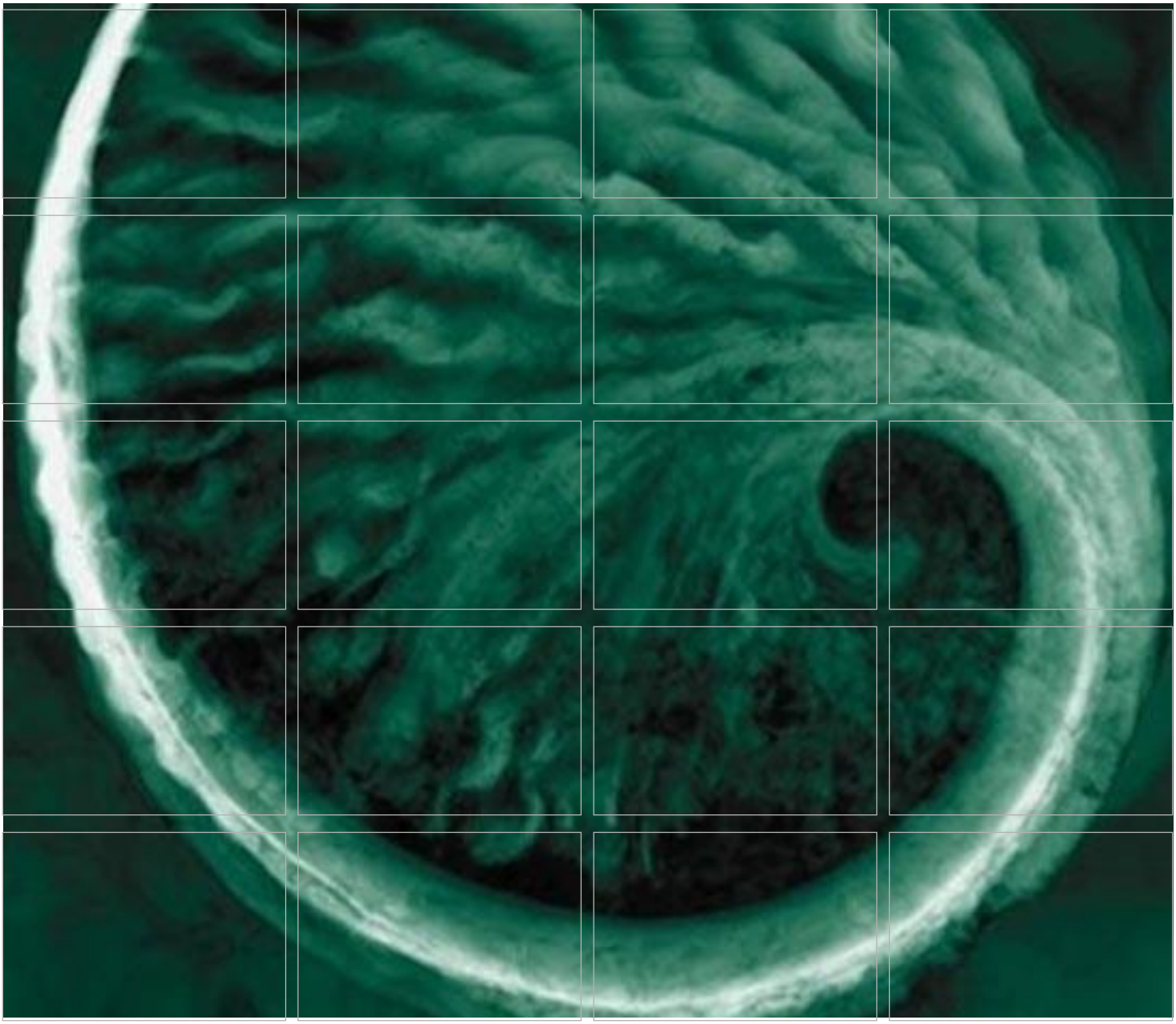


1st Semiannual Progress Report

Murata Electronics, N.A.
308 Prospect Road
Rockmart, Polk County, Georgia
HSI Site No. 10771

August 20, 2018

www.erm.com

The business of sustainability

ERM

Murata Electronics, N.A.

1st Semiannual Progress Report

Murata, Rockmart, Georgia HSI No. 10771

August 20, 2018

ERM Project No. 0190949

Hunter Sartain
Partner-In-Charge

Nicolas Vrey
Project Manager

Environmental Resources Management
3200 Windy Hill Road, SE
Suite 1500W
Atlanta, Georgia 30339
(678) 486-2700
www.erm.com

TABLE OF CONTENTS

1.0 INTRODUCTION 2

1.1 EPD COMMENTS AND TECHNICAL CORRECTIONS TO THE VIRP AND VRP APPLICATION 2

2.0 ACTIVITIES COMPLETED SINCE VIRP SUBMITTAL 8

2.1 REMEDIATION PROGRESS 8

2.2 ANNUAL GROUNDWATER MONITORING 8

2.3 SOIL SAMPLING 11

2.4 VAPOR INTRUSION ASSESSMENT 12

2.5 REGISTERED PROFESSIONAL SUPPORTING DOCUMENTATION 15

3.0 PLANNED CORRECTIVE ACTIONS AND INVESTIGATIONS 16

3.1 GROUNDWATER MONITORING 16

3.1.1 Annual Groundwater Monitoring 16

3.2 VAPOR INTRUSION ASSESSMENT 16

3.3 ASSET REMOVAL 16

3.4 UNIFORM ENVIRONMENTAL COVENANTS 17

TABLE OF CONTENTS continued

TABLES

2-1 GROUNDWATER VOC CONCENTRATIONS

2-2 GROUNDWATER METALS CONCENTRATIONS

2-3 MONITOR WELL GROUNDWATER ELEVATIONS

2-4 GROUNDWATER QUALITY PARAMETERS

2-5 SOIL CONCENTRATION SUMMARY

2-6 VAPOR INTRUSION ASSESSMENT CONCENTRATIONS

3-1 GROUNDWATER MONITORING SCHEDULE

3-2 PROPOSED GROUNDWATER MONITORING

FIGURES

1-1 TOPOGRAPHIC SITE LOCATION MAP

1-2 SITE LAYOUT AND PROPERTY OWNERSHIP MAP

1-3 MURATA ELECTRONICS – SITE CONCEPTUAL MODEL RECEPTORS AND POTENTIAL EXPOSURE PATHWAYS

2-1 POTENTIOMETRIC SURFACE MAP

2-2 PCE IN GROUNDWATER (NOVEMBER 2017)

