066 | **Location:** | |
| **Collected:** | 09/24/2003 09:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/25/2003 09:15 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).
8260: Sample was diluted due to matrix interference; surrogates outside QC Acceptance Criteria.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/26/03 10:18 | 09/26/03 10:50 | MAH | 1 |
| Reactive Sulfide | ND | | mg/Kg | 50 | SW-846 7.3.4.2[1] | 09/26/03 10:56 | 09/26/03 10:58 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 09/29/03 09:18 | SKP | 1 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 09/26/03 12:35 | WD | 1 |
| pH | 10.5 | | S.U. | | SW-846 9040B | | 09/29/03 09:18 | SKP | 1 |
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,1,1-Trichloroethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,1,2,2-Tetrachloroethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,1,2-Trichloro-1,2,2-fluoroet | ND D,M | | ug/L | 150 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,1,2-Trichloroethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,1-Dichloroethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,1-Dichloroethene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,1-Dichloropropene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,2,3-Trichlorobenzene | ND D,M | | ug/L | 250 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,2,3-Trichloropropane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,2,4-Trichlorobenzene | ND D,M | | ug/L | 250 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,2,4-Trimethylbenzene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,2-Dibromo-3-chloropropane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,2-Dibromoethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,2-Dichlorobenzene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,2-Dichloroethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,2-Dichloropropane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,3,5-Trimethylbenzene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,3-Dichlorobenzene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |

Workorder: 3034143 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034143003 | Matrix: | Aqueous |
| Client Sample ID: | L-32664-092403-SM-066 | Location: | |
| Collected: | 09/24/2003 09:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/25/2003 09:15 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,3-Dichloropropane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 1,4-Dichlorobenzene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 2,2-Dichloropropane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 2-Butanone ( M E K ) | ND D,M | | ug/L | 1300 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 2-Chloroethylvinyl ether | ND D,M | | ug/L | 500 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 2-Chlorotoluene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 2-Hexanone | ND D,M | | ug/L | 2500 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 2-Methylnaphthalene | ND D,M | | ug/L | 250 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 4-Chlorotoluene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 4-Isopropyltoluene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| 4-Methyl-2-pentanone ( MIBK ) | ND D,M | | ug/L | 2500 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Acetone | ND D,M | | ug/L | 1300 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Acrolein (2-Propenal) | ND D,M | | ug/L | 250 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Acrylonitrile | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Allyl chloride | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Benzene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Bromobenzene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Bromochloromethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Bromodichloromethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Bromoform | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Bromomethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Carbon disulfide | ND D,M | | ug/L | 250 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Carbon tetrachloride | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Chlorobenzene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Chloroethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Chloroform | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Chloromethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| cis-1,2-Dichloroethene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| cis-1,3-Dichloropropene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Dibromochloromethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Dibromomethane | ND D,M | | ug/L | 250 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |

Order: 3034143 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034143003 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-092403-SM-066 | **Location:** | |
| **Collected:** | 09/24/2003 09:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/25/2003 09:15 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS VOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Dichlorodifluoromethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Diethyl Ether | ND D,M | | ug/L | 500 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Diisopropyl ether | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Ethylbenzene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Hexachlorobutadiene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Hexachloroethane | ND D,M | | ug/L | 250 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Isopropylbenzene | ND D,M | | ug/L | 250 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Methyl Iodide | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Methyl-t-butyl ether | ND D,M | | ug/L | 250 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Methylene chloride | ND D,M | | ug/L | 250 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| [illegible]tylbenzene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| n-Propylbenzene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Naphthalene | ND D,M | | ug/L | 250 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| o-Xylene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| P & M -Xylene | ND D,M | | ug/L | 100 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| sec-Butylbenzene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Styrene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| tert-Butylbenzene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Tetrachloroethene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Tetrahydrofuran | ND D,M | | ug/L | 5000 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Toluene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| trans-1,2-Dichloroethene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| trans-1,3-Dichloropropene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| trans-1,4-Dichloro-2-Butene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Trichloroethene | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Trichlorofluoromethane | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Vinyl acetate | ND D,M | | ug/L | 2500 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |
| Vinyl chloride | ND D,M | | ug/L | 50 | SW-846 8260B / SW-846 5030B | 09/29/03 08:00 | 09/29/03 12:37 | JEH | 2 |

**[illegible]/MS SEMIVOLATILE ORGANIC ANALYSIS**

Workorder: 3034143 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034143003 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-092403-SM-066 | **Location:** | |
| **Collected:** | 09/24/2003 09:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/25/2003 09:15 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 1,2-Dichlorobenzene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 1,3-Dichlorobenzene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 1,4-Dichlorobenzene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 2,4,5-Trichlorophenol | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 2,4,6-Trichlorophenol | ND | | ug/L | 160 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 2,4-Dichlorophenol | ND | | ug/L | 400 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 2,4-Dimethylphenol | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 2,4-Dinitrophenol | ND | | ug/L | 800 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 2,4-Dinitrotoluene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 2,6-Dinitrotoluene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 2-Chloronaphthalene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 2-Chlorophenol | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 2-Methylnaphthalene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 2-Methyl-4,6-dinitrophenol | ND | | ug/L | 800 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 2-Methylphenol (o-Cresol) | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 2-Nitroaniline | ND | | ug/L | 800 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 2-Nitrophenol | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 3&4-Methylphenol (p&m-Cresol) | ND | | ug/L | 400 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 3,3-Dichlorobenzidine | ND | | ug/L | 800 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 3-Nitroaniline | ND | | ug/L | 800 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 4-Bromophenyl phenyl ether | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 4-Chloro-3-methylphenol | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 4-Chloroaniline | ND | | ug/L | 800 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 4-Chlorophenyl phenyl ether | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 4-Nitroaniline | ND | | ug/L | 800 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| 4-Nitrophenol | ND | | ug/L | 800 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Acenaphthene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Acenaphthylene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Anthracene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Benzo(a)anthracene | ND | | ug/L | 40 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |

Workorder: 3034143 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034143003 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-092403-SM-066 | **Location:** | |
| **Collected:** | 09/24/2003 09:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/25/2003 09:15 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Benzo[a]pyrene | ND | | ug/L | 80 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Benzo[b]fluoranthene | ND | | ug/L | 80 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Benzo[g,h,i]perylene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Benzo[k]fluoranthene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Bis(2-chloroethoxy)methane | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Bis(2-chloroethyl) ether | ND | | ug/L | 80 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Bis(2-chloroisopropyl) ether | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Bis(2-ethylhexyl) phthalate | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Butyl benzyl phthalate | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Carbazole | ND | | ug/L | 400 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| [redacted]ene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Di-n-butylphthalate | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| di-n-Octylphthalate | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Dibenzo[a,h]anthracene | ND | | ug/L | 80 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Dibenzofuran | ND | | ug/L | 160 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Diethylphthalate | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Dimethylphthalate | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Fluoranthene | ND | | ug/L | 80 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Fluorene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Hexachlorobenzene | ND | | ug/L | 400 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Hexachlorobutadiene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Hexachlorocyclopentadiene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Hexachloroethane | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Indeno[1,2,3-c,d] pyrene | ND | | ug/L | 80 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Isophorone | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| N-Nitrosodi-n-propylamine | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| N-Nitrosodiphenylamine | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Naphthalene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Nitrobenzene | ND | | ug/L | 80 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| [redacted]hlorophenol | ND | | ug/L | 800 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Phenanthrene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |

Workorder: 3034143 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034143003 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-092403-SM-066 | **Location:** | |
| **Collected:** | 09/24/2003 09:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/25/2003 09:15 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC/MS SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Phenol | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Pyrene | ND | | ug/L | 200 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| Pyridine | ND | | ug/L | 2000 | SW-846 8270C / SW-846 3510C | 09/25/03 16:02 | 09/25/03 19:32 | BPJ | 2 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:51 | ESA | 1 |
| Aroclor-1221 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:51 | ESA | 1 |
| Aroclor-1232 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:51 | ESA | 1 |
| Aroclor-1242 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:51 | ESA | 1 |
| Aroclor-1248 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:51 | ESA | 1 |
| Aroclor-1254 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:51 | ESA | 1 |
| Aroclor-1260 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:51 | ESA | 1 |
| Aroclor-1262 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:51 | ESA | 1 |
| Aroclor-1268 | ND | | ug/L | 4.0 | SW-846 8082 / SW-846 3510C | 09/25/03 16:04 | 09/27/03 02:51 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 1.3 J | 5 | mg/L | 0.25 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 02:17 | SRO | |
| Barium | 3.9 | 100 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 02:17 | SRO | |
| Cadmium | 0.21 J | 1 | mg/L | 0.050 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 02:17 | SRO | |
| Chromium | 0.91 | 5 | mg/L | 0.15 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 02:17 | SRO | |
| Mercury | 0.014 | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/26/03 11:58 | 09/26/03 16:13 | PSK | |
| Lead | 0.16 J | 5 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 02:17 | SRO | |
| Selenium | ND | 1 | mg/L | 0.40 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 02:17 | SRO | |
| Silver | 0.26 J | 5 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 09/27/03 12:40 | 09/29/03 02:17 | SRO | |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4863 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Aqueous | **Date** | 09/28/2003 |
| | | **By** | JDS |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 336547 | MS | 103 | 106 | 115 | 110 |
| 336548 | MSD | 103 | 116 | 114 | 100 |
| 336550 | MB | 101 | 103 | 106 | 99.7 |
| 336551 | LCS | 101 | 108 | 108 | 101 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybil, Inc. | **Batch** | VMS 4870 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Aqueous | **Date** | 09/29/2003 |
| | | **By** | JEH |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3034143003 PS | 107 | 123 | 116 | 112 |
| 336684 MB | 104 | 106 | 113 | 103 |
| 336685 LCS | 104 | 107 | 112 | 105 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | VMS 4859 | |
| | | **Method** | SW-846 8260B | |
| **Matrix** | Non Aqueous Liquid | **Instrument** | HP 5972 Series | INSTRU H |
| | | **Date** | 09/27/2003 | |
| | | **By** | JEH | |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3034143002 | PS | 91.7 | 96.7 | 94.7 | 92.9 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 80-124 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 87-117 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 74-123 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 92-113 )** |

## SURROGATE SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4859 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Solid | **Date** | 09/27/2003 |
| | | **By** | JEH |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 336440 LCS | 96.2 | 97.2 | 98.9 | 94.2 |
| 336441 MB | 91.1 | 99.8 | 100 | 94 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 80-124 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 87-117 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 74-123 )** |
| [illegible] | = | **Toluene-d8 Surr** | **( 92-113 )** |

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4852 | |
| | | **Method** | SW-846 8260B | |
| **Matrix** | Aqueous | **Instrument** | HP 5972 Series | INSTRU Q |
| | | **Date** | 09/25/2003 | |
| | | **By** | JDS | |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3034143001 PS | 92 | 46 | 85.4 | 96.9 |
| 336197 LCS | 93.5 | 97.9 | 88.7 | 92.3 |
| 336198 MB | 94 | 92.5 | 89.2 | 94.5 |
| 336254 MS | 92.9 | 3 | 84.5 | 91.7 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336440 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4859 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | H0927_03.D | **Date** | 09/27/2003 |
| | | **By** | JEH |

QC results affect the following production samples:

3034143002

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 2500 | 2300 | 93 | | | ( 69-117 ) | | |
| 1,1,1-Trichloroethane | 2500 | 2400 | 94 | | | ( 62-124 ) | | |
| 1,1,2,2-Tetrachloroethane | 2500 | 2100 | 84 | | | ( 64-127 ) | | |
| [illegible]-Trichloroethane | 2500 | 2100 | 84 | | | ( 73-116 ) | | |
| [illegible]ichloroethane | 2500 | 2200 | 89 | | | ( 73-113 ) | | |
| 1,1-Dichloroethene | 2500 | 2500 | 99 | | | ( 57-133 ) | | |
| 1,1-Dichloropropene | 2500 | 2300 | 94 | | | ( 78-118 ) | | |
| 1,2,3-Trichlorobenzene | 2500 | 2300 | 93 | | | ( 71-127 ) | | |
| 1,2,3-Trichloropropane | 2500 | 2200 | 88 | | | ( 58-122 ) | | |
| 1,2,4-Trichlorobenzene | 2500 | 2300 | 92 | | | ( 72-128 ) | | |
| 1,2,4-Trimethylbenzene | 2500 | 2100 | 85 | | | ( 89-114 ) | | |
| 1,2-Dibromo-3-chloropropane | 2500 | 2200 | 89 | | | ( 52-136 ) | | |
| 1,2-Dibromoethane | 2500 | 2200 | 88 | | | ( 69-123 ) | | |
| 1,2-Dichlorobenzene | 2500 | 2300 | 91 | | | ( 70-125 ) | | |
| 1,2-Dichloroethane | 2500 | 2400 | 97 | | | ( 55-120 ) | | |
| 1,2-Dichloropropane | 2500 | 2100 | 86 | | | ( 77-116 ) | | |
| 1,3,5-Trimethylbenzene | 2500 | 2100 | 86 | | | ( 77-123 ) | | |
| 1,3-Dichlorobenzene | 2500 | 2200 | 89 | | | ( 75-121 ) | | |
| 1,3-Dichloropropane | 2500 | 2100 | 86 | | | ( 78-114 ) | | |
| 1,4-Dichlorobenzene | 2500 | 2200 | 89 | | | ( 73-117 ) | | |
| 2,2-Dichloropropane | 2500 | 2400 | 96 | | | ( 71-116 ) | | |
| 2-Butanone ( M E K ) | 2500 | 2200 | 89 | | | ( 48-168 ) | | |
| 2-Chloroethylvinyl ether | 2500 | ND | 69 | | | ( 64-138 ) | | |
| 2-Chlorotoluene | 2500 | 2200 | 87 | | | ( 84-115 ) | | |
| 2-Hexanone | 2500 | 2300 | 92 | | | ( 50-170 ) | | |
| 2-Methylnaphthalene | 2500 | 1200 | 48 | | | ( 40-155 ) | | |
| [illegible]protoluene | 2500 | 2200 | 88 | | | ( 82-121 ) | | |
| [illegible]sopropyltoluene | 2500 | 2100 | 82 | | | ( 85-129 ) | | |
| 4-Methyl-2-pentanone ( MIBK ) | 2500 | 2200 | 90 | | | ( 53-138 ) | | |
| Acetone | 2500 | 2100 | 84 | | | ( 39-197 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336440 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | | **Batch** | VMS 4859 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B | |
| **Project** | Project 32864 Sybill, Inc. | | | |
| **File** | H0927_03.D | **Date** | 09/27/2003 | |
| | | **By** | JEH | |

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Acrolein (2-Propenal) | 2500 | 5100 | 202 | | | ( -240-611 ) | | |
| Acrylonitrile | 2500 | 1900 | 76 | | | ( 59-124 ) | | |
| Allyl chloride | 2500 | 2300 | 91 | | | ( 74-117 ) | | |
| Benzene | 2500 | 2100 | 85 | | | ( 74-122 ) | | |
| Bromobenzene | 2500 | 2100 | 85 | | | ( 77-123 ) | | |
| Bromochloromethane | 2500 | 2200 | 87 | | | ( 71-117 ) | | |
| Bromodichloromethane | 2500 | 2300 | 92 | | | ( 67-122 ) | | |
| Bromoform | 2500 | 2400 | 95 | | | ( 53-136 ) | | |
| Bromomethane | 2500 | 2400 | 94 | | | ( 25-170 ) | | |
| Carbon disulfide | 2500 | 2000 | 79 | | | ( 50-133 ) | | |
| Carbon tetrachloride | 2500 | 2300 | 92 | | | ( 63-133 ) | | |
| Chlorobenzene | 2500 | 2300 | 91 | | | ( 74-122 ) | | |
| Chloroethane | 2500 | 2300 | 90 | | | ( 49-132 ) | | |
| Chloroform | 2500 | 2300 | 91 | | | ( 67-114 ) | | |
| Chloromethane | 2500 | 2500 | 100 | | | ( 60-115 ) | | |
| cis-1,2-Dichloroethene | 2500 | 2200 | 87 | | | ( 79-110 ) | | |
| cis-1,3-Dichloropropene | 2500 | 2300 | 91 | | | ( 70-131 ) | | |
| Dibromochloromethane | 2500 | 2500 | 99 | | | ( 68-126 ) | | |
| Dibromomethane | 2500 | 2200 | 90 | | | ( 64-127 ) | | |
| Dichlorodifluoromethane | 2500 | 2400 | 97 | | | ( 27-129 ) | | |
| Diethyl Ether | 2500 | 2100 | 85 | | | ( 54-125 ) | | |
| Diisopropyl ether | 2500 | 1800 | 74 | | | ( 66-107 ) | | |
| Ethylbenzene | 2500 | 2200 | 87 | | | ( 78-124 ) | | |
| Hexachlorobutadiene | 2500 | 2200 | 88 | | | ( 64-135 ) | | |
| Hexachloroethane | 2500 | 2100 | 83 | | | ( 85-137 ) | | |
| Isopropylbenzene | 2500 | 2200 | 90 | | | ( 71-138 ) | | |
| Methyl Iodide | 2500 | 2200 | 90 | | | ( 45-130 ) | | |
| Methyl-t-butyl ether | 2500 | 2100 | 85 | | | ( 63-119 ) | | |
| Methylene chloride | 2500 | 1900 | 77 | | | ( 69-119 ) | | |
| n-Butylbenzene | 2500 | 2000 | 78 | | | ( 82-131 ) | | |
| n-Propylbenzene | 2500 | 2200 | 88 | | | ( 75-136 ) | | |
| Naphthalene | 2500 | 2300 | 92 | | | ( 62-140 ) | | |
| o-Xylene | 2500 | 2300 | 91 | | | ( 68-127 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336440 | Lab Control Spike | | |
| **Prep Batch** | | | **Analysis Batch** | VMS 4859 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | H0927_03.D | | **Date** | 09/27/2003 |
| | | | **By** | JEH |

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| P & M -Xylene | 5000 | 4600 | 92 | | | ( 73-131 ) | | |
| sec-Butylbenzene | 2500 | 2100 | 82 | | | ( 72-137 ) | | |
| Styrene | 2500 | 2300 | 90 | | | ( 70-123 ) | | |
| tert-Butylbenzene | 2500 | 2100 | 86 | | | ( 82-121 ) | | |
| Tetrachloroethene | 2500 | 2100 | 84 | | | ( 51-134 ) | | |
| Tetrahydrofuran | 2500 | 2100 | 83 | | | ( 52-117 ) | | |
| [illegible]ne | 2500 | 2100 | 85 | | | ( 73-127 ) | | |
| trans-1,2-Dichloroethene | 2500 | 2300 | 94 | | | ( 74-116 ) | | |
| trans-1,3-Dichloropropene | 2500 | 2500 | 100 | | | ( 68-125 ) | | |
| trans-1,4-Dichloro-2-Butene | 2500 | 2500 | 102 | | | ( 61-130 ) | | |
| Trichloroethene | 2500 | 2200 | 89 | | | ( 70-121 ) | | |
| Trichlorofluoromethane | 2500 | 2600 | 106 | | | ( 47-132 ) | | |
| Vinyl acetate | 2500 | 2600 | 104 | | | ( 35-130 ) | | |
| Vinyl chloride | 2500 | 2300 | 93 | | | ( 60-125 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336551 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4863 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | Q0927_39.D | **Date** | 09/28/2003 |
| | | **By** | JDS |

QC results affect the following production samples:

336547, 336548

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 20 | 22 | 112 | | | ( 84-116 ) | | |
| 1,1,1-Trichloroethane | 20 | 22 | 111 | | | ( 83-118 ) | | |
| 1,1,2,2-Tetrachloroethane | 20 | 22 | 108 | | | ( 75-121 ) | | |
| 1,1,2-Trichloroethane | 20 | 22 | 108 | | | ( 82-111 ) | | |
| 1,1-Dichloroethane | 20 | 22 | 110 | | | ( 84-115 ) | | |
| 1,1-Dichloroethene | 20 | 24 | 120 | | | ( 86-121 ) | | |
| 1,1-Dichloropropene | 20 | 21 | 106 | | | ( 80-109 ) | | |
| 1,2,3-Trichlorobenzene | 20 | 22 | 112 | | | ( 83-128 ) | | |
| 1,2,3-Trichloropropane | 20 | 22 | 108 | | | ( 72-117 ) | | |
| 1,2,4-Trichlorobenzene | 20 | 22 | 108 | | | ( 79-134 ) | | |
| 1,2,4-Trimethylbenzene | 20 | 21 | 103 | | | ( 79-122 ) | | |
| 1,2-Dibromo-3-chloropropane | 20 | 20 | 102 | | | ( 69-120 ) | | |
| 1,2-Dibromoethane | 20 | 22 | 110 | | | ( 85-112 ) | | |
| 1,2-Dichlorobenzene | 20 | 22 | 108 | | | ( 84-124 ) | | |
| 1,2-Dichloroethane | 20 | 22 | 112 | | | ( 77-114 ) | | |
| 1,2-Dichloropropane | 20 | 21 | 104 | | | ( 81-109 ) | | |
| 1,3,5-Trimethylbenzene | 20 | 21 | 103 | | | ( 81-127 ) | | |
| 1,3-Dichlorobenzene | 20 | 22 | 109 | | | ( 82-124 ) | | |
| 1,3-Dichloropropane | 20 | 22 | 108 | | | ( 82-110 ) | | |
| 1,4-Dichlorobenzene | 20 | 21 | 106 | | | ( 83-120 ) | | |
| 2,2-Dichloropropane | 20 | 20 | 98 | | | ( 64-130 ) | | |
| 2-Butanone ( M E K ) | 20 | ND | 110 | | | ( 63-131 ) | | |
| 2-Chloroethylvinyl ether | 20 | 21 | 107 | | | ( -1600-2240 ) | | |
| 2-Chlorotoluene | 20 | 21 | 105 | | | ( 78-119 ) | | |
| 2-Hexanone | 20 | ND | 111 | | | ( 58-139 ) | | |
| 2-Methylnaphthalene | 20 | 26 | 129 | | | ( 49-160 ) | | |
| 4-Chlorotoluene | 20 | 21 | 106 | | | ( 80-123 ) | | |
| 4-Isopropyltoluene | 20 | 21 | 107 | | | ( 80-124 ) | | |
| 4-Methyl-2-pentanone ( MIBK ) | 20 | ND | 114 | | | ( 59-131 ) | | |
| Acetone | 20 | ND | 108 | | | ( 56-134 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336551 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | | **Batch** | VMS 4863 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | Q0927_39.D | **Date** | 09/28/2003 | |
| | | **By** | JDS | |

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Acrolein (2-Propenal) | 20 | ND | 0 | | | ( -240-645 ) | | |
| Acrylonitrile | 20 | 22 | 108 | | | ( 71-118 ) | | |
| Allyl chloride | 20 | 21 | 107 | | | ( 79-117 ) | | |
| Benzene | 20 | 21 | 103 | | | ( 87-112 ) | | |
| Bromobenzene | 20 | 20 | 102 | | | ( 78-124 ) | | |
| Bromochloromethane | 20 | 22 | 109 | | | ( 82-116 ) | | |
| [illegible]dichloromethane | 20 | 21 | 107 | | | ( 88-120 ) | | |
| Bromoform | 20 | 21 | 106 | | | ( 82-119 ) | | |
| Bromomethane | 20 | 28 | 142 | | | ( 56-152 ) | | |
| Carbon disulfide | 20 | 19 | 94 | | | ( 57-107 ) | | |
| Carbon tetrachloride | 20 | 21 | 105 | | | ( 80-124 ) | | |
| Chlorobenzene | 20 | 21 | 104 | | | ( 85-117 ) | | |
| Chloroethane | 20 | 23 | 115 | | | ( 76-124 ) | | |
| Chloroform | 20 | 21 | 107 | | | ( 83-113 ) | | |
| Chloromethane | 20 | 24 | 122 | | | ( 47-139 ) | | |
| cis-1,2-Dichloroethene | 20 | 22 | 108 | | | ( 81-111 ) | | |
| cis-1,3-Dichloropropene | 20 | 21 | 107 | | | ( 83-114 ) | | |
| Dibromochloromethane | 20 | 22 | 110 | | | ( 82-128 ) | | |
| Dibromomethane | 20 | 21 | 105 | | | ( 87-118 ) | | |
| Dichlorodifluoromethane | 20 | 31 | 157 | | | ( 40-184 ) | | |
| Diethyl Ether | 20 | 22 | 109 | | | ( 79-115 ) | | |
| Diisopropyl ether | 20 | 18 | 89 | | | ( 61-106 ) | | |
| Ethylbenzene | 20 | 21 | 104 | | | ( 88-116 ) | | |
| Hexachlorobutadiene | 20 | 21 | 106 | | | ( 70-123 ) | | |
| Hexachloroethane | 20 | 20 | 98 | | | ( 76-118 ) | | |
| Isopropylbenzene | 20 | 21 | 106 | | | ( 78-130 ) | | |
| Methyl Iodide | 20 | 30 | 151 | | | ( 46-145 ) | | |
| Methyl-t-butyl ether | 20 | 21 | 107 | | | ( 79-113 ) | | |
| [illegible]thylene chloride | 20 | 21 | 104 | | | ( 72-125 ) | | |
| [illegible]ylbenzene | 20 | 21 | 107 | | | ( 82-127 ) | | |
| n-Propylbenzene | 20 | 22 | 108 | | | ( 80-126 ) | | |
| Naphthalene | 20 | 22 | 111 | | | ( 82-127 ) | | |
| o-Xylene | 20 | 21 | 107 | | | ( 88-123 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336551 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | | **Batch** | VMS 4863 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | Q0927_39.D | **Date** | 09/28/2003 | |
| | | **By** | JDS | |

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| P & M -Xylene | 40 | 42 | 105 | | | ( 81-125 ) | | |
| sec-Butylbenzene | 20 | 22 | 108 | | | ( 83-124 ) | | |
| Styrene | 20 | 22 | 110 | | | ( 88-114 ) | | |
| tert-Butylbenzene | 20 | 21 | 107 | | | ( 78-125 ) | | |
| Tetrachloroethene | 20 | 25 | 123 | | | ( 59-148 ) | | |
| Tetrahydrofuran | 20 | ND | 113 | | | ( 72-117 ) | | |
| Toluene | 20 | 20 | 102 | | | ( 89-115 ) | | |
| trans-1,2-Dichloroethene | 20 | 23 | 116 | | | ( 86-115 ) | | |
| trans-1,3-Dichloropropene | 20 | 23 | 115 | | | ( 85-124 ) | | |
| trans-1,4-Dichloro-2-Butene | 20 | 22 | 111 | | | ( 71-139 ) | | |
| Trichloroethene | 20 | 22 | 108 | | | ( 83-111 ) | | |
| Trichlorofluoromethane | 20 | 25 | 125 | | | ( 77-127 ) | | |
| Vinyl acetate | 20 | ND | 102 | | | ( 16-192 ) | | |
| Vinyl chloride | 20 | 26 | 128 | | | ( 68-133 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336685 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4870 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32684 Sybill, Inc. | | |
| **File** | Q0929_03.D | **Date** | 09/29/2003 |
| | | **By** | JEH |

QC results affect the following production samples:

3034143003

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 20 | 21 | 105 | | | ( 84-116 ) | | |
| 1,1,1-Trichloroethane | 20 | 21 | 103 | | | ( 83-118 ) | | |
| 1,1,2,2-Tetrachloroethane | 20 | 23 | 113 | | | ( 75-121 ) | | |
| 1,1,2-Trichloroethane | 20 | 21 | 103 | | | ( 82-111 ) | | |
| 1,1-Dichloroethane | 20 | 20 | 101 | | | ( 84-115 ) | | |
| 1,1-Dichloroethene | 20 | 22 | 112 | | | ( 86-121 ) | | |
| 1,1-Dichloropropene | 20 | 20 | 101 | | | ( 80-109 ) | | |
| 1,2,3-Trichlorobenzene | 20 | 21 | 104 | | | ( 83-128 ) | | |
| 1,2,3-Trichloropropane | 20 | 21 | 107 | | | ( 72-117 ) | | |
| 1,2,4-Trichlorobenzene | 20 | 21 | 104 | | | ( 79-134 ) | | |
| 1,2,4-Trimethylbenzene | 20 | 20 | 101 | | | ( 79-122 ) | | |
| 1,2-Dibromo-3-chloropropane | 20 | 21 | 103 | | | ( 69-120 ) | | |
| 1,2-Dibromoethane | 20 | 20 | 102 | | | ( 85-112 ) | | |
| 1,2-Dichlorobenzene | 20 | 22 | 108 | | | ( 84-124 ) | | |
| 1,2-Dichloroethane | 20 | 22 | 112 | | | ( 77-114 ) | | |
| 1,2-Dichloropropane | 20 | 20 | 100 | | | ( 81-109 ) | | |
| 1,3,5-Trimethylbenzene | 20 | 20 | 102 | | | ( 81-127 ) | | |
| 1,3-Dichlorobenzene | 20 | 22 | 109 | | | ( 82-124 ) | | |
| 1,3-Dichloropropane | 20 | 21 | 104 | | | ( 82-110 ) | | |
| 1,4-Dichlorobenzene | 20 | 21 | 107 | | | ( 83-120 ) | | |
| 2,2-Dichloropropane | 20 | 21 | 107 | | | ( 64-130 ) | | |
| 2-Butanone ( M E K ) | 20 | ND | 103 | | | ( 63-131 ) | | |
| 2-Chloroethylvinyl ether | 20 | 45 | 227 | | | ( -1600-2240 ) | | |
| 2-Chlorotoluene | 20 | 21 | 105 | | | ( 78-119 ) | | |
| 2-Hexanone | 20 | ND | 114 | | | ( 58-139 ) | | |
| 2-Methylnaphthalene | 20 | 23 | 115 | | | ( 49-160 ) | | |
| 4-Chlorotoluene | 20 | 22 | 108 | | | ( 80-123 ) | | |
| 4-Isopropyltoluene | 20 | 21 | 107 | | | ( 80-124 ) | | |
| 4-Methyl-2-pentanone ( MIBK ) | 20 | ND | 114 | | | ( 59-131 ) | | |
| Acetone | 20 | ND | 100 | | | ( 56-134 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336885 Lab Control Spike | | |
| **Prep Batch** | | **Analysis Batch** | VMS 4870 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | Q0929_03.D | **Date** | 09/29/2003 |
| | | **By** | JEH |

