

Original Hand Signed Letter

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James W. Sumner, Manager
Group Environmental Programs

One Neumann Way, M/D T165
Cincinnati, OH 45215

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jim.sumner@ge.com

May 17, 2007

Mr. Dean Yasuda
Washington Department of Ecology
Northwest Regional Office
3190 - 160th Avenue S.E.
Bellevue, Washington 98008-5452

Dear Mr. Yasuda:

As please find the additional Air Sampling Report documenting the results of the March 13, 2007 sample collected in the Hudson Bay office area. As you know we conducted this one additional sampling event at the request of the building owner and tenant.

Should you have any questions about the report please do not hesitate to call me at (513) 672-3986 or Jamie Stevens at (206) 624-9349.

Sincerely,


James W. Sumner

Attachment - May 17, 2007 Letter Report to Bill Teplicky

cc: Julie Selick, DOE
Bill Teplicky, McKinstry
Bill Joyce - Salter Joyce Ziker
Tong Li, Ground Water Solutions
Susanne Herald, Esq. - GE
Jim Swartz, Esq State of Washington Attorney General's Office
Jamie Stevens, Linda Baker - RETEC



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- Jim Swartz, Esq State of Washington Attorney General's Office
- Jamie Stevens, Linda Baker - RETEC

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May 17, 2007

Mr. Bill Teplicy
McKinstry Company
5005 3rd Ave South
Seattle, WA 98134

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DEPT. OF ECOLOGY

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MAY 13 2007
DEPT. OF ECOLOGY

RE: March 2007 Indoor Air Sampling – Hudson Bay Insulation Office, Former GE Building, Seattle, WA

Dear Mr. Teplicky:

Per your request the following provides the results of the additional air sampling that was completed in the Hudson Bay Insulation office. This sample was collected on March 13, 2007. This sampling event was performed in accordance with the procedures approved by the Department of Ecology (*Work Plan for Evaluation of Subsurface Vapor Intrusion, Revision 2*, dated November 1, 2005).

Sampling Methods

On Tuesday March 13, 2007, Jamie Stevens (RETEC), prior to deploying sample canisters, conducted a site walk-through to observe potential sources of VOC. No VOC sources were identified. Copies of field notes are included in Attachment A. No VOC sources were identified.

Field work for the air sampling was conducted on Tuesday March 13, 2007. A total of two air samples were collected for this evaluation. These consisted of one ambient air sample, and one indoor air sample. The sample locations are shown in Figure 1.

All indoor and ambient sampling was also conducted in accordance with the standard operating procedures discussed in the Work Plan. All sampling canisters were individually certified clean by GC/MS analysis before being used in the field. Certification of cleaning and evacuation was noted prior to collection of samples. A vacuum gauge was used to check both the initial and final vacuum in the canisters; the initial vacuum was checked to ensure mechanical integrity of the canisters and was

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approximately 30 pounds per square inch (psi). The final vacuum after sample collection, verified upon receipt by the laboratory to ensure sample integrity during return shipment, read from approximately 4.0 to 7.0 psi (Table 1).

The sample ID, sample date, sample time and canister number were recorded on the sampling forms and in the field notes. Signs were also posted on each unit stating the purpose of the sampler and asking that no smoking occur. In addition, starting and ending vacuum readings were recorded for each canister, and recorded on the sample labels and the Chain of Custody for laboratory quality control purposes. Once samples were collected, they were stored according to the method protocol and shipped to the analytical laboratory on the next business day under Chain of Custody procedures. Copies of certified laboratory reports are included in Attachment A, along with copies of the field forms.

All sampling was conducted concurrent on March 13, 2007. The samples were collected over an eight-hour time period to capture a normal worker's exposure. This event was conducted during the normal operating hours.

The indoor sample was set up and collected in accordance with the Work Plan. Six-liter Summa canisters with eight-hour flow controllers were used to collect the indoor air sample during the field event. The canister and controller were SIM-certified at the laboratory. The canister were placed approximately 4 to 5 feet above the ground (at approximate breathing zone height).

Ambient Air Results

PCE was detected in the ambient air sample at AA-3 with a concentration of $1.8 \mu\text{g}/\text{m}^3$, below the MTCA Method C Indoor Air Screening Level of $4.2 \mu\text{g}/\text{m}^3$. No other CVOCs were detected. Results are summarized in Table 2.

The wind during on March 13 was generally from a South direction, based on field observations. Wind speed and direction data were obtained from Boeing Field and from the Puget Sound Clean Air Agency (PSCAA) station located at 4752 East Marginal Way South, less than one-half mile from the former GE facility. Wind roses showing the wind speed and direction recorded at the two locations throughout the day are shown in Figure 2. These measurements confirm that wind was generally from a southerly direction, with the majority of the measurements from the South direction. Based on the wind data for the test period, sample AA-3 is representative of upwind conditions at the former GE facility.

Indoor Air Results

PCE and TCE were detected in the indoor air sample. Table 2 shows the results of the March, 2007 sampling event. The PCE concentration of the one sample location (IA-7), during the March 2007


GE 220 S Dawson Street
Page 3

event, was detected at $0.57 \mu\text{g}/\text{m}^3$, well below the MTCA Method C cleanup level of $4.2 \mu\text{g}/\text{m}^3$. The TCE concentration of the indoor air sample (IA-7) was detected at $0.26 \mu\text{g}/\text{m}^3$. This concentration is below the site specific remediation level of $0.96 \mu\text{g}/\text{m}^3$ however it is above the MTCA Method C cleanup level of $0.22 \mu\text{g}/\text{m}^3$. The site specific remediation level number takes into account actual exposure frequencies and durations for the workers in the building, rather than assuming 24-hour a day exposures as the MTCA Method C value assumes.