2-3 1,4-DIOXANE IN GROUNDWATER (NOVEMBER 2017)

2-4 SOIL SAMPLE LOCATIONS

2-5 SOIL SAMPLE RESULTS

2-6 VAPOR INTRUSION SAMPLE LOCATIONS

2-7 VAPOR INTRUSION SAMPLE RESULTS

3-1 VIRP PROJECTED MILESTONE SCHEDULE

APPENDICES

A EPD CORRESPONDENCE

B UPDATED CROSS-SECTIONS

C TYPE 4 RRS AND PROPOSED VRP CLEANUP STANDARD CALCULATIONS FOR SOIL

D GROUNDWATER LABORATORY ANALYTICAL REPORTS

E GROUNDWATER SAMPLING FIELD SHEETS

F SOIL LABORATORY ANALYTICAL REPORTS

G SOIL BORING LOGS

H VAPOR INTRUSION ASSESSMENT PHOTO-LOG

I VAPOR INTRUSION ASSESSMENT FIELD SHEETS

J US EPA VISL CALCULATOR OUTPUT

K VAPOR INTRUSION ASSESSMENT ANALYTICAL REPORTS

ACRONYMS AND ABBREVIATIONS

AES	Analytical Environmental Services, Inc.
bgs	Below ground surface
cDCE	cis-1,2-Dichloroethene
COI	Contaminant of Interest
EPC	Exposure Point Concentration
EPD	Environmental Protection Division
ERM	ERM Group, Inc.
HSI	Hazardous Site Inventory
ISCO	In-Situ Chemical Oxidation
ITRC	Interstate Technical Regulatory Council
Murata	Murata Electronics N.A., Inc.
OSWER	Office of Solid Waste and Emergency Response
PCE	Tetrachloroethene
PDB	Passive Diffusion Bag
PID	Photoionization Detector
POD	Point of Demonstration
RAGS	Risk Assessment Guidance for Superfund
RCRA	Resource Conservation and Recovery Act
RRS	Risk Reduction Standard
Site	308 Prospect Road, Rockmart, Polk County, Georgia
TCE	Trichloroethene
UCL	Upper Confidence Limit
UEC	Uniform Environmental Covenant
USEPA	United States Environmental Protection Agency
VI	Vapor Intrusion
VIRP	Voluntary Investigation and Remediation Plan
VISL	Vapor Intrusion Screening Level
VOC	Volatile Organic Compound
VRP	Voluntary Remediation Program

1.0 INTRODUCTION

This 1st Semiannual Progress Report is being submitted by ERM Group, Inc. (ERM) on behalf of Murata Electronics N.A., Inc. (Murata). The Murata facility is located at 308 Prospect Road, Rockmart, Polk County, Georgia (Figure 1-1) (Site). The Site is a former electronics manufacturing facility that was closed in June 1998 and has been used as a warehouse and distribution facility since that time. The Site includes a 9.8-acre area located near the intersection of Prospect Road and Nathan Dean By-Pass and a 56,000 sq. ft. one-story brick building (Figure 1-2). Access to the Site is gained from both Prospect Road and Industrial Drive. The Site is enclosed by a 6-foot chain link fence and access gained from Prospect Road and Industrial Drive is gated. The majority of the property is paved with asphalt. Figure 1-2 identifies adjacent property owners along with the relevant tax IDs, as obtained from the qPublic.net online GIS system.

The Site is listed on the Georgia Environmental Protection Division (EPD) Hazardous Site Inventory (HSI) Site Number 10771. Murata has performed a series of investigations and implemented several EPD approved corrective actions and has addressed the unsaturated and saturated materials on several parcels of the Site. A complete Site history, conceptual site model, and a description of previous investigations and corrective actions are summarized in the *Voluntary Investigation and Remediation Plan* (VIRP).

Murata submitted an application to enter the Georgia Voluntary Remediation Program (VRP) along with the VIRP to EPD in March 2017. The Site was accepted into the VRP on February 20, 2018 (Appendix A).

Under the VRP, the schedule for submittal of progress reports is February and August semiannually. The purpose of this report is to provide EPD with an update of activities completed since submittal of the VIRP in March 2017. In addition, the progress report describes upcoming planned activities. This 1st *Semiannual Progress Report* also addresses EPD's comments to the VIRP dated February 20, 2018.

1.1 EPD COMMENTS AND TECHNICAL CORRECTIONS TO THE VIRP AND VRP APPLICATION

In correspondence dated February 20, 2018 (Appendix A) EPD provided comments to the March 2017 VIRP. The comments requested technical/clerical modifications to the VIRP. The following text provides

each EPD comment and a response or references the corresponding section of this report which addresses the comment.

1. *In addition to the 308 Prospect Road property owned by Murata, the 457 and 515 Industrial Drive properties not owned by Murata were proposed as additional qualifying properties for enrollment in the VRP. However, EPD understands that 457 and 515 Industrial Drive have recently not been accessible. In order to enroll these properties in the VRP, Murata must have express permission to enter the properties to perform corrective action.*

   Murata response: Murata is in the process of securing the UECs for the qualifying properties and will include the UECs in the semi-annual report, once obtained.