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Acrolein (2-Propenal) | 20 | ND | 0 | | | ( -240-645 ) | | |
| Acrylonitrile | 20 | 20 | 99 | | | ( 71-118 ) | | |
| Allyl chloride | 20 | 19 | 98 | | | ( 79-117 ) | | |
| Benzene | 20 | 19 | 97 | | | ( 87-112 ) | | |
| Bromobenzene | 20 | 20 | 99 | | | ( 78-124 ) | | |
| Bromochloromethane | 20 | 19 | 97 | | | ( 82-116 ) | | |
| Bromodichloromethane | 20 | 21 | 106 | | | ( 88-120 ) | | |
| Bromoform | 20 | 21 | 103 | | | ( 82-119 ) | | |
| Bromomethane | 20 | 27 | 134 | | | ( 56-152 ) | | |
| Carbon disulfide | 20 | 17 | 86 | | | ( 57-107 ) | | |
| Carbon tetrachloride | 20 | 20 | 102 | | | ( 80-124 ) | | |
| Chlorobenzene | 20 | 20 | 101 | | | ( 85-117 ) | | |
| Chloroethane | 20 | 22 | 112 | | | ( 76-124 ) | | |
| Chloroform | 20 | 20 | 98 | | | ( 83-113 ) | | |
| Chloromethane | 20 | 21 | 104 | | | ( 47-139 ) | | |
| cis-1,2-Dichloroethene | 20 | 20 | 99 | | | ( 81-111 ) | | |
| cis-1,3-Dichloropropene | 20 | 21 | 106 | | | ( 83-114 ) | | |
| Dibromochloromethane | 20 | 21 | 105 | | | ( 82-128 ) | | |
| Dibromomethane | 20 | 20 | 101 | | | ( 87-118 ) | | |
| Dichlorodifluoromethane | 20 | 30 | 152 | | | ( 40-184 ) | | |
| Diethyl Ether | 20 | 20 | 101 | | | ( 79-115 ) | | |
| Diisopropyl ether | 20 | 16 | 81 | | | ( 61-106 ) | | |
| Ethylbenzene | 20 | 20 | 102 | | | ( 88-116 ) | | |
| Hexachlorobutadiene | 20 | 20 | 99 | | | ( 70-123 ) | | |
| Hexachloroethane | 20 | 19 | 94 | | | ( 76-118 ) | | |
| Isopropylbenzene | 20 | 21 | 104 | | | ( 78-130 ) | | |
| Methyl Iodide | 20 | 21 | 103 | | | ( 46-145 ) | | |
| Methyl-t-butyl ether | 20 | 20 | 98 | | | ( 79-113 ) | | |
| Methylene chloride | 20 | 19 | 97 | | | ( 72-125 ) | | |
| n-Butylbenzene | 20 | 22 | 112 | | | ( 82-127 ) | | |
| n-Propylbenzene | 20 | 22 | 109 | | | ( 80-126 ) | | |
| Naphthalene | 20 | 22 | 109 | | | ( 82-127 ) | | |
| o-Xylene | 20 | 21 | 106 | | | ( 86-123 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336685 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | | **Batch** | VMS 4870 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8260B | |
| **Project** | Project 32684 Sybill, Inc. | | | |
| **File** | Q0929_03.D | **Date** | 09/29/2003 | |
| | | **By** | JEH | |

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| P & M -Xylene | 40 | 41 | 101 | | | ( 81-125 ) | | |
| sec-Butylbenzene | 20 | 22 | 108 | | | ( 83-124 ) | | |
| Styrene | 20 | 22 | 108 | | | ( 88-114 ) | | |
| tert-Butylbenzene | 20 | 21 | 105 | | | ( 78-125 ) | | |
| Tetrachloroethene | 20 | 18 | 89 | | | ( 59-148 ) | | |
| Tetrahydrofuran | 20 | ND | 105 | | | ( 72-117 ) | | |
| [illegible]ne | 20 | 20 | 99 | | | ( 89-115 ) | | |
| trans-1,2-Dichloroethene | 20 | 21 | 105 | | | ( 86-115 ) | | |
| trans-1,3-Dichloropropene | 20 | 23 | 117 | | | ( 85-124 ) | | |
| trans-1,4-Dichloro-2-Butene | 20 | 24 | 122 | | | ( 71-139 ) | | |
| Trichloroethene | 20 | 20 | 101 | | | ( 83-111 ) | | |
| Trichlorofluoromethane | 20 | 25 | 124 | | | ( 77-127 ) | | |
| Vinyl acetate | 20 | ND | 106 | | | ( 16-192 ) | | |
| Vinyl chloride | 20 | 23 | 113 | | | ( 68-133 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336197 Lab Control Spike | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4852 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU Q |
| **File** | Q0925_04.D | | **Date** | 09/25/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3034143001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.20 | 102 | | | ( 86-121 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.19 | 96 | | | ( 77-114 ) | | |
| 1,4-Dichlorobenzene | 0.2 | 0.19 | 97 | | | ( 83-120 ) | | |
| 2-Butanone ( M E K ) | 0.2 | 0.20 | 100 | | | ( 63-131 ) | | |
| Benzene | 0.2 | 0.19 | 94 | | | ( 87-112 ) | | |
| Carbon tetrachloride | 0.2 | 0.18 | 92 | | | ( 80-124 ) | | |
| Chlorobenzene | 0.2 | 0.19 | 96 | | | ( 85-117 ) | | |
| Chloroform | 0.2 | 0.18 | 92 | | | ( 83-113 ) | | |
| Tetrachloroethene | 0.2 | 0.16 | 78 | | | ( 59-148 ) | | |
| Trichloroethene | 0.2 | 0.19 | 93 | | | ( 83-111 ) | | |
| Vinyl chloride | 0.2 | 0.23 | 115 | | | ( 68-133 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336547 Matrix Spike | | |
| | 336548 Matrix Spike Duplicate | **Analysis** | |
| **Prep Batch** | VXX 3749 | **Batch** | VMS 4863 |
| **Original** | 3034076008 | **Method** | SW-846 8260B |
| **Client** | Conestoga-Rovers & Associates | | |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/28/2003 |
| **File** | Q0927_61.D | **By** | JDS |
| | Q0927_62.D | | |

QC results affect the following production samples:

3034143003

| Analyte | MS, MSD Spike Added ug/L | Sample Conc. ug/L | MS Concentration ug/L | MS Recovery % | MSD Concentration ug/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 20, 20 | | 18 | 92 | 21 | 104 | ( 85-115 ) | 12 | (< 11 ) |
| 1,1,1-Trichloroethane | 20, 20 | ND | 21 | 105 | 23 | 113 | ( 79-122 ) | 8 | (< 12 ) |
| 1,1,2,2-Tetrachloroethane | 20, 20 | ND | 21 | 103 | 21 | 105 | ( 68-127 ) | 3 | (< 16 ) |
| 1,1,2-Trichloroethane | 20, 20 | ND | 18 | 90 | 20 | 99 | ( 75-116 ) | 10 | (< 11 ) |
| 1,1-Dichloroethane | 20, 20 | 3.3 | 23 | 101 | 25 | 111 | ( 77-122 ) | 8 | (< 11 ) |
| 1,1-Dichloroethene | 20, 20 | | 23 | 114 | 24 | 120 | ( 80-123 ) | 5 | (< 14 ) |
| 1,1-Dichloropropene | 20, 20 | | 19 | 97 | 20 | 100 | ( 77-118 ) | 3 | (< 13 ) |
| 1,2,3-Trichlorobenzene | 20, 20 | | 16 | 80 | 19 | 94 | ( 70-113 ) | 16 | (< 20 ) |
| 1,2,3-Trichloropropane | 20, 20 | ND | 19 | 97 | 20 | 100 | ( 83-115 ) | 3 | (< 18 ) |
| 1,2,4-Trichlorobenzene | 20, 20 | | 16 | 80 | 18 | 92 | ( 72-110 ) | 14 | (< 19 ) |
| 1,2,4-Trimethylbenzene | 20, 20 | | 18 | 92 | 19 | 93 | ( 82-107 ) | 1 | (< 18 ) |
| 1,2-Dibromo-3-chloropropane | 20, 20 | | 17 | 84 | 18 | 91 | ( 58-127 ) | 8 | (< 23 ) |
| 1,2-Dibromoethane | 20, 20 | | 18 | 91 | 20 | 99 | ( 82-114 ) | 9 | (< 11 ) |
| 1,2-Dichlorobenzene | 20, 20 | | 19 | 96 | 20 | 100 | ( 79-116 ) | 4 | (< 14 ) |
| 1,2-Dichloroethane | 20, 20 | ND | 22 | 108 | 22 | 108 | ( 82-114 ) | 1 | (< 11 ) |
| 1,2-Dichloropropane | 20, 20 | | 19 | 96 | 20 | 99 | ( 79-114 ) | 3 | (< 12 ) |
| 1,3,5-Trimethylbenzene | 20, 20 | | 18 | 92 | 19 | 94 | ( 84-112 ) | 3 | (< 17 ) |
| 1,3-Dichlorobenzene | 20, 20 | | 20 | 98 | 20 | 98 | ( 80-112 ) | 0 | (< 14 ) |
| 1,3-Dichloropropane | 20, 20 | | 19 | 93 | 20 | 101 | ( 77-118 ) | 9 | (< 13 ) |
| 1,4-Dichlorobenzene | 20, 20 | | 21 | 95 | 21 | 97 | ( 77-112 ) | 3 | (< 14 ) |
| 2,2-Dichloropropane | 20, 20 | | 15 | 77 | 17 | 83 | ( 48-131 ) | 8 | (< 14 ) |
| 2-Butanone ( M E K ) | 20, 20 | ND | ND | 94 | ND | 103 | ( 55-147 ) | 9 | (< 28 ) |
| 2-Chloroethylvinyl ether | 20, 20 | ND | ND | 0 | ND | 0 | ( 25-125 ) | 0 | (< 16 ) |
| 2-Chlorotoluene | 20, 20 | | 20 | 100 | 20 | 100 | ( 83-110 ) | 1 | (< 15 ) |
| 2-Hexanone | 20, 20 | ND | ND | 102 | ND | 102 | ( 70-105 ) | 0 | (< 15 ) |
| 2-Methylnaphthalene | 20, 20 | | 17 | 84 | 20 | 101 | ( 80-119 ) | 19 | (< 38 ) |
| 4-Chlorotoluene | 20, 20 | | 20 | 101 | 20 | 99 | ( 82-112 ) | 2 | (< 15 ) |
| 4-Isopropyltoluene | 20, 20 | | 19 | 93 | 19 | 95 | ( 80-114 ) | 2 | (< 24 ) |
| 4-Methyl-2-pentanone ( MIBK ) | 20, 20 | ND | ND | 106 | ND | 102 | ( 71-113 ) | 4 | (< 18 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336547 | Matrix Spike | **Analysis** | |
| | 336548 | Matrix Spike Duplicate | **Batch** | VMS 4863 |
| **Prep Batch** | VXX 3749 | | **Method** | SW-846 8260B |
| **Original** | 3034076008 | | | |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/28/2003 |
| **File** | Q0927_61.D | | **By** | JDS |
| | Q0927_62.D | | | |

| Analyte | MS, MSD Spike Added ug/L | Sample Conc. ug/L | MS Concentration ug/L | MS Recovery % | MSD Concentration ug/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 20, 20 | ND | ND | 107 | ND | 108 | ( 36-106 ) | 1 | (< 14 ) |
| Acrolein (2-Propenal) | 20, 20 | ND | ND | 0 | ND | 0 | ( 10-329 ) | 0 | (< 24 ) |
| Acrylonitrile | 20, 20 | ND | 17 | 87 | 20 | 99 | ( 75-121 ) | 12 | (< 15 ) |
| Allyl chloride | 20, 20 | | 19 | 97 | 20 | 101 | ( 68-119 ) | 4 | (< 12 ) |
| Benzene | 20, 20 | ND | 20 | 95 | 20 | 95 | ( 77-120 ) | 0 | (< 11 ) |
| Bromobenzene | 20, 20 | | 19 | 96 | 19 | 94 | ( 84-111 ) | 2 | (< 17 ) |
| Bromochloromethane | 20, 20 | | 19 | 93 | 20 | 102 | ( 71-122 ) | 9 | (< 1 |
| Bromodichloromethane | 20, 20 | ND | 20 | 100 | 20 | 100 | ( 81-112 ) | 0 | (< |
| Bromoform | 20, 20 | ND | 17 | 84 | 19 | 94 | ( 68-121 ) | 11 | (< 12 ) |
| Bromomethane | 20, 20 | ND | 25 | 123 | 27 | 137 | ( 43-147 ) | 11 | (< 28 ) |
| Carbon disulfide | 20, 20 | ND | 17 | 86 | 18 | 92 | ( 79-122 ) | 6 | (< 12 ) |
| Carbon tetrachloride | 20, 20 | ND | 20 | 99 | 20 | 101 | ( 86-120 ) | 2 | (< 13 ) |
| Chlorobenzene | 20, 20 | 4.4 | 23 | 95 | 23 | 95 | ( 82-112 ) | 0 | (< 12 ) |
| Chloroethane | 20, 20 | 6.5 | 29 | 111 | 31 | 123 | ( 77-126 ) | 8 | (< 14 ) |
| Chloroform | 20, 20 | ND | 19 | 97 | 21 | 105 | ( 79-114 ) | 8 | (< 11 ) |
| Chloromethane | 20, 20 | ND | 21 | 105 | 24 | 119 | ( 58-126 ) | 13 | (< 19 ) |
| cis-1,2-Dichloroethene | 20, 20 | | 21 | 96 | 23 | 106 | ( 71-114 ) | 9 | (< 11 ) |
| cis-1,3-Dichloropropene | 20, 20 | ND | 19 | 94 | 19 | 95 | ( 75-114 ) | 1 | (< 12 ) |
| Dibromochloromethane | 20, 20 | ND | 18 | 90 | 20 | 100 | ( 81-114 ) | 11 | (< 13 ) |
| Dibromomethane | 20, 20 | ND | 19 | 93 | 19 | 95 | ( 82-118 ) | 2 | (< 14 ) |
| Dichlorodifluoromethane | 20, 20 | ND | 30 | 151 | 31 | 156 | ( 28-153 ) | 4 | (< 14 ) |
| Diethyl Ether | 20, 20 | 30 | 48 | 90 | 50 | 100 | ( 67-131 ) | 4 | (< 13 ) |
| Diisopropyl ether | 20, 20 | | 16 | 79 | 17 | 86 | ( 59-144 ) | 8 | (< 11 ) |
| Ethylbenzene | 20, 20 | ND | 20 | 98 | 20 | 98 | ( 83-112 ) | 0 | (< 11 ) |
| Hexachlorobutadiene | 20, 20 | | 16 | 78 | 17 | 83 | ( 59-118 ) | 6 | (< 24 ) |
| Hexachloroethane | 20, 20 | | 16 | 80 | 18 | 88 | ( 82-124 ) | 9 | (< 22 ) |
| Isopropylbenzene | 20, 20 | | 21 | 103 | 20 | 100 | ( 82-115 ) | 2 | (< 15 ) |
| Methyl Iodide | 20, 20 | ND | 28 | 141 | 30 | 152 | ( 55-147 ) | 7 | (< 36 ) |
| Methyl-t-butyl ether | 20, 20 | | 24 | 92 | 26 | 101 | ( 59-126 ) | 7 | (< 13 ) |
| Methylene chloride | 20, 20 | ND | 18 | 92 | 20 | 101 | ( 81-117 ) | 9 | (< |
| n-Butylbenzene | 20, 20 | | 18 | 92 | 19 | 97 | ( 73-117 ) | 5 | (< 2 |
| n-Propylbenzene | 20, 20 | | 20 | 100 | 20 | 100 | ( 83-113 ) | 0 | (< 13 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336547 | Matrix Spike | | |
| | 336548 | Matrix Spike Duplicate | **Analysis** | |
| **Prep Batch** | VXX | 3749 | **Batch** | VMS 4863 |
| **Original** | 3034076008 | | **Method** | SW-846 8260B |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/26/2003 |
| **File** | Q0927_61.D | | **By** | JDS |
| | Q0927_62.D | | | |

| Analyte | MS, MSD Spike Added ug/L | Sample Conc. ug/L | MS Concentration ug/L | MS Recovery % | MSD Concentration ug/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Naphthalene | 20, 20 | | 16 | 82 | 19 | 96 | ( 70-119 ) | 16 | (< 20 ) |
| o-Xylene | 20, 20 | | 20 | 100 | 20 | 98 | ( 80-112 ) | 3 | (< 13 ) |
| P & M -Xylene | 40, 40 | | 38 | 96 | 38 | 95 | ( 86-110 ) | 1 | (< 13 ) |
| sec-Butylbenzene | 20, 20 | | 19 | 95 | 20 | 99 | ( 79-116 ) | 3 | (< 18 ) |
| Styrene | 20, 20 | ND | 20 | 101 | 20 | 99 | ( 77-116 ) | 2 | (< 12 ) |
| tert-Butylbenzene | 20, 20 | | 20 | 99 | 20 | 99 | ( 79-116 ) | 0 | (< 16 ) |
| Tetrachloroethene | 20, 20 | ND | 16 | 78 | 16 | 79 | ( 56-110 ) | 2 | (< 12 ) |
| Tetrahydrofuran | 20, 20 | ND | ND | 99 | ND | 107 | ( 73-125 ) | 6 | (< 17 ) |
| Toluene | 20, 20 | ND | 20 | 101 | 18 | 92 | ( 77-123 ) | 10 | (< 13 ) |
| trans-1,2-Dichloroethene | 20, 20 | | 21 | 103 | 22 | 112 | ( 79-120 ) | 8 | (< 13 ) |
| trans-1,3-Dichloropropene | 20, 20 | ND | 20 | 101 | 21 | 103 | ( 78-123 ) | 2 | (< 13 ) |
| trans-1,4-Dichloro-2-Butene | 20, 20 | | 19 | 97 | 19 | 97 | ( 73-123 ) | 0 | (< 22 ) |
| Trichloroethene | 20, 20 | ND | 20 | 98 | 20 | 99 | ( 83-113 ) | 1 | (< 13 ) |
| Trichlorofluoromethane | 20, 20 | ND | 25 | 127 | 26 | 132 | ( 74-131 ) | 4 | (< 16 ) |
| Vinyl acetate | 20, 20 | ND | ND | 70 | ND | 80 | ( 36-160 ) | 14 | (< 39 ) |
| Vinyl chloride | 20, 20 | ND | 24 | 118 | 26 | 128 | ( 68-117 ) | 8 | (< 13 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336254 | Matrix Spike | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4852 | |
| **Original** | 3034143001 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU Q |
| **Project** | Project 32864 Sybill, Inc. | | **Date** | 09/25/2003 | |
| **File** | Q0925_27.D | | **By** | JDS | |

QC results affect the following production samples:

3034143001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.20 | 98 | | | (71-144) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.16 | 80 | | | (67-121) | | |
| 1,4-Dichlorobenzene | 0.2 | ND | 0.18 | 88 | | | (51-145) | | |
| 2-Butanone (MEK) | 0.2 | ND | 0.20 | 99 | | | (32-134) | | |
| Benzene | 0.2 | ND | 0.17 | 85 | | | (76-127) | | |
| Carbon tetrachloride | 0.2 | ND | 0.16 | 81 | | | (83-130) | | |
| Chlorobenzene | 0.2 | ND | 0.17 | 86 | | | (86-117) | | |
| Chloroform | 0.2 | ND | 0.17 | 85 | | | (71-137) | | |
| Tetrachloroethene | 0.2 | ND | 0.23 | 116 | | | (55-113) | | |
| Trichloroethene | 0.2 | ND | 0.30 | 148 | | | (80-122) | | |
| Vinyl chloride | 0.2 | ND | 0.21 | 107 | | | (59-145) | | |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336441 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4859 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | H0927_06.D | | | |
| | | | **Date** | 09/27/2003 |
| | | | **By** | JEH |

QC results affect the following production samples:

3034143002

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 70 |
| 1,1,1-Trichloroethane | ND | 35 |
| 1,1,2,2-Tetrachloroethane | ND | 70 |
| 1,1,2-Trichloroethane | ND | 35 |
| 1,1-Dichloroethane | ND | 35 |
| 1,1-Dichloroethene | ND | 35 |
| [illegible]chloropropene | ND | 35 |
| [illegible]-Trichlorobenzene | ND | 150 |
| 1,2,3-Trichloropropane | ND | 70 |
| 1,2,4-Trichlorobenzene | ND | 150 |
| 1,2,4-Trimethylbenzene | ND | 70 |
| 1,2-Dibromo-3-chloropropane | ND | 150 |
| 1,2-Dibromoethane | ND | 150 |
| 1,2-Dichlorobenzene | ND | 70 |
| 1,2-Dichloroethane | ND | 35 |
| 1,2-Dichloropropane | ND | 35 |
| 1,3,5-Trimethylbenzene | ND | 70 |
| 1,3-Dichlorobenzene | ND | 70 |
| 1,3-Dichloropropane | ND | 35 |
| 1,4-Dichlorobenzene | ND | 70 |
| 2,2-Dichloropropane | ND | 35 |
| 2-Butanone ( M E K ) | ND | 300 |
| 2-Chloroethylvinyl ether | ND | 2500 |
| 2-Chlorotoluene | ND | 35 |
| 2-Hexanone | ND | 70 |
| 2-Methylnaphthalene | ND | 150 |
| 4-Chlorotoluene | ND | 35 |
| 4-Isopropyltoluene | ND | 35 |
| 4-Methyl-2-pentanone ( MIBK ) | ND | 1500 |
| Acetone | ND | 300 |
| Acrolein (2-Propenal) | ND | 150 |
| [illegible]ylonitrile | ND | 1500 |
| [illegible] chloride | ND | 150 |
| Benzene | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336441 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4859 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | H0927_06.D | | | |
| | | | **Date** | 09/27/2003 |
| | | | **By** | JEH |

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Bromobenzene | ND | 70 |
| Bromochloromethane | ND | 70 |
| Bromodichloromethane | ND | 70 |
| Bromoform | ND | 70 |
| Bromomethane | ND | 150 |
| Carbon disulfide | ND | 150 |
| Carbon tetrachloride | ND | 35 |
| Chlorobenzene | ND | 35 |
| Chloroethane | ND | 150 |
| [illegible]oform | ND | 35 |
| [illegible]romethane | ND | 150 |
| cis-1,2-Dichloroethene | ND | 35 |
| cis-1,3-Dichloropropene | ND | 35 |
| Dibromochloromethane | ND | 70 |
| Dibromomethane | ND | 150 |
| Dichlorodifluoromethane | ND | 70 |
| Diethyl Ether | ND | 1500 |
| Diisopropyl ether | ND | 1500 |
| Ethylbenzene | ND | 35 |
| Hexachlorobutadiene | ND | 150 |
| Hexachloroethane | ND | 150 |
| Isopropylbenzene | ND | 150 |
| Methyl Iodide | ND | 70 |
| Methyl-t-butyl ether | ND | 150 |
| Methylene chloride | ND | 150 |
| n-Butylbenzene | ND | 35 |
| n-Propylbenzene | ND | 70 |
| Naphthalene | ND | 150 |
| o-Xylene | ND | 35 |
| P & M -Xylene | ND | 70 |
| sec-Butylbenzene | ND | 35 |
| Styrene | ND | 35 |
| tert-Butylbenzene | ND | 35 |
| Tetrachloroethene | ND | 35 |
| [illegible]hydrofuran | ND | 500 |
| [illegible]ne | ND | 70 |
| trans-1,2-Dichloroethene | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336441 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4859 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | H0927_06.D | | | |
| | | | **Date** | 09/27/2003 |
| | | | **By** | JEH |

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| trans-1,3-Dichloropropene | ND | 35 |
| trans-1,4-Dichloro-2-Butene | ND | 35 |
| Trichloroethene | ND | 35 |
| Trichlorofluoromethane | ND | 70 |
| Vinyl acetate | ND | 1500 |
| Vinyl chloride | ND | 35 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336550 Method Blank | | |
| **Prep Batch** | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | VMS 4863 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 8260B |
| **File** | Q0927_42.D | | |
| | | **Date** | 09/28/2003 |
| | | **By** | JDS |

QC results affect the following production samples:

336547, 336548

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 1.0 |
| 1,1,1-Trichloroethane | ND | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 |
| 1,1,2-Trichloroethane | ND | 1.0 |
| 1,1-Dichloroethane | ND | 1.0 |
| 1,1-Dichloroethene | ND | 1.0 |
| [illegible]ichloropropene | ND | 1.0 |
| [illegible]-Trichlorobenzene | ND | 5.0 |
| 1,2,3-Trichloropropane | ND | 1.0 |
| 1,2,4-Trichlorobenzene | ND | 5.0 |
| 1,2,4-Trimethylbenzene | ND | 1.0 |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 |
| 1,2-Dibromoethane | ND | 1.0 |
| 1,2-Dichlorobenzene | ND | 1.0 |
| 1,2-Dichloroethane | ND | 1.0 |
| 1,2-Dichloropropane | ND | 1.0 |
| 1,3,5-Trimethylbenzene | ND | 1.0 |
| 1,3-Dichlorobenzene | ND | 1.0 |
| 1,3-Dichloropropane | ND | 1.0 |
| 1,4-Dichlorobenzene | ND | 1.0 |
| 2,2-Dichloropropane | ND | 1.0 |
| 2-Butanone ( M.E.K ) | ND | 25 |
| 2-Chloroethylvinyl ether | ND | 10 |
| 2-Chlorotoluene | ND | 1.0 |
| 2-Hexanone | ND | 50 |
| 2-Methylnaphthalene | ND | 5.0 |
| 4-Chlorotoluene | ND | 1.0 |
| 4-Isopropyltoluene | ND | 1.0 |
| 4-Methyl-2-pentanone ( MIBK ) | ND | 50 |
| Acetone | ND | 25 |
| Acrolein (2-Propenal) | ND | 5.0 |
| [illegible]donitrile | ND | 1.0 |
| [illegible]hloride | ND | 1.0 |
| Benzene | ND | 1.0 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336550 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4863 |
| **Project** | Project 32664 Sybil, Inc. | | **Method** | SW-846 8260B |
| **File** | Q0927_42.D | | | |
| | | | **Date** | 09/28/2003 |
| | | | **By** | JDS |

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Bromobenzene | ND | 1.0 |
| Bromochloromethane | ND | 1.0 |
| Bromodichloromethane | ND | 1.0 |
| Bromoform | ND | 1.0 |
| Bromomethane | ND | 1.0 |
| Carbon disulfide | ND | 5.0 |
| Carbon tetrachloride | ND | 1.0 |
| Chlorobenzene | ND | 1.0 |
| Chloroethane | ND | 1.0 |
| Chloroform | ND | 1.0 |
| Chloromethane | ND | 1.0 |
| cis-1,2-Dichloroethene | ND | 1.0 |
| cis-1,3-Dichloropropene | ND | 1.0 |
| Dibromochloromethane | ND | 1.0 |
| Dibromomethane | ND | 5.0 |
| Dichlorodifluoromethane | ND | 1.0 |
| Diethyl Ether | ND | 10 |
| Diisopropyl ether | ND | 1.0 |
| Ethylbenzene | ND | 1.0 |
| Hexachlorobutadiene | ND | 1.0 |
| Hexachloroethane | ND | 5.0 |
| Isopropylbenzene | ND | 5.0 |
| Methyl iodide | ND | 1.0 |
| Methyl-t-butyl ether | ND | 5.0 |
| Methylene chloride | ND | 5.0 |
| n-Butylbenzene | ND | 1.0 |
| n-Propylbenzene | ND | 1.0 |
| Naphthalene | ND | 5.0 |
| o-Xylene | ND | 1.0 |
| P & M -Xylene | ND | 2.0 |
| sec-Butylbenzene | ND | 1.0 |
| Styrene | ND | 1.0 |
| tert-Butylbenzene | ND | 1.0 |
| Tetrachloroethene | ND | 1.0 |
| Tetrahydrofuran | ND | 100 |
| Toluene | ND | 1.0 |
| trans-1,2-Dichloroethene | ND | 1.0 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336550 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4863 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | Q0927_42.D | | | |
| | | | **Date** | 09/28/2003 |
| | | | **By** | JDS |