Table 3 is the summary table of all available indoor air data for the site.

If you have any questions or comments, please call me at (206) 624-9349 or Jim Sumner at (513) 672-3986.

Sincerely,
The RETEC Group, Inc.



Jamie C. Stevens
Project Manager

cc: Jim Sumner – GE

Dean Yasuda, Dept of Ecology
Bill Joyce – Salter Joyce Ziker
Tong Li – Groundwater Solutions
Linda Baker, John Finn, File GE001-19314 – RETEC

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Tables

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**Table 1 Summary of Sample Collection Information – March 13 2007
– Former GE Building, Hudson Bay Office Sample**

| Location ID | Canister ID | Initial Vacuum Readings | | Final Vacuum Readings | | Final Vacuum Reading at Laboratory | Start Time | End Time | Duration (hours) | Analysis |
|-------------|-------------|-------------------------|-----------------|-----------------------|-----------------|------------------------------------|------------|----------|------------------|-----------|
| | | Vacuum Gauge | Flow Controller | Vacuum Gauge | Flow Controller | | | | | |
| AA-3 | 4366 | -30 | -30 | -7.5 | -7.0 | 4.0 | 6:49 | 14:49 | 8:00 | TO-15 SIM |
| IA-7 | 34241 | -30 | -30 | -8.5 | -8.0 | 7.0 | 7:05 | 15:04 | 7:59 | TO-15 SIM |

Notes:

TO-15 Analysis included: 1,1,1-Trichloroethane (1,1,1-TCA), 1,1-Dichloroethane (1,1-DCA), 1,1-Dichloroethylene (1,1-DCE), Chloroform, cis 1,2-Dichloroethylene (1,2-DCE), Tetrachloroethylene (PCE), Trichloroethylene (TCE), and Vinyl Chloride

All vacuum readings in units of pounds per square inch Hg

Initial Vacuum Readings of -30psi were greater than -30psi, the gauge only recorded to -30psi.

**Table 2 Summary of Vapor Intrusion Study Results – Former GE Building
– Former GE Building, Hudson Bay Office Sample**

| Location ID | 1,1,1-TCA 3/13/2007 | 1,1-DCA 3/13/2007 | 1,1-DCE 3/13/2007 | Chloroform 3/13/2007 | cis-1,2-DCE 3/13/2007 | PCE 3/13/2007 | TCE 3/13/2007 | Vinyl Chloride 3/13/2007 |
|---|------------------------|----------------------|----------------------|-------------------------|--------------------------|------------------|------------------|-----------------------------|
| Indoor Air Samples ($\mu\text{g}/\text{m}^3$) | | | | | | | | |
| IA-7 | < 0.19 | < 0.14 | < 0.069 | < 0.17 | < 0.14 | 0.57 | 0.26 | < 0.045 |
| Ambient Samples ($\mu\text{g}/\text{m}^3$) | | | | | | | | |
| AA-3 | < 0.17 | < 0.12 | < 0.061 | < 0.15 | < 0.12 | 1.8 | < 0.17 | < 0.04 |
| <i>MTCA Method C Indoor Air Screening Level</i> | 2,205 | 350 | 200 | 1.1 | 35 | 4.2 | 0.22/0.96 | 2.82 |

Notes:

1. TCE has two screening levels, the MTCA Method C screening level ($0.22 \mu\text{g}/\text{m}^3$) and the site-specific remediation level ($0.96 \mu\text{g}/\text{m}^3$)

NS - Location was not sampled

Shading indicates values above the MTCA Method C Screening level

Shading indicates values above the Site-Specific Remediation level

During the November 2006 sampling event no COCs were detected in the ambient air.

1,1,1-TCA- 1,1,1-Trichloroethane

1,1-DCA- 1,1-Dichloroethane

1,1-DCE- 1,1-Dichloroethylene

1,2-DCE- cis 1,2-Dichloroethylene

PCE- Tetrachloroethylene

TCE- Trichloroethylene

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Figures

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File: Q:\193145046-ess.dwg Layout: FIGURE 1 User: eschwartz Plotted: May 15, 2007 - 1:06pm Xref's:

AA-4

RW-2

2ND AVE. S.

AREA 3

AA-3

MASONS SUPPLY

AREA 1

AREA 2

AREA 4

AREA 5

AREA 6

AREA 11

AREA 12

HUDSON BAY INSULATION WAREHOUSE

IA-7

HUDSON BAY INSULATION OFFICE

S. DAWSON STREET

AREA 7

IA-5

AA-2

AREA 8

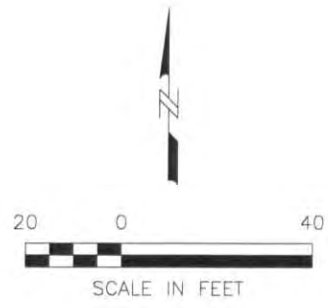
PUGET SOUND PIPE COMPANY

AREA 9

AREA 10

3RD AVE. S.