2. *Based on historical sampling results, 1,4-dioxane should be considered as a potential constituent of concern for soil and groundwater. Please collect soil and groundwater samples in locations representative of where the substance would most likely be encountered (e.g., in soil near the water table and in groundwater at the source and the leading edge of the plume). Samples should be analyzed for 1,4-dioxane using EPA Method 8260 with selective ion monitoring (SIM) to obtain an appropriate detection limit.*

   Murata response: 1,4-dioxane was included in the confirmation soil sampling conducted July, 2017 and the November, 2017 groundwater sampling event. 1,4-dioxane was detected in groundwater below Type 4 RRS and is completely delineated to background concentrations on-Site. Results are included in this report.

3. *Figure 3-4 (Murata Electronics - Site Conceptual Model): It appears that the primary sources column, on the far left of the figure, was labeled incorrectly with another site's name (M&J Solvents) in the Atlanta, Georgia area. Please revise this figure accordingly in future submittals.*

   Murata response: The figure was revised and included as Figure 1-3 in this report.

4. *Table 3-1 (Monitoring Well Groundwater Elevations): Please include the depth interval of the open section of monitoring wells MW-12 and MW-28, in the space for the "screen interval" along with the "open hole" label shown, to indicate the interval monitored by the well.*

Murata response: An updated Table 3-1 is included in this report as Table 2-3.

5. *Table 3-2 (Groundwater VOC Concentrations): In future versions of Table 3-2 (Groundwater VOC Concentrations), please identify the sample collection method [e.g., permeable diffusion bag (PDB) samplers, traditional volumetric purging and soda straw collection method, etc.].*

   Murata response: The table was updated to included sampling method and is included in this report as Table 2.1.

6. *Cross-Section(s): A minimum of two cross-sections are necessary to depict the surficial and subsurface conditions at the site. Please provide an additional cross-section that extends (left to right) from MW-7 (SE corner of the Murata property) through MW-26, MW-22, MW-12/13, MW-23, MW-27, MW-A-3, MW-A-1, and MW-15.*

   Murata response: An updated cross-section is included as Appendix B.

   a) *Please tabulate the most recent groundwater analytical results on the cross-sections immediately adjacent to the screened interval where they were collected.*

   Murata Response: Updated Cross-Sections provided in Appendix B.

   b) *Please include all soil borings along the lines of cross-sections. Soil sampling intervals should be clearly depicted and associated analytical results tabulated. Soil analytical results should include sample acquisition dates and collection depths and should be clearly identified as pre- or post-remediation samples.*

   Murata Response: Updated Cross-Sections provided in Appendix B.

   c) *Please depict major above ground structures, especially structures that were the source of the contaminant release(s), ground surface type (pavement, bare earth, etc.) along with known subsurface features associated with utilities and remediation system components.*

Murata Response: Updated Cross-Sections provided in Appendix B.

7. *In Appendix B, the groundwater Type 1 - 4 Risk Reduction Standards (RRS) and the soil Type 1 - 3 RRS are acceptable for use at the site. For the soil Type 4 RRS, please clarify the input values used for the mass limit leaching calculations and provide a justification for the use of the values.*

   Murata response: This information is provided as Appendix C and Table 2.5 in this report. In addition, VRP cleanup standards are proposed in Appendix C and Table 2.5 where the leaching to groundwater pathway will be considered incomplete based on UECs that will restrict groundwater use beneath the site and adjacent properties. The VRP Remedial Standard values for soil are calculated for the direct contact pathway only.

8. *EPD has the following comments regarding groundwater purging and sampling methods used during the 2016 groundwater monitoring event based on a review of the single groundwater sampling field log provided in Appendix D of the VIRP.*

   a) *The low-flow purging method, as described in the EPA Region 4 SESD Groundwater Sampling operating procedure dated April 26, 2017, involves maintaining the depth to water during the purge. It appears that field personnel were unable to do so for MW-7 as even the last three recorded depth to water measurements varied more than +0.3 ft. In the future, if field personnel are unable to stabilize groundwater measurements during purging, they should use the Traditional Multiple-Volume Purge method described in Section 3.4 of the referenced SOPs by pulling the pump intake to a depth just below the water table and lowering it as necessary to continue pumping water.*

   Murata response: The Traditional Multiple-Volume Purge method was not applied when purging MW-7 during the November 2016 groundwater sampling event due to the large calculated well column volume (~10 liters) and therefore the amount of water required to purge three well volumes. In future sampling events, field personnel will use the Traditional Multiple-Volume Purge method in the event that they are unable to stabilize depth to water during low-flow purging for all wells with less than 5 gallons with in the calculated well column.

b) *The use of Low Density Polyethylene (LDPE) return tubing and pump bladder for collection of groundwater samples for volatile organic compound (VOC) analysis is not consistent with the referenced EPA SOPs and should not be used to demonstrate compliance with Type 1 - 4 RRS. Groundwater samples collected for said purposes should be collected using Teflon® or Teflon®-lined return tubing, and bladders, as recommended in the referenced EPA SOPs.*

Murata response: Field personnel will collect groundwater samples using Teflon® or Teflon®-lined return tubing and bladders in all future sampling events.

9. *Depth to groundwater should be measured in all existing monitoring wells during future groundwater monitoring events regardless of whether they are sampled.*

   Murata response: field personnel will collect depth-to-groundwater measurements from all monitoring wells in future sampling events.