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| trans-1,3-Dichloropropene | ND | 1.0 |
| trans-1,4-Dichloro-2-Butene | ND | 1.0 |
| Trichloroethene | ND | 1.0 |
| Trichlorofluoromethane | ND | 1.0 |
| Vinyl acetate | ND | 50 |
| Vinyl chloride | ND | 1.0 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336684 Method Blank | | |
| **Prep Batch** | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | VMS 4870 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 8260B |
| **File** | Q0929_05.D | | |
| | | **Date** | 09/29/2003 |
| | | **By** | JEH |

QC results affect the following production samples:

3034143003

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 1.0 |
| 1,1,1-Trichloroethane | ND | 1.0 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 |
| 1,1,2-Trichloroethane | ND | 1.0 |
| 1,1-Dichloroethane | ND | 1.0 |
| 1,1-Dichloroethene | ND | 1.0 |
| 1,1-Dichloropropene | ND | 1.0 |
| 1,2,3-Trichlorobenzene | ND | 5.0 |
| 1,2,3-Trichloropropane | ND | 1.0 |
| 1,2,4-Trichlorobenzene | ND | 5.0 |
| 1,2,4-Trimethylbenzene | ND | 1.0 |
| 1,2-Dibromo-3-chloropropane | ND | 1.0 |
| 1,2-Dibromoethane | ND | 1.0 |
| 1,2-Dichlorobenzene | ND | 1.0 |
| 1,2-Dichloroethane | ND | 1.0 |
| 1,2-Dichloropropane | ND | 1.0 |
| 1,3,5-Trimethylbenzene | ND | 1.0 |
| 1,3-Dichlorobenzene | ND | 1.0 |
| 1,3-Dichloropropane | ND | 1.0 |
| 1,4-Dichlorobenzene | ND | 1.0 |
| 2,2-Dichloropropane | ND | 1.0 |
| 2-Butanone ( M E K ) | ND | 25 |
| 2-Chloroethylvinyl ether | ND | 10 |
| 2-Chlorotoluene | ND | 1.0 |
| 2-Hexanone | ND | 50 |
| 2-Methylnaphthalene | ND | 5.0 |
| 4-Chlorotoluene | ND | 1.0 |
| 4-Isopropyltoluene | ND | 1.0 |
| 4-Methyl-2-pentanone ( MIBK ) | ND | 50 |
| Acetone | ND | 25 |
| Acrolein (2-Propenal) | ND | 5.0 |
| Acrylonitrile | ND | 1.0 |
| Allyl chloride | ND | 1.0 |
| Benzene | ND | 1.0 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336684 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4870 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | Q0929_05.D | | | |
| | | | **Date** | 09/29/2003 |
| | | | **By** | JEH |

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Bromobenzene | ND | 1.0 |
| Bromochloromethane | ND | 1.0 |
| Bromodichloromethane | ND | 1.0 |
| Bromoform | ND | 1.0 |
| Bromomethane | ND | 1.0 |
| Carbon disulfide | ND | 5.0 |
| Carbon tetrachloride | ND | 1.0 |
| Chlorobenzene | ND | 1.0 |
| [illegible]roethane | ND | 1.0 |
| [illegible]oform | ND | 1.0 |
| Chloromethane | ND | 1.0 |
| cis-1,2-Dichloroethene | ND | 1.0 |
| cis-1,3-Dichloropropene | ND | 1.0 |
| Dibromochloromethane | ND | 1.0 |
| Dibromomethane | ND | 5.0 |
| Dichlorodifluoromethane | ND | 1.0 |
| Diethyl Ether | ND | 10 |
| Diisopropyl ether | ND | 1.0 |
| Ethylbenzene | ND | 1.0 |
| Hexachlorobutadiene | ND | 1.0 |
| Hexachloroethane | ND | 5.0 |
| Isopropylbenzene | ND | 5.0 |
| Methyl Iodide | ND | 1.0 |
| Methyl-t-butyl ether | ND | 5.0 |
| Methylene chloride | ND | 5.0 |
| n-Butylbenzene | ND | 1.0 |
| n-Propylbenzene | ND | 1.0 |
| Naphthalene | ND | 5.0 |
| o-Xylene | ND | 1.0 |
| P & M -Xylene | ND | 2.0 |
| sec-Butylbenzene | ND | 1.0 |
| Styrene | ND | 1.0 |
| tert-Butylbenzene | ND | 1.0 |
| Tetrachloroethene | ND | 1.0 |
| [illegible]hydrofuran | ND | 100 |
| [illegible]ene | ND | 1.0 |
| trans-1,2-Dichloroethene | ND | 1.0 |

## METHOD BLANK SUMMARY

## GC/MS VOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336684 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4870 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B |
| **File** | Q0929_05.D | | | |
| | | | **Date** | 09/29/2003 |
| | | | **By** | JEH |

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| trans-1,3-Dichloropropene | ND | 1.0 |
| trans-1,4-Dichloro-2-Butene | ND | 1.0 |
| Trichloroethene | ND | 1.0 |
| Trichlorofluoromethane | ND | 1.0 |
| Vinyl acetate | ND | 50 |
| Vinyl chloride | ND | 1.0 |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336198 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4852 | |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SW-846 8260B | |
| **File** | Q0925_08.D | | **Instrument** | HP 5972 Series | INSTRU Q |
| | | | **Date** | 09/25/2003 | |
| | | | **By** | JDS | |

QC results affect the following production samples:

3034143001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K ) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| [illegible]robenzene | ND | 0.010 |
| [illegible]loroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

## GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XMS 2836 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/25/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3034143003 PS | 37.8 | 74.3 | 70.6 | 34.5 | 60.4 | 77.2 |
| 335858 MB | 45.4 | 77.5 | 75.4 | 35 | 79.3 | 68.7 |
| 335859 LCS | 39.8 | 74.7 | 71 | 31.4 | 81.3 | 78.1 |
| 335860 LCSD | 38.7 | 73.8 | 70.3 | 31 | 80.6 | 65.3 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | ( 14-68 ) |
| FBP | = | 2-Fluorobiphenyl Surr | ( 31-99 ) |
| NB2 | = | Nitrobenzene-d5 Surr | ( 33-102 ) |
| PHL | = | Phenol-d5 Surr | ( 13-50 ) |
| TBP | = | 2,4,6-Tribromophenol Surr | ( 31-133 ) |
| TPH | = | Terphenyl-d14 Surr | ( 20-116 ) |

## SURROGATE SUMMARY

### GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32684 Sybill, Inc. | Batch | XMS 2837 |
| | | Method | SW-846 8270C |
| Matrix | Non Aqueous Liquid | Date | 09/29/2003 |
| | | By | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3034143002 PS | 82 | 87.4 | 89.5 | 88.2 | 73.8 | 87.4 |
| 336142 MB | 85.8 | 89.2 | 93.4 | 87.7 | 84 | 82.8 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | ( 10-111 ) |
| FBP | = | 2-Fluorobiphenyl Surr | ( 22-114 ) |
| NB2 | = | Nitrobenzene-d5 Surr | ( 19-113 ) |
| PHL | = | Phenol-d5 Surr | ( 10-127 ) |
| TBP | = | 2,4,6-Tribromophenol Surr | ( 32-125 ) |
| TPH | = | Terphenyl-d14 Surr | ( 24-178 ) |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybil, Inc. | **Batch** | XMS 2835 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/25/2003 |
| | | **By** | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 335752 | MB | 53 | 81.3 | 82.7 | 41.3 | 91.6 | 89.8 |
| 335753 | LCS | 52 | 75.5 | 80.7 | 38.5 | 87.9 | 82.5 |
| 335754 | LCSD | 46.8 | 71.8 | 78.1 | 35 | 79.6 | 70.9 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| [redacted] | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| [redacted] | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2837 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 09/29/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3034143001 PS | 39.8 | 48 | 55.2 | 33.6 | 51.5 | 197 |
| 336232 MS | 43.2 | 57 | 60.8 | 38.7 | 53.4 | 252 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335859 | Lab Control Spike | | |
| | 335860 | Lab Control Spike Dup | **Analysis** | |
| **Prep Batch** | XXX | 5893 | **Batch** | XMS 2836 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C |
| **Project** | Project 32864 Sybill, Inc. | | | |
| **File** | E0925_05.D | | **Date** | 09/25/2003 |
| | E0925_06.D | | **By** | BPJ |

QC results affect the following production samples:

3034143003

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 100, 100 | 79 | 79 | 78 | 78 | ( 22-98 ) | 1 | (< 24 ) |
| 1,2-Dichlorobenzene | 100, 100 | 70 | 70 | 70 | 71 | ( 22-91 ) | 1 | (< 20 ) |
| 1,2-Diphenylhydrazine | 200, 200 | 130 | 63 | 120 | 62 | ( 7.8-205 ) | 1 | (< 16 ) |
| [illegible]chlorobenzene | 100, 100 | 64 | 64 | 64 | 64 | ( 20-88 ) | 0 | (< 21 ) |
| 1,4-Dichlorobenzene | 100, 100 | 63 | 63 | 64 | 64 | ( 20-87 ) | 0 | (< 22 ) |
| 1-Methylnaphthalene | 100, 100 | 72 | 72 | 78 | 78 | ( 29-102 ) | 9 | (< 21 ) |
| 2,4,5-Trichlorophenol | 100, 100 | 83 | 83 | 81 | 81 | ( 39-113 ) | 2 | (< 18 ) |
| 2,4,6-Trichlorophenol | 100, 100 | 86 | 86 | 86 | 86 | ( 32-119 ) | 0 | (< 19 ) |
| 2,4-Dichlorophenol | 100, 100 | 75 | 75 | 76 | 76 | ( 26-107 ) | 1 | (< 20 ) |
| 2,4-Dimethylphenol | 100, 100 | 68 | 68 | 67 | 67 | ( 13-99 ) | 2 | (< 31 ) |
| 2,4-Dinitrophenol | 100, 100 | 64 | 64 | 61 | 61 | ( 13-141 ) | 4 | (< 26 ) |
| 2,4-Dinitrotoluene | 100, 100 | 89 | 89 | 78 | 78 | ( 47-122 ) | 13 | (< 23 ) |
| 2,6-Dinitrotoluene | 100, 100 | 77 | 77 | 77 | 77 | ( 40-115 ) | 1 | (< 18 ) |
| 2-Chloronaphthalene | 100, 100 | 77 | 77 | 77 | 77 | ( 25-101 ) | 1 | (< 19 ) |
| 2-Chlorophenol | 100, 100 | 63 | 63 | 64 | 64 | ( 23-96 ) | 1 | (< 24 ) |
| 2-Methyl-4,6-dinitrophenol | 100, 100 | 81 | 81 | 82 | 82 | ( 22-147 ) | 0 | (< 20 ) |
| 2-Methylnaphthalene | 100, 100 | 75 | 75 | 78 | 78 | ( 27-98 ) | 4 | (< 21 ) |
| 2-Methylphenol (o-Cresol) | 100, 100 | 62 | 62 | 62 | 62 | ( 25-95 ) | 0 | (< 20 ) |
| 2-Nitroaniline | 100, 100 | 75 | 75 | 72 | 72 | ( 40-120 ) | 4 | (< 17 ) |
| 2-Nitrophenol | 100, 100 | 79 | 79 | 77 | 77 | ( 25-107 ) | 2 | (< 23 ) |
| 3&4-Methylphenol (p&m-Cresol) | 200, 200 | 120 | 60 | 120 | 61 | ( 26-90 ) | 2 | (< 22 ) |
| 3,3-Dichlorobenzidine | 100, 100 | 120 | 119 | 120 | 116 | ( 34-145 ) | 2 | (< 24 ) |
| 3-Nitroaniline | 100, 100 | 84 | 84 | 82 | 82 | ( 42-123 ) | 2 | (< 16 ) |
| 4-Bromophenyl phenyl ether | 100, 100 | 78 | 78 | 78 | 78 | ( 32-117 ) | 0 | (< 18 ) |
| 4-Chloro-3-methylphenol | 100, 100 | 69 | 69 | 70 | 70 | ( 39-106 ) | 2 | (< 19 ) |
| [illegible]loroaniline | 100, 100 | 61 | 61 | 64 | 64 | ( 33-103 ) | 5 | (< 20 ) |
| [illegible]rophenyl phenyl ether | 100, 100 | 91 | 91 | 83 | 83 | ( 30-111 ) | 9 | (< 14 ) |
| 4-Nitroaniline | 100, 100 | 110 | 109 | 97 | 97 | ( 43-127 ) | 12 | (< 18 ) |
| 4-Nitrophenol | 100, 100 | 39 | 39 | 34 | 34 | ( 12-74 ) | 13 | (< 29 ) |
| Acenaphthene | 100, 100 | 70 | 71 | 72 | 72 | ( 26-106 ) | 3 | (< 17 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335859 | Lab Control Spike | | |
| | 335860 | Lab Control Spike Dup | **Analysis** | |
| **Prep Batch** | XXX | 5993 | **Batch** | XMS 2836 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | E0925_05.D | | **Date** | 09/25/2003 |
| | E0925_06.D | | **By** | BPJ |

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Acenaphthylene | 100, 100 | 64 | 64 | 66 | 66 | ( 23-94 ) | 3 | (< 17 ) |
| Acetophenone | 100, 100 | 64 | 64 | 65 | 65 | ( 26-98 ) | 1 | (< 21 ) |
| Aniline | 100, 100 | 59 | 59 | 59 | 59 | ( 26-101 ) | 1 | (< 24 ) |
| Anthracene | 100, 100 | 75 | 75 | 72 | 72 | ( 39-119 ) | 4 | (< 15 ) |
| Atrazine (Aatrex) | 100, 100 | 84.3 | 84 | 78.7 | 79 | ( 41-121 ) | 7 | (< 17 ) |
| Benzaldehyde | 100, 100 | 70 | 70 | 72 | 72 | ( 22-134 ) | 2 | (< 24 ) |
| Benzidine | 100, 100 | 92 | 92 | 86 | 86 | ( -110-281 ) | 7 | ( |
| Benzo(a)anthracene | 100, 100 | 83 | 83 | 74 | 74 | ( 43-119 ) | 11 | ( |
| Benzo[a]pyrene | 100, 100 | 76 | 76 | 75 | 75 | ( 43-122 ) | 2 | (< 24 ) |
| Benzo[b]fluoranthene | 100, 100 | 73 | 73 | 70 | 70 | ( 41-135 ) | 4 | (< 34 ) |
| Benzo[g,h,i]perylene | 100, 100 | 81 | 81 | 89 | 89 | ( 19-146 ) | 9 | (< 20 ) |
| Benzo[k]fluoranthene | 100, 100 | 77 | 77 | 77 | 77 | ( 40-117 ) | 0 | (< 19 ) |
| Benzoic acid | 100, 100 | ND | 1 | ND | 2 | ( -15-41 ) | 50 | (< 230 ) |
| Benzyl alcohol | 100, 100 | 57 | 57 | 55 | 55 | ( 12-101 ) | 3 | (< 22 ) |
| Biphenyl | 100, 100 | 87 | 87 | 89 | 89 | ( 23-99 ) | 2 | (< 18 ) |
| Bis(2-chloroethoxy)methane | 100, 100 | 68 | 68 | 66 | 66 | ( 22-90 ) | 3 | (< 23 ) |
| Bis(2-chloroethyl) ether | 100, 100 | 44 | 44 | 45 | 45 | ( 15-97 ) | 3 | (< 25 ) |
| Bis(2-chloroisopropyl) ether | 100, 100 | 54 | 55 | 56 | 56 | ( 22-100 ) | 2 | (< 21 ) |
| Bis(2-ethylhexyl) phthalate | 100, 100 | 76 | 76 | 75 | 75 | ( 32-134 ) | 1 | (< 15 ) |
| Butyl benzyl phthalate | 100, 100 | 84 | 84 | 76 | 76 | ( 43-131 ) | 10 | (< 21 ) |
| Caprolactam | 100, 100 | 22 | 22 | 18 | 18 | ( 6.3-40 ) | 19 | (< 24 ) |
| Carbazole | 100, 100 | 110 | 107 | 100 | 102 | ( 29-139 ) | 5 | (< 17 ) |
| Chrysene | 100, 100 | 99 | 99 | 99 | 99 | ( 40-120 ) | 0 | (< 18 ) |
| Di-n-butylphthalate | 100, 100 | 80 | 80 | 79 | 79 | ( 33-124 ) | 1 | (< 21 ) |
| di-n-Octylphthalate | 100, 100 | 75 | 75 | 75 | 75 | ( 31-148 ) | 0 | (< 26 ) |
| Dibenzo[a,h]anthracene | 100, 100 | 94 | 94 | 110 | 106 | ( 22-147 ) | 11 | (< 22 ) |
| Dibenzofuran | 100, 100 | 85 | 85 | 76 | 76 | ( 31-107 ) | 11 | (< 18 ) |
| Diethylphthalate | 100, 100 | 89 | 89 | 81 | 81 | ( 40-119 ) | 10 | (< 17 ) |
| Dimethylphthalate | 100, 100 | 80 | 80 | 78 | 78 | ( 39-112 ) | 3 | (< 16 ) |
| Fluoranthene | 100, 100 | 81 | 81 | 78 | 78 | ( 33-125 ) | 4 | ( |
| Fluorene | 100, 100 | 77 | 77 | 71 | 71 | ( 28-116 ) | 8 | (< 18 ) |
| Hexachlorobenzene | 100, 100 | 77 | 77 | 73 | 73 | ( 41-109 ) | 5 | (< 15 ) |
| Hexachlorobutadiene | 100, 100 | 76 | 76 | 80 | 80 | ( 21-92 ) | 5 | (< 30 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335859 Lab Control Spike | | |
| | 335860 Lab Control Spike Dup | **Analysis** | |
| **Prep Batch** | XXX 5993 | **Batch** | XMS 2836 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | E0925_05.D | **Date** | 09/25/2003 |
| | E0925_06.D | **By** | BPJ |

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Hexachlorocyclopentadiene | 100, 100 | 59 | 59 | 57 | 57 | ( 10-88 ) | 4 | (< 24 ) |
| Hexachloroethane | 100, 100 | 73 | 73 | 77 | 77 | ( 20-84 ) | 6 | (< 23 ) |
| Indeno[1,2,3-c,d] pyrene | 100, 100 | 80 | 80 | 89 | 89 | ( 23-141 ) | 10 | (< 22 ) |
| Isophorone | 100, 100 | 74 | 74 | 70 | 71 | ( 26-108 ) | 4 | (< 22 ) |
| N-Nitrosodi-n-propylamine | 100, 100 | 62 | 62 | 61 | 61 | ( 24-104 ) | 2 | (< 20 ) |
| N-Nitrosodimethylamine | 100, 100 | 14 | 14 | 13 | 13 | ( 11-81 ) | 9 | (< 25 ) |
| N-Nitrosodiphenylamine | 100, 100 | 66 | 66 | 67 | 67 | ( 27-117 ) | 2 | (< 16 ) |
| Naphthalene | 100, 100 | 65 | 65 | 69 | 69 | ( 23-100 ) | 6 | (< 22 ) |
| Nitrobenzene | 100, 100 | 70 | 70 | 69 | 70 | ( 25-103 ) | 0 | (< 26 ) |
| Pentachlorophenol | 100, 100 | 62 | 62 | 61 | 61 | ( 34-135 ) | 2 | (< 22 ) |
| Phenanthrene | 100, 100 | 78 | 78 | 77 | 77 | ( 32-120 ) | 2 | (< 15 ) |
| Phenol | 100, 100 | 32 | 32 | 32 | 32 | ( 13-56 ) | 3 | (< 22 ) |
| Pyrene | 100, 100 | 82 | 82 | 73 | 73 | ( 44-122 ) | 13 | (< 22 ) |
| Pyridine | 100, 100 | ND | 15 | ND | 15 | ( 7.9-55 ) | 6 | (< 43 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335753 | Lab Control Spike | | |
| | 335754 | Lab Control Spike Dup | **Analysis** | |
| **Prep Batch** | XXX | 5991 | **Batch** | XMS 2835 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | F0925_05.D | | **Date** | 09/25/2003 |
| | F0925_06.D | | **By** | BPJ |

QC results affect the following production samples:

3034143001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.15 | 76 | 0.14 | 71 | ( 36-135 ) | 7 | (< 27 ) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.16 | 81 | 0.15 | 76 | ( 32-140 ) | 6 | (< 27 ) |
| 2,4-Dinitrotoluene | 0.05, 0.05 | 0.043 | 86 | 0.039 | 78 | ( 47-140 ) | 9 | (< 30 ) |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.14 | 71 | 0.13 | 67 | ( 27-119 ) | 5 | (< |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.17 | 69 | 0.16 | 65 | ( 25-112 ) | 6 | (< |
| Hexachlorobenzene | 0.05, 0.05 | 0.039 | 79 | 0.036 | 72 | ( 36-138 ) | 9 | (< 16 ) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.033 | 65 | 0.032 | 65 | ( 18-122 ) | 1 | (< 28 ) |
| Hexachloroethane | 0.05, 0.05 | 0.036 | 72 | 0.036 | 73 | ( 16-112 ) | 1 | (< 24 ) |
| Nitrobenzene | 0.05, 0.05 | 0.043 | 85 | 0.042 | 84 | ( 27-128 ) | 1 | (< 24 ) |
| Pentachlorophenol | 0.2, 0.2 | 0.17 | 87 | 0.16 | 78 | ( 45-162 ) | 11 | (< 17 ) |
| Pyridine | 0.05, 0.05 | 0.021 | 41 | 0.019 | 37 | ( 12-88 ) | 10 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336232 | Matrix Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5991 | **Batch** | XMS 2837 |
| **Original** | 3034143001 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32684 Sybil, Inc. | | **Date** | 09/29/2003 |
| **File** | F0929_10.D | | **By** | BPJ |

QC results affect the following production samples:

3034143001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 1 | ND | 0.52 | 52 | | | ( 39-116 ) | | |
| 2,4,6-Trichlorophenol | 1 | ND | 0.53 | 53 | | | ( 39-114 ) | | |
| Dinitrotoluene | 0.25 | ND | ND | 35 | | | ( 46-125 ) | | |
| 2-Methylphenol (o-Cresol) | 1 | ND | 0.60 | 60 | | | ( 28-101 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 1.3 | ND | ND | 66 | | | ( 31-96 ) | | |
| Hexachlorobenzene | 0.25 | ND | ND | 51 | | | ( 39-116 ) | | |
| Hexachlorobutadiene | 0.25 | ND | ND | 50 | | | ( 24-91 ) | | |
| Hexachloroethane | 0.25 | ND | ND | 57 | | | ( 23-90 ) | | |
| Nitrobenzene | 0.25 | ND | ND | 86 | | | ( 28-113 ) | | |
| Pentachlorophenol | 1 | ND | ND | 0 | | | ( 42-136 ) | | |
| Pyridine | 0.25 | ND | ND | 40 | | | ( 4.5-59 ) | | |

## METHOD BLANK SUMMARY

## GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335858 Method Blank | | |
| **Prep Batch** | XXX 5993 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | XMS 2836 |
| **Project** | Project 32864 Sybil, Inc. | **Method** | SW-846 8270C |
| **File** | E0925_04.D | | |
| | | **Date** | 09/25/2003 |
| | | **By** | BPJ |

QC results affect the following production samples:

3034143003

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| 1,2,4-Trichlorobenzene | ND | 5.0 |
| 1,2-Dichlorobenzene | ND | 5.0 |
| 1,2-Diphenylhydrazine | ND | 5.0 |
| 1,3-Dichlorobenzene | ND | 5.0 |
| 1,4-Dichlorobenzene | ND | 5.0 |
| 1-Methylnaphthalene | ND | 5.0 |
| 2,4,5-Trichlorophenol | ND | 5.0 |
| 2,4,6-Trichlorophenol | ND | 4.0 |
| 2,4-Dichlorophenol | ND | 10 |
| 2,4-Dimethylphenol | ND | 5.0 |
| 2,4-Dinitrophenol | ND | 20 |
| 2,4-Dinitrotoluene | ND | 5.0 |
| 2,6-Dinitrotoluene | ND | 5.0 |
| 2-Chloronaphthalene | ND | 5.0 |
| 2-Chlorophenol | ND | 5.0 |
| 2-Methyl-4,6-dinitrophenol | ND | 20 |
| 2-Methylnaphthalene | ND | 5.0 |
| 2-Methylphenol (o-Cresol) | ND | 5.0 |
| 2-Nitroaniline | ND | 20 |
| 2-Nitrophenol | ND | 5.0 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 10 |
| 3,3-Dichlorobenzidine | ND | 20 |
| 3-Nitroaniline | ND | 20 |
| 4-Bromophenyl phenyl ether | ND | 5.0 |
| 4-Chloro-3-methylphenol | ND | 5.0 |
| 4-Chloroaniline | ND | 20 |
| 4-Chlorophenyl phenyl ether | ND | 5.0 |
| 4-Nitroaniline | ND | 20 |
| 4-Nitrophenol | ND | 20 |
| Acenaphthene | ND | 5.0 |
| Acenaphthylene | ND | 5.0 |
| Acetophenone | ND | 5.0 |
| Aniline | ND | 20 |
| Anthracene | ND | 5.0 |

## METHOD BLANK SUMMARY

## GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335858 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5993 | **Batch** | XMS 2836 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8270C |
| **Project** | Project 32884 Sybil, Inc. | | |
| **File** | E0925_04.D | **Date** | 09/25/2003 |
| | | **By** | BPJ |

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Atrazine (Aatrex) | ND | 5.0 |
| Benzaldehyde | ND | 5.0 |
| Benzidine | ND | 50 |
| Benzo(a)anthracene | ND | 1.0 |
| Benzo[a]pyrene | ND | 2.0 |
| Benzo[b]fluoranthene | ND | 2.0 |
| Benzo[g,h,i]perylene | ND | 5.0 |
| Benzo[k]fluoranthene | ND | 5.0 |
| [redacted]oic acid | ND | 50 |
| [redacted]yl alcohol | ND | 50 |
| Biphenyl | ND | 5.0 |
| Bis(2-chloroethoxy)methane | ND | 5.0 |
| Bis(2-chloroethyl) ether | ND | 1.5 |
| Bis(2-chloroisopropyl) ether | ND | 5.0 |
| Bis(2-ethylhexyl) phthalate | ND | 5.0 |
| Butyl benzyl phthalate | ND | 5.0 |
| Caprolactam | ND | 10 |
| Carbazole | ND | 10 |
| Chrysene | ND | 5.0 |
| Di-n-butylphthalate | ND | 5.0 |
| di-n-Octylphthalate | ND | 5.0 |
| Dibenzo[a,h]anthracene | ND | 2.0 |
| Dibenzofuran | ND | 4.0 |
| Diethylphthalate | ND | 5.0 |
| Dimethylphthalate | ND | 5.0 |
| Fluoranthene | ND | 2.0 |
| Fluorene | ND | 5.0 |
| Hexachlorobenzene | ND | 1.0 |
| Hexachlorobutadiene | ND | 5.0 |
| Hexachlorocyclopentadiene | ND | 5.0 |
| Hexachloroethane | ND | 5.0 |
| Indeno[1,2,3-c,d]pyrene | ND | 2.0 |
| Isophorone | ND | 5.0 |
| N-Nitrosodi-n-propylamine | ND | 5.0 |
| [redacted]trosodimethylamine | ND | 5.0 |
| N-Nitrosodiphenylamine | ND | 5.0 |
| Naphthalene | ND | 5.0 |

## METHOD BLANK SUMMARY

## GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335858 Method Blank | | |
| **Prep Batch** | XXX 5993 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | XMS 2836 |
| **Project** | Project 32684 Sybill, Inc. | **Method** | SW-846 8270C |
| **File** | E0925_04.D | | |
| | | **Date** | 09/25/2003 |
| | | **By** | BPJ |

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Nitrobenzene | ND | 2.0 |
| Pentachlorophenol | ND | 20 |
| Phenanthrene | ND | 5.0 |
| Phenol | ND | 5.0 |
| Pyrene | ND | 5.0 |
| Pyridine | ND | 20 |

## METHOD BLANK SUMMARY

## GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336142 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 6001 | **Batch** | XMS 2837 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | F0929_04.D | **Date** | 09/29/2003 |
| | | **By** | BPJ |

QC results affect the following production samples:

3034143002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| 1,2,4-Trichlorobenzene | ND | 20 |
| 1,2-Dichlorobenzene | ND | 25 |
| 1,3-Dichlorobenzene | ND | 20 |
| 1,4-Dichlorobenzene | ND | 20 |
| 2,4,5-Trichlorophenol | ND | 75 |
| 2,4,6-Trichlorophenol | ND | 50 |
| 2,4-Dichlorophenol | ND | 50 |
| 2,4-Dimethylphenol | ND | 75 |
| 2,4-Dinitrophenol | ND | 40 |
| 2,4-Dinitrotoluene | ND | 25 |
| 2,6-Dinitrotoluene | ND | 45 |
| 2-Chloronaphthalene | ND | 25 |
| 2-Chlorophenol | ND | 50 |
| 2-Methylnaphthalene | ND | 25 |
| 2-Methyl-4,6-dinitrophenol | ND | 30 |
| 2-Methylphenol (o-Cresol) | ND | 50 |
| 2-Nitroaniline | ND | 25 |
| 2-Nitrophenol | ND | 50 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 75 |
| 3,3-Dichlorobenzidine | ND | 130 |
| 3-Nitroaniline | ND | 25 |
| 4-Bromophenyl phenyl ether | ND | 30 |
| 4-Chloro-3-methylphenol | ND | 50 |
| 4-Chloroaniline | ND | 25 |
| 4-Chlorophenyl phenyl ether | ND | 25 |
| 4-Nitroaniline | ND | 30 |
| 4-Nitrophenol | ND | 35 |
| Acenaphthene | ND | 25 |
| Acenaphthylene | ND | 25 |
| Acetophenone | ND | 25 |
| Anthracene | ND | 35 |
| Atrazine (Aatrex) | ND | 25 |
| Benzaldehyde | ND | 75 |
| Benzo(a)anthracene | ND | 25 |