AA-1



| LEGEND | |
|--------|----------------------------------|
| ● | MARCH 2007 AIR SAMPLING LOCATION |
| ● | PREVIOUS AIR SAMPLING LOCATION |
| ⊕ | MONITORING WELL |
| ⊖ | GROUNDWATER EXTRACTION WELL |
| ▬ | BAY DOOR OPENING |
| - - - | HISTORIC EXCAVATION AREA |

NOTE:

- INTERNAL WAREHOUSE WALLS ARE FROM MCKINSTRY Co. BUILDINGS, DRAFTED 5/17/2004, AND FEILD UPDATED 8/09/2005.
- LOCATIONS ARE APPROXIMATE.

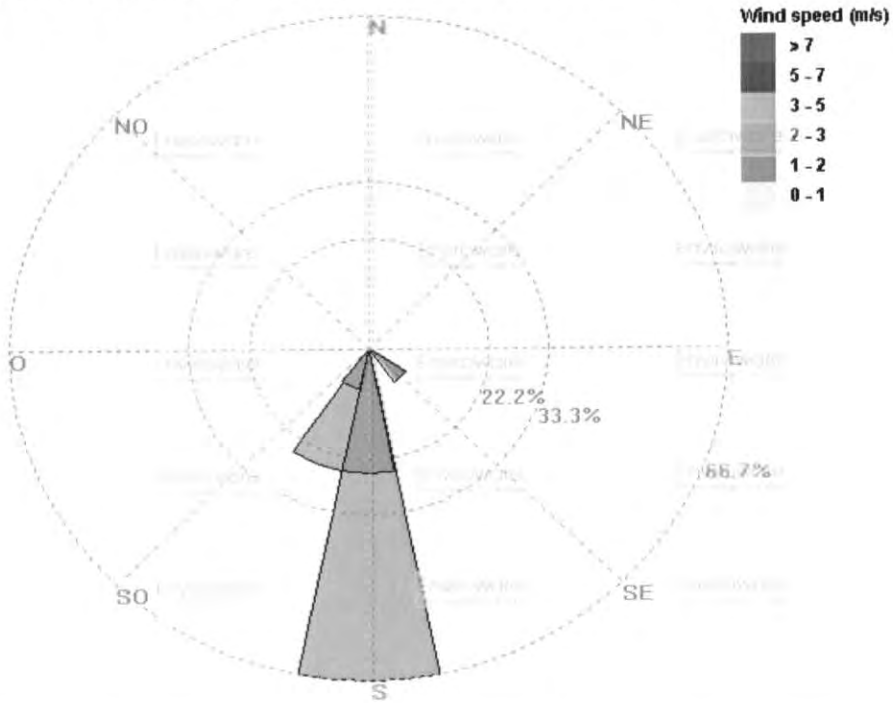
ENSR | AECOM



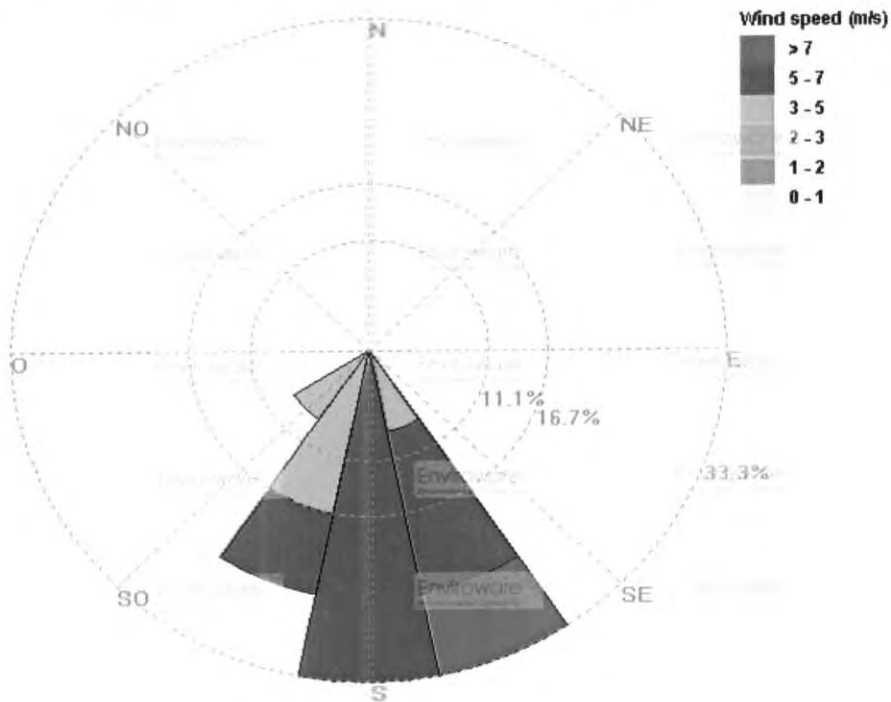
| | | |
|--|-------------------------|----------------------------------|
| <p>GEAE - S. DAWSON STREET GE001-19314-750</p> | | <p>SAMPLING LOCATIONS</p> |
| <p>DATE: 05/15/07</p> | <p>DRWN: E.S.S./DEN</p> | <p>FIGURE 1</p> |

Figure 2 Wind Roses

March 13, 2007 - 6AM to 5PM - PSCAA Duwamish Station



March 13, 2007 - 6AM to 5PM - Boeing Field (data from wunderground.com)



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Attachment A

Laboratory Reports and Field Notes

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07 Hudson.doc

April 24, 2007

Organic Data Verification Report

**GE South Dawson Street
1st Quarter 2007**

Prepared for:

**Jamie Stevens
Project Manager
The RETEC Group, Inc. – Merged with ENSR in 2007
1011 SW Klickitat Way, Suite 207
Seattle, WA 98134-1162**

Prepared by:

**Leslie Hill
Environmental Scientist
The RETEC Group, Inc. – Merged with ENSR in 2007
2409 Research Blvd., Suite 106
Fort Collins, CO 80526**

RETEC Project No.: GE001-19314-735

Overview

The samples analyzed for the GE South Dawson Street event in March 2007 are listed in the Table of Samples Analyzed (page 2). Data verification was performed on two air samples.