10. *Murata intends to decommission several groundwater monitoring wells as summarized on Table 4-1. EPD concurs with the plan to decommission monitoring wells that are consistently dry and cannot be sampled or gauged for water levels. Prior to well decommissioning, please conduct a comprehensive groundwater monitoring event in which all monitoring wells (not dry) are purged and sampled for VOC analysis using either the traditional or low-flow purge methods referenced above. Groundwater samples collected in the vicinity of past in-situ chemical oxidation injections should also be analyzed for the eight RCRA metals. Well decommissioning plans should then be adjusted based on the results of the comprehensive monitoring event if necessary.*

    Murata response: ERM conducted a comprehensive groundwater sampling event in November 2017 using low flow/low volume techniques. All monitoring wells, excluding dry and damaged wells, were sampled and analyzed for VOCs including 1,4-dioxane and total RCRA metals plus iron. Several off-site wells were destroyed, damaged, or buried due to recent grading work and were not sampled including MW-15, MW-A-1, MW-A-2, and MW-A-3. On-site well MW-28 was also not sampled due to damage. The results of this sampling event are summarized in

Section 2.2. No changes were made based on the results of the November 2017 event. However, MW-15 was confirmed as buried during regrading activities and removed as a potential POD well.

11. *Efforts should be made to locate and properly decommission monitoring wells assumed to have been destroyed or buried on adjacent properties.*

    Murata response: ERM attempted to locate all wells listed as missing/destroyed in the VRP on the adjacent properties. A metal detector was used to locate buried monitoring wells. All wells except MW-15, MW-A-1, MW-A-2, and MW-A-3 were located during the event.

12. *The draft Uniform Environmental Covenant (UEC) should be finalized once the activity and use limitations have been finalized. EPD will review the updated UEC at that time.*

    Murata response: Once UECs have been finalized they will be provided in the subsequent semi-annual progress report.

13. *The vapor intrusion pathway should be evaluated for buildings within 100 feet of VOC contamination in soil or groundwater. For guidance in conducting the evaluation, Please refer to the EPA Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air dated June 2015.*

    Murata response: The only building within 100 feet of the soil and groundwater contamination is the Murata distribution facility located onsite. ERM has initiated a vapor intrusion (VI) assessment to evaluate the potential for VI of tetrachloroethene (PCE) or trichloroethene (TCE) into the Murata facility, and to evaluate whether there is an unacceptable VI risk to workers in the building that warrants additional action to assess and/or mitigate the risk. This results of the initial "summer" VI sampling assessment are included in Section 2.4. A follow-up "winter" sampling event is planned for December 2018 to account for seasonal variability.

2.0 *ACTIVITIES COMPLETED SINCE VIRP SUBMITTAL*

This section describes all activities that have been completed since the VIRP was submitted in March 2017 through August 2018.

2.1 *REMEDIATION PROGRESS*

The following activities have been conducted at the site, since the time of the VIRP and VRP application submission:

2.2 *ANNUAL GROUNDWATER MONITORING*

The sampling procedure used at the Site was switched from passive diffusion bag (PDB) sampling techniques to low flow/low volume techniques for the November 2017 sampling event per EPD request. Groundwater samples were collected in November 2017 in accordance with Region 4 United States Environmental Protection Agency (USEPA) Groundwater Sampling Operating Procedure (SESDPROC-301-R1).

Groundwater samples were analyzed for volatile organic compounds (VOCs) by USEPA SW-846 Method 8260B, 1,4-dioxane by method USEPA SW-846 Method 8260B-SIM, and total Resource Conservation and Recovery Act (RCRA) metals plus iron by USEPA SW-846 Method 6010D (Tables 2-1, and 2-2) during the November 2017 groundwater sampling event. The analytical reports for the 2017 annual groundwater sampling event are included in Appendix D. The groundwater sampling log sheets are included as Appendix E.

Trip blank samples prepared by the analytical laboratory – Analytical Environmental Services, Inc. (AES) of Atlanta, Georgia – accompanied each batch of water samples collected for VOC analysis. One trip blank sample was collected for each cooler containing VOC samples for the lab.

Prior to sampling activities, ERM personnel measured water levels. The water level elevations calculated for the November 2017 event are provided in Table 2-3. Groundwater level measurements recorded during the event were used to prepare a potentiometric surface map (Figure 2-1). Interpretation of the potentiometric surface shows a groundwater mound in the central area of the Site near MW-28 extending to the southwest with an overall flow generally towards the east. During low-flow purging of

each well, water quality parameters were recorded before sampling. These parameters are presented in Table 2-4.

During the sampling event, ERM attempted to locate all monitoring wells on the off-Site properties. ERM was able to locate all off-Site monitoring wells except MW-15, MW-A-1, MW-A-2, and MW-A-3, which were destroyed and/or buried due to recent off-Site grading work and were not sampled. On-site well MW-28 was also not sampled due to damage.

Groundwater samples were collected for the analysis of VOCs to determine current Site conditions. The results of the VOC analyses are detailed in Table 2-1. Overall concentrations of the contaminants of concern remain largely decreased since the 2011 semiannual sampling events. PCE and benzene were the only VOCs detected above Type 4 RRS during the November 2017 groundwater sampling event.

Figure 2-2 illustrates the November 2017 concentrations of tetrachloroethene (PCE) detected in groundwater. PCE exceeded the Type 4 Risk Reduction Standard (RRS) of 98.1 µg/L in two wells during the November 2017 sampling event (Table 2-1).

- MW-8: PCE was detected at 140 µg/L
- MW-29: PCE was detected at 960 µg/L

Benzene, which is not a chemical used by Murata, was detected in off-site well MW-A-5 at 1,800 µg/L during the November 2017 event. MW-A-5 is located hydraulically downgradient of a compromised secondary containment structure for above ground petroleum storage tanks in the center of the Hematite Holdings (formerly Albea) property. On April 26, 2013, Murata and ERM personnel noted that the drain valve for the containment structure was broken and observed stained soil/gravel around the valve, a large crack in the concrete containment wall, and beneath a waste-oil containing tote located outside of the metal building.