## METHOD BLANK SUMMARY

## GC/MS SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336142 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 6001 | **Batch** | XMS 2837 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | |
| **File** | F0929_04.D | **Date** | 09/29/2003 |
| | | **By** | BPJ |

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Benzo[a]pyrene | ND | 10 |
| Benzo[b]fluoranthene | ND | 15 |
| Benzo[g,h,i]perylene | ND | 30 |
| Benzo[k]fluoranthene | ND | 30 |
| Biphenyl | ND | 25 |
| Bis(2-chloroethoxy)methane | ND | 20 |
| Bis(2-chloroethyl) ether | ND | 50 |
| Bis(2-chloroisopropyl) ether | ND | 25 |
| Bis(2-ethylhexyl) phthalate | ND | 20 |
| Butylbenzyl phthalate | ND | 25 |
| Caprolactam | ND | 25 |
| Carbazole | ND | 25 |
| Chrysene | ND | 25 |
| Di-n-butylphthalate | ND | 25 |
| di-n-Octylphthalate | ND | 25 |
| Dibenzo[a,h]anthracene | ND | 20 |
| Dibenzofuran | ND | 25 |
| Diethylphthalate | ND | 75 |
| Dimethylphthalate | ND | 30 |
| Fluoranthene | ND | 25 |
| Fluorene | ND | 25 |
| Hexachlorobenzene | ND | 25 |
| Hexachlorobutadiene | ND | 20 |
| Hexachlorocyclopentadiene | ND | 15 |
| Hexachloroethane | ND | 20 |
| Indeno[1,2,3-c,d]pyrene | ND | 20 |
| Isophorone | ND | 25 |
| N-Nitrosodi-n-propylamine | ND | 25 |
| N-Nitrosodiphenylamine | ND | 30 |
| Naphthalene | ND | 50 |
| Nitrobenzene | ND | 25 |
| Pentachlorophenol | ND | 50 |
| Phenanthrene | ND | 30 |
| Phenol | ND | 25 |
| Pyrene | ND | 25 |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335752 | Method Blank | | |
| **Prep Batch** | XXX | 5991 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XMS 2835 |
| **Project** | Project 32684 Sybil, Inc. | | **Method** | SW-846 8270C |
| **File** | F0925_04.D | | | |
| | | | **Date** | 09/25/2003 |
| | | | **By** | BPJ |

QC results affect the following production samples:

3034143001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| [illegible]chlorobutadiene | ND | 0.010 |
| [illegible]achloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybil, Inc. | **Batch** | XGC 3858 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/26/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3034143001 | PS | 45.7 | 45.7 |
| 3034143003 | PS | 81.7 | 66.3 |
| 335861 | MB | 86.7 | 70.7 |
| 335862 | LCS | 82.3 | 68.3 |
| [illegible]863 | LCSD | 77.3 | 72.3 |

DCB = Decachlorobiphenyl Surr (14-91)
TMX = Tetrachloro-m-xylene Surr (17-94)

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybil, Inc. | **Batch** | XGC 3861 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/29/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 335866 | MS | 86 | 65.3 |
| 335867 | MSD | 77.7 | 69 |

**DCB** = **Decachlorobiphenyl Surr** **( 14-91 )**
**TMX** = **Tetrachloro-m-xylene Surr** **( 17-94 )**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3854 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-T |
| | | **Date** | 09/25/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 335637 | MB | 68.7 | 75 |
| 335638 | LCS | 70.3 | 66.7 |
| 335639 | LCSD | 67.7 | 63.3 |

**DCB = Decachlorobiphenyl Surr (25-170)**
**TMX = Tetrachloro-m-xylene Surr (25-150)**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32864 Sybill, Inc. | **Batch** | XGC 3860 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-T |
| | | **Date** | 09/28/2003 |
| | | **By** | ESA |

| Sample ID(s) | Surrogate Recovery % | |
|---|---|---|
| | DCB | TMX |
| 3034143002 PS | 83 | 104 |
| 335640 MS | 80 | 103 |
| 335641 MSD | 83.7 | 109 |

**DCB = Decachlorobiphenyl Surr ( 25-170 )**
**TMX = Tetrachloro-m-xylene Surr ( 25-150 )**

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335638 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 5989 | **Batch** | XGC 3854 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-T | |
| | | **Date** | 09/25/2003 | |
| | | **By** | ESA | |

QC results affect the following production samples:

3034143002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration mg/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.9, 9.8 | 6.1 | 62 | 5.9 | 60 | ( 25-141 ) | 4 | (< 20 ) |
| Aroclor-1260 | 9.9, 9.8 | 6.2 | 63 | 6.3 | 64 | ( 29-170 ) | 1 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335862 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5994 | **Batch** | XGC 3858 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | EPA 608 |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 09/26/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3034143001, 3034143003

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.87 | 87 | 0.91 | 91 | ( 38-158 ) | 4 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.66 | 66 | 0.69 | 69 | ( 10-127 ) | 4 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335640 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5989 | **Batch** | XGC 3860 |
| **Original** | 3034051001 | **Method** | SW-846 8082 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-T |
| **Project** | Project 32684 Sybill, Inc. | **Date** | 09/28/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3034143002

| Analyte | MS, MSD Spike Added mg/Kg | Sample Conc. mg/Kg | MS Concentration mg/Kg | MS Recovery % | MSD Concentration mg/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 10, 9.9 | ND | 15 | 154 | 15 | 151 | ( 22-196 ) | 3 | (< 20 ) |
| Aroclor-1260 | 10, 9.9 | ND | 7.0 | 70 | 7.1 | 71 | ( 49-187 ) | 2 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335864 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 5994 | **Batch** | XGC 3861 |
| **Original** | 3034066001 | **Method** | EPA 608 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-U |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/29/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3034143001, 3034143003

| Analyte | MS, MSD Spike Added ug/L | Sample Conc. ug/L | MS Concentration ug/L | MS Recovery % | MSD Concentration ug/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | ND | 0.97 | 94 | 0.90 | 88 | ( 38-158 ) | 8 | (< 20 ) |
| Aroclor-1260 | 1, 1 | ND | 0.77 | 74 | 0.79 | 78 | ( 8-127 ) | 4 | (< 20 ) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 335637 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5989 | **Batch** | XGC 3854 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-T |
| | | **Date** | 09/25/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3034143002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Aroclor-1016 | ND | 0.98 |
| Aroclor-1221 | ND | 0.98 |
| Aroclor-1232 | ND | 0.98 |
| Aroclor-1242 | ND | 0.98 |
| Aroclor-1248 | ND | 0.98 |
| Aroclor-1254 | ND | 0.98 |
| Aroclor-1260 | ND | 0.98 |
| Aroclor-1262 | ND | 0.98 |
| Aroclor-1268 | ND | 0.98 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 335861 | Method Blank | **Analysis** | | |
| **Prep Batch** | XXX | 5994 | **Batch** | XGC | 3858 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | EPA 608 | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Varian 3400 ECD INST-U | |
| | | | **Date** | 09/26/2003 | |
| | | | **By** | ESA | |

QC results affect the following production samples:

3034143001, 3034143003

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336153 Lab Control Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11413 | **Batch** | MIM 5739 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | n:\icpms\elandata\dataset\092803\LCS.022 | **Date** | 09/29/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3034143001, 3034143002, 3034143003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.1 | 115 | | | (50-150) | | |
| Barium | 1 | 0.97 | 97 | | | (50-150) | | |
| Cadmium | 1 | 0.97 | 97 | | | (50-150) | | |
| Chromium | 1 | 1.0 | 103 | | | (50-150) | | |
| Lead | 1 | 1.0 | 103 | | | (50-150) | | |
| Selenium | 1 | 1.1 | 113 | | | (50-150) | | |
| Silver | 1 | 1.0 | 103 | | | (50-150) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336159 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11413 | **Batch** | MIM 5739 |
| **Original** | 3034143001 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/29/2003 |
| **File** | n:\icpms\elandata\dataset\092803\3034090003 MS.024 | **By** | SRO |

QC results affect the following production samples:

3034143001, 3034143003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 2 | 3.7 | 5.8 | 106 | | | ( 50-150 ) | | |
| Cadmium | 2 | 1.7 | 3.7 | 100 | | | ( 50-150 ) | | |
| [redacted] | 2 | 0.62 | 2.7 | 104 | | | ( 50-150 ) | | |
| [redacted] | 2 | 1.2 | 1.6 | 18 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336159 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11413 | **Batch** | MIM 5743 |
| **Original** | 3034143001 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/29/2003 |
| **File** | N:\ICPMS\elandata\Dataset\092903\3034090003 MS.022 | **By** | SRO |

QC results affect the following production samples:

3034143001, 3034143003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2 | 4.9 | 10.0 | 253 | | | ( 50-150 ) | | |
| Chromium | 2 | 2.7 | 5.2 | 124 | | | ( 50-150 ) | | |
| Selenium | 2 | ND | 9.0 | 405 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336160 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11413 | **Batch** | MIM 5739 |
| **Original** | 3034143002 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32684 Sybil, Inc. | **Date** | 09/29/2003 |
| **File** | n:\icpms\elandata\dataset\092803\3034090001.026 | **By** | SRO |

QC results affect the following production samples:

3034143002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | ND | ND | 108 | | | ( 50-150 ) | | |
| Barium | 1 | ND | ND | 99 | | | ( 50-150 ) | | |
| [illegible]lium | 1 | ND | 0.99 | 99 | | | ( 50-150 ) | | |
| Chromium | 1 | ND | ND | 102 | | | ( 50-150 ) | | |
| Lead | 1 | ND | ND | 108 | | | ( 50-150 ) | | |
| Selenium | 1 | ND | ND | 105 | | | ( 50-150 ) | | |
| Silver | 1 | ND | ND | 39 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336155 Method Blank | | |
| **Prep Batch** | MXX 11413 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MIM 5739 |
| **Project** | Project 32664 Sybil, Inc. | **Method** | SW-846 6020 |
| **File** | n:\icpms\elandata\dataset\092803\MB.021 | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| | | **Date** | 09/29/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3034143001, 3034143002, 3034143003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| Selenium | ND | 0.016 |
| Silver | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336394 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | MXX 11420 | **Batch** | MCV 2023 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A | |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | PSA Millenium | |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\092603W1.TXT | **Date** | 09/26/2003 | |
| | | **By** | PSK | |

QC results affect the following production samples:

3034143001, 3034143002, 3034143003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0023 | 113 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 336399 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11420 | **Batch** | MCV 2023 |
| **Original** | 3034143001 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybil, Inc. | **Date** | 09/26/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\092603W1.TXT | **By** | PSK |

QC results affect the following production samples:

3034143001, 3034143003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.021 | 103 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 336400 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11420 | **Batch** | MCV 2023 |
| **Original** | 3034143002 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32684 Sybill, Inc. | **Date** | 09/26/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\092603W1.TXT | **By** | PSK |

QC results affect the following production samples:

3034143002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.028 | 141 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336393 Method Blank | | |
| **Prep Batch** | MXX 11420 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MCV 2023 |
| **Project** | Project 32684 Sybill, Inc. | **Method** | SW-846 7470A |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\092603W1.TXT | **Instrument** | PSA Millenium |
| | | **Date** | 09/26/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3034143001, 3034143002, 3034143003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336218 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | WXX 3466 | **Batch** | WLA 1512 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| **File** | CN09263A.FDT | **Date** | 09/26/2003 |
| | | **By** | MAH |

QC results affect the following production samples:

3034143001, 3034143002, 3034143003

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 1.7 | 34 | | | ( 2.6-49 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336217 | Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3466 | | **Batch** | WLA 1512 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | Quick Chem 8000 Lachat |
| **File** | CN09263A.FDT | | **Date** | 09/26/2003 |
| | | | **By** | MAH |

QC results affect the following production samples:

3034143001, 3034143002, 3034143003

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336219 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3466 | **Batch** | WLA 1512 |
| **Original** | 3034160001 | **Method** | SW-846 7.3.3.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Quick Chem 8000 Lachat |
| **Project** | Project 32664 Sybil, Inc. | **Date** | 09/26/2003 |
| **File** | CN09263A.FDT | **By** | MAH |

QC results affect the following production samples:

3034143001, 3034143002, 3034143003

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Cyanide | ND | ND | 30 | 0.00 | (< 20) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336115 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3463 | **Batch** | WAT 1833 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/26/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3034143001, 3034143002, 3034143003

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 370 | 89 | | | ( 57-109 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336114 Method Blank | | |
| **Prep Batch** | WXX 3463 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | WAT 1833 |
| **Project** | Project 32684 Sybill, Inc. | **Method** | SW-846 7.3.4.2 |
| | | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 09/26/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3034143001, 3034143002, 3034143003

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336116 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3463 | **Batch** | WAT 1833 |
| **Original** | 3034160001 | **Method** | SW-846 7.3.4.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | No Instrument, Manual Handling |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/26/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3034143001, 3034143002, 3034143003

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 50 | 0.00 | (< 20 ) |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 336368 pH Calibration Standard | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2074 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 09/29/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3034143001, 3034143002, 3034143003

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 336389 | Quality Control Sample | **Analysis** | | |
| **Prep Batch** | | | **Batch** | WPH 2074 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A | |
| | | | **Date** | 09/29/2003 | |
| | | | **By** | SKP | |

QC results affect the following production samples:

3034143002

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 8.01 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336372 | Quality Control Sample | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2074 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 09/29/2003 |
| | | | **By** | SKP |

QC results affect the following production samples:

3034143001, 3034143003

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 8.01 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336377 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2074 |
| **Original** | 3034166003 | **Method** | SW-846 9040B |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| **Project** | Project 32684 Sybil, Inc. | **Date** | 09/29/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3034143001, 3034143002, 3034143003

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 9.89 | 9.90 | | 0.10 | (< 20) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336152 | Flashpoint Calibration Std. | **Analysis** | |
| **Prep Batch** | | | **Batch** | MXX 11412 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 1010 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/26/2003 |
| | | | **By** | WD |

QC results affect the following production samples:

3034143001, 3034143002, 3034143003

| Analyte | LCS,LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 80 | 100 | | | ( 98-102 ) | | |

SGS

OCT -

SDG: 19

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034166

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

ORIGINAL ANALYTICAL REPORT

Project#: 32664 Lab#: 3034166

Name: SyBill, Inc.

Description

Event:

Samples: 3 Soil

Analysis: TCLP VOC, SVOC, MTL
REF, PCB

TAT: 2 day

Lab: SGS

Checked Against Preliminary Data:

Date: 10-7-03 Init.: K.B.

Date of Validation Memo: 10-9-03

Invoice Approval Date:

Comments:

Approval Signature: Pamela M. Johnson

Date Issued: 10-3-03

Total Pages: 56

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034166

***Sample Collection and Receipt -***

Three samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on September 25, 2003. The sample containers were released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on September 26, 2003 in good condition, on ice and at a temperature of 6°C. Following log-in, the samples were stored at 4°C until sample preparation and/or analysis.

The sample ID on the COC indicated that the samples were collected on September 24, 2003, however, the date collected on the COC indicated that the samples were collected on September 25, 2003. The samples were logged-in as collected on September 25, 2003.

***Sample Preparation and Analysis -***

The samples were analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Ignitability). Additionally, the samples were extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. Each leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals.

It was requested on the COC that samples be analyzed within forty-eight hours.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

Sample 3034166002 was extracted for SVOCs with an initial volume of 25ml resulting in a 20X dilution.

Sample 3034166003 was extracted for PCBs with an initial weight of 5g resulting in a 6X dilution.

Sample 3034166002 was digested for Metals with an initial volume of 25ml resulting in a 2X dilution.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Volatile Analysis*

The recoveries for Tetrachloroethene and Trichloroethene were above the upper control limits in the MS on sample 3034166002 associated with analytical batch VMS 4866. These compounds were not detected in the parent sample.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034166

***Quality Control (QC) –continued***

*GC PCB Analysis*

The relative percent difference (RPD) was above QC acceptance criteria for Aroclor-1260 in the MS/MSD associated with preparation batch XXX 5997. The MS/MSD was not performed on a sample from this sample delivery group (SDG).

*Metals Analysis*

The results for select Metals for samples 3034166002 and 3034166003 had the relative standard deviation (RSD) of the analysis replicates greater than twenty percent. The select Metals were flagged as estimated.

***Sample Reporting –***

The percent solids were determined for all samples and the PCB and Reactive Cyanide and Sulfide results corrected to a dry-weight reporting basis.

The results for select Metals for samples 3034166002 and 3034166003 were qualified as estimated (J) due to a relative standard deviation (RSD) greater than twenty.

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 10-3-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034166

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Ignitability | SW-846 7.1[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| S-32664-092403-SM-067 | 3034166001 |
| S-32664-092403-SM-068 | 3034166002 |
| S-32664-092403-SM-069 | 3034166003 |

# Explanation of Terms and Data Qualifiers

| Term Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

# CHAIN OF CUSTODY RECORD

CT&E Environmental Services Inc.
170073
COC Serial
43-1877

SHIPPED TO (Labora
Conrad
1200 Industrial Drive, Ludington

REFERENCE NUMBER: 032664

PROJECT NAME: Sybill 3034166

SAMPLER'S SIGNATURE: SM
PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | EMF | SAMPLE TYPE | No. OF CONTAINERS | PARAMETERS: Full TCLP | RCI | PCB's | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9-25-03 | 1100 | S-32664-092403-SM-~~066~~-067 | S | 1 | ✓ | ✓ | ✓ | | | | | | | | |
| 2 | \| | 1400 | S-32664-092403-SM-~~067~~-068 | S | 1 | ✓ | ✓ | ✓ | | | | | | | | 48 hr test |
| 3 | \| | 1430 | S-32664-092403-SM-~~068~~-069 | S | 1 | ✓ | ✓ | ✓ | | | | | | | | |

TOTAL NUMBER OF CONTAINERS

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. SM - Shawn McLean | DATE: 9-25-03 TIME: | RECEIVED BY: 1. [signature] | DATE: 9/25/03 TIME: 12:40 |
| RELINQUISHED BY: 2. [signature] | DATE: 9/25/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: lab courier
AIR BILL No.

White -Fully Executed Copy
Yellow -Receiving Laboratory Copy
Pink -Shipper Copy
Goldenrod -Sampler Copy

24079

SAMPLE TEAM: SM

RECEIVED FOR LABORATORY BY: [signature]
DATE: 9/26/03 TIME: 900 GPC

1001 (FO[illegible])-APRIL 29, 93-REV.0-(C)(F-01)

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: 1 of 1

Project Number: 3034166 Date Logged In: 9/26/03 Login Person Initials: DM

This section to be completed when corrective action is required:

Client: CRA
Client Contact: _____

Project Name: _____
Phone Number: _____

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-8°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | = | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | = | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | = | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | = | |

**COMMENTS/CORRECTIVE ACTION**

COC ID indicates samples were collected 9/24; Date + Time on COC indicates 9/25.

**Containers Created**

| 40 mL vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Samp. No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

_____

_____

_____

_____

# Laboratory Report

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3034166**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

*I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness,* other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

9/30/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

Order: 3034166 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034166001 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-092403-SM-067 | **Location:** | |
| **Collected:** | 09/25/2003 11:00 | **Project:** | Project 32664 Sybil, Inc. |
| **Received:** | 09/26/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported on Dry Weight basis.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/29/03 10:26 | 09/30/03 10:36 | JB | 1 |
| Reactive Sulfide | ND | | mg/Kg | 60 | SW-846 7.3.4.2[1] | 09/29/03 10:45 | 09/30/03 10:48 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 09/29/03 09:18 | SKP | 1 |
| Ignitability | Non | | | | SW-846 7.1[1] | | 09/29/03 15:22 | WD | 1 |
| pH | 8.07 | | S.U. | | SW-846 9045C | | 09/29/03 09:18 | SKP | 1 |
| Total Solids | 86.5 | | % | 0.10 | SM19 2540G[1] | | 09/29/03 07:03 | SKP | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/Kg | 38 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:11 | ESA | 1 |
| Aroclor-1221 | ND | | ug/Kg | 38 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:11 | ESA | 1 |
| Aroclor-1232 | ND | | ug/Kg | 38 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:11 | ESA | 1 |
| Aroclor-1242 | ND | | ug/Kg | 38 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:11 | ESA | 1 |
| Aroclor-1248 | ND | | ug/Kg | 38 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:11 | ESA | 1 |
| Aroclor-1254 | ND | | ug/Kg | 38 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:11 | ESA | 1 |
| Aroclor-1260 | ND | | ug/Kg | 38 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:11 | ESA | 1 |
| Aroclor-1262 | ND | | ug/Kg | 38 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:11 | ESA | 1 |
| Aroclor-1268 | ND | | ug/Kg | 38 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:11 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.050 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:02 | SRO | 1 |
| Barium | 0.40 | 100 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:02 | SRO | 1 |
| Cadmium | ND | 1 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:02 | SRO | 1 |
| Chromium | ND | 5 | mg/L | 0.030 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:02 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/30/03 13:58 | 09/30/03 15:33 | PSK | 1 |
| Lead | ND | 5 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:02 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.080 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:02 | SRO | 1 |

Workorder: 3034166 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034166001 | Matrix: | Solid |
| Client Sample ID: | S-32664-092403-SM-067 | Location: | |
| Collected: | 09/25/2003 11:00 | Project: | Project 32664 Sybill, Inc. |
| Received: | 09/26/2003 09:00 | Sampled By: | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Silver | ND | 5 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:02 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:22 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:22 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:22 | JEH | 1 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/29/03 17:22 | JEH | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:22 | JEH | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:22 | JEH | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:22 | JEH | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:22 | JEH | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:22 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:22 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:22 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 16:58 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 16:58 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 16:58 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 16:58 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 16:58 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 16:58 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 16:58 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 16:58 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 16:58 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 16:58 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 16:58 | BPJ | 1 |

Order: 3034166 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034166002 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-092403-SM-068 | **Location:** | |
| **Collected:** | 09/25/2003 14:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/26/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported on Dry Weight basis.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 40 | SW-846 7.3.3.2[1] | 09/29/03 10:28 | 09/30/03 10:36 | JB | 1 |
| Reactive Sulfide | ND | | mg/Kg | 70 | SW-846 7.3.4.2[1] | 09/29/03 10:45 | 09/30/03 10:48 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 09/29/03 09:18 | SKP | 1 |
| Ignitability | Non | | | | SW-846 7.1[1] | | 09/29/03 15:22 | WD | 1 |
| pH | 13.9 | | S.U. | | SW-846 9045C | | 09/29/03 09:18 | SKP | 1 |
| [redacted] Solids | 68.6 | | % | 0.10 | SM19 2540G[1] | | 09/29/03 07:03 | SKP | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/Kg | 49 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:38 | ESA | 1 |
| Aroclor-1221 | ND | | ug/Kg | 49 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:38 | ESA | 1 |
| Aroclor-1232 | ND | | ug/Kg | 49 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:38 | ESA | 1 |
| Aroclor-1242 | ND | | ug/Kg | 49 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:38 | ESA | 1 |
| Aroclor-1248 | ND | | ug/Kg | 49 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:38 | ESA | 1 |
| Aroclor-1254 | ND | | ug/Kg | 49 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:38 | ESA | 1 |
| Aroclor-1260 | ND | | ug/Kg | 49 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:38 | ESA | 1 |
| Aroclor-1262 | ND | | ug/Kg | 49 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:38 | ESA | 1 |
| Aroclor-1268 | ND | | ug/Kg | 49 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 15:38 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.27 J | 5 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:18 | SRO | 1 |
| Barium | 0.19 J | 100 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:18 | SRO | 1 |
| Cadmium | 0.075 J | 1 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:18 | SRO | 1 |
| Chromium | 0.18 J | 5 | mg/L | 0.060 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:18 | SRO | 1 |
| [redacted]ury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/30/03 13:58 | 09/30/03 15:40 | PSK | 1 |
| Lead | ND | 5 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:18 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.16 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:18 | SRO | 1 |

Workorder: 3034166 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034166002 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-092403-SM-068 | **Location:** | |
| **Collected:** | 09/25/2003 14:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/26/2003 09:00 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Silver | 0.072 J | 5 | mg/L | 0.040 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:18 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 18:16 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 18:16 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 18:16 | JEH | 1 |
| 2-Butanone ( M E K) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/29/03 18:16 | JEH | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 18:16 | JEH | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 18:16 | JEH | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 18:16 | JEH | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 18:16 | JEH | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 18:16 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 18:16 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 18:16 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 18:28 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 18:28 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 18:28 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 18:28 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.40 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 18:28 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 18:28 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 18:28 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 18:28 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 18:28 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.20 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 18:28 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.40 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 18:28 | BPJ | 1 |

SGS CT&E Environmental Services Inc.
Michigan Division

Workorder: 3034166 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| CT&E Sample ID: | 3034166003 | Matrix: | Solid |
| Client Sample ID: | S-32864-092403-SM-069 | Location: | |
| Collected: | 09/25/2003 14:30 | Project: | Project 32864 Sybill, Inc. |
| Received: | 09/26/2003 09:00 | Sampled By: | SM |

Comments: Results reported on Dry Weight basis.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Co II |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 30 | SW-846 7.3.3.2[1] | 09/29/03 10:28 | 09/30/03 10:36 | JB | 1 |
| Reactive Sulfide | ND | | mg/Kg | 70 | SW-846 7.3.4.2[1] | 09/29/03 10:45 | 09/30/03 10:48 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 09/29/03 09:18 | SKP | 1 |
| Ignitability | Non | | | | SW-846 7.1[1] | | 09/29/03 15:22 | WD | 1 |
| pH | 9.89 | | S.U. | | SW-846 9045C | | 09/29/03 09:18 | SKP | 1 |
| Total Solids | 76.0 | | % | 0.10 | SM19 2540G[1] | | 09/29/03 07:03 | SKP | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/Kg | 250 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 16:05 | ESA | 1 |
| Aroclor-1221 | ND | | ug/Kg | 250 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 16:05 | ESA | 1 |
| Aroclor-1232 | ND | | ug/Kg | 250 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 16:05 | ESA | 1 |
| Aroclor-1242 | ND | | ug/Kg | 250 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 16:05 | ESA | 1 |
| Aroclor-1248 | ND | | ug/Kg | 250 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 16:05 | ESA | 1 |
| Aroclor-1254 | ND | | ug/Kg | 250 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 16:05 | ESA | 1 |
| Aroclor-1260 | ND | | ug/Kg | 250 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 16:05 | ESA | 1 |
| Aroclor-1262 | ND | | ug/Kg | 250 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 16:05 | ESA | 1 |
| Aroclor-1268 | ND | | ug/Kg | 250 | SW-846 8082 / SW-846 3550B | 09/26/03 09:36 | 09/27/03 16:05 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.056 J | 5 | mg/L | 0.050 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:22 | SRO | 1 |
| Barium | 0.44 | 100 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:22 | SRO | 1 |
| Cadmium | 0.018 J | 1 | mg/L | 0.010 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:22 | SRO | 1 |
| Chromium | 0.052 J | 5 | mg/L | 0.030 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:22 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 09/30/03 13:58 | 09/30/03 15:43 | PSK | 1 |
| [redacted] | ND | 5 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:22 | SRO | 1 |
| [redacted] | ND | 1 | mg/L | 0.080 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:22 | SRO | 1 |

Workorder: 3034166 Conestoga-Rovers & Associates Reported: 9/30/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034166003 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-092403-SM-069 | **Location:** | |
| **Collected:** | 09/25/2003 14:30 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 09/26/2003 09:00 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Silver | ND | 5 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 09/29/03 14:12 | 09/30/03 13:22 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:49 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:49 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:49 | JEH | 1 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 09/29/03 17:49 | JEH | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:49 | JEH | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:49 | JEH | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:49 | JEH | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:49 | JEH | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:49 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:49 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 09/29/03 17:49 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 19:13 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 19:13 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 19:13 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 19:13 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 19:13 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 19:13 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 19:13 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 19:13 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 19:13 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 19:13 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 09/29/03 16:35 | 09/29/03 19:13 | BPJ | 1 |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32684 Sybill, Inc. | Batch | VMS 4866 |
| | | Method | SW-846 8260B |
| Matrix | Aqueous | Date | 09/29/2003 |
| | | By | JEH |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 336633 LCS | 104 | 107 | 112 | 105 |
| 336634 MB | 104 | 106 | 113 | 103 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 79-116 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 72-132 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 77-124 ) |
| TOL | = | Toluene-d8 Surr | ( 87-110 ) |