The samples were analyzed by Air Toxics Ltd. of Folsom, CA. The validated analyses were Toxic Organic Compounds by Modified EPA Method TO-15 GC/MS SIM.

The RETEC Analytical Data Verification Checklist is presented as pages 3-5. Data were evaluated based on verification criteria set forth in the *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Superfund Organic Methods Data Review*, document number USEPA-540-R-04-009, January 2005 (Draft Final) with additional reference to *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review*, document number EPA 540/R-99-008 of October 1999, as they applied to the reported methodology.

The following data components were reviewed during the data verification procedure:

| Submitted Deliverables |
|--|
| Case Narratives |
| Chain-of-Custody form(s) and sample integrity |
| Sample results, reporting limits, dilution factors |
| Holding times |
| Method blank results |
| LCS/LCSD (blank spike) results |
| Laboratory duplicate results |
| Organic surrogate recoveries |
| Electronic data deliverables (EDDs) |

Data Verification Qualifiers Assigned During this Review

There were no data verification qualifiers assigned during this review.

Overall Data Assessment

Precision, accuracy, method compliance, and completeness of the data set have been determined to be acceptable, based on the data submitted. The data are suitable for their intended use without qualification.

**Table of Samples Analyzed
GE South Dawson Street
Air Toxics Ltd., Folsom, CA
Report 0703366**

| Matrix | Sample ID | Sample Date and Time | | SDG |
|--------|-----------|----------------------|---------|---------|
| Air | AA3-0307 | 03/13/2007 | 6:49 AM | 0703366 |
| Air | 1A-7-0307 | 03/13/2007 | 7:05 AM | 0703366 |

ANALYTICAL DATA VERIFICATION CHECKLIST

| | | | | | | |
|---|-------------------------------------|---|-------------------------------------|--------------|----|----------|
| Project Name: GE South Dawson Street | | Laboratory: Air Toxics Ltd., Folsom, CA | | | | |
| Project Reference: | | Sample Matrix: Air Samples | | | | |
| RETEC Project: GE001-19314-735 | | Sample Start Date: 03/13/2007 | | | | |
| Verified By/Date Verified: Leslie Hill 04/24/2007 | | Sample End Date: 03/13/2007 | | | | |
| Samples Analyzed: Refer to the Table of Samples Analyzed (page 2). | | | | | | |
| Parameters Verified: Toxic Organic Compounds by Modified EPA Method TO-15 GC/MS SIM. | | | | | | |
| Laboratory Project ID: 0703366 | | | | | | |
| PRECISION, ACCURACY, METHOD COMPLIANCE, AND COMPLETENESS ASSESSMENT | | | | | | |
| Precision: | <input checked="" type="checkbox"/> | Acceptable | <input type="checkbox"/> | Unacceptable | LH | Initials |
| <p>Comments: Precision is the measure of variability of individual sample measurements. Field precision could not be determined as field duplicate samples were not collected. Laboratory precision was determined by examination of laboratory duplicate results. Evaluation of both field and laboratory duplicates for precision was done using the Relative Percent Difference (RPD). The RPD is defined as the difference between two duplicate samples divided by the mean and expressed as a percent. Laboratory RPD limits referenced EPA published QC limits. No data require qualification based on laboratory duplicate RPDs, and overall laboratory precision is acceptable. Precision measurements are reviewed in items 17, 20, and 21.</p> | | | | | | |
| Accuracy: | <input checked="" type="checkbox"/> | Acceptable | <input type="checkbox"/> | Unacceptable | LH | Initials |
| <p>Comments: Field accuracy, a measure of the sampling bias, could not be determined as no trip blank, field blank, or equipment rinse blank samples were collected. Laboratory accuracy is a measure of the system bias, and was measured by evaluating laboratory control sample/laboratory control sample duplicate (LCS/LCSD) and organic system monitoring compounds (surrogate) percent recoveries (%Rs). LCS/LCSD %Rs, which demonstrated the overall performance of the analysis, were compared to EPA published QC limits. System monitoring compound or surrogate recoveries, which measured system performance and efficiency during organic analysis, were compared to EPA published QC limits. No data require qualification based on field and laboratory accuracy measurements, and overall field and laboratory accuracy is acceptable. Accuracy measurements are reviewed in items 12, 14, 15, and 16.</p> | | | | | | |
| Method Compliance: | <input checked="" type="checkbox"/> | Acceptable | <input type="checkbox"/> | Unacceptable | LH | Initials |
| <p>Comments: Method compliance was determined by evaluating sample integrity, holding time, and laboratory blanks against method specified requirements, while applying EPA data validation guidelines. No data require qualification based on method compliance issues, and overall method compliance is acceptable based on the supplied data. Method compliance measurements are reviewed in items 4, 8, 11, 13, 18, 19, 20, and 22.</p> | | | | | | |
| Completeness: | <input checked="" type="checkbox"/> | Acceptable | <input type="checkbox"/> | Unacceptable | LH | Initials |
| <p>Comments: Completeness is the overall ratio of the number of samples planned versus the number of samples with valid analyses. Completeness goals are set at 90-100%. Determination of completeness included a review of chain of custody records, laboratory analytical methods and detection limits, laboratory case narratives, and project requirements. Completeness also included 100% review of the laboratory sample data results, QC summary reports, and electronic data deliverables (EDDs). All of the data received from the laboratory are useable without qualification. Completeness of the data is calculated to be 100% and is acceptable.</p> | | | | | | |
| VERIFICATION CRITERIA CHECK | | | | | | |
| There were no data verification flags used in this review. | | | | | | |
| 1. Did the laboratory identify any non-conformances related to the analytical results? | <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No | LH | Initials |
| Explanation by laboratory: There were no analytical discrepancies. | | | | | | |