1,4-Dioxane was included in the November 2017 sampling event per EPD request. 1,4-Dioxane was detected in three wells during the November 2017 event (MW-20 at 7.1 µg/L, MW-23 at 5.3 µg/L, and MW-27 at 27 µg/L). All detections for 1-4-dioxane were below its Type 4 RRS of 104 µg/L. Concentrations of 1,4-dioxane are completely delineated to background at the Site. Figure 2-3 illustrates the November 2017 concentrations of 1,4-Dioxane detected in groundwater.

Concentrations of VOCs in the remaining wells did not exceed laboratory detection limits.

Groundwater samples were collected for analysis of RCRA metals and iron to determine whether the in-situ chemical oxidation (ISCO) injections were affecting the solubility of these metals into groundwater. The RCRA groundwater metals results from December 2006 were collected before ISCO injections were conducted and are used to establish baseline RCRA metals concentrations. All metals analytical results are shown in Table 2-2.

On Table 2-2, the baseline sample results are shown in blue. Sample results in which an increase from background are observed are shown in yellow. Sample results in which an increase from background is observed and which exceed the EPD notification concentrations are shown in red. Sample results which exceed the EPD notification concentrations, but no baseline samples were analyzed for comparison, are shown in orange. When inspecting the data in Table 2-2, the following should be noted:

- Full-scale ISCO began in October 2007.

- ISCO Pilot Test began in March 2007. Only MW-5, MW-8, MW 18, and MW-20 were affected by this pilot test. Therefore, metals samples collected after March 2007 for these wells are not considered baseline.

Historically, the only wells that show increasing trends of metals in groundwater since the beginning of ISCO injections are MW-3, MW-5, MW-12, MW-16, MW-19, and MW-20. Lead has been the only metal significantly increasing in each of these six wells. Other metals have fluctuated in value, but have been generally decreasing since ISCO injections began. During 2017, lead increased in MW-3 and MW-20 compared to 2013, but were below 2012 concentrations. Lead decreased in MW-5, MW-9, MW-12, MW-17, MW-19, MW-23, MW-24, and MW-27 since 2013.

Chromium has decreased since the last sampling event in MW-3, MW-5, MW-6, MW 9, MW-12, MW-17, MW-18, MW-23, MW-24, MW-25, MW-27, and MW-29, but has increased slightly in wells MW-7, MW-19, and MW-20 compared to 2013.

Following the completion of ISCO activities, metals concentrations appear to be returning to baseline conditions. There appears to be no migration

of increased metals concentrations as a result of ISCO activities. Murata will collect metals in the next sampling event (September 2018) to confirm. If results are consistent, Murata proposes eliminating metals sampling and collecting only VOCs for the remaining events.

The analytical results of duplicates and equipment rinse blanks that were collected during the annual sampling event are shown in Table 2-1. The equipment rinse blank and water blank results were below reporting limits for all analytes, indicating that sampling equipment was properly decontaminated between wells. The duplicates results indicate that the analytical variability from sample collection is minimal.

2.3 *SOIL SAMPLING*

In accordance with the *Soil Confirmation Sampling Work Plan* submitted as Appendix F of the VIRP, soil confirmation sampling was conducted within the former source areas of the Site in July 2017. Soil Samples were collected in accordance with Region 4 USEPA Soil Sampling Operating Procedure (SESDPROC-300-R3). Two soil samples were collected from 34 sample locations at two depth intervals. In the first interval soil was a surface soil sample collected from 0-2 ft below ground surface (bgs), and the second depth interval was determined by the highest photoionization detector (PID) reading above the water table.

Soil samples were collected from four investigation areas: the northern perimeter of the Site near the storage shed, within the facility, in the parking lot south of the facility, and in the grassy area east of the building (Figure 2-4). Soil samples were analyzed for VOCs using USEPA SW-846 Method 8260B (Table 2-5) during the July 2017 soil sampling event. The analytical reports for the soil sampling event is included in Appendix F. Boring logs are included as Appendix G.

Trip blank samples prepared accompanied each batch of samples collected for VOC analysis. One trip blank sample was collected for each cooler containing VOC samples for the lab.

Soil samples were collected for the analysis of VOCs to confirm that concentrations meet Type 4 (non-residential) RRS. The results of the VOC analyses are detailed in Table 2-5. Overall concentrations of the contaminants of concern appear to have decreased significantly since the 2001 and 2005 soil sampling events reported in the December 2005 Compliance Status Report. VOCs exceeded Type 4 RRS in only 2 of the 34

borings (SB-107 in Area 1: northern perimeter near storage shed and SB-126 in area 3: parking lot south of facility). Both soil borings are located in areas with concrete/asphalt ground cover. Results are summarized in Figure 2-5.

PCE exceeded the Type 4 RRS of 2,750 µg/kg in one soil sample during the 2017 sampling event (Table 2-5).

- SB-107 (0 – 2 ft bgs): PCE was detected at 25,000 µg/kg

TCE exceeded the Type 4 RRS of 147 in one soil sample during the 2017 sampling event (Table 2-5).

- SB-126 (0 – 2 ft bgs): TCE was detected at 290 µg/kg

Cis-1,2-Dichloroethene (cDCE) exceeded the Type 4 RRS of 5,720 in two soil samples during the 2017 sampling event (Table 2-5).

- SB-107 (0 – 2 ft bgs): cDCE was detected at 8,100 µg/kg
- SB-107 (6 – 7 ft bgs): cDCE was detected at 6,100 µg/kg

m,p-Xylene exceeded the Type 4 RRS of 16,100 µg/kg in one soil samples during the 2017 sampling event (Table 2-5).

- SB-107 (0 – 2 ft bgs): m,p-Xylene was detected at 34,000 µg/kg

Concentrations of VOCs in the remaining soil samples did not exceed their respective Type 4 RRS.