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4866 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Solid | **Date** | 09/29/2003 |
| | | **By** | JEH |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 3034166001 | PS | 106 | 99.1 | 115 | 110 |
| 3034166002 | PS | 107 | 71.9 | 116 | 109 |
| 3034166003 | PS | 106 | 104 | 117 | 110 |
| 336635 | MS | 107 | 73.3 | 114 | 110 |

| | | | |
|---|---|---|---|
| BFB | = | 4-Bromofluorobenzene Surr | ( 79-116 ) |
| DBFM | = | Dibromofluoromethane Surr | ( 72-132 ) |
| DCA | = | 1,2-Dichloroethane-D4 Surr | ( 77-124 ) |
| TOL | = | Toluene-d8 Surr | ( 87-110 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336633 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | VMS 4866 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | Q0929_03.D | | **Date** | 09/29/2003 |
| | | | **By** | JEH |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.22 | 112 | | | (86-121) | | |
| 1,2-Dichloroethane | 0.2 | 0.22 | 112 | | | (77-114) | | |
| 1,4-Dichlorobenzene | 0.2 | 0.21 | 107 | | | (83-120) | | |
| 2-Butanone (MEK) | 0.2 | 0.21 | 103 | | | (63-131) | | |
| Benzene | 0.2 | 0.19 | 97 | | | (87-112) | | |
| Carbon tetrachloride | 0.2 | 0.20 | 102 | | | (80-124) | | |
| Chlorobenzene | 0.2 | 0.20 | 101 | | | (85-117) | | |
| Chloroform | 0.2 | 0.20 | 98 | | | (83-113) | | |
| Tetrachloroethene | 0.2 | 0.18 | 89 | | | (59-148) | | |
| Trichloroethene | 0.2 | 0.20 | 101 | | | (83-111) | | |
| Vinyl chloride | 0.2 | 0.23 | 113 | | | (68-133) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| **Sample ID** | 336835 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | | **Batch** | VMS 4866 |
| **Original** | 3034166002 | **Method** | SW-846 8260B |
| **Client** | Conestoga-Rovers & Associates | | |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/29/2003 |
| **File** | Q0929_22.D | **By** | JEH |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.23 | 113 | | | ( 71-144 ) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.23 | 114 | | | ( 67-121 ) | | |
| Chlorobenzene | 0.2 | ND | 0.21 | 106 | | | ( 51-145 ) | | |
| 2-Butanone ( M E K ) | 0.2 | ND | 0.22 | 106 | | | ( 32-134 ) | | |
| Benzene | 0.2 | ND | 0.20 | 99 | | | ( 76-127 ) | | |
| Carbon tetrachloride | 0.2 | ND | 0.21 | 107 | | | ( 83-130 ) | | |
| Chlorobenzene | 0.2 | ND | 0.20 | 102 | | | ( 86-117 ) | | |
| Chloroform | 0.2 | ND | 0.20 | 101 | | | ( 71-137 ) | | |
| Tetrachloroethene | 0.2 | ND | 0.33 | 163 | | | ( 55-113 ) | | |
| Trichloroethene | 0.2 | ND | 0.36 | 178 | | | ( 80-122 ) | | |
| Vinyl chloride | 0.2 | ND | 0.24 | 119 | | | ( 59-145 ) | | |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336634 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4866 |
| **Project** | Project 32664 Sybil, Inc. | | **Method** | SW-846 8260B |
| **File** | Q0929_05.D | | | |
| | | | **Date** | 09/29/2003 |
| | | | **By** | JEH |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K ) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| Client | Conestoga-Rovers & Associates | Analysis | |
| Project | Project 32664 Sybill, Inc. | Batch | XMS 2835 |
| | | Method | SW-846 8270C |
| Matrix | Aqueous | Date | 09/25/2003 |
| | | By | BPJ |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 335752 | MB | 53 | 81.3 | 82.7 | 41.3 | 91.6 | 89.8 |
| 335753 | LCS | 52 | 75.5 | 80.7 | 38.5 | 87.9 | 82.5 |
| 335754 | LCSD | 46.6 | 71.8 | 78.1 | 35 | 79.6 | 70.9 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | ( 14-68 ) |
| FBP | = | 2-Fluorobiphenyl Surr | ( 31-99 ) |
| NB2 | = | Nitrobenzene-d5 Surr | ( 33-102 ) |
| PHL | = | Phenol-d5 Surr | ( 13-50 ) |
| TBP | = | 2,4,6-Tribromophenol Surr | ( 31-133 ) |
| TPH | = | Terphenyl-d14 Surr | ( 20-116 ) |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664.Sybill, Inc. | **Batch** | XMS 2837 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Solid | **Date** | 09/29/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3034166001 PS | 50.9 | 80.3 | 76.1 | 40.5 | 87 | 65.6 |
| 3034166002 PS | 46.3 | 72.9 | 71.2 | 36.4 | 70.9 | 73.2 |
| 3034166003 PS | 48.7 | 73.5 | 81.1 | 40.2 | 92.9 | 50.5 |
| 336469 MS | 51.3 | 82.6 | 81.9 | 38.2 | 87.3 | 68.3 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | ( 14-68 ) |
| FBP | = | 2-Fluorobiphenyl Surr | ( 31-99 ) |
| NB2 | = | Nitrobenzene-d5 Surr | ( 33-102 ) |
| PHL | = | Phenol-d5 Surr | ( 13-50 ) |
| TBP | = | 2,4,6-Tribromophenol Surr | ( 31-133 ) |
| TPH | = | Terphenyl-d14 Surr | ( 20-116 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 335753 | Lab Control Spike | | | |
| | 335754 | Lab Control Spike Dup | **Analysis** | | |
| **Prep Batch** | XXX | 5991 | **Batch** | XMS | 2835 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C | |
| **Project** | Project 32664 Sybil, Inc. | | | | |
| **File** | F0925_05.D | | **Date** | 09/25/2003 | |
| | F0925_06.D | | **By** | BPJ | |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.15 | 76 | 0.14 | 71 | (36-135) | 7 | (< 27) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.16 | 81 | 0.15 | 76 | (32-140) | 6 | (< 27) |
| 2,4-Dinitrotoluene | 0.05, 0.05 | 0.043 | 86 | 0.039 | 78 | (47-140) | 9 | (< 30) |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.14 | 71 | 0.13 | 67 | (27-119) | 5 | (< 32) |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.17 | 69 | 0.16 | 65 | (25-112) | 6 | (< |
| Hexachlorobenzene | 0.05, 0.05 | 0.039 | 79 | 0.036 | 72 | (36-138) | 9 | (< 16) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.033 | 65 | 0.032 | 65 | (18-122) | 1 | (< 26) |
| Hexachloroethane | 0.05, 0.05 | 0.036 | 72 | 0.036 | 73 | (16-112) | 1 | (< 24) |
| Nitrobenzene | 0.05, 0.05 | 0.043 | 85 | 0.042 | 84 | (27-128) | 1 | (< 24) |
| Pentachlorophenol | 0.2, 0.2 | 0.17 | 87 | 0.16 | 78 | (45-162) | 11 | (< 17) |
| Pyridine | 0.05, 0.05 | 0.021 | 41 | 0.019 | 37 | (12-68) | 10 | (< 20) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336469 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 5991 | | **Batch** | XMS 2837 |
| **Original** | 3034166001 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32684 Sybil, Inc. | | **Date** | 09/29/2003 |
| **File** | F0929_13.D | | **By** | BPJ |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.16 | 80 | | | ( 25-137 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.17 | 84 | | | ( 30-128 ) | | |
| 2,4-Dinitrotoluene | 0.05 | ND | 0.041 | 83 | | | ( 36-134 ) | | |
| [illegible]ethylphenol (o-Cresol) | 0.2 | ND | 0.15 | 74 | | | ( 16-116 ) | | |
| [illegible]-Methylphenol (p&m-Cresol) | 0.25 | ND | 0.18 | 73 | | | ( 18-112 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.035 | 71 | | | ( 31-125 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.036 | 71 | | | ( 14-106 ) | | |
| Hexachloroethane | 0.05 | ND | 0.040 | 80 | | | ( 14-104 ) | | |
| Nitrobenzene | 0.05 | ND | 0.045 | 90 | | | ( 15-129 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.16 | 82 | | | ( 17-156 ) | | |
| Pyridine | 0.05 | ND | 0.023 | 46 | | | ( 10-75 ) | | |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 335752 | Method Blank | | |
| **Prep Batch** | XXX | 5991 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XMS 2835 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8270C |
| **File** | F0925_04.D | | | |
| | | | **Date** | 09/25/2003 |
| | | | **By** | BPJ |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XGC 3858 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/27/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3034166001 | PS | 74.3 | 81 |
| 3034166002 | PS | 72.7 | 44 |
| 3034166003 | PS | 72.3 | 129 |
| 336075 | MB | 90.7 | 34.3 |
| 336076 | LCS | 94.3 | 36.7 |
| 336077 | LCSD | 84.7 | 48 |

**DCB** = **Decachlorobiphenyl Surr** **( 10-151 )**
**TMX** = **Tetrachloro-m-xylene Surr** **( 10-140 )**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3861 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/29/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 336078 | MS | 68.7 | 56.3 |
| 336079 | MSD | 72.7 | 61 |

| | | | |
|---|---|---|---|
| **DCB** | = | **Decachlorobiphenyl Surr** | **( 10-151 )** |
| **TMX** | = | **Tetrachloro-m-xylene Surr** | **( 10-140 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336076 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 5997 | **Batch** | XGC 3858 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybil, Inc. | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 09/27/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | LCS;LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration ug/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 330, 330 | 270 | 80 | 260 | 77 | ( 35-105 ) | 4 | (< 20 ) |
| Aroclor-1260 | 330, 330 | 260 | 78 | 230 | 70 | ( 54-114 ) | 10 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 338078 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 5997 | | **Batch** | XGC 3861 |
| **Original** | 3034133003 | | **Method** | SW-846 8082 |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | Varian 3400 ECD INST-U |
| **Project** | Project 32664 Sybil, Inc. | | **Date** | 09/29/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | MS, MSD Spike Added ug/Kg | Sample Conc. ug/Kg | MS Concentration ug/Kg | MS Recovery % | MSD Concentration ug/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 370, 370 | ND | 320 | 86 | 350 | 94 | ( 10-140 ) | 10 | (< 20 ) |
| Aroclor-1260 | 370, 370 | ND | 240 | 64 | 300 | 81 | ( 10-135 ) | 22 | (< 20 ) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 338075 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 5997 | **Batch** | XGC 3858 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 09/27/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Aroclor-1016 | ND | 33 |
| Aroclor-1221 | ND | 33 |
| Aroclor-1232 | ND | 33 |
| Aroclor-1242 | ND | 33 |
| Aroclor-1248 | ND | 33 |
| Aroclor-1254 | ND | 33 |
| Aroclor-1260 | ND | 33 |
| Aroclor-1262 | ND | 33 |
| Aroclor-1268 | ND | 33 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336452 Lab Control Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11423 | **Batch** | MIM 5750 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\093003\LCS.013 | **Date** | 09/30/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 102 | | | ( 50-150 ) | | |
| Barium | 1 | 0.98 | 98 | | | ( 50-150 ) | | |
| Cadmium | 1 | 0.98 | 98 | | | ( 50-150 ) | | |
| Chromium | 1 | 1.0 | 102 | | | ( 50-150 ) | | |
| Lead | 1 | 1.0 | 101 | | | ( 50-150 ) | | |
| Selenium | 1 | 1.00 | 100 | | | ( 50-150 ) | | |
| Silver | 1 | 1.0 | 103 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336454 Matrix Spike TCLP | | |
| | 336455 Matrix Spike Duplicate TCLP | **Analysis** | |
| **Prep Batch** | MXX 11423 | **Batch** | MIM 5750 |
| **Original** | 3034166001 | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/30/2003 |
| **File** | N:\ICPMS\elandata\Dataset\093003\3034166001 MS.015 | **By** | SRO |
| | N:\ICPMS\elandata\Dataset\093003\3034166001 MSD.016 | | |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1.2, 1.2 | ND | ND | 104 | ND | 101 | (50-150) | 2 | (< 20) |
| Barium | 1.2, 1.2 | 0.40 | ND | 101 | ND | 99 | (50-150) | 1 | (< 20) |
| [illegible]ium | 1.2, 1.2 | ND | 1.2 | 100 | 1.2 | 100 | (50-150) | 0 | (< 20) |
| Chromium | 1.2, 1.2 | ND | ND | 103 | ND | 103 | (50-150) | 0 | (< 20) |
| Lead | 1.2, 1.2 | ND | ND | 101 | ND | 101 | (50-150) | 0 | (< 20) |
| Selenium | 1.2, 1.2 | ND | ND | 100 | ND | 99 | (50-150) | 1 | (< 20) |
| Silver | 1.2, 1.2 | ND | ND | 95 | ND | 97 | (50-150) | 1 | (< 20) |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336456 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11423 | **Batch** | MIM 5750 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\093003\MB.012 | **Date** | 09/30/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| Selenium | ND | 0.016 |
| Silver | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336785 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | MXX 11432 | **Batch** | MCV 2025 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium | |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\093003W1.TXT | **Date** | 09/30/2003 | |
| | | **By** | PSK | |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0023 | 113 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 336767 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11432 | **Batch** | MCV 2025 |
| **Original** | 3034166001 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/30/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\093003W1.TXT | **By** | PSK |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.022 | 108 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336784 Method Blank | **Analysis** | |
| **Prep Batch** | MXX 11432 | **Batch** | MCV 2025 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\093003W1.TXT | **Date** | 09/30/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336645 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | WXX 3469 | **Batch** | WLA 1516 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 | |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | Quick Chem 8000 Lachat | |
| | | **Date** | 09/30/2003 | |
| | | **By** | JB | |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | ND | 21 | | | (2.6-49) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336646 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3469 | **Batch** | WLA 1516 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| | | **Date** | 09/30/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336847 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3469 | **Batch** | WLA 1516 |
| **Original** | 3034169001 | **Method** | SW-846 7.3.3.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Quick Chem 8000 Lachat |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/30/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Cyanide | ND | ND | 30 | 4.40 | (< 20) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336872 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3470 | **Batch** | WAT 1834 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 09/30/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 380 | 92 | | | ( 57-109 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336871 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3470 | **Batch** | WAT 1834 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybil, Inc. | **Instrument** | No Instrument, Manual Handling |
| | | **Date** | 09/30/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336873 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3470 | **Batch** | WAT 1834 |
| **Original** | 3034169001 | **Method** | SW-846 7.3.4.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | No Instrument, Manual Handling |
| **Project** | Project 32684 Sybill, Inc. | **Date** | 09/30/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 50 | 0.00 | (< 20 ) |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 336368 pH Calibration Standard | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2074 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 09/29/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

**Sample ID** 336371 Quality Control Sample

**Prep Batch**
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.

**Analysis**
**Batch** WPH 2074
**Method** SW-846 9040B
**Instrument** Orion Ion Analyzer EA940 SZ25A
**Date** 09/29/2003
**By** SKP

QC results affect the following production samples:

3034166001, 3034166003

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 8.00 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

**Sample ID** 336372 Quality Control Sample

**Prep Batch**
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.

**Analysis**
**Batch** WPH 2074
**Method** SW-846 9040B
**Instrument** Orion Ion Analyzer EA940 SZ25A
**Date** 09/29/2003
**By** SKP

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 8.01 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336377 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2074 |
| **Original** | 3034166003 | **Method** | SW-846 9040B |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 09/29/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 9.89 | 9.90 | | 0.10 | (< 20) |

## METHOD BLANK SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 336304 | Method Blank | **Analysis** | |
| **Prep Batch** | | | **Batch** | WG1 4722 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SM19 2540G |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 09/29/2003 |
| | | | **By** | SKP |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | Concentration % | Detection Limit % |
|---|---|---|
| Total Solids | 100 | 0.10 |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 336305 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | | **Batch** | WG1 4722 |
| **Original** | 3034169001 | **Method** | SM19 2540G |
| **Client** | Conestoga-Rovers & Associates | | |
| **Project** | Project 32684 Sybill, Inc. | **Date** | 09/29/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3034166001, 3034166002, 3034166003

| Analyte | Original Sample Concentration % | Dilution / Duplicate Concentration % | RDL % | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Solids | 96.3 | 96.4 | 0.10 | 0.03 | (< 20) |

SGS

RECEIVED CRA
JAN 30 2004
SDG: 20113

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
SGS Work Order: 3034646

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

SGS Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

ORIGINAL ANALYTICAL REPORT
Project#: 32464 Lab#: 3034646
Name: Sybill, Inc.
Description
Event:
Samples: 1 Liquid
Analysis: TCLP MCL, PCB
RCI
TAT: 4 days
Lab: SGS
Checked Against Preliminary Data:
Date: 2-2-04 Init.: LB.
Date of Validation Memo: 2-2-04
Invoice Approval Date:
Comments: Revision

Approval Signature: Tamela M. Johnson

Date Revision Issued: 1-29-04
Total Pages: 36

SGS CT&E Environmental Services Inc.
Michigan Division

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
SGS Work Order: 3034646

***Sample Collection and Receipt -***

One sample was collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on October 23, 2003. The sample container was released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on October 24, 2003 in good condition, on ice and at a temperature of 4°C. Following log-in, the sample was stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

The sample was analyzed for Polychlorinated Biphenyls (PCBs).

The client requested analysis within forty-eight hours, per the COC.

After receipt of the final report, the client requested additional analyses for TCLP Metals, and RCRA Waste Characteristics (Reactive Cyanide, Reactive Sulfide, Corrosivity/pH, and Flashpoint).

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples were processed with the preparation batch.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced method with no exceptions.

***Sample Reporting –***

No sample qualifications were required for any sample or quality control issues.

The accompanying data package was revised on January 28, 2004 to include the results for the TCLP and RCRA Waste Characterization analyses which were added on December 3, 2003.

*Reporting Party:* Tamela M. Johnson *Phone*: (231) 843-1877
Tamela M. Johnson, Reporting Group Supervisor

*Date:* 1-28-04

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
SGS Work Order: 3034646

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | SGS Sample Number |
|---|---|
| L-32664-102303-SM-070 | 3034646001 |

# Explanation of Terms and Data Qualifiers

| Term/Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

# CRA
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123


## CHAIN OF CUSTODY RECORD

SHIPPED TO (Laboratory Name): CT&E (SGS) 231-843-1877
1200 Conrad Industrial Drive, Ludington MI 49431

REFERENCE NUMBER: 32664 303446

PROJECT NAME: Sybill, Inc

SAMPLER'S SIGNATURE: Shawn McLean PRINTED NAME: Shawn McLean

| SEQ. No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | PARAMETERS: VOCs | | | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10-23-03 | 0800 | L-32664-102303-SM-070 | non-aqueous liquid | 1 | ✓ | | | | | | | | | | |
| | | | | | | | | | | | | | | | | 48 hrs / tat |
| TOTAL NUMBER OF CONTAINERS | | | | | 1 | | | | | | | | | | | |

| RELINQUISHED BY: | DATE / TIME | RECEIVED BY: | DATE / TIME |
|---|---|---|---|
| 1. [signature] | DATE: 10-23-03 TIME: 1:35 | 1. [signature] | DATE: 10-23-03 TIME: 1:35 |
| 2. [signature] | DATE: TIME: | 2. | DATE: TIME: |
| 3. | DATE: TIME: | 1. | DATE: TIME: |

METHOD OF SHIPMENT: lab courier

AIR BILL No.

| | | | |
|---|---|---|---|
| White | -Fully Executed Copy | Pink | -Shipper Copy |
| Yellow | -Receiving Laboratory Copy | Goldenrod | -Sampler Copy |

24080

SAMPLE TEAM: [signature]

RECEIVED FOR LABORATORY BY: [signature]

DATE: 10-24-03 TIME: 830 42

1001 (FORMS)-APRIL 29, 93-REV.0-(C)(F-01)

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist



Project Number: 3034646 Date Logged In: 10/24/03 Login Person Initials: PA

This section to be completed when corrective action is required:

Client: CRA Project Name: _____
Client Contact: _____ Phone Number: _____

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | | |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 1 L liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Samp. No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

# Laboratory Report

SGS CT&E Environmental Services Inc.
Michigan Division

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3034646**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

1/28/2004
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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SGS Member of the SGS Group (Societe Generale de Surveillance)

# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

*Workorder:* *3034646* Conestoga-Rovers & Associates *Reported:* *1/28/2004*

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034646001 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-102303-SM-070 | **Location:** | |
| **Collected:** | 10/23/2003 08:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 10/24/2003 08:30 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 10 | SW-846 7.3.3.2[1] | 12/08/03 10:44 | 12/08/03 14:33 | JB | |
| Reactive Sulfide | ND | | mg/Kg | 10 | SW-846 7.3.4.2[1] | 12/08/03 15:23 | 12/08/03 15:34 | JB | |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 12/08/03 13:40 | SKP | |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 12/08/03 14:30 | WD | |
| pH | 7.21 | | S.U. | | SW-846 9040B | | 12/08/03 13:40 | SKP | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 10/24/03 17:19 | 10/24/03 17:15 | ESA | 1 |
| Aroclor-1221 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 10/24/03 17:19 | 10/24/03 17:15 | ESA | 1 |
| Aroclor-1232 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 10/24/03 17:19 | 10/24/03 17:15 | ESA | 1 |
| Aroclor-1242 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 10/24/03 17:19 | 10/24/03 17:15 | ESA | 1 |
| Aroclor-1248 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 10/24/03 17:19 | 10/24/03 17:15 | ESA | 1 |
| Aroclor-1254 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 10/24/03 17:19 | 10/24/03 17:15 | ESA | 1 |
| Aroclor-1260 | 29 | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 10/24/03 17:19 | 10/24/03 17:15 | ESA | 1 |
| Aroclor-1262 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 10/24/03 17:19 | 10/24/03 17:15 | ESA | 1 |
| Aroclor-1268 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 10/24/03 17:19 | 10/24/03 17:15 | ESA | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.30 | SW-846 6020 / SW-846 3010A | 12/04/03 14:25 | 12/06/03 16:57 | SUB | |
| Barium | ND | 100 | mg/L | 1.0 | SW-846 6020 / SW-846 3010A | 12/04/03 14:25 | 12/06/03 16:57 | SUB | |
| Cadmium | ND | 1 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 12/04/03 14:25 | 12/06/03 16:57 | SUB | |
| Chromium | 2.6 | 5 | mg/L | 0.50 | SW-846 6020 / SW-846 3010A | 12/04/03 14:25 | 12/06/03 16:57 | SUB | |
| Mercury | ND | 0.2 | mg/L | 0.010 | SW-846 7470A | 12/04/03 15:16 | 12/04/03 19:36 | PSK | |
| Lead | 3.7 | 5 | mg/L | 0.50 | SW-846 6020 / SW-846 3010A | 12/04/03 14:25 | 12/06/03 16:57 | SUB | |
| Selenium | ND | 1 | mg/L | 0.60 | SW-846 6020 / SW-846 3010A | 12/04/03 14:25 | 12/06/03 16:57 | SUB | |
| Silver | 0.12 | 5 | mg/L | 0.10 | SW-846 6020 / SW-846 3010A | 12/04/03 14:25 | 12/06/03 16:57 | SUB | |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3899 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 10/24/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3034646001 | PS | 75.7 | 70.3 |

**DCB** = **Decachlorobiphenyl Surr** **( 25-170 )**
**TMX** = **Tetrachloro-m-xylene Surr** **( 25-150 )**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3900 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 10/27/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 339822 | MB | 91.3 | 88 |
| 339823 | LCS | 91.3 | 74 |
| 339824 | LCSD | 80 | 65 |
| 339825 | MS | 96.7 | 86 |
| 339826 | MSD | 90 | 78 |

**DCB = Decachlorobiphenyl Surr ( 25-170 )**
**TMX = Tetrachloro-m-xylene Surr ( 25-150 )**

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 339823 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 6074 | **Batch** | XGC 3900 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 10/27/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3034646001

| Analyte | LCS;LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration mg/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.8, 9.8 | 5.8 | 59 | 5.1 | 52 | ( 25-141 ) | 13 | (< 20 ) |
| Aroclor-1260 | 9.8, 9.8 | 7.8 | 80 | 6.8 | 70 | ( 29-170 ) | 14 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 339825 Matrix Spike | | |
| | | **Analysis** | |
| **Prep Batch** | XXX 6074 | **Batch** | XGC 3900 |
| **Original** | 3034565005 | **Method** | SW-846 8082 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Varian 3400 ECD INST-U |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 10/28/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3034646001

| Analyte | MS, MSD Spike Added mg/Kg | Sample Conc. mg/Kg | MS Concentration mg/Kg | MS Recovery % | MSD Concentration mg/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.9, 9.8 | ND | 7.3 | 74 | 6.7 | 69 | ( 22-196 ) | 8 | (< 20 ) |
| Aroclor-1260 | 9.9, 9.8 | ND | 8.9 | 90 | 9.0 | 92 | ( 49-187 ) | 1 | (< 20 ) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 339822 Method Blank | | |
| **Prep Batch** | XXX 6074 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | XGC 3900 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 8082 |
| | | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 10/27/2003 |
| | | **By** | ESA |

QC results affect the following production samples:

3034646001

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Aroclor-1016 | ND | 0.97 |
| Aroclor-1221 | ND | 0.97 |
| Aroclor-1232 | ND | 0.97 |
| Aroclor-1242 | ND | 0.97 |
| Aroclor-1248 | ND | 0.97 |
| Aroclor-1254 | ND | 0.97 |
| Aroclor-1260 | ND | 0.97 |
| Aroclor-1262 | ND | 0.97 |
| Aroclor-1268 | ND | 0.97 |

# TCLP Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

**Sample ID** 346189 Lab Control Spike TCLP

**Prep Batch** MXX 11749
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.

**Analysis**
**Batch** MIM 5965
**Method** SW-846 6020
**Instrument** SCIEX ELAN 6100 ICP/MS
**Date** 12/06/2003
**By** FLD

QC results affect the following production samples:

3034646001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 0.93 | 93 | | | ( 50-150 ) | | |
| Barium | 1 | 0.99 | 99 | | | ( 50-150 ) | | |
| Cadmium | 1 | 0.97 | 97 | | | ( 50-150 ) | | |
| Chromium | 1 | 0.96 | 96 | | | ( 50-150 ) | | |
| Lead | 1 | 1.1 | 111 | | | ( 50-150 ) | | |
| Selenium | 1 | 0.86 | 86 | | | ( 50-150 ) | | |
| Silver | 1 | 1.0 | 103 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 346190 | Matrix Spike TCLP | | |
| | 346191 | Matrix Spike Duplicate TCLP | **Analysis** | |
| **Prep Batch** | MXX | 11749 | **Batch** | MIM 5965 |
| **Original** | 3034646001 | | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybil, Inc. | | **Date** | 12/06/2003 |
| | | | **By** | SUB |

QC results affect the following production samples:

3034646001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 50, 50 | ND | 51 | 101 | 52 | 105 | ( 50-150 ) | 3 | (< 20 ) |
| [illegible]m | 50, 50 | ND | 48 | 97 | 50 | 100 | ( 50-150 ) | 4 | (< 20 ) |
| [illegible]mium | 50, 50 | ND | 53 | 105 | 54 | 108 | ( 50-150 ) | 2 | (< 20 ) |
| Chromium | 50, 50 | 2.6 | 53 | 101 | 55 | 105 | ( 50-150 ) | 4 | (< 20 ) |
| Lead | 50, 50 | 3.7 | 62 | 116 | 64 | 121 | ( 50-150 ) | 4 | (< 20 ) |
| Selenium | 50, 50 | ND | 49 | 99 | 51 | 103 | ( 50-150 ) | 4 | (< 20 ) |
| Silver | 50, 50 | 0.12 | 55 | 110 | 57 | 113 | ( 50-150 ) | 3 | (< 20 ) |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 346193 | Method Blank | | |
| **Prep Batch** | MXX | 11749 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | MIM 5965 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 6020 |
| | | | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| | | | **Date** | 12/06/2003 |
| | | | **By** | SUB |

QC results affect the following production samples:

3034646001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.30 |
| Barium | ND | 1.0 |
| Cadmium | ND | 0.10 |
| Chromium | ND | 0.50 |
| Lead | ND | 0.50 |
| Selenium | ND | 0.60 |
| Silver | ND | 0.10 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 346258 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11753 | **Batch** | MCV 2060 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\120403W1.TXT | **Date** | 12/04/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3034646001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0022 | 109 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 346259 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11753 | **Batch** | MCV 2060 |
| **Original** | 3034646001 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32684 Sybill, Inc. | **Date** | 12/04/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\120403W1.TXT | **By** | PSK |

QC results affect the following production samples:

3034646001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.1 | ND | 0.067 | 67 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 346257 Method Blank | | |
| **Prep Batch** | MXX 11753 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MCV 2060 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 7470A |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\120403W1.TXT | **Instrument** | PSA Millenium |
| | | **Date** | 12/04/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3034646001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

**Sample ID** 346702 Lab Control Spike

**Prep Batch** WXX 3577
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.

**Analysis**
**Batch** WLA 1686
**Method** SW-846 7.3.3.2
**Instrument** KoneLab Aqua 20
**Date** 12/08/2003
**By** JB

QC results affect the following production samples:

3034646001

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | ND | 18 | | | ( 5-24 ) | | |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 346704 | Matrix Duplicate | | |
| **Prep Batch** | WXX | 3577 | | |
| **Original** | 3035296002 | | | |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | | |

| **Analysis** | |
|---|---|
| **Batch** | WLA 1686 |
| **Method** | SW-846 7.3.3.2 |
| **Instrument** | KoneLab Aqua 20 |
| **Date** | 12/08/2003 |
| **By** | JB |

QC results affect the following production samples:

3034646001

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Cyanide | ND | ND | 10 | 200.00 | (< 20 ) |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 346703 | Method Blank | | |
| **Prep Batch** | WXX | 3577 | | |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybil, Inc. | | | |

| **Analysis** | |
|---|---|
| **Batch** | WLA 1686 |
| **Method** | SW-846 7.3.3.2 |
| **Instrument** | KoneLab Aqua 20 |
| **Date** | 12/08/2003 |
| **By** | JB |

QC results affect the following production samples:

3034646001

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 10 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 346681 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3576 | **Batch** | WAT 1856 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 12/08/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3034646001

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 400 | 370 | 92 | | | ( 57-109 ) | | |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 346679 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3576 | **Batch** | WAT 1856 |
| **Original** | 3035296002 | **Method** | SW-846 7.3.4.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | No Instrument, Manual Handling |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 12/08/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3034646001

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 10 | 0.00 | (< 20 ) |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 346680 | Method Blank | | |
| **Prep Batch** | WXX | 3576 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | WAT 1856 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 7.3.4.2 |
| | | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 12/08/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3034646001

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 10 |

# Physical Property

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 346670 | Flashpoint Calibration Std. | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | MXX 11758 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 1010 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 12/08/2003 |
| | | | **By** | WD |

QC results affect the following production samples:

3034646001

| Analyte | LCS,LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 79 | 99 | | | ( 98-102 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 346672 pH Calibration Standard | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2104 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 12/08/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3034646001

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 7.01 | | | | ( 99-101 ) | | |
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

**Sample ID** 346673 Quality Control Sample

**Prep Batch**
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.

**Analysis**
**Batch** WPH 2104
**Method** SW-846 9040B
**Instrument** Orion Ion Analyzer EA940 SZ25A
**Date** 12/08/2003
**By** SKP

QC results affect the following production samples:

3034646001

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 8.01 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 346674 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2104 |
| **Original** | 3034646001 | **Method** | SW-846 9040B |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 12/08/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3034646001

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 7.21 | 7.22 | | 0.14 | (< 20 ) |

SGS

RECD CRA
NOV 10
SDG: 21

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034720

ORIGINAL ANALYTICAL REPORT

Project#: 32664 Lab#: 3034720

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Name: SYBILL INC.