ANALYTICAL DATA VERIFICATION CHECKLIST

| | | | | | | |
|---|----------|-----|----|----|----|----------|
| 2. Were sample Chain-of-Custody forms complete? | X | Yes | | No | LH | Initials |
| Comments: COC records from field to laboratory were complete, and custody was maintained as evidenced by field and laboratory personnel signatures, dates, and times of receipt. | | | | | | |
| 3. Were all the analyses requested for the samples on the COCs completed by the laboratory? | X | Yes | | No | LH | Initials |
| Comments: All requested analyses were completed. | | | | | | |
| 4. Were samples received in good condition and at the appropriate temperature? | X | Yes | | No | LH | Initials |
| Comments: No discrepancies or problems were identified on the chains of custody or in the case narratives. | | | | | | |
| 5. Were the requested analytical methods in compliance with WP/QAPP, permit, or COC? | X | Yes | | No | LH | Initials |
| Comments: Reported methods and target analyte lists were in compliance with COC records. | | | | | | |
| 6. Were detection limits in accordance with WP/QAPP, permit, or method? | X | Yes | | No | LH | Initials |
| Comments: Reported detection limits are achievable by the quoted methods. Some samples required dilution due to high concentrations of target analytes or interference. The reporting limits for diluted results were raised appropriately. | | | | | | |
| 7. Do the laboratory reports include only those constituents requested to be reported for a specific analytical method? | X | Yes | | No | LH | Initials |
| Comments: Only the requested target analytes were reported. | | | | | | |
| 8. Were sample holding times met? | X | Yes | | No | LH | Initials |
| Comments: Analytical holding times were met for all samples and analyses. | | | | | | |
| 9. Were correct concentration units reported? | X | Yes | | No | LH | Initials |
| Comments: Correct concentration units were reported. | | | | | | |
| 10. Were the reporting requirements for flagged data met? | X | Yes | | No | LH | Initials |
| Comments: Data verification qualifiers override any assigned laboratory flags. | | | | | | |
| 11. Were laboratory blank samples free of target analyte contamination? | X | Yes | | No | LH | Initials |
| Comments: All laboratory blanks were free of target analyte contamination. | | | | | | |
| 12. Were trip blank, field blank, and/or equipment rinse blank samples free of target analyte contamination? | NA | Yes | NA | No | LH | Initials |
| Comments: There were no trip blank, field blank, or equipment rinse blank samples associated with this sample set. Field accuracy could not be evaluated. | | | | | | |
| 13. Were instrument calibrations within method or data verification control limits? | NA | Yes | NA | No | LH | Initials |
| Comments: Instrument calibration information is not required for this level of data verification. | | | | | | |

ANALYTICAL DATA VERIFICATION CHECKLIST

| | | | | | | |
|--|----------|-----|----------|----|----|----------|
| 14. Were surrogate recoveries within control limits? | X | Yes | | No | LH | Initials |
| Comments: Surrogate percent recoveries (%Rs) for organic analyses were within laboratory QC criteria for all samples. | | | | | | |
| 15. Were laboratory control sample recoveries within control limits? | X | Yes | | No | LH | Initials |
| Comments: LCS and LCSD (blank spike) recoveries were within laboratory QC limits for all target analytes. | | | | | | |
| 16. Were matrix spike recoveries within control limits? | NA | Yes | NA | No | LH | Initials |
| Comments: Matrix spike samples are not required for air samples. | | | | | | |
| 17. Were duplicate RPDs and/or serial dilution %Ds within control limits? | X | Yes | | No | LH | Initials |
| Comments: Laboratory RPDs for target analytes in LCS/LCSD samples were within data verification control limits. No analyses requiring the use of serial dilutions were requested for this sample set. | | | | | | |
| 18. Were organic system performance criteria met? | NA | Yes | NA | No | LH | Initials |
| Comments: System performance checks were not required for this level of data verification. | | | | | | |
| 19. Were internal standards within method criteria for GC/MS sample analyses? | NA | Yes | NA | No | LH | Initials |
| Comments: Internal standard information was not required for this level of data verification. | | | | | | |
| 20. Were inorganic system performance criteria met? | NA | Yes | NA | No | LH | Initials |
| Comments: There were no inorganic analytes requested for this sample set. | | | | | | |
| 21. Were blind field duplicates collected? If so, discuss the precision (RPD) of the results. | | Yes | X | No | LH | Initials |
| Comments: There were no field duplicate samples associated with this sample set. Field precision could not be evaluated. | | | | | | |
| 22. Were qualitative criteria for organic target analyte identification met? | X | Yes | | No | LH | Initials |
| Comments: Trained laboratory personnel reviewed retention times and chromatography in accordance with the laboratory's internal QA/QC program. Laboratory personnel did not note any data outliers. | | | | | | |
| 23. Were 100% of the EDD concentrations and reporting limits compared to the hardcopy data reports? | X | Yes | | No | LH | Initials |
| Comments: There were no discrepancies between the EDD concentrations and reporting limits and the hardcopy data reports. | | | | | | |
| 24. General Comments: Data were evaluated based on verification criteria set forth in the <i>USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Superfund Organic Methods Data Review</i> , document number USEPA-540-R-04-009, January 2005 (Draft Final) with additional reference to <i>USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review</i> , document number EPA 540/R-99-008 of October 1999, as they applied to the reported methodology. | | | | | | |

Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

**(916) 985-1000 .FAX (916) 985-1020
Hours 8:00 A.M to 6:00 P.M. Pacific**

WORK ORDER #: 0703366

Work Order Summary

CLIENT: Ms. Jill Lantz
The RETEC Group, Inc.
1011 SW Klickitat Way
Suite 207
Seattle, WA 98134

PHONE: (206) 624-9349 x 232

FAX:

DATE RECEIVED: 03/15/2007

DATE COMPLETED: 03/28/2007

BILL TO: Ms. Jill Lantz
The RETEC Group, Inc.
1011 SW Klickitat Way
Suite 207
Seattle, WA 98134

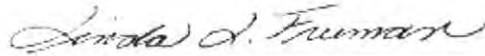
P.O. #

PROJECT # 220 Dawson St GE001-19314

CONTACT: Sarah Nguyen

| <u>FRACTION #</u> | <u>NAME</u> | <u>TEST</u> | <u>RECEIPT VAC./PRES.</u> |
|-------------------|-------------|--------------------|-------------------------------|
| 01A | AA-3-0307 | Modified TO-15 SIM | 4.0 "Hg |
| 02A | IA-7-0307 | Modified TO-15 SIM | 7.0 "Hg |
| 03A | Lab Blank | Modified TO-15 SIM | NA |
| 04A | CCV | Modified TO-15 SIM | NA |
| 05A | LCS | Modified TO-15 SIM | NA |
| 05AA | LCSD | Modified TO-15 SIM | NA |

CERTIFIED BY:



Laboratory Director

DATE: 03/28/07

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-15 SIM
The RETEC Group, Inc.
Workorder# 0703366

Two 6 Liter Summa Canister (SIM Certified) samples were received on March 15, 2007. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

| <i>Requirement</i> | <i>TO-15</i> | <i>ATL Modifications</i> |
|-------------------------------|--|---|
| ICAL %RSD acceptance criteria | $\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD | Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD |
| Daily Calibration | $\pm 30\%$ Difference | Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$.; flag and narrate outliers |
| Blank and standards | Zero air | Nitrogen |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: AA-3-0307

Lab ID#: 0703366-01A

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|-------------------|----------------------|------------------|-----------------------|-------------------|
| Tetrachloroethene | 0.031 | 0.27 | 0.21 | 1.8 |

Client Sample ID: IA-7-0307

Lab ID#: 0703366-02A

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|-------------------|----------------------|------------------|-----------------------|-------------------|
| Trichloroethene | 0.035 | 0.048 | 0.19 | 0.26 |
| Tetrachloroethene | 0.035 | 0.084 | 0.24 | 0.57 |



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AA-3-0307

Lab ID#: 0703366-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

| | | | |
|---------------------|----------------|----------------------------|-------------------------|
| File Name: | 6032709 | Date of Collection: | 3/13/07 |
| Dil. Factor: | 1.55 | Date of Analysis: | 3/27/07 05:06 PM |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|------------------------|-------------------|---------------|--------------------|----------------|
| Vinyl Chloride | 0.016 | Not Detected | 0.040 | Not Detected |
| cis-1,2-Dichloroethene | 0.031 | Not Detected | 0.12 | Not Detected |
| Trichloroethene | 0.031 | Not Detected | 0.17 | Not Detected |
| 1,1-Dichloroethene | 0.016 | Not Detected | 0.061 | Not Detected |
| Chloroform | 0.031 | Not Detected | 0.15 | Not Detected |
| 1,1,1-Trichloroethane | 0.031 | Not Detected | 0.17 | Not Detected |
| Tetrachloroethene | 0.031 | 0.27 | 0.21 | 1.8 |
| 1,1-Dichloroethane | 0.031 | Not Detected | 0.12 | Not Detected |

Container Type: 6 Liter Summa Canister (SIM Certified)

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 120 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 111 | 70-130 |



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA-7-0307

Lab ID#: 0703366-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

| | | | |
|--------------|---------|---------------------|------------------|
| File Name: | 6032710 | Date of Collection: | 3/13/07 |
| Dil. Factor: | 1.75 | Date of Analysis: | 3/27/07 05:50 PM |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|------------------------|-------------------|---------------|--------------------|----------------|
| Vinyl Chloride | 0.018 | Not Detected | 0.045 | Not Detected |
| cis-1,2-Dichloroethene | 0.035 | Not Detected | 0.14 | Not Detected |
| Trichloroethene | 0.035 | 0.048 | 0.19 | 0.26 |
| 1,1-Dichloroethene | 0.018 | Not Detected | 0.069 | Not Detected |
| Chloroform | 0.035 | Not Detected | 0.17 | Not Detected |
| 1,1,1-Trichloroethane | 0.035 | Not Detected | 0.19 | Not Detected |
| Tetrachloroethene | 0.035 | 0.084 | 0.24 | 0.57 |
| 1,1-Dichloroethane | 0.035 | Not Detected | 0.14 | Not Detected |