None of the detected soil concentrations exceeded the proposed VRP Remedial Standards proposed in Table 2-5. The proposed standards are protective of the direct contact pathway and remove the leaching to groundwater pathway from the calculation as that pathway will be incomplete based on UECs that will restrict groundwater use beneath the site and adjacent properties.

2.4 *VAPOR INTRUSION ASSESSMENT*

An initial "summer" vapor intrusion (VI) sampling assessment was conducted in accordance with the *Vapor Intrusion Assessment Work Plan* (Work Plan) submitted as Appendix G of the VIRP. Prior to conducting

sampling, sub-surface clearance activities were conducted prior to installation of sub-slab soil vapor sampling points. Georgia 811 was contacted in accordance with local regulations. Additionally, ERM retained a private utility locator to conduct geophysical surveys utilizing ground penetrating radar (GPR) and cable avoidance tools (CAT) to evaluate potential subsurface utilities in the areas where sub-slab soil vapor sampling points were to be installed. No underground utilities below the concrete floor were identified in the sampling areas. As-built/utility drawings of the warehouse were not available to review.

The June 2018 sampling event was completed on June 9 and 11, 2018. Six Vapor Pins™ were installed and allowed to equilibrate overnight. The approximate sampling locations are shown on Figure 2-6. A photo-log of the sampling locations is included in Appendix H. Prior to sampling, leak checks were performed including water dam and shut-in tests. No leaks were observed in the 6 sub-slab sampling locations. Prior to sub-slab sampling, a PID was used to purge the sample location of ambient air and as a general check for the presence of potential domestic sources of VOC vapors in the vicinity of the sampling location. Sampling information including quality control information was recorded on the air sampling data sheet (Appendix I) including starting and ending vacuum reading of each canister. Upon completion of soil vapor sample collection, sub-slab sampling points were capped and left in place with a secured metal flush-mounted cover.

Differential pressure readings (i.e., sub-slab pressure relative to indoor air pressure) were collected before each sub-slab soil vapor sampling event. Readings at each sub-slab location ranged from 0.0000 inches of water column (inWC) pressure to -0.0002 inWC. Differential pressure measurements recorded little to no positive pressure in the sub-surface as compared to indoor air. Advective air flow moves from areas of higher pressure to areas of lower pressure. The collected data in the building support the indication that there is not a significant preference for air to flow from the subsurface to the indoor air.

Samples were analyzed by Alpha Analytical Laboratory of Mansfield, Massachusetts, which is approved by Georgia through the National Environmental Laboratory Accreditation Program (NELAP). Samples were analyzed for VOCs using USEPA Method TO-15. The analytical results are summarized in Table 2-6.

Analytical results for sub-slab soil vapor and indoor air were compared to USEPA VISLs. Screening levels for the assessment were derived using the USEPA VISL Calculator (Appendix J). A commercial exposure scenario was selected within the VISL calculator. A $1x10^{-5}$ target risk for carcinogens was selected and a target hazard quotient of 1.0 was used for non-carcinogens. The derived values for the VISLs for each site-specific VOC and sample media are included in the analytical results tables (Table 2-6). Laboratory reports are included as Appendix K. Sample results are summarized on Figure 2-7.

The June 2018 sub-slab soil vapor analytical results are summarized as follows:

- PCE was detected above its VISL in sub-slab sample SG-1, SG-2, SG-4, SG-5, and SG-6; and

- TCE was detected above its VISL in SG-1

VOCs in sub-slab soil vapor above VISLs at five of the sub-slab soil vapor sampling locations indicated the potential for VI and that further assessment activities were required to confirm the initial results, as well as obtain indoor air analytical data to evaluate whether there is currently an unacceptable VI risk to workers. This additional sampling was performed July 13, 2018 and included re-sampling the 6 original sub-slab points, the collection of 6 corresponding indoor air samples, and one outdoor air sample collected upwind of the building. The sub-slab results are presented below:

- PCE was detected above its VISL in SG-4 and SG-5

The July 2018 indoor/outdoor ambient air analytical results are summarized as followed:

- No VOCs were detected above their VISLs at any indoor location.

These results indicate that VOCs detected in the sub-slab soil vapor samples do not currently present an unacceptable VI risk to workers in the warehouse. The results of sub-slab soil vapor samples show variability in VOC concentrations between the June and July events. A third sampling event will be scheduled for December 2018 to confirm these results and to

account for possible seasonal variability. Collocated sub-slab and indoor air samples will be collected in the December 2018 sampling event.

2.5 *REGISTERED PROFESSIONAL SUPPORTING DOCUMENTATION*

To document the direct oversight of the development of the VIRP, implementation of corrective action and long-term monitoring, a monthly summary of hours invoiced and description of services provided by Hunter Sartain, P.E. (Georgia No. 032318) to the VRP participant since the previous submittal to EPD is shown in the table below:

Month	Hours Invoiced	Work Completed
April 2017	2	Oversight of the work summarized in this report
May 2017	1.5	
June 2017	9	
July 2017	8	
August 2017	6.5	
September 2017	2	
October 2017	0	
November 2017	9	
December 2017	12.5	
January 2018	5	
February 2018	8.5	
March 2018	5	
April 2018	6	
May 2018	0	
June 2018	3	
July 2018	6	
August 2018	10	

3.0 PLANNED CORRECTIVE ACTIONS AND INVESTIGATIONS

The following sections describe corrective actions and investigations that are planned to be initiated and/or completed during the next monitoring period. Planned activities will follow the VIRP Projected Milestone Schedule as presented in Figure 3-1.

3.1 GROUNDWATER MONITORING

As part of the VRP, Murata will continue routine annual groundwater monitoring to monitor plume stability and will perform point of demonstration (POD) groundwater monitoring to continue to demonstrate no groundwater impacts to parcels not included in the VRP that have no groundwater use deed restrictions.