Description

Event:
Samples: 1 LIQUID
Analysis: TCLP VOC, SVOC, MTL, RCI
TAT: 2 DAY
Lab: SGS

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

Checked Against Preliminary Data:
Date: 11-17-03 Init.: K.B.
Date of Validation Memo:
Invoice Approval Date:
Comments:

Approval Signature: Tamela M. Johnson

Date Issued: 11-6-03
Total Pages: 45

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034720

***Sample Collection and Receipt -***

One sample was collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on October 27, 2003. The sample containers were released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on October 28, 2003 in good condition, on ice and at a temperature of 6°C. The sample containers were received labeled as S-32664-102703-SM-070 but, were logged-in according to the COC as S-32664-102703-SM-071. Following log-in, the sample was stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

The sample was analyzed for RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the sample was extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. The leachate was analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals.

The sample was received for analysis within forty-eight hours as requested on the COC.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC/MS Volatile Analysis*

The recovery for Vinyl chloride was above the upper control limit in the MS on sample 3034720001 associated with analytical batch VMS 4970. Vinyl chloride was not detected in the parent sample.

*GC/MS Semi-Volatile Analysis*

Surrogate recoveries for 2-Fluorophenol, Phenol-d5 and 2,4,6-Tribromophenol were below the lower control limits in the MS on sample 3034720001. The surrogate recoveries in the parent sample were acceptable.

The relative percent difference was above QC acceptance criteria for Hexachloroethane, Nitrobenzene and Pyridine in the LCS associated with preparation batch XXX 6102. No corrective action was initiated on the basis of the RPD results.

The recoveries for 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol, 2,4-Dinitrotoluene and Pentachlorophenol were below the lower control limit in the MS on sample 3034720001 associated with preparation batch XXX 6102. These compounds may be biased low in the parent sample.

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034720

***Quality Control (QC) –continued***

*Metals Analysis*

The Cadmium, Chromium and Silver results for sample 3034720001 were flagged as estimated because the relative standard deviation (RSD) of the analysis replicates were greater than twenty percent.

***Sample Reporting –***

The percent solid was determined and Reactive Cyanide and Sulfide results corrected to a dry weight reporting basis.

The Cadmium, Chromium and Silver results for sample 3034720001 were qualified as estimated (J) due to a relative standard deviation (RSD) greater than twenty.

No other sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Leann Petersen *Phone:* (231) 843-1877
Leann Petersen, Reporting Group

*Date:* 11-6-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3034720

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |
| Total Solids | SM 2540G[2] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.
[2] Standard Methods for the Examination of Water & Wastewater. 19th Edition, 1995.

## II. Sample Summary:

| CRA | CTE-MI |
|---|---|
| Sample Number | Sample Number |
| S-32664-102703-SM-071 | 3034720001 |

# Explanation of Terms and Data Qualifiers

| Term/Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

3034720

CT&E Environmental Services Inc.

**CRA** 171113 COC Serial

CONESTOGA-ROVERS & ASSOCIATES, INC.
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

CT&E (SGS) 231-843-1877
1200 Conrad Industrial Drive, Ludington MI 49431

# CHAIN OF CUSTODY RECORD

REFERENCE NUMBER: 032664

PROJECT NAME: Sybill, Inc

SAMPLER'S SIGNATURE: Shawn McLean PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | PARAMETERS: TCLP Metals | TCLP VOC's | TCLP SVOC's | RCI | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10-27 | 0800 | ~~D3~~ S-32664-102703-SM-071 | sludge | 2 | | | | | | | | | | |
| | | | | | | | | | | | | | | | 48 hr tat |
| | | | TOTAL NUMBER OF CONTAINERS | | 2 | | | | | | | | | | |

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. Shawn McLean | DATE: 10-27-03 TIME: | RECEIVED BY: 1. | DATE: 10/28/03 TIME: 11:20 |
| RELINQUISHED BY: 2. | DATE: 10/28/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: lab courier AIR BILL No.

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

SAMPLE TEAM:

RECEIVED FOR LABORATORY BY:

DATE: 10/29/03 TIME: 0900 6°C

24081

1001 (FORM APRIL 29, 93-REV.0-(C)(F-01)

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist

page: ___ of ___

Project Number: 3034720 Date Logged In: 10/29/03 Login Person Initials: SK

This section to be completed when corrective action is required:

Client: CRA Project Name: _____
Client Contact: _____ Phone Number: _____

| | | YES | NO |
|---|---|---|---|
| | *If no to any, notify the project manager and project manager documents client response below.* | | |
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | | ✓ |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | | |
| 14. | Were proper sample weights met for Wisconsin soil samples? | | |

**COMMENTS/CORRECTIVE ACTION**

COC ID: S-321064-102703-SM-071 ; Bottle label IDs: S-321064-102703-SM-070
Logged in according to ID on COC, SK 10/29/03

**Containers Created**

| 40 mL vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Samp. No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

# Laboratory Report

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3034720**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

11/3/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

Work Order: 3034720 Conestoga-Rovers & Associates Reported: 11/3/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034720001 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-102703-SM-071 | **Location:** | |
| **Collected:** | 10/27/2003 08:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 10/29/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported on Dry Weight basis.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 50 | SW-846 7.3.3.2[1] | 10/30/03 11:32 | 10/31/03 12:01 | JB | 1 |
| Reactive Sulfide | ND | | mg/Kg | 90 | SW-846 7.3.4.2[1] | 10/30/03 13:22 | 10/31/03 13:28 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 10/31/03 14:19 | KAA | 1 |
| Ignitability | Non | | | | SW-846 7.1[1] | | 10/31/03 10:07 | WD | 1 |
| pH | 5.01 | | S.U. | | SW-846 9045C | | 10/31/03 14:19 | KAA | 1 |
| Total Solids | 52.8 | | % | 0.10 | SM19 2540G[1] | | 10/30/03 10:28 | SKP | |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.27 | 5 | mg/L | 0.020 | SW-846 6020 / SW-846 3010A | 10/30/03 14:14 | 10/30/03 20:22 | SRO | 1 |
| Barium | 0.72 | 100 | mg/L | 0.0080 | SW-846 6020 / SW-846 3010A | 10/30/03 14:14 | 10/30/03 20:22 | SRO | 1 |
| Cadmium | 0.030 J | 1 | mg/L | 0.0040 | SW-846 6020 / SW-846 3010A | 10/30/03 14:14 | 10/30/03 20:22 | SRO | 1 |
| Chromium | 0.084 J | 5 | mg/L | 0.012 | SW-846 6020 / SW-846 3010A | 10/30/03 14:14 | 10/30/03 20:22 | SRO | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 10/30/03 14:13 | 10/30/03 17:47 | PSK | 1 |
| Lead | 0.023 | 5 | mg/L | 0.0080 | SW-846 6020 / SW-846 3010A | 10/30/03 14:14 | 10/30/03 20:22 | SRO | 1 |
| Selenium | ND | 1 | mg/L | 0.032 | SW-846 6020 / SW-846 3010A | 10/30/03 14:14 | 10/30/03 20:22 | SRO | 1 |
| Silver | 0.037 J | 5 | mg/L | 0.0080 | SW-846 6020 / SW-846 3010A | 10/30/03 14:14 | 10/30/03 20:22 | SRO | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 10/30/03 13:45 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 10/30/03 13:45 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 10/30/03 13:45 | JEH | 1 |
| 2-Butanone ( M E K ) | 0.077 | 200 | mg/L | 0.050 | SW-846 8260B | | 10/30/03 13:45 | JEH | 1 |
| Benzene | 0.020 | 0.5 | mg/L | 0.010 | SW-846 8260B | | 10/30/03 13:45 | JEH | 1 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 10/30/03 13:45 | JEH | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 10/30/03 13:45 | JEH | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 10/30/03 13:45 | JEH | 1 |

*Workorder:* *3034720* Conestoga-Rovers & Associates *Reported:* *11/3/2003*

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3034720001 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-102703-SM-071 | **Location:** | |
| **Collected:** | 10/27/2003 08:00 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 10/29/2003 09:00 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 10/30/03 13:45 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 10/30/03 13:45 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 10/30/03 13:45 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 11/01/03 08:35 | 11/03/03 14:01 | BPJ | |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 11/01/03 08:35 | 11/03/03 14:01 | BPJ | |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 11/01/03 08:35 | 11/03/03 14:01 | BPJ | |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 11/01/03 08:35 | 11/03/03 14:01 | BPJ | |
| 3&4-Methylphenol (p&m-Cresol) | 0.32 | 200 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 11/01/03 08:35 | 11/03/03 14:01 | BPJ | |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 11/01/03 08:35 | 11/03/03 14:01 | BPJ | |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 11/01/03 08:35 | 11/03/03 14:01 | BPJ | |
| Hexachloroethane | ND | 3 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 11/01/03 08:35 | 11/03/03 14:01 | BPJ | |
| Nitrobenzene | ND | 2 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 11/01/03 08:35 | 11/03/03 14:01 | BPJ | |
| Pentachlorophenol | ND | 100 | mg/L | 0.050 | SW-846 8270C / SW-846 3510C | 11/01/03 08:35 | 11/03/03 14:01 | BPJ | |
| Pyridine | ND | 5 | mg/L | 0.10 | SW-846 8270C / SW-846 3510C | 11/01/03 08:35 | 11/03/03 14:01 | BPJ | |

# Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32664 Sybil, Inc. | **Batch** | VMS 4970 | |
| | | **Method** | SW-846 8260B | |
| **Matrix** | Aqueous | **Instrument** | HP 5972 Series | INSTRU Q |
| | | **Date** | 10/30/2003 | |
| | | **By** | JEH | |

| Sample ID(s) | | Surrogate Recovery % | | | |
|---|---|---|---|---|---|
| | | BFB | DBFM | DCA | TOL |
| 341134 | LCS | 92.2 | 100 | 98.7 | 93.1 |
| 341135 | MB | 93.2 | 100 | 99.2 | 92.4 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 4970 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Solid | **Instrument** | HP 5972 Series INSTRU Q |
| | | **Date** | 10/30/2003 |
| | | **By** | JEH |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3034720001 PS | 95 | 101 | 100 | 93.2 |
| 341130 MS | 95.2 | 113 | 106 | 87.5 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 341134 Lab Control Spike | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4970 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU Q |
| **File** | Q1030_06.D | | **Date** | 10/30/2003 | |
| | | | **By** | JEH | |

QC results affect the following production samples:

3034720001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.19 | 94 | | | ( 83-127 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.18 | 91 | | | ( 80-122 ) | | |
| 1,4-Dichlorobenzene | 0.2 | 0.23 | 117 | | | ( 75-128 ) | | |
| 2-Butanone ( MEK ) | 0.2 | 0.19 | 95 | | | ( 76-123 ) | | |
| Benzene | 0.2 | 0.17 | 84 | | | ( 82-106 ) | | |
| Carbon tetrachloride | 0.2 | 0.17 | 86 | | | ( 81-110 ) | | |
| Chlorobenzene | 0.2 | 0.20 | 102 | | | ( 89-111 ) | | |
| Chloroform | 0.2 | 0.17 | 87 | | | ( 77-113 ) | | |
| Tetrachloroethene | 0.2 | 0.18 | 88 | | | ( 74-127 ) | | |
| Trichloroethene | 0.2 | 0.17 | 87 | | | ( 85-109 ) | | |
| Vinyl chloride | 0.2 | 0.22 | 108 | | | ( 91-133 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 341130 | Matrix Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 4970 | |
| **Original** | 3034720001 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU Q |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 10/30/2003 | |
| **File** | Q1030_17.D | | **By** | JEH | |

QC results affect the following production samples:

3034720001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.20 | 102 | | | ( 80-123 ) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.17 | 86 | | | ( 82-114 ) | | |
| Chlorobenzene | 0.2 | ND | 0.21 | 105 | | | ( 77-112 ) | | |
| 2-Butanone ( M E K ) | 0.2 | 0.077 | 0.26 | 91 | | | ( 55-147 ) | | |
| Benzene | 0.2 | 0.020 | 0.18 | 79 | | | ( 77-120 ) | | |
| Carbon tetrachloride | 0.2 | ND | 0.17 | 86 | | | ( 86-120 ) | | |
| Chlorobenzene | 0.2 | ND | 0.18 | 91 | | | ( 82-112 ) | | |
| Chloroform | 0.2 | ND | 0.18 | 90 | | | ( 79-114 ) | | |
| Tetrachloroethene | 0.2 | ND | 0.17 | 83 | | | ( 56-110 ) | | |
| Trichloroethene | 0.2 | ND | 0.18 | 84 | | | ( 83-113 ) | | |
| Vinyl chloride | 0.2 | ND | 0.24 | 119 | | | ( 68-117 ) | | |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 341135 | Method Blank | | | |
| **Prep Batch** | | | **Analysis** | | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | VMS 4970 | |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8260B | |
| **File** | Q1030_08.D | | **Instrument** | HP 5972 Series | INSTRU Q |
| | | | **Date** | 10/30/2003 | |
| | | | **By** | JEH | |

QC results affect the following production samples:

3034720001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K ) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2878 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Solid | **Date** | 11/03/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3034720001 PS | 37.7 | 49 | 66.8 | 29.3 | 66.4 | 47.8 |
| 341300 MS | 2.6 | 42.7 | 55.8 | 7.3 | 1.9 | 38.7 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS | 2884 |
| | | **Method** | SW-846 8270C | |
| **Matrix** | Aqueous | **Date** | 11/05/2003 | |
| | | **By** | BPJ | |

| Sample ID(s) | | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 341297 | MB | 43.5 | 74.1 | 68 | 29.8 | 72.9 | 61.8 |
| 341298 | LCS | 32.9 | 59.2 | 53 | 23.1 | 61.4 | 52.7 |
| 341299 | LCSD | 42.8 | 69.7 | 64.9 | 28.3 | 67.8 | 57.2 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 341298 | Lab Control Spike | | |
| | 341299 | Lab Control Spike Dup | **Analysis** | |
| **Prep Batch** | XXX | 6102 | **Batch** | XMS 2884 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | E1104_19.D | | **Date** | 11/05/2003 |
| | E1104_20.D | | **By** | BPJ |

QC results affect the following production samples:

3034720001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.11 | 55 | 0.14 | 68 | (36-135) | 21 | (< 27) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.11 | 57 | 0.14 | 70 | (32-140) | 22 | (< 27) |
| 2,4-Dinitrotoluene | 0.05, 0.05 | 0.031 | 62 | 0.035 | 70 | (47-140) | 12 | (< |
| 2-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.083 | 42 | 0.10 | 51 | (27-119) | 21 | (< |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.11 | 45 | 0.14 | 54 | (25-112) | 19 | (< 33) |
| Hexachlorobenzene | 0.05, 0.05 | 0.029 | 58 | 0.033 | 66 | (36-138) | 14 | (< 16) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.021 | 41 | 0.026 | 53 | (18-122) | 25 | (< 26) |
| Hexachloroethane | 0.05, 0.05 | 0.020 | 39 | 0.027 | 54 | (16-112) | 31 | (< 24) |
| Nitrobenzene | 0.05, 0.05 | 0.029 | 57 | 0.037 | 74 | (27-128) | 25 | (< 24) |
| Pentachlorophenol | 0.2, 0.2 | 0.10 | 50 | 0.12 | 58 | (45-162) | 14 | (< 17) |
| Pyridine | 0.05, 0.05 | 0.014 | 28 | 0.020 | 40 | (12-68) | 36 | (< 20) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 341300 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 6102 | | **Batch** | XMS 2878 |
| **Original** | 3034720001 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 11/03/2003 |
| **File** | E1103_06.D | | **By** | BPJ |

QC results affect the following production samples:

3034720001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 1 | ND | 0.051 | 5 | | | ( 25-137 ) | | |
| 2,4,6-Trichlorophenol | 1 | ND | 0.033 | 3 | | | ( 30-128 ) | | |
| [illegible]itrotoluene | 0.25 | ND | 0.077 | 31 | | | ( 36-134 ) | | |
| 2-Methylphenol (o-Cresol) | 1 | ND | 0.39 | 39 | | | ( 16-116 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 1.3 | 0.32 | 0.64 | 25 | | | ( 18-112 ) | | |
| Hexachlorobenzene | 0.25 | ND | 0.18 | 71 | | | ( 31-125 ) | | |
| Hexachlorobutadiene | 0.25 | ND | 0.14 | 55 | | | ( 14-106 ) | | |
| Hexachloroethane | 0.25 | ND | 0.075 | 30 | | | ( 14-104 ) | | |
| Nitrobenzene | 0.25 | ND | 0.16 | 64 | | | ( 15-129 ) | | |
| Pentachlorophenol | 1 | ND | ND | 0 | | | ( 17-156 ) | | |
| Pyridine | 0.25 | ND | 0.068 | 27 | | | ( 10-75 ) | | |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 341297 | Method Blank | | |
| **Prep Batch** | XXX | 6102 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XMS 2884 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SW-846 8270C |
| **File** | E1104_15.D | | | |
| | | | **Date** | 11/05/2003 |
| | | | **By** | BPJ |

QC results affect the following production samples:

3034720001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 340985 Lab Control Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11574 | **Batch** | MIM 5849 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **File** | N:\ICPMS\elandata\Dataset\103003\LCS.029 | **Date** | 10/30/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3034720001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 1.0 | 102 | | | ( 50-150 ) | | |
| Barium | 1 | 0.96 | 96 | | | ( 50-150 ) | | |
| Cadmium | 1 | 0.94 | 94 | | | ( 50-150 ) | | |
| Chromium | 1 | 0.99 | 99 | | | ( 50-150 ) | | |
| Lead | 1 | 1.0 | 101 | | | ( 50-150 ) | | |
| Selenium | 1 | 1.1 | 108 | | | ( 50-150 ) | | |
| Silver | 1 | 0.99 | 99 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 340986 | Matrix Spike TCLP | | |
| | 340987 | Matrix Spike Duplicate TCLP | **Analysis** | |
| **Prep Batch** | MXX | 11574 | **Batch** | MIM 5849 |
| **Original** | 3034720001 | | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32684 Sybill, Inc. | | **Date** | 10/30/2003 |
| **File** | N:\ICPMS\elandata\Dataset\103003\3034720001 MS.033 | | **By** | SRO |
| | N:\ICPMS\elandata\Dataset\103003\3034720001 MSD.034 | | | |

QC results affect the following production samples:

3034720001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2, 2 | 0.27 | 2.1 | 93 | 2.2 | 94 | ( 50-150 ) | 1 | (< 20 ) |
| Barium | 2, 2 | 0.72 | 2.6 | 95 | 2.6 | 95 | ( 50-150 ) | 0 | (< 20 ) |
| Cadmium | 2, 2 | 0.030 | 1.9 | 92 | 1.9 | 92 | ( 50-150 ) | 0 | (< 20 ) |
| Chromium | 2, 2 | 0.084 | 2.0 | 94 | 2.0 | 94 | ( 50-150 ) | 0 | (< 20 ) |
| Lead | 2, 2 | 0.023 | 1.9 | 95 | 1.9 | 95 | ( 50-150 ) | 1 | (< 20 ) |
| Selenium | 2, 2 | ND | ND | 95 | ND | 92 | ( 50-150 ) | 3 | (< 20 ) |
| Silver | 2, 2 | 0.037 | 1.9 | 95 | 1.9 | 95 | ( 50-150 ) | 0 | (< 20 ) |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 340984 Method Blank | | |
| **Prep Batch** | MXX 11574 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MIM 5849 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 6020 |
| **File** | N:\ICPMS\elandata\Dataset\103003\MB.028 | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| | | **Date** | 10/30/2003 |
| | | **By** | SRO |

QC results affect the following production samples:

3034720001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.010 |
| Barium | ND | 0.0040 |
| Cadmium | ND | 0.0020 |
| Chromium | ND | 0.0060 |
| Lead | ND | 0.0040 |
| Selenium | ND | 0.016 |
| Silver | ND | 0.0040 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 341061 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11577 | **Batch** | MCV 2042 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\103003W1.TXT | **Date** | 10/30/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3034720001

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0020 | 98 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 341062 Matrix Spike TCLP | | | |
| | | | **Analysis** | |
| **Prep Batch** | MXX 11577 | | **Batch** | MCV 2042 |
| **Original** | 3034720001 | | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 10/30/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\103003W1.TXT | | **By** | PSK |

QC results affect the following production samples:

3034720001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.022 | 103 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 341060 Method Blank | | |
| **Prep Batch** | MXX 11577 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MCV 2042 |
| **Project** | Project 32684 Sybill, Inc. | **Method** | SW-846 7470A |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\103003W1.TXT | **Instrument** | PSA Millenium |
| | | **Date** | 10/30/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3034720001

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

**Sample ID** 341156 Lab Control Spike

**Prep Batch** WXX 3518
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.

**Analysis**
**Batch** WLA 1593
**Method** SW-846 7.3.3.2
**Instrument** Quick Chem 8000 Lachat
**Date** 10/31/2003
**By** JB

QC results affect the following production samples:

3034720001

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | 1.0 | 20 | | | ( 2.6-49 ) | | |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 341157 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3518 | **Batch** | WLA 1593 |
| **Original** | 3034730054 | **Method** | SW-846 7.3.3.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Quick Chem 8000 Lachat |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 10/31/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3034720001

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Cyanide | ND | ND | 30 | 0.00 | (< 20 ) |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 341158 Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3518 | **Batch** | WLA 1593 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Quick Chem 8000 Lachat |
| | | **Date** | 10/31/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3034720001

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 30 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 341175 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3519 | **Batch** | WAT 1844 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 10/31/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3034720001

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 420 | 350 | 85 | | | ( 57-109 ) | | |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 341176 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3519 | **Batch** | WAT 1844 |
| **Original** | 3034730054 | **Method** | SW-846 7.3.4.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | No Instrument, Manual Handling |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 10/31/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3034720001

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 50 | 0.00 | (< 20 ) |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 341174 | Method Blank | | |
| **Prep Batch** | WXX | 3519 | | |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | | |

**Analysis**

| | |
|---|---|
| **Batch** | WAT 1844 |
| **Method** | SW-846 7.3.4.2 |
| **Instrument** | No Instrument, Manual Handling |
| **Date** | 10/31/2003 |
| **By** | JB |

QC results affect the following production samples:

3034720001

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 50 |

# Physical Property
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

**Sample ID** 341221 pH Calibration Standard

**Prep Batch**
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.

**Analysis**
**Batch** WPH 2086
**Method** SW-846 9040B
**Instrument** Orion Ion Analyzer EA940 SZ25A
**Date** 10/31/2003
**By** KAA

QC results affect the following production samples:

3034720001

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH 4 | 4 | 4.00 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 7.00 | | | | ( 99-101 ) | | |
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 341222 | Quality Control Sample | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2086 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 10/31/2003 |
| | | | **By** | KAA |

QC results affect the following production samples:

3034720001

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 8.01 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 341223 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3034720001 | **Batch** | WPH 2086 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 10/31/2003 |
| | | **By** | KAA |

QC results affect the following production samples:

3034720001

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 5.01 | 5.01 | | 0.00 | (< 20 ) |

## METHOD BLANK SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 340843 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | WG1 4799 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SM19 2540G |
| | | | **Instrument** | Mettler Balance AE 100 DryWhg. |
| | | | **Date** | 10/30/2003 |
| | | | **By** | SKP |

QC results affect the following production samples:

3034720001

| Analyte | Concentration % | Detection Limit % |
|---|---|---|
| Total Solids | 100 | 0.10 |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 340844 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3034730001 | **Batch** | WG1 4799 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SM19 2540G |
| **Project** | Project 32664 Sybill, Inc. | | |
| | | **Date** | 10/30/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3034720001

| Analyte | Original Sample Concentration % | Dilution / Duplicate Concentration % | RDL % | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Solids | 87.9 | 87.6 | 0.10 | 0.31 | (< 20 ) |

SGS

RECD CRA
NOV 26 2003
SDG: 22

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3035076

ORIGINAL ANALYTICAL REPORT

Project#: 32664 Lab#: 3035076
Name: SyBILL, INC
Description
Event: WASTE
Samples: 2 liq
Analysis: PCB

TAT: 2 day
Lab: SGS
Checked Against Preliminary Data:
Date: 12-1-03 Init.: K.B.
Date of Validation Memo: 2-2-04
Invoice Approval Date:
Comments:

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

CT&E Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

Approval Signature: Tamela M. Johnson

Date Issued: 11-25-03
Total Pages: 17

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3035076

***Sample Collection and Receipt -***

Two samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on November 14, 2003. The sample containers were released for overnight shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on November 15, 2003 in good condition, on ice and at a temperature of 3°C. Following log-in, the samples were stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

The samples were analyzed for Polychlorinated Biphenyls (PCBs).

The samples were received for analysis within forty-eight hours per the COC.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced method. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation batch.

Due to the presence of multiple Aroclors, the results for sample 3035076002 may be biased.

***Quality Control (QC) -***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced method with no exceptions.

***Sample Reporting –***

No sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Tamela M. Johnson *Phone:* (231) 843-1877
Tamela M. Johnson, Reporting Group Supervisor

*Date:* 11-25-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
CT&E Work Order: 3035076

## I. Analytical Methods:

PCBs SW-846 8082[1]

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.

## II. Sample Summary:

| CRA Sample Number | CTE-MI Sample Number |
|---|---|
| L-32664-111403-SM-072 | 3035076001 |
| L-32664-111403-SM-073 | 3035076002 |

# Explanation of Terms and Data Qualifiers

| Term/Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

2035076

CT&E Environmental Services Inc.

**CRA**
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

SHIPPED TO (Laboratory Name): 171650 COC Serial

1200 Conrad Industrial Drive, Ludington, MI 49431

REFERENCE NUMBER:

PROJECT NAME:

# CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: Shawn Mclean PRINTED NAME: Shawn McLean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | PARAMETERS: PCB's | 402 nr | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1 | 11-14-03 | 0903 | L-32664-111403-SM-072 | L | 1 | ✓ | 1 | |
| 2 | 1 | 0915 | " " -073 | L | 1 | ✓ | 1 | 48 hr tat |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| | | | TOTAL NUMBER OF CONTAINERS | | 2 | | | |

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. Shawn McLean | DATE: 11-14-03 TIME: 10:50 | RECEIVED BY: 1. | DATE: 11/14/03 TIME: 10:50 |
| RELINQUISHED BY: 2. | DATE: 11/14/03 TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: AIR BILL No.

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

24082

SAMPLE TEAM:

RECEIVED FOR LABORATORY BY: Cooler T = 3°C
Steven L Ewing
DATE: 11/15/03 TIME: 10:05 AM

1001 (FORMS)-APRIL 29, 93-REV.0-(C)(F-01)

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist



Project Number: 3039076 Date Logged In: 11/17/03 Login Person Initials: AS

This section to be completed when corrective action is required:

Client: CPA Project Name:
Client Contact: Phone Number:

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | ✓ | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | ✓ | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | | ✓ |
| 14. | Were proper sample weights met for Wisconsin soil samples? | ✓ | |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 2 oz. glass | 4 oz. glass | 8 oz. glass | other | Samp No. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

# Laboratory Report

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3035076**<br>**#32664 Sybill, Inc.** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

11/19/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

This report shall not be reproduced, in whole or in part, without the written approval of CT&E Environmental Services Inc.

# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

National Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
State of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**Footnotes**

(1) Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

Workorder: 3035076 Conestoga-Rovers & Associates Reported: 11/19/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3035076001 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-111403-SM-072 | **Location:** | |
| **Collected:** | 11/14/2003 09:08 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 11/15/2003 10:05 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/18/03 21:44 | JL | 1 |
| Aroclor-1221 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/18/03 21:44 | JL | 1 |
| Aroclor-1232 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/18/03 21:44 | JL | 1 |
| Aroclor-1242 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/18/03 21:44 | JL | 1 |
| Aroclor-1248 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/18/03 21:44 | JL | 1 |
| Aroclor-1254 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/18/03 21:44 | JL | 1 |
| Aroclor-1260 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/18/03 21:44 | JL | 1 |
| Aroclor-1262 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/18/03 21:44 | JL | 1 |
| Aroclor-1268 | ND | | mg/Kg | 0.89 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/18/03 21:44 | JL | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3035076002 | **Matrix:** | Non Aqueous Liquid |
| **Client Sample ID:** | L-32664-111403-SM-073 | **Location:** | |
| **Collected:** | 11/14/2003 09:15 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 11/15/2003 10:05 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Sample cleanup performed for hydrocarbons (SW-846 Method 3620 Florisil Column).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/19/03 13:29 | JL | 1 |
| Aroclor-1221 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/19/03 13:29 | JL | 1 |
| Aroclor-1232 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/19/03 13:29 | JL | 1 |
| Aroclor-1242 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/19/03 13:29 | JL | 1 |
| Aroclor-1248 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/19/03 13:29 | JL | 1 |
| Aroclor-1254 | 7.0 | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/19/03 13:29 | JL | 1 |
| Aroclor-1260 | 2.0 | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/19/03 13:29 | JL | 1 |
| [redacted]r-1262 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/19/03 13:29 | JL | 1 |
| Aroclor-1268 | ND | | mg/Kg | 0.99 | SW-846 8082 / SW-846 3580A | 11/18/03 17:06 | 11/19/03 13:29 | JL | 1 |

# PCB
# Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3949 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Non Aqueous Liquid | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 11/18/2003 |
| | | **By** | JL |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3035076001 | PS | **73.3** | **73.7** |
| 3035076002 | PS | **96.3** | **81** |
| 344016 | MB | **108** | **86.3** |
| 344017 | LCS | **72.7** | **90.3** |
| [illegible]018 | LCSD | **72.3** | **78.3** |
| 344142 | MS | **68.7** | **67.3** |
| 344143 | MSD | **67.3** | **67.3** |

**DCB = Decachlorobiphenyl Surr ( 25-170 )**
**TMX = Tetrachloro-m-xylene Surr ( 25-150 )**

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 344017 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 6163 | **Batch** | XGC 3949 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Varian 3400 ECD INST-C |
| | | | **Date** | 11/19/2003 |
| | | | **By** | JL |

QC results affect the following production samples:

3035076001, 3035076002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration mg/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 8.9, 9.3 | 6.1 | 68 | 5.2 | 57 | ( 25-141 ) | 15 | (< 20 ) |
| Aroclor-1260 | 8.9, 9.3 | 5.6 | 62 | 5.2 | 56 | ( 29-170 ) | 6 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

**Sample ID** 344142 Matrix Spike

**Prep Batch** XXX 6163
**Original** 3035000004
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.

**Analysis**
**Batch** XGC 3949
**Method** SW-846 8082
**Instrument** Varian 3400 ECD INST-C
**Date** 11/19/2003
**By** JL

QC results affect the following production samples:

3035076001, 3035076002

| Analyte | MS, MSD Spike Added mg/Kg | Sample Conc. mg/Kg | MS Concentration mg/Kg | MS Recovery % | MSD Concentration mg/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 9.3, 9.8 | ND | 5.5 | 59 | 5.9 | 60 | ( 22-196 ) | 7 | (< 20 ) |
| Aroclor-1260 | 9.3, 9.8 | ND | 5.7 | 61 | 5.9 | 60 | ( 49-187 ) | 3 | (< 20 ) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 344016 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 6163 | **Batch** | XGC 3949 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 11/18/2003 |
| | | **By** | JL |

QC results affect the following production samples:

3035076001, 3035076002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Aroclor-1016 | ND | 0.95 |
| Aroclor-1221 | ND | 0.95 |
| Aroclor-1232 | ND | 0.95 |
| Aroclor-1242 | ND | 0.95 |
| Aroclor-1248 | ND | 0.95 |
| Aroclor-1254 | ND | 0.95 |
| Aroclor-1260 | ND | 0.95 |
| Aroclor-1262 | ND | 0.95 |
| Aroclor-1268 | ND | 0.95 |

SGS

REC'D CRA
DEC - 9 2003
SDG: 23

Conestoga-Rovers & Associates, Inc.
CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
SGS Work Order: 3035218

**ORIGINAL ANALYTICAL REPORT**

Project#: 32664 Lab#: 3035218
Name: SYBILL, INC
Description

Event:
Samples: 2 MIX
Analysis: RCI, PCB, TCLP MTL
TCLP VOC, SVOC
TAT: 2 DAYS
Lab: SCS
Checked Against Preliminary Data:
Date: 1-28-04 Init.: KAB
Date of Validation Memo: 1-28-04
Invoice Approval Date:
Comments:

Prepared For:

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Prepared By:

SGS Environmental Services, Inc.
1200 Conrad Industrial Drive
Ludington, MI 49431

Approval Signature: Tameka M-Johnson

Date Issued: 12-8-03
Total Pages: 59

# Laboratory Narrative
# &
# Supporting Documentation

# LABORATORY NARRATIVE

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
SGS Work Order: 3035218

***Sample Collection and Receipt -***

Two samples were collected by Conestoga-Rovers & Associates, Inc. (CRA) personnel on November 24, 2003. The sample containers were released to a laboratory courier for shipment under chain-of-custody (COC) record to SGS Environmental Services, Inc. (SGS) in Ludington, Michigan.

The cooler was received at SGS on November 25, 2003 in good condition, on ice and at a temperature of 3°C. Following log-in, the samples were stored at 4°C until sample preparation and/or analysis.

***Sample Preparation and Analysis -***

The samples were analyzed for Polychlorinated Biphenyls (PCBs) and RCRA waste characteristics (Reactive Cyanide and Sulfide; Corrosivity and pH; and Flashpoint). Additionally, the samples were extracted by the Toxicity Characteristic Leaching Procedure (TCLP) using SW-846 Method 1311. The leachates were analyzed for the following parameters for TCLP constituents: volatile organic compounds (VOC); semivolatile organic compounds (SVOC); and RCRA metals.

The samples were received for analysis within forty-eight hours as requested on the COC.

Sample preparation and analysis proceeded without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods. A method blank, laboratory control sample (LCS) and matrix spike (MS) samples, where appropriate, were processed with each preparation and/or analytical batch.

***Quality Control (QC) –***

Sample analyses were performed without incident, within holding time, with chain-of-custody maintained, and according to the referenced methods except for the following:

*GC PCB Analysis*

The PCB results in laboratory sample 3035218001 may be biased high due to overlapping peaks from the multiple Aroclors detected.

For the MS/MSD associated with preparation batch XXX 6201, the parent sample contained Aroclor-1260 at greater that ten times the spike level. Therefore, results are estimated and the Aroclor-1248 spike was not detectable at the necessary dilution. The MS/MSD were not performed on a sample from this sample delivery group.

***Sample Reporting –***

The percent solid was determined for laboratory sample 305218001 and PCB, Reactive Cyanide and Reactive Sulfide results corrected to a dry weight reporting basis.

No sample qualifications were required for any sample or quality control issues.

*Reporting Party:* Tamela M. Johnson *Phone:* (231) 843-1877
Tamela M. Johnson, Reporting Group

*Date:* 12-8-03

# SUPPORTING DOCUMENTATION

CRA Project Name: Sybill, Inc.
CRA Project Reference Number: 32664
SGS Work Order: 3035218

## I. Analytical Methods:

| | |
|---|---|
| TCLP Extraction | SW-846 1311[1] |
| Volatiles | SW-846 8260[1] |
| Semivolatiles | SW-846 8270[1] |
| Metals (excluding Mercury) | SW-846 6020[1] |
| Mercury | SW-846 7470[1] |
| PCBs | SW-846 8082[1] |
| Reactive Cyanide | SW-846 7.3.3.2[1] |
| Reactive Sulfide | SW-846 7.3.4.2[1] |
| Corrosivity/pH | SW-846 9045C[1] |
| Flashpoint | SW-846 1010[1] |
| Total Solids | SM 2540G[2] |

[1] Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 3rd Edition and Promulgated Updates, November 1986.
[2] Standard Methods for the Examination of Water & Wastewater. 19th Edition, 1995.

## II. Sample Summary:

| CRA Sample Number | SGS Sample Number |
|---|---|
| S-32664-112403-SM-074 | 3035218001 |
| L-32664-112403-SM-075 | 3035218002 |

# Explanation of Terms and Data Qualifiers

| Term/Qualifier | Description |
|---|---|
| Result | The value calculated from the analytical test reported to two significant figures. |
| Reporting Detection Limit | The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Reporting Detection Limits are often based on cleanup requirements, drinking water MCLs or permits and are always greater than the MDL. |
| MDL – Method Detection Limit. | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. This value is determined using 40 CFR Part 136 Appendix B. |
| Surrogates | Organic compounds that are added to the sample prior to analysis to monitor the efficiency of the sample preparation and potential matrix interference. |
| Qualifier | Data flags used to indicate problems or issues that could affect the result. |
| ND | Indicates compound was analyzed for but not detected at or above the Reporting Detection Limit. |
| J | Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the limit of quantitation but greater than the method detection limit. |
| N | Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. |
| B | This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound. |
| E | This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. |
| M | This flag identifies compounds where matrix interference is suspected. The interference may be positive (enhance the signal or compound concentration) or negative (suppress the signal or compound concentration). |
| D | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| X | The data should be considered suspect because some aspect of the test did not meet method requirements. This flag must always be accompanied by an explanation. |

# Chain-of-Custody/Log-in Records

CT&E Environmental Service Inc.

**CRA** 3035218
**CONESTOGA-ROVERS & ASSOCIATES, INC.**
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

SHIPPED TO (Laboratory Name): [redacted] CGS — 172061 — COC Serial

1200 Conrad Ind. Drive, Ludington, MI 49431

REFERENCE NUMBER: 032664

PROJECT NAME: Sybill, Inc.

# CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: Shawn Mclean PRINTED NAME: Shawn Mclean

| SEQ: No. | DATE | TIME | | SAMPLE TYPE | No. OF CONTAINERS | PARAMETERS: EH TCLP | RCT | PCB's in Oil | 8270 ABN | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11-24-03 | 1145 | S-32664-112403-SM-074 | solid | 1 | ✓ | ✓ | ✓ | 1 | |
| 2 | 1 | 1145 | L-32664-112403-SM-075 | liquid | 4 | ✓ | ✓ | ✓ | 4 | 48 hr tat |
| | | | | | | | | | | |
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| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | TOTAL NUMBER OF CONTAINERS | | 5 | | | | | |

| | | | |
|---|---|---|---|
| RELINQUISHED BY: 1. Shawn Mclean | DATE: 11-24-03 TIME: 13:00 | RECEIVED BY: 1. [signature] | DATE: 11-24-03 TIME: 13:00 |
| RELINQUISHED BY: 2. [signature] | DATE: TIME: | RECEIVED BY: 2. | DATE: TIME: |
| RELINQUISHED BY: 3. | DATE: TIME: | RECEIVED BY: 1. | DATE: TIME: |

METHOD OF SHIPMENT: lab courier — AIR BILL No.

White -Fully Executed Copy; Yellow -Receiving Laboratory Copy; Pink -Shipper Copy; Goldenrod -Sampler Copy

24083

SAMPLE TEAM: [signature]

RECEIVED FOR LABORATORY BY: A. Shablield — 3°C

DATE: 11-25-03 TIME: 9AM

1001 (FORMS)-APRIL 29, 93-REV.0-(C)(F-01)

Attach to the COC and include with the final report.

SGS

**Environmental Services**
**Michigan Division**

## Login Checklist



Project Number: 3035218 Date Logged In: 11/25/03 Login Person Initials: AS

This section to be completed when corrective action is required:

Client: CRA Project Name: _____
Client Contact: _____ Phone Number: _____

| | *If no to any, notify the project manager and project manager documents client response below.* | YES | NO |
|---|---|---|---|
| 1. | Were custody seals/original packing tape intact? | ✓ | |
| 2. | Are the samples in good condition, i.e. not broken or leaking? | ✓ | |
| 3. | Are samples within holding times? | ✓ | |
| 4. | Were the samples received on ice (ice in direct contact with the samples)? *If yes, and Wisconsin samples, do not record the sample temperature.* | ✓ | |
| 5. | Is the temperature of the samples between 2-6°C? *NOTE: Samples not between 2-6°C that are received at the laboratory on the day of sample collections do not require client notification.* | ✓ | |
| 6. | Do the samples match the COC? | ✓ | |
| 7. | Were the proper containers used? | ✓ | |
| 8 | Were the samples collected in CT&E Environmental Services containers? *No corrective action required.* | ✓ | |
| 9. | Is there adequate sample volume for requested analyses and QC? | ✓ | |
| 10. | Do water VOC samples contain headspace less than the size of a pea? | — | |
| 11. | Are samples preserved to the proper pH? *(attach Preservative Check Sheet)* *If no, identify sample bottle and preservative, adjust to the proper pH, and note below.* | — | |
| 12. | Is the chain of custody signed? | ✓ | |
| 13. | Is sub-sampling required? *(note bottles created and preserved below)* | — | ✓ |
| 14. | Were proper sample weights met for Wisconsin soil samples? | — | |

**COMMENTS/CORRECTIVE ACTION**

**Containers Created**

| 40 mL vial | 1 Liter amber | 250 mL plastic | 500 mL plastic | 1 Liter plastic | 8 oz. glass | 4 oz. glass | 2 oz. glass | other | Sample ID |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1 |
| | | | | | | | | | 2 |
| | | | | | | | | | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| | | | | | | | | | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 0 |

*Preservative code: A = MeOH, B = $HNO_3$, C = $H_2SO_4$, D = NaOH, E = HCl*

**CLIENT RESPONSE (Provide date/time of contact, client response and project manager initials)**

# Laboratory Report

# Laboratory Report

| | |
|---|---|
| **Project:** | **Project 32664 Sybill, Inc.** |
| **CT&E Work Order:** | **3035218**<br>**Sybill, Inc #32664** |
| **Client:** | **Conestoga-Rovers & Associates**<br>**14496 Sheldon Road**<br>**Suite 200**<br>**Plymouth, MI 48170** |
| **Attention:** | **Paul Wiseman** |

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

**Respectfully submitted,**

Denise Heckler

12/8/2003
Date

Denise Heckler, Project Manager
CT&E Environmental Services Inc.
Michigan Division
1200 Conrad Industrial Drive
Ludington, MI 49431
Phone: 231.843.1877
Fax: 231.845.9942
E-mail: dheckler@sgsenvironmental.com

**This report contains** _____ **pages**

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# Report Order

Report Legend
Laboratory Report
Chain-of-Custody Record
Log-In Check List
Preservation Check List
Report Addenda

# Laboratory Report Legend

**The laboratory holds the following certifications:**

[redacted]onal Environmental Laboratory Accreditation Program (NELAP), Accreditation No. 100433 (State of Illinois)
[redacted] of Alaska UST, Approval No. UST-048
State of Indiana, Certification No. C-MI-01
State of Maryland, Certification No. 266
State of Michigan, Certification No. 0021
State of Wisconsin, Certification No. 999959180
United States Army Corps of Engineers

**Container Identification (ID)**

The unique container ID is comprised of the CT&E Sample ID plus a "-" and the number found in the Cont. ID column.

**Qualifiers (located next to the Result column)**

| | |
|---|---|
| ND | Not detected |
| B | Blank contaminant |
| D | Dilution |
| J | Estimated result |
| M | Matrix interference |
| N | Presumptive evidence by GC/MS library search |
| E | Concentration exceeds calibration range |
| U | Not detected |

**[redacted]otnotes**

[redacted] Parameter analyzed according to method; this combination of method and / or parameter has not been evaluated by NELAP

Workorder: 3035218 | Conestoga-Rovers & Associates | Reported: 12/8/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3035218001 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-112403-SM-074 | **Location:** | |
| **Collected:** | 11/24/2003 11:45 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 11/25/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported on Dry Weight basis.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).
SW-846 8082 PCB: Multiple Aroclors detected; Results may be biased high due to overlapping peaks.

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 10 | SW-846 7.3.3.2[1] | 12/01/03 11:03 | 12/01/03 13:19 | JB | 1 |
| Reactive Sulfide | 22 | | mg/Kg | 10 | SW-846 7.3.4.2[1] | 12/01/03 10:26 | 12/01/03 15:32 | JB | 1 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9045C[1] | | 11/26/03 10:30 | SKP | 1 |
| Ignitability | Non | | | | SW-846 7.1[1] | | 12/01/03 15:06 | WD | 1 |
| pH | 8.71 | | S.U. | | SW-846 9045C | | 11/26/03 10:30 | SKP | 1 |
| Total Solids | 72.6 | | % | 0.10 | SM19 2540G[1] | | 11/26/03 07:26 | SKP | |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 11/28/03 08:00 | 11/29/03 09:52 | JL | 1 |
| Aroclor-1221 | ND | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 11/28/03 08:00 | 11/29/03 09:52 | JL | 1 |
| Aroclor-1232 | ND | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 11/28/03 08:00 | 11/29/03 09:52 | JL | 1 |
| Aroclor-1242 | ND | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 11/28/03 08:00 | 11/29/03 09:52 | JL | 1 |
| Aroclor-1248 | 110 | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 11/28/03 08:00 | 11/29/03 09:52 | JL | 1 |
| Aroclor-1254 | 120 | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 11/28/03 08:00 | 11/29/03 09:52 | JL | 1 |
| Aroclor-1260 | 86 | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 11/28/03 08:00 | 11/29/03 09:52 | JL | 1 |
| Aroclor-1262 | ND | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 11/28/03 08:00 | 11/29/03 09:52 | JL | 1 |
| Aroclor-1268 | ND | | ug/Kg | 46 | SW-846 8082 / SW-846 3550B | 11/28/03 08:00 | 11/29/03 09:52 | JL | 1 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | ND | 5 | mg/L | 0.0050 | SW-846 6020 / SW-846 3010A | 11/30/03 11:25 | 12/03/03 12:04 | SUB | 1 |
| Barium | 0.74 | 100 | mg/L | 0.0050 | SW-846 6020 / SW-846 3010A | 11/30/03 11:25 | 12/03/03 12:04 | SUB | 1 |
| Cadmium | ND | 1 | mg/L | 0.00050 | SW-846 6020 / SW-846 3010A | 11/30/03 11:25 | 12/03/03 12:04 | SUB | 1 |
| Chromium | ND | 5 | mg/L | 0.0050 | SW-846 6020 / SW-846 3010A | 11/30/03 11:25 | 12/03/03 12:04 | SUB | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 11/30/03 14:00 | 12/01/03 14:00 | PSK | 1 |
| Lead | ND | 5 | mg/L | 0.0030 | SW-846 6020 / SW-846 3010A | 11/30/03 11:25 | 12/03/03 12:04 | SUB | 1 |

Work Order: 3035218 Conestoga-Rovers & Associates Reported: 12/8/2003

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3035218001 | **Matrix:** | Solid |
| **Client Sample ID:** | S-32664-112403-SM-074 | **Location:** | |
| **Collected:** | 11/24/2003 11:45 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 11/25/2003 09:00 | **Sampled By:** | SM |

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Selenium | ND | 1 | mg/L | 0.0050 | SW-846 6020 / SW-846 3010A | 11/30/03 11:25 | 12/03/03 12:04 | SUB | 1 |
| Silver | ND | 5 | mg/L | 0.00050 | SW-846 6020 / SW-846 3010A | 11/30/03 11:25 | 12/03/03 12:04 | SUB | 1 |
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 16:50 | JEH | 1 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 16:50 | JEH | 1 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 16:50 | JEH | 1 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 12/01/03 16:50 | JEH | 1 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 16:50 | JEH | 1 |
| [redacted]n tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 16:50 | JEH | 1 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 16:50 | JEH | 1 |
| Chloroform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 16:50 | JEH | 1 |
| Tetrachloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 16:50 | JEH | 1 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 16:50 | JEH | 1 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 16:50 | JEH | 1 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 00:53 | BPJ | 1 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 00:53 | BPJ | 1 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 00:53 | BPJ | 1 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 00:53 | BPJ | 1 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 00:53 | BPJ | 1 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 00:53 | BPJ | 1 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 00:53 | BPJ | 1 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 00:53 | BPJ | 1 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 00:53 | BPJ | 1 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 00:53 | BPJ | 1 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 00:53 | BPJ | 1 |

*Workorder:* *3035218* Conestoga-Rovers & Associates *Reported:* *12/8/2003*

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3035218002 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32684-112403-SM-075 | **Location:** | |
| **Collected:** | 11/24/2003 11:45 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 11/25/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **GENERAL CHEMISTRY ANALYSIS** | | | | | | | | | |
| Reactive Cyanide | ND | | mg/Kg | 10 | SW-846 7.3.3.2[1] | 12/01/03 11:03 | 12/01/03 13:19 | JB | 2 |
| Reactive Sulfide | ND | | mg/Kg | 10 | SW-846 7.3.4.2[1] | 12/01/03 10:26 | 12/01/03 16:01 | JB | 2 |
| **PHYSICAL PROPERTY ANALYSIS** | | | | | | | | | |
| Corrosivity pH Analysis | Non | | | | SW-846 9040B[1] | | 11/26/03 10:30 | SKP | 3 |
| Flashpoint Fahrenheit | >200 | | deg F | | SW-846 1010 | | 12/01/03 15:09 | WD | 1 |
| pH | 8.81 | | S.U. | | SW-846 9040B | | 11/26/03 10:30 | SKP | 3 |
| **GC SEMIVOLATILE ORGANIC ANALYSIS** | | | | | | | | | |
| Aroclor-1016 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 11/25/03 18:46 | 12/02/03 18:18 | ESA | 2 |
| Aroclor-1221 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 11/25/03 18:46 | 12/02/03 18:18 | ESA | 2 |
| Aroclor-1232 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 11/25/03 18:46 | 12/02/03 18:18 | ESA | 2 |
| Aroclor-1242 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 11/25/03 18:46 | 12/02/03 18:18 | ESA | 2 |
| Aroclor-1248 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 11/25/03 18:46 | 12/02/03 18:18 | ESA | 2 |
| Aroclor-1254 | 0.26 | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 11/25/03 18:46 | 12/02/03 18:18 | ESA | 2 |
| Aroclor-1260 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 11/25/03 18:46 | 12/02/03 18:18 | ESA | 2 |
| Aroclor-1262 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 11/25/03 18:46 | 12/02/03 18:18 | ESA | 2 |
| Aroclor-1268 | ND | | ug/L | 0.13 | SW-846 8082 / SW-846 3510C | 11/25/03 18:46 | 12/02/03 18:18 | ESA | 2 |
| **TCLP METAL ANALYSIS SW-846 Method 1311** | | | | | | | | | |
| Arsenic | 0.042 | 5 | mg/L | 0.0050 | SW-846 6020 / SW-846 3010A | 11/30/03 11:25 | 12/03/03 12:06 | SUB | 1 |
| Barium | 0.055 | 100 | mg/L | 0.0050 | SW-846 6020 / SW-846 3010A | 11/30/03 11:25 | 12/03/03 12:06 | SUB | 1 |
| Cadmium | ND | 1 | mg/L | 0.00050 | SW-846 6020 / SW-846 3010A | 11/30/03 11:25 | 12/03/03 12:06 | SUB | 1 |
| Chromium | 0.017 | 5 | mg/L | 0.0050 | SW-846 6020 / SW-846 3010A | 11/30/03 11:25 | 12/03/03 12:06 | SUB | 1 |
| Mercury | ND | 0.2 | mg/L | 0.0020 | SW-846 7470A | 11/30/03 14:00 | 12/01/03 14:14 | PSK | 3 |
| Lead | 0.0063 | 5 | mg/L | 0.0030 | SW-846 6020 / SW-846 3010A | 11/30/03 11:25 | 12/03/03 12:06 | SUB | 1 |
| Selenium | ND | 1 | mg/L | 0.0050 | SW-846 6020 / SW-846 3010A | 11/30/03 11:25 | 12/03/03 12:06 | SUB | 1 |
| Silver | ND | 5 | mg/L | 0.00050 | SW-846 6020 / SW-846 3010A | 11/30/03 11:25 | 12/03/03 12:06 | SUB | 1 |

| | | | |
|---|---|---|---|
| **CT&E Sample ID:** | 3035218002 | **Matrix:** | Aqueous |
| **Client Sample ID:** | L-32664-112403-SM-075 | **Location:** | |
| **Collected:** | 11/24/2003 11:45 | **Project:** | Project 32664 Sybill, Inc. |
| **Received:** | 11/25/2003 09:00 | **Sampled By:** | SM |

**Comments:** Results reported as received.
PCB: Multiple cleanups performed for hydrocarbons (SW-846 Method 3620 Florisil Column and SW-846 Method 3665 Sulfuric Acid).

| Test Description | Result | Allowable Limit | Unit | Reporting Detection Limit | Method Analysis / Preparation | Prepared Date / Time | Analyzed Date / Time | Analyst | Cont. ID |
|---|---|---|---|---|---|---|---|---|---|
| **TCLP VOLATILES SW-846 Method 1311** | | | | | | | | | |
| 1,1-Dichloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 17:18 | JEH | 3 |
| 1,2-Dichloroethane | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 17:18 | JEH | 3 |
| 1,4-Dichlorobenzene | ND | 7.5 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 17:18 | JEH | 3 |
| 2-Butanone ( M E K ) | ND | 200 | mg/L | 0.050 | SW-846 8260B | | 12/01/03 17:18 | JEH | 3 |
| Benzene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 17:18 | JEH | 3 |
| Carbon tetrachloride | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 17:18 | JEH | 3 |
| Chlorobenzene | ND | 100 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 17:18 | JEH | 3 |
| [illegible]oform | ND | 6 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 17:18 | JEH | 3 |
| [illegible]achloroethene | ND | 0.7 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 17:18 | JEH | 3 |
| Trichloroethene | ND | 0.5 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 17:18 | JEH | 3 |
| Vinyl chloride | ND | 0.2 | mg/L | 0.010 | SW-846 8260B | | 12/01/03 17:18 | JEH | 3 |
| **TCLP SEMI-VOLATILES SW1311** | | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 400 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 06:21 | BPJ | 3 |
| 2,4,6-Trichlorophenol | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 06:21 | BPJ | 3 |
| 2,4-Dinitrotoluene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 06:21 | BPJ | 3 |
| 2-Methylphenol (o-Cresol) | ND | 200 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 06:21 | BPJ | 3 |
| 3&4-Methylphenol (p&m-Cresol) | 0.16 | 200 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 06:21 | BPJ | 3 |
| Hexachlorobenzene | ND | 0.13 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 06:21 | BPJ | 3 |
| Hexachlorobutadiene | ND | 0.5 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 06:21 | BPJ | 3 |
| Hexachloroethane | ND | 3 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 06:21 | BPJ | 3 |
| Nitrobenzene | ND | 2 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 06:21 | BPJ | 3 |
| Pentachlorophenol | ND | 100 | mg/L | 0.010 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 06:21 | BPJ | 3 |
| Pyridine | ND | 5 | mg/L | 0.020 | SW-846 8270C / SW-846 3510C | 12/01/03 15:27 | 12/04/03 06:21 | BPJ | 3 |