Container Type: 6 Liter Summa Canister (SIM Certified)

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 121 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 114 | 70-130 |



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0703366-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

| | | | |
|--------------|---------|---------------------|------------------|
| File Name: | 6032707 | Date of Collection: | NA |
| Dil. Factor: | 1.00 | Date of Analysis: | 3/27/07 03:19 PM |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|------------------------|-------------------|---------------|--------------------|----------------|
| Vinyl Chloride | 0.010 | Not Detected | 0.026 | Not Detected |
| cis-1,2-Dichloroethene | 0.020 | Not Detected | 0.079 | Not Detected |
| Trichloroethene | 0.020 | Not Detected | 0.11 | Not Detected |
| 1,1-Dichloroethene | 0.010 | Not Detected | 0.040 | Not Detected |
| Chloroform | 0.020 | Not Detected | 0.098 | Not Detected |
| 1,1,1-Trichloroethane | 0.020 | Not Detected | 0.11 | Not Detected |
| Tetrachloroethene | 0.020 | Not Detected | 0.14 | Not Detected |
| 1,1-Dichloroethane | 0.020 | Not Detected | 0.081 | Not Detected |

Container Type: NA - Not Applicable

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 118 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 111 | 70-130 |



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0703366-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

| | | |
|--------------|---------|------------------------------------|
| File Name: | 6032702 | Date of Collection: NA |
| Dil. Factor: | 1.00 | Date of Analysis: 3/27/07 09:44 AM |

| Compound | %Recovery |
|------------------------|-----------|
| Vinyl Chloride | 72 |
| cis-1,2-Dichloroethene | 75 |
| Trichloroethene | 88 |
| 1,1-Dichloroethene | 78 |
| Chloroform | 87 |
| 1,1,1-Trichloroethane | 96 |
| Tetrachloroethene | 92 |
| 1,1-Dichloroethane | 84 |

Container Type: NA - Not Applicable

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 108 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 110 | 70-130 |



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0703366-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

| | | |
|--------------|---------|------------------------------------|
| File Name: | 6032703 | Date of Collection: NA |
| Dil. Factor: | 1.00 | Date of Analysis: 3/27/07 10:26 AM |

| Compound | %Recovery |
|------------------------|-----------|
| Vinyl Chloride | 71 |
| cis-1,2-Dichloroethene | 80 |
| Trichloroethene | 89 |
| 1,1-Dichloroethene | 91 |
| Chloroform | 90 |
| 1,1,1-Trichloroethane | 96 |
| Tetrachloroethene | 97 |
| 1,1-Dichloroethane | 91 |

Container Type: NA - Not Applicable

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 109 | 70-130 |



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0703366-05AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

| | | |
|--------------|---------|------------------------------------|
| File Name: | 6032704 | Date of Collection: NA |
| Dil. Factor: | 1.00 | Date of Analysis: 3/27/07 11:25 AM |

| Compound | %Recovery |
|------------------------|-----------|
| Vinyl Chloride | 72 |
| cis-1,2-Dichloroethene | 79 |
| Trichloroethene | 87 |
| 1,1-Dichloroethene | 89 |
| Chloroform | 87 |
| 1,1,1-Trichloroethane | 91 |
| Tetrachloroethene | 97 |
| 1,1-Dichloroethane | 88 |

Container Type: NA - Not Applicable

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 111 | 70-130 |



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

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(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Jamie Stevens
 Collected by: (Print and Sign) J. Stevens
 Company The RETEC Group Email jstevens@retec.com
 Address 1011 SW Klickitat Way City Seattle State WA Zip 98134
 Phone 206-624-9349 Fax 624-2839

| | | |
|--|--|---|
| Project Info: P.O. # _____ Project # <u>220 Dawson St</u> Project Name <u>RE001-19314</u> | Turn Around Time: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small> | Lab Use Only Pressurized by: <u>BD</u> Date: <u>3/20/07</u> Pressurization Gas: <u>N₂</u> He |
|--|--|---|

| Lab I.D. | Field Sample I.D. (Location) | Can # | Date of Collection | Time of Collection | Analyses Requested | Canister Pressure/Vacuum | | | |
|------------|------------------------------|--------------|--------------------|--------------------|--------------------|--------------------------|-----------|------------|------------|
| | | | | | | Initial | Final | Receipt | Final |
| <u>01A</u> | <u>AA-3-0307</u> | <u>4366</u> | <u>3/13/07</u> | <u>0649</u> | <u>TO-15 SIM</u> | <u>-30</u> | <u>-7</u> | <u>4.0</u> | <u>5.0</u> |
| <u>02A</u> | <u>1A-3-0307</u> | <u>34241</u> | <u>3/13/07</u> | <u>0705</u> | <u>TO-15 SIM</u> | <u>-30</u> | <u>-8</u> | <u>7.0</u> | <u>5.0</u> |
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|---|---|
| Relinquished by: (signature) <u>JCS</u> Date/Time <u>3/14/07 0900</u> | Received by: (signature) <u>Monica</u> Date/Time <u>ATL 3/15/07 915</u> |
| Relinquished by: (signature) _____ Date/Time _____ | Received by: (signature) _____ Date/Time _____ |
| Relinquished by: (signature) _____ Date/Time _____ | Received by: (signature) _____ Date/Time _____ |