3.1.1 Groundwater Monitoring

Another groundwater sampling event including all existing monitoring wells will be performed in September 2018. Groundwater wells will be sampled using low flow/low volume techniques for sample monitoring and will be conducted with laboratory evaluation for VOCs including 1,4-dioxane and RCRA metals with iron. In the event the presence of contaminants of interest (COIs) are identified in the proposed POD Wells, and confirmed with a second sampling event, additional actions will be considered.

3.2 VAPOR INTRUSION ASSESSMENT

Results from VI and indoor air sampling conducted in June and July 2018 indicate that VOCs detected in the sub-slab soil vapor do not currently present an unacceptable VI risk to workers in the warehouse. The results of sub-slab soil vapor samples show variability in VOC concentrations between the June and July events. A third sampling event will be scheduled for December 2018 to confirm these results and to account for possible seasonal variability.

3.3 ASSET REMOVAL

Murata initially plans to abandon the following wells which are usually dry (MW-1, MW-2, MW-13, and MW-16), were used as injection wells (MW-3, MW-5, MW-9, MW-10, MW-11, MW-12, MW- or are no longer

necessary to be included in the monitoring well network (MW-14, MW-25, MW-A-4, and MW-B-2) following approval from EPD. The proposed groundwater monitoring network is included as Table 3-1 and Figure 3-2. MW-15 was buried during regrading activities on the Hematite Holdings Property and was removed as a proposed POD well. No other changes were made to the proposed groundwater monitoring network in Figure 4-1 of the VIRP. Once the final CSR has been approved all the remaining wells will be abandoned in accordance well decommissioning procedures detailed in U.S. Environmental Protection Agency Region 4 Science and Ecosystem Support Division (SESD) January 29, 2013 Design and Installation of Monitoring Wells.

3.4 UNIFORM ENVIRONMENTAL COVENANTS

Murata will attempt to execute new Uniform Environmental Covenants (UECs) with a groundwater use deed restriction for all parcels overlying the groundwater plume (above RRS) for an institutional control. In addition the Site parcel, the parcels that Murata will attempt to obtain a groundwater use dead restrictions for include Beary Properties Inc. and Hematite Holdings LLC (Figure 1-2).

The UEC on the Murata property may include a soil excavation restriction based on the results of the completed soil sampling (see Section 2.3). The UEC will include the obligation for an OSHA compliant Health and Safety Plan (HASP) to effectively manage subsurface soil worker exposures for intrusive activities.

Tables

Project No. 0190949
Murata Electronics North America

Environmental Resources Management
3200 Windy Hill Road SE, Suite 1500W
Atlanta, Georgia 30339
(678) 486-2700

TABLE 2-1
Groundwater VOC Concentrations (ug/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HSI No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Sample Method	1,1,1 Trichloroethane	Qualifier	1,1-Dichloroethene	Qualifier	Tetrachloroethene	Qualifier	Trichloroethene	Qualifier	cis-1,2-Dichloroethene	Qualifier	trans-1,2-Dichloroethene	Qualifier	Vinyl Chloride	Qualifier	1,1-Dichloroethane	Qualifier	Benzene	Qualifier	1,4-Dioxane	Qualifier
RRS Type 4					**13,600**		**524**		**98.1**		**5.24**		**204**		**2,040**		**3.27**		**46.4**		**8.72**		**104**	
MW-1	04/18/01	05/18/01	United Consulting			BRL	< 3.2			BRL		BRL		BRL		NR		NR						
		06/15/01	United Consulting			BRL	< 3.3			BRL	**6.4**			BRL		NR		NR						
		07/12/01	United Consulting			dry		dry		dry		dry		dry		dry		dry						
		11/25/03	United Consulting			dry		dry		dry		dry		dry		dry		dry						
		06/09/05	ERM			dry		dry		dry		dry		dry		dry		dry						
		12/12/06	ERM			dry		dry		dry		dry		dry		dry		dry						
		06/25/07	ERM			dry		dry		dry		dry		dry		dry		dry						
		12/03/07	ERM			dry		dry		dry		dry		dry		dry		dry						
		06/04/08	ERM			dry		dry		dry		dry		dry		dry		dry						
		12/15/08	ERM			dry		dry		dry		dry		dry		dry		dry						
		12/16/09	ERM			dry		dry		dry		dry		dry		dry		dry						
		12/09/10	ERM			dry		dry		dry		dry		dry		dry		dry						
		07/19/11	ERM			dry		dry		dry		dry		dry		dry		dry						
		12/16/11	ERM			dry		dry		dry		dry		dry		dry		dry						
		07/06/12	ERM			dry		dry		dry		dry		dry		dry		dry						
		12/06/12	ERM			dry		dry		dry		dry		dry		dry		dry						
		08/02/13	ERM	Bailer	< 5.0		< 5.0		12		< 5.0		41		< 5.0		< 2.0		< 5.0					
		03/06/14	ERM			dry		dry		dry		dry		dry		dry		dry		dry		dry		
		11/28/17	ERM			dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
MW-2	04/18/01	07/18/11	ERM			dry				dry		dry		dry		dry		dry						
		12/15/11	ERM			dry				dry		dry		dry		dry		dry						
		07/06/12	ERM			dry				dry		dry		dry		dry		dry						
		12/06/12	ERM			dry				dry		dry		dry		dry		dry						
		07/22/13	ERM			dry				dry		dry		dry		dry		dry		dry				
		03/06/14	ERM			dry		dry		dry		dry		dry		dry		dry		dry		dry		
		11/30/17	ERM			dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
MW-3	04/18/01	04/24/01	United Consulting		8.6		10		**1,100**		**80**		**370**			NR		NR						
		06/15/01	United Consulting		7.4		10		**3,100**		**54**		**210**			NR		NR						
		07/12/01	United Consulting			dry				dry		dry		dry		dry		dry						
		11/25/03	United Consulting			dry				dry		dry		dry		dry		dry						
		06/09/05	ERM		< 2.0		6		**3,000**		**120**		**630**		7		< 2.0							
		12/12/06	ERM			dry				dry		dry		dry		dry		dry						
		06/25/07	ERM			dry				dry		dry		dry		dry		dry						
		12/03/07	ERM			dry				dry		dry		dry		dry		dry						
		06/11/08	ERM	Low-Flow	< 5.0		< 50		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/15/08	ERM			dry				dry		dry		dry		dry		dry						
		06/29/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/22/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/23/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/13/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/19/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/11	ERM	Bailer	< 5.0		1.8		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/17/12	ERM	Bailer	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/12/12	ERM	Bailer	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/26/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		11/29/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	