# TCLP Volatile Organic Compounds (VOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 5050 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Aqueous | **Instrument** | HP 5972 Series INSTRU Q |
| | | **Date** | 12/01/2003 |
| | | **By** | JEH |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3035218002 PS | **108** | **99.8** | **96.6** | **96.4** |
| 345806 LCS | **103** | **92.9** | **78.9** | **96.2** |
| 345807 MB | **103** | **86.5** | **78.5** | **98.8** |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## SURROGATE SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | VMS 5050 |
| | | **Method** | SW-846 8260B |
| **Matrix** | Solid | **Instrument** | HP 5972 Series INSTRU Q |
| | | **Date** | 12/01/2003 |
| | | **By** | JEH |

| Sample ID(s) | Surrogate Recovery % | | | |
|---|---|---|---|---|
| | BFB | DBFM | DCA | TOL |
| 3035218001 PS | 107 | 97.4 | 94.6 | 96.8 |
| 345809 MS | 101 | 96.2 | 88.4 | 97.7 |

| | | | |
|---|---|---|---|
| **BFB** | = | **4-Bromofluorobenzene Surr** | **( 79-116 )** |
| **DBFM** | = | **Dibromofluoromethane Surr** | **( 72-132 )** |
| **DCA** | = | **1,2-Dichloroethane-D4 Surr** | **( 77-124 )** |
| **TOL** | = | **Toluene-d8 Surr** | **( 87-110 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 345806 | Lab Control Spike | | | |
| **Prep Batch** | | | **Analysis Batch** | VMS 5050 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU Q |
| **File** | Q1201_06.D | | **Date** | 12/01/2003 | |
| | | | **By** | JEH | |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | 0.18 | 90 | | | ( 83-127 ) | | |
| 1,2-Dichloroethane | 0.2 | 0.16 | 82 | | | ( 80-122 ) | | |
| 1,4-Dichlorobenzene | 0.2 | 0.20 | 99 | | | ( 75-128 ) | | |
| 2-Butanone ( M E K ) | 0.2 | 0.20 | 101 | | | ( 76-123 ) | | |
| Benzene | 0.2 | 0.19 | 98 | | | ( 82-106 ) | | |
| Carbon tetrachloride | 0.2 | 0.16 | 81 | | | ( 81-110 ) | | |
| Chlorobenzene | 0.2 | 0.20 | 98 | | | ( 89-111 ) | | |
| Chloroform | 0.2 | 0.17 | 85 | | | ( 77-113 ) | | |
| Tetrachloroethene | 0.2 | 0.20 | 100 | | | ( 74-127 ) | | |
| Trichloroethene | 0.2 | 0.19 | 93 | | | ( 85-109 ) | | |
| Vinyl chloride | 0.2 | 0.18 | 92 | | | ( 91-133 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 345809 | Matrix Spike | | | |
| | | | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 5050 | |
| **Original** | 3035218001 | | **Method** | SW-846 8260B | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | HP 5972 Series | INSTRU Q |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 12/01/2003 | |
| **File** | Q1201_27.D | | **By** | JEH | |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.2 | ND | 0.20 | 102 | | | ( 80-123 ) | | |
| 1,2-Dichloroethane | 0.2 | ND | 0.18 | 89 | | | ( 82-114 ) | | |
| 1,4-Dichlorobenzene | 0.2 | ND | 0.19 | 95 | | | ( 77-112 ) | | |
| 2-Butanone ( M E K ) | 0.2 | ND | 0.19 | 90 | | | ( 55-147 ) | | |
| Benzene | 0.2 | ND | 0.19 | 96 | | | ( 77-120 ) | | |
| Carbon tetrachloride | 0.2 | ND | 0.19 | 93 | | | ( 86-120 ) | | |
| Chlorobenzene | 0.2 | ND | 0.19 | 96 | | | ( 82-112 ) | | |
| Chloroform | 0.2 | ND | 0.18 | 89 | | | ( 79-114 ) | | |
| Tetrachloroethene | 0.2 | ND | 0.18 | 92 | | | ( 56-110 ) | | |
| Trichloroethene | 0.2 | ND | 0.19 | 94 | | | ( 83-113 ) | | |
| Vinyl chloride | 0.2 | ND | 0.21 | 105 | | | ( 68-117 ) | | |

## METHOD BLANK SUMMARY

### TCLP VOLATILES SW-846 Method 1311

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 345807 | Method Blank | **Analysis** | | |
| **Prep Batch** | | | **Batch** | VMS 5050 | |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8260B | |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | HP 5972 Series | INSTRU Q |
| **File** | Q1201_08.D | | **Date** | 12/01/2003 | |
| | | | **By** | JEH | |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 1,1-Dichloroethene | ND | 0.010 |
| 1,2-Dichloroethane | ND | 0.010 |
| 1,4-Dichlorobenzene | ND | 0.010 |
| 2-Butanone ( M E K ) | ND | 0.050 |
| Benzene | ND | 0.010 |
| Carbon tetrachloride | ND | 0.010 |
| Chlorobenzene | ND | 0.010 |
| Chloroform | ND | 0.010 |
| Tetrachloroethene | ND | 0.010 |
| Trichloroethene | ND | 0.010 |
| Vinyl chloride | ND | 0.010 |

# TCLP Semivolatile Organic Compounds (SVOC) Quality Control Summary

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XMS 2917 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Aqueous | **Date** | 12/03/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3035218002 PS | 53.9 | 78.7 | 79.5 | 43.6 | 97.8 | 90.2 |
| 345568 MB | 51.7 | 87 | 85.4 | 38.8 | 97.6 | 98.9 |
| 345569 LCS | 44.2 | 74.5 | 72.3 | 32.1 | 88.7 | 82.5 |
| 345570 LCSD | 49.5 | 76.7 | 75.7 | 36.8 | 90.3 | 85.9 |
| [illegible]572 MS | 51 | 80.8 | 80.3 | 39.1 | 96 | 98.6 |

| | | | |
|---|---|---|---|
| 2FP | = | 2-Fluorophenol Surr | ( 14-68 ) |
| FBP | = | 2-Fluorobiphenyl Surr | ( 31-99 ) |
| NB2 | = | Nitrobenzene-d5 Surr | ( 33-102 ) |
| PHL | = | Phenol-d5 Surr | ( 13-50 ) |
| TBP | = | 2,4,6-Tribromophenol Surr | ( 31-133 ) |
| TPH | = | Terphenyl-d14 Surr | ( 20-116 ) |

## SURROGATE SUMMARY

### TCLP SEMI-VOLATILES SW1311

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32684 Sybill, Inc. | **Batch** | XMS 2917 |
| | | **Method** | SW-846 8270C |
| **Matrix** | Solid | **Date** | 12/04/2003 |
| | | **By** | BPJ |

| Sample ID(s) | Surrogate Recovery % | | | | | |
|---|---|---|---|---|---|---|
| | 2FP | FBP | NB2 | PHL | TBP | TPH |
| 3035218001 PS | 53.9 | 83.5 | 82.2 | 42.4 | 101 | 101 |
| 345571 MS | 56.7 | 89.2 | 91.5 | 42.1 | 121 | 111 |

| | | | |
|---|---|---|---|
| **2FP** | = | **2-Fluorophenol Surr** | **( 14-68 )** |
| **FBP** | = | **2-Fluorobiphenyl Surr** | **( 31-99 )** |
| **NB2** | = | **Nitrobenzene-d5 Surr** | **( 33-102 )** |
| **PHL** | = | **Phenol-d5 Surr** | **( 13-50 )** |
| **TBP** | = | **2,4,6-Tribromophenol Surr** | **( 31-133 )** |
| **TPH** | = | **Terphenyl-d14 Surr** | **( 20-116 )** |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345569 | Lab Control Spike | | |
| | 345570 | Lab Control Spike Dup | **Analysis** | |
| **Prep Batch** | XXX | 6204 | **Batch** | XMS 2917 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 8270C |
| **Project** | Project 32664 Sybill, Inc. | | | |
| **File** | L1203_13.D | | **Date** | 12/03/2003 |
| | L1203_14.D | | **By** | BPJ |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | LCS;LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration mg/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2, 0.2 | 0.17 | 84 | 0.17 | 87 | ( 36-135 ) | 3 | (< 27 ) |
| 2,4,6-Trichlorophenol | 0.2, 0.2 | 0.17 | 83 | 0.17 | 86 | ( 32-140 ) | 3 | (< 27 ) |
| 2,4-Dinitrotoluene | 0.05, 0.05 | 0.041 | 82 | 0.042 | 85 | ( 47-140 ) | 4 | (< 30 ) |
| 3&4-Methylphenol (o-Cresol) | 0.2, 0.2 | 0.12 | 60 | 0.13 | 65 | ( 27-119 ) | 8 | (< 33 ) |
| 3&4-Methylphenol (p&m-Cresol) | 0.25, 0.25 | 0.16 | 65 | 0.17 | 69 | ( 25-112 ) | 7 | (< 33 ) |
| Hexachlorobenzene | 0.05, 0.05 | 0.041 | 83 | 0.042 | 83 | ( 36-138 ) | 1 | (< 16 ) |
| Hexachlorobutadiene | 0.05, 0.05 | 0.032 | 65 | 0.036 | 72 | ( 18-122 ) | 11 | (< 26 ) |
| Hexachloroethane | 0.05, 0.05 | 0.034 | 67 | 0.038 | 76 | ( 16-112 ) | 12 | (< 24 ) |
| Nitrobenzene | 0.05, 0.05 | 0.040 | 80 | 0.041 | 82 | ( 27-128 ) | 2 | (< 24 ) |
| Pentachlorophenol | 0.2, 0.2 | 0.17 | 83 | 0.18 | 88 | ( 45-162 ) | 5 | (< 17 ) |
| Pyridine | 0.05, 0.05 | ND | 29 | ND | 31 | ( 12-68 ) | 7 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345571 | Matrix Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX | 6204 | **Batch** | XMS- 2917 |
| **Original** | 3035218001 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 12/04/2003 |
| **File** | L1203_18.D | | **By** | BPJ |

QC results affect the following production samples:

3035218001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.22 | 110 | | | ( 25-137 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.21 | 106 | | | ( 30-128 ) | | |
| 2,4-Dinitrotoluene | 0.05 | ND | 0.056 | 111 | | | ( 36-134 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.15 | 76 | | | ( 16-116 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | ND | 0.21 | 80 | | | ( 18-112 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.053 | 107 | | | ( 31-125 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.045 | 89 | | | ( 14-106 ) | | |
| Hexachloroethane | 0.05 | ND | 0.046 | 92 | | | ( 14-104 ) | | |
| Nitrobenzene | 0.05 | ND | 0.050 | 99 | | | ( 15-129 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.24 | 119 | | | ( 17-156 ) | | |
| Pyridine | 0.05 | ND | 0.026 | 52 | | | ( 10-75 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345572 Matrix Spike | | | |
| | | | **Analysis** | |
| **Prep Batch** | XXX 6204 | | **Batch** | XMS 2917 |
| **Original** | 3035218002 | | **Method** | SW-846 8270C |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 12/04/2003 |
| **File** | L1203_25.D | | **By** | BPJ |

QC results affect the following production samples:

3035218002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.2 | ND | 0.20 | 96 | | | ( 39-116 ) | | |
| 2,4,6-Trichlorophenol | 0.2 | ND | 0.18 | 91 | | | ( 39-114 ) | | |
| [illegible]nitrotoluene | 0.05 | ND | 0.045 | 91 | | | ( 46-125 ) | | |
| 2-Methylphenol (o-Cresol) | 0.2 | ND | 0.15 | 73 | | | ( 28-101 ) | | |
| 3&4-Methylphenol (p&m-Cresol) | 0.25 | 0.16 | 0.35 | 76 | | | ( 31-96 ) | | |
| Hexachlorobenzene | 0.05 | ND | 0.046 | 93 | | | ( 39-116 ) | | |
| Hexachlorobutadiene | 0.05 | ND | 0.038 | 76 | | | ( 24-91 ) | | |
| Hexachloroethane | 0.05 | ND | 0.039 | 79 | | | ( 23-90 ) | | |
| Nitrobenzene | 0.05 | ND | 0.045 | 89 | | | ( 28-113 ) | | |
| Pentachlorophenol | 0.2 | ND | 0.16 | 77 | | | ( 42-136 ) | | |
| Pyridine | 0.05 | ND | 0.025 | 50 | | | ( 4.5-59 ) | | |

## METHOD BLANK SUMMARY

## TCLP SEMI-VOLATILES SW1311

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345568 | Method Blank | | |
| **Prep Batch** | XXX | 6204 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XMS 2917 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 8270C |
| **File** | L1203_12.D | | | |
| | | | **Date** | 12/03/2003 |
| | | | **By** | BPJ |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| 2,4,5-Trichlorophenol | ND | 0.010 |
| 2,4,6-Trichlorophenol | ND | 0.010 |
| 2,4-Dinitrotoluene | ND | 0.010 |
| 2-Methylphenol (o-Cresol) | ND | 0.010 |
| 3&4-Methylphenol (p&m-Cresol) | ND | 0.020 |
| Hexachlorobenzene | ND | 0.010 |
| Hexachlorobutadiene | ND | 0.010 |
| Hexachloroethane | ND | 0.010 |
| Nitrobenzene | ND | 0.010 |
| Pentachlorophenol | ND | 0.010 |
| Pyridine | ND | 0.020 |

# Polychlorinated Biphenyls (PCB) Quality Control Summary

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3964 |
| | | **Method** | EPA 608 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 11/26/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 345231 | MB | 77.7 | 64.3 |
| 345232 | LCS | 81.3 | 63.3 |
| 345233 | LCSD | 78.3 | 50.3 |

| | | | |
|---|---|---|---|
| **DCB** | = | **Decachlorobiphenyl Surr** | **( 14-91 )** |
| **TMX** | = | **Tetrachloro-m-xylene Surr** | **( 17-94 )** |

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3970 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Aqueous | **Instrument** | Varian 3400 ECD INST-U |
| | | **Date** | 12/02/2003 |
| | | **By** | ESA |

| Sample ID(s) | | Surrogate Recovery % | |
|---|---|---|---|
| | | DCB | TMX |
| 3035218002 | PS | 61 | 64 |

**DCB** = **Decachlorobiphenyl Surr** **( 14-91 )**
**TMX** = **Tetrachloro-m-xylene Surr** **( 17-94 )**

## SURROGATE SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Client** | Conestoga-Rovers & Associates | **Analysis** | |
| **Project** | Project 32664 Sybill, Inc. | **Batch** | XGC 3969 |
| | | **Method** | SW-846 8082 |
| **Matrix** | Solid | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 11/28/2003 |
| | | **By** | JL |

| Sample ID(s) | Surrogate Recovery % | |
|---|---|---|
| | DCB | TMX |
| 3035218001 PS | 47.7 | 45 |
| 345524 MB | 101 | 72.7 |
| 345525 LCS | 104 | 76.3 |
| 345526 LCSD | 100 | 72.3 |
| 345531 MS | 73.3 | 46.7 |
| 345532 MSD | 66.7 | 46.7 |

**DCB = Decachlorobiphenyl Surr ( 10-151 )**
**TMX = Tetrachloro-m-xylene Surr ( 10-140 )**

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

**Sample ID** 345232 Lab Control Spike

**Prep Batch** XXX 6192
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.

**Analysis**
**Batch** XGC 3964
**Method** EPA 608
**Instrument** Varian 3400 ECD INST-U
**Date** 11/26/2003
**By** ESA

QC results affect the following production samples:

3035218002

| Analyte | LCS,LCSD Spike Added ug/L | LCS Concentration ug/L | LCS Recovery % | LCSD Concentration ug/L | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1, 1 | 0.61 | 61 | 0.55 | 55 | ( 38-158 ) | 10 | (< 20 ) |
| Aroclor-1260 | 1, 1 | 0.75 | 75 | 0.73 | 73 | ( 10-127 ) | 3 | (< 20 ) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345525 Lab Control Spike | | | |
| | | **Analysis** | | |
| **Prep Batch** | XXX 6201 | **Batch** | XGC 3969 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 | |
| **Project** | Project 32684 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-C | |
| | | **Date** | 11/28/2003 | |
| | | **By** | JL | |

QC results affect the following production samples:

3035218001

| Analyte | LCS,LCSD Spike Added ug/Kg | LCS Concentration ug/Kg | LCS Recovery % | LCSD Concentration ug/Kg | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 330, 330 | 230 | 69 | 210 | 65 | ( 35-105 ) | 7 | (< 20 ) |
| Aroclor-1260 | 330, 330 | 280 | 85 | 260 | 79 | ( 54-114 ) | 8 | (< 20 ) |

## Matrix Spike / Matrix Spike Duplicate Summary

### GC SEMIVOLATILE ORGANIC ANALYSIS

**Sample ID** 345531 Matrix Spike

**Prep Batch** XXX 6201
**Original** 3035200014
**Client** Conestoga-Rovers & Associates
**Project** Project 32664 Sybill, Inc.

**Analysis**
**Batch** XGC 3969
**Method** SW-846 8082
**Instrument** Varian 3400 ECD INST-C
**Date** 11/28/2003
**By** JL

QC results affect the following production samples:

3035218001

| Analyte | MS, MSD Spike Added ug/Kg | Sample Conc. ug/Kg | MS Concentration ug/Kg | MS Recovery % | MSD Concentration ug/Kg | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 350, 350 | ND | ND | 0 | ND | 0 | ( 10-140 ) | 0 | (< 20 ) |
| Aroclor-1260 | 350, 350 | 4000 | 4600 | 162 | 5500 | 432 | ( 10-135 ) | 19 | (< 20 ) |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345231 | Method Blank | | |
| **Prep Batch** | XXX | 6192 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | XGC 3964 |
| **Project** | Project 32684 Sybil, Inc. | | **Method** | EPA 608 |
| | | | **Instrument** | Varian 3400 ECD INST-U |
| | | | **Date** | 11/26/2003 |
| | | | **By** | ESA |

QC results affect the following production samples:

3035218002

| Analyte | Concentration ug/L | Detection Limit ug/L |
|---|---|---|
| Aroclor-1016 | ND | 0.10 |
| Aroclor-1221 | ND | 0.10 |
| Aroclor-1232 | ND | 0.10 |
| Aroclor-1242 | ND | 0.10 |
| Aroclor-1248 | ND | 0.10 |
| Aroclor-1254 | ND | 0.10 |
| Aroclor-1260 | ND | 0.10 |
| Aroclor-1262 | ND | 0.10 |
| Aroclor-1268 | ND | 0.10 |

## METHOD BLANK SUMMARY

## GC SEMIVOLATILE ORGANIC ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 345524 Method Blank | **Analysis** | |
| **Prep Batch** | XXX 6201 | **Batch** | XGC 3969 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 8082 |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Varian 3400 ECD INST-C |
| | | **Date** | 11/28/2003 |
| | | **By** | JL |

QC results affect the following production samples:

3035218001

| Analyte | Concentration ug/Kg | Detection Limit ug/Kg |
|---|---|---|
| Aroclor-1016 | ND | 33 |
| Aroclor-1221 | ND | 33 |
| Aroclor-1232 | ND | 33 |
| Aroclor-1242 | ND | 33 |
| Aroclor-1248 | ND | 33 |
| Aroclor-1254 | ND | 33 |
| Aroclor-1260 | ND | 33 |
| Aroclor-1262 | ND | 33 |
| Aroclor-1268 | ND | 33 |

# TCLP Metals
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345621 Lab Control Spike TCLP | | | |
| | | **Analysis** | | |
| **Prep Batch** | MXX 11722 | **Batch** | MIM 5963 | |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 6020 | |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | SCIEX ELAN 6100 ICP/MS | |
| | | **Date** | 12/03/2003 | |
| | | **By** | SUB | |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 1 | 0.97 | 97 | | | (50-150) | | |
| Barium | 1 | 1.0 | 101 | | | (50-150) | | |
| [illegible]ium | 1 | 1.0 | 102 | | | (50-150) | | |
| [illegible]lum | 1 | 0.92 | 92 | | | (50-150) | | |
| Lead | 1 | 1.2 | 115 | | | (50-150) | | |
| Selenium | 1 | 0.93 | 93 | | | (50-150) | | |
| Silver | 1 | 1.1 | 109 | | | (50-150) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345623 | Matrix Spike TCLP | | |
| | 345624 | Matrix Spike Duplicate TCLP | **Analysis** | |
| **Prep Batch** | MXX | 11722 | **Batch** | MIM 5963 |
| **Original** | 3035218001 | | **Method** | SW-846 6020 |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 12/03/2003 |
| | | | **By** | SUB |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration mg/L | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1.4, 1.4 | ND | 1.4 | 100 | 1.4 | 105 | (50-150) | 5 | (< 20) |
| Barium | 1.4, 1.4 | 0.74 | 2.3 | 90 | 2.4 | 100 | (50-150) | 6 | (< 20) |
| Cadmium | 1.4, 1.4 | ND | 1.2 | 89 | 1.3 | 92 | (50-150) | 3 | (< 20) |
| Chromium | 1.4, 1.4 | ND | 1.3 | 96 | 1.4 | 101 | (50-150) | 5 | (< 20) |
| Lead | 1.4, 1.4 | ND | 1.2 | 88 | 1.2 | 90 | (50-150) | 2 | (< 20) |
| Selenium | 1.4, 1.4 | ND | 1.3 | 93 | 1.4 | 98 | (50-150) | 5 | (< 20) |
| Silver | 1.4, 1.4 | ND | 0.99 | 72 | 1.1 | 81 | (50-150) | 12 | (< 20) |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345620 | Method Blank | | |
| **Prep Batch** | MXX | 11722 | | |
| **Client** | Conestoga-Rovers & Associates | | | |
| **Project** | Project 32664 Sybill, Inc. | | | |

**Analysis**

| | |
|---|---|
| **Batch** | MIM 5963 |
| **Method** | SW-846 6020 |
| **Instrument** | SCIEX ELAN 6100 ICP/MS |
| **Date** | 12/03/2003 |
| **By** | SUB |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Arsenic | ND | 0.0050 |
| Barium | ND | 0.0050 |
| Cadmium | ND | 0.00050 |
| Chromium | ND | 0.0050 |
| Lead | ND | 0.0030 |
| Selenium | ND | 0.0050 |
| [illegible] | ND | 0.00050 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 345739 Lab Control Spike | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11729 | **Batch** | MCV 2057 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 7470A |
| **Project** | Project 32684 Sybil, Inc. | **Instrument** | PSA Millenium |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\120103W1.TXT | **Date** | 12/01/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | LCS,LCSD Spike Added mg/L | LCS Concentration mg/L | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.002 | 0.0020 | 102 | | | ( 86-114 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 345741 Matrix Spike TCLP | | |
| | | **Analysis** | |
| **Prep Batch** | MXX 11729 | **Batch** | MCV 2057 |
| **Original** | 3035218001 | **Method** | SW-846 7470A |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | PSA Millenium |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 12/01/2003 |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\120103W1.TXT | **By** | PSK |

QC results affect the following production samples:

3035218001

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.021 | 103 | | | ( 50-150 ) | | |

## Matrix Spike / Matrix Spike Duplicate Summary

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID** | 345742 | Matrix Spike TCLP | | | |
| | | | **Analysis** | | |
| **Prep Batch** | MXX | 11729 | **Batch** | MCV | 2057 |
| **Original** | 3035218002 | | **Method** | SW-846 7470A | |
| **Client** | Conestoga-Rovers & Associates | | **Instrument** | PSA Millenium | |
| **Project** | Project 32664 Sybill, Inc. | | **Date** | 12/01/2003 | |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\120103W1.TXT | | **By** | PSK | |

QC results affect the following production samples:

3035218002

| Analyte | MS, MSD Spike Added mg/L | Sample Conc. mg/L | MS Concentration mg/L | MS Recovery % | MSD Concentration | MSD Recovery % | MS/MSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.02 | ND | 0.020 | 96 | | | ( 50-150 ) | | |

## METHOD BLANK SUMMARY

## TOTAL METALS ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 345738 Method Blank | | |
| **Prep Batch** | MXX 11729 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | **Batch** | MCV 2057 |
| **Project** | Project 32664 Sybill, Inc. | **Method** | SW-846 7470A |
| **File** | M:\Mercury\Millennium\Results\LIMSExp\120103W1.TXT | **Instrument** | PSA Millenium |
| | | **Date** | 12/01/2003 |
| | | **By** | PSK |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | Concentration mg/L | Detection Limit mg/L |
|---|---|---|
| Mercury | ND | 0.00020 |

# General Chemistry
# Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345689 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3562 | **Batch** | WLA 1664 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.3.2 |
| **Project** | Project 32684 Sybill, Inc. | | **Instrument** | KoneLab Aqua 20 |
| | | | **Date** | 12/01/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Cyanide | 5 | ND | 23 | | | ( 5-24 ) | | |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 345690 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3562 | **Batch** | WLA 1664 |
| **Original** | 3035274003 | **Method** | SW-846 7.3.3.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | KoneLab Aqua 20 |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 12/01/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Cyanide | ND | ND | 10 | 30.30 | (< 20 ) |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345688 | Method Blank | | |
| **Prep Batch** | WXX | 3562 | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | WLA 1664 |
| **Project** | Project 32664 Sybill, Inc. | | **Method** | SW-846 7.3.3.2 |
| | | | **Instrument** | KoneLab Aqua 20 |
| | | | **Date** | 12/01/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Cyanide | ND | 10 |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345705 | Lab Control Spike | | |
| | | | **Analysis** | |
| **Prep Batch** | WXX | 3563 | **Batch** | WAT 1854 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybil, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 12/01/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | LCS,LCSD Spike Added mg/Kg | LCS Concentration mg/Kg | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Reactive Sulfide | 400 | 380 | 94 | | | ( 57-109 ) | | |

## METHOD BLANK SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345704 | Method Blank | **Analysis** | |
| **Prep Batch** | WXX 3563 | | **Batch** | WAT 1854 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 7.3.4.2 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 12/01/2003 |
| | | | **By** | JB |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | Concentration mg/Kg | Detection Limit mg/Kg |
|---|---|---|
| Reactive Sulfide | ND | 10 |

## MATRIX DUPLICATE SUMMARY

## GENERAL CHEMISTRY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 345706 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | WXX 3563 | **Batch** | WAT 1854 |
| **Original** | 3035274003 | **Method** | SW-846 7.3.4.2 |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | No Instrument, Manual Handling |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 12/01/2003 |
| | | **By** | JB |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | Original Sample Concentration mg/Kg | Dilution / Duplicate Concentration mg/Kg | RDL mg/Kg | RPD | RPD Limits |
|---|---|---|---|---|---|
| Reactive Sulfide | ND | ND | 10 | 0.00 | (< 20) |

## Lab Control Spike / Lab Control Spike Duplicate Summary

### PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345699 | Flashpoint Calibration Std. | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | MXX 11728 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 1010 |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | No Instrument, Manual Handling |
| | | | **Date** | 12/01/2003 |
| | | | **By** | WD |

QC results affect the following production samples:

3035218002

| Analyte | LCS,LCSD Spike Added deg F | LCS Concentration deg F | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Flashpoint Fahrenheit | 80 | 81 | 101 | | | ( 98-102 ) | | |

# Physical Property Quality Control Summary

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | |
|---|---|---|---|
| **Sample ID** | 345358 pH Calibration Standard | | |
| **Prep Batch** | | **Analysis Batch** | WPH 2101 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | **Date** | 11/26/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH Cal. Check pH10 | 10 | 10.0 | | | | ( 99-101 ) | | |
| pH Cal. Check pH 4 | 4 | 4.01 | | | | ( 98-103 ) | | |
| pH Cal. Check pH 7 | 7 | 7.01 | | | | ( 99-101 ) | | |

## Lab Control Spike / Lab Control Spike Duplicate Summary

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345359 | Quality Control Sample | | |
| | | | **Analysis** | |
| **Prep Batch** | | | **Batch** | WPH 2101 |
| **Client** | Conestoga-Rovers & Associates | | **Method** | SW-846 9040B |
| **Project** | Project 32664 Sybill, Inc. | | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| | | | **Date** | 11/26/2003 |
| | | | **By** | SKP |

QC results affect the following production samples:

3035218001, 3035218002

| Analyte | LCS,LCSD Spike Added S.U. | LCS Concentration S.U. | LCS Recovery % | LCSD Concentration | LCSD Recovery % | LCS/LCSD Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| pH QC pH 8 | 8 | 8.01 | | | | ( 99-101 ) | | |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 345360 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2101 |
| **Original** | 3035223001 | **Method** | SW-846 9040B |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 11/26/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3035218002

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 6.65 | 6.64 | | 0.15 | (< 20 ) |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 345362 Matrix Duplicate | **Analysis** | |
| **Prep Batch** | | **Batch** | WPH 2101 |
| **Original** | 3035233026 | **Method** | SW-846 9040B |
| **Client** | Conestoga-Rovers & Associates | **Instrument** | Orion Ion Analyzer EA940 SZ25A |
| **Project** | Project 32664 Sybill, Inc. | **Date** | 11/26/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3035218001

| Analyte | Original Sample Concentration S.U. | Dilution / Duplicate Concentration S.U. | RDL S.U. | RPD | RPD Limits |
|---|---|---|---|---|---|
| pH | 12.3 | 12.3 | | 0.08 | (< 20) |

## MATRIX DUPLICATE SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | |
|---|---|---|---|
| **Sample ID** | 345273 Matrix Duplicate | | |
| **Prep Batch** | | **Analysis** | |
| **Original** | 3035225001 | **Batch** | WG1 4859 |
| **Client** | Conestoga-Rovers & Associates | **Method** | SM19 2540G |
| **Project** | Project 32664 Sybill, Inc. | | |
| | | **Date** | 11/26/2003 |
| | | **By** | SKP |

QC results affect the following production samples:

3035218001

| Analyte | Original Sample Concentration % | Dilution / Duplicate Concentration % | RDL % | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Solids | 83.2 | 84.2 | 0.10 | 1.30 | (< 20) |

## METHOD BLANK SUMMARY

## PHYSICAL PROPERTY ANALYSIS

| | | | | |
|---|---|---|---|---|
| **Sample ID** | 345272 | Method Blank | | |
| **Prep Batch** | | | **Analysis** | |
| **Client** | Conestoga-Rovers & Associates | | **Batch** | WG1 4859 |
| **Project** | Project 32684 Sybill, Inc. | | **Method** | SM19 2540G |
| | | | **Date** | 11/26/2003 |
| | | | **By** | SKP |

QC results affect the following production samples:

3035218001

| Analyte | Concentration % | Detection Limit % |
|---|---|---|
| Total Solids | 100 | 0.10 |