Notes:

| | | | | | | |
|--------------|----------------------------|---------------------------------|---------------------|-----------------------|--|-----------------------------|
| Lab Use Only | Shipper Name <u>Fed Ex</u> | Air Bill # <u>7996 03504547</u> | Temp (°C) <u>NA</u> | Condition <u>Good</u> | Custody Seals Intact? <u>Yes</u> <u>No</u> <u>None</u> | Work Order # <u>0703366</u> |
|--------------|----------------------------|---------------------------------|---------------------|-----------------------|--|-----------------------------|

FIELD ACTIVITY LOG



PROJECT GE001-17314

COMPLETED BY J. Stevens

JOB NO. GE001-17314

APPROVED BY _____

DAY & DATE Tuesday March 13

SHEET 1 OF 2

| FIELD ACTIVITY SUBJECT: DESCRIPTION OF DAILY ACTIVITIES AND EVENTS: | |
|--|---|
| TIME | |
| 0630 | JS on site • His → road hazards • pinch points and hand safety while working with canisters |
| 0645 | Set up AA-3 - weather forecast called for wind out of SSW |
| 0655 | Check Hudson bay for any indoor air sources - none found set up canister at Hudson |
| 0700 | JS off site |
| 1140 | JS on site - check gauge |
| 1340 | JS on site - check gauge |
| 1430 | JS on site - check gauge |
| 1449 | stop AA-3 |
| 1504 | stop IA-7 |
| 1515 | Pack samples up |
| 1530 | complete paper work |
| 1531 | JS leave site |
| | end JS 3/13/07 |
| VISITORS ON SITE: CHANGES FROM PLANS OR IMPORTANT DECISIONS | |
| — None — None | |
| WEATHER CONDITIONS: IMPORTANT TELEPHONE CALLS: | |
| sun and clear in Am, light wind light showers in Pm — none | |
| PERSONNEL ON SITE: Jamie Stevens | |

FIELD ACTIVITY LOG



PROJECT GC
 JOB NO. GE00219314-750
 DAY & DATE Tuesday 3/13/07

COMPLETED BY J. Stevens
 APPROVED BY _____
 SHEET 2 OF 2

**FIELD ACTIVITY SUBJECT:
 DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:**

| TIME | | | | | | |
|-------------|---------------------------------|-----------|--------|---------|-----------|----------|
| Sample tag | | start PSI | start | End PSI | End | |
| Location ID | Canister ID | gauge | can | time | gauge | can Time |
| AA-3 | 43266 | +30 | +30 | 0649 | -7.5 -7.0 | 0649 |
| IA-7 | 34241 | +30 | +30 | 0705 | -8.5 -8.0 | 1504 |
| | gauge readings in PSI | | | | | |
| checks: | | | (Time) | | | |
| | WTS | 1344 | 0430 | | | |
| AA-3 | -14.0 | -9.0 | -7.5 | | | |
| IA-7 | -16.5 | -12.0 | -9.0 | | | |
| | end of S 3/13/07 | | | | | |

VISITORS ON SITE:

CHANGES FROM PLANS OR IMPORTANT DECISIONS

WEATHER CONDITIONS:

IMPORTANT TELEPHONE CALLS:

PERSONNEL ON SITE:



CHAIN-OF-CUSTODY RECORD

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Project Manager Kevin Stevens
 Collected by: (Print and Sign) [Signature]
 Company Becker Environmental Email [Email]
 Address 101 S. Highway 101 City San Jose State CA Zip 95134
 Phone 408-624-9349 Fax 408-624-7339

| | | |
|---|---|---|
| Project Info: P.O. # _____ Project # <u>220 Dr. [unclear] St</u> Project Name <u>Becker 17314</u> | Turn Around Time: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small> | <small>Lab Use Only</small> Pressurized by: _____ Date: _____ Pressurization Gas: N ₂ He |
|---|---|---|

| Lab I.D. | Field Sample I.D. (Location) | Can # | Date of Collection | Time of Collection | Analyses Requested | Canister Pressure/Vacuum | | | |
|----------|------------------------------|-------|--------------------|--------------------|--------------------|--------------------------|-------|---------|-------------|
| | | | | | | Initial | Final | Receipt | Final (psl) |
| | AA 3 0307 | 4366 | 5/15/07 | 0749 | TO 15 SIM | -30 | -2 | | |
| | AA 7 1307 | 4341 | 5/15/07 | 0705 | TO 15 SIM | -30 | -2 | | |
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|---|--|---------------|
| Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>5/14/07 0705</u> | Received by: (signature) _____ Date/Time _____ | Notes: |
| Relinquished by: (signature) _____ Date/Time _____ | Received by: (signature) _____ Date/Time _____ | |
| Relinquished by: (signature) _____ Date/Time _____ | Received by: (signature) _____ Date/Time _____ | |

| Lab Use Only | Shipper Name | Air Bill # | Temp (°C) | Condition | Custody Seals Intact? | Work Order # |
|--------------|--------------|------------|-----------|-----------|-----------------------|--------------|
| | | | | | Yes No None | |