TABLE 2-1
Groundwater VOC Concentrations (ug/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HSI No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Sample Method	1,1,1 Trichloroethane	Qualifier	1,1-Dichloroethene	Qualifier	Tetrachloroethene	Qualifier	Trichloroethene	Qualifier	cis-1,2-Dichloroethene	Qualifier	trans-1,2-Dichloroethene	Qualifier	Vinyl Chloride	Qualifier	1,1-Dichloroethane	Qualifier	Benzene	Qualifier	1,4-Dioxane	Qualifier
RRS Type 4					**13,600**		**524**		**98.1**		**5.24**		**204**		**2,040**		**3.27**		**46.4**		**8.72**		**104**	
MW-4	06/12/01	06/15/01	United Consulting			BRL			**130**		**5.4**			BRL		NR		NR						
		07/12/01	United Consulting			NA				NA		NA		NA		NR		NR						
		11/25/03	United Consulting		< 5.0		< 5.0		< 5.0		< 5.0		18		< 5.0			NR						
		06/09/05	ERM		< 2.0		< 2.0		4		< 2.0		7		< 2.0		< 2.0							
		12/19/06	ERM	Low-Flow	< 5.0		< 5.0		7		< 5.0		5		< 5.0		< 2.0							
		06/26/07	ERM	Low-Flow	< 5.0		< 5.0		7		< 5.0		< 5.0		< 5.0		< 2.0							
		12/04/07	ERM	Low-Flow	< 5.0		< 5.0		12		< 5.0		< 5.0		< 5.0		< 2.0							
		06/09/08	ERM	Low-Flow	< 5.0		< 5.0		7.1		< 5.0		< 5.0		< 5.0		< 2.0							
		12/17/08	ERM	Low-Flow	< 5.0		< 5.0		10		< 5.0		< 5.0		< 5.0		< 2.0							
		06/18/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/09	ERM			dry				dry		dry		dry		dry		dry						
		08/20/10	ERM	Low-Flow	< 5.0		< 5.0		11		< 5.0		< 5.0		< 5.0		< 2.0							
		12/08/10	ERM	Low-Flow	< 5.0		< 5.0		9.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/27/11	ERM	Low-Flow	< 5.0		< 5.0		8.5		< 5.0		< 5.0		< 5.0		< 2.0							
		07/27/11 DUP	ERM	Low-Flow	< 5.0		< 5.0		7.6		< 5.0		< 5.0		< 5.0		< 2.0							
		12/15/11	ERM	Low-Flow	< 5.0		< 5.0		6.8		< 5.0		< 5.0		< 5.0		< 2.0							
		12/15/11 DUP	ERM	Low-Flow	< 5.0		< 5.0		5.5		< 5.0		< 5.0		< 5.0		< 2.0							
		07/10/12	ERM	Low-Flow	< 5.0				4.3	J	< 5.0		0.57	J	< 5.0		< 2.0							
		07/10/12 DUP	ERM	Low-Flow	< 5.0				4.2	J	< 5.0		0.68	J	< 5.0		< 2.0							
		12/04/12	ERM	Low-Flow	< 5.0				5.8		< 5.0		< 5.0		< 5.0		< 2.0							
		12/04/12 DUP	ERM	Low-Flow	< 5.0				5.8		< 5.0		< 5.0		< 5.0		< 2.0							
		07/24/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		07/24/13 DUP	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		09/25/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		11/24/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		10/31/16	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/30/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	
MW-5	06/12/01	04/24/01	United Consulting			BRL			**1,700**		**22**		33			NR		NR						
		06/15/01	United Consulting		< 5.0		< 5.0		**1,800**		**110**		74			NR		NR						
		11/25/03	ERM		< 2.0		< 2.0		**1,200**		**71**		56		< 2.0		< 2.0							
		06/10/05	ERM		< 5.0		< 5.0		**1,100**		**24**		21		< 5.0		< 5.0							
		12/12/06	ERM			NS		NS		NS		NS		NS		NS		NS						
		06/26/07	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/05/07	ERM	Low-Flow	< 500		< 500		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/05/08	ERM	Low-Flow	< 50		< 50		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/05/08 DUP	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/18/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/25/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/22/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/19/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/10/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/19/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/19/11	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/17/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/04/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/01/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		11/24/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		10/31/16	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/30/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	
		11/30/2017 DUP	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	

TABLE 2-1
Groundwater VOC Concentrations (ug/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HSI No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Sample Method	1,1,1 Trichloroethane	Qualifier	1,1-Dichloroethene	Qualifier	Tetrachloroethene	Qualifier	Trichloroethene	Qualifier	cis-1,2-Dichloroethene	Qualifier	trans-1,2-Dichloroethene	Qualifier	Vinyl Chloride	Qualifier	1,1-Dichloroethane	Qualifier	Benzene	Qualifier	1,4-Dioxane	Qualifier
RRS Type 4					**13,600**		**524**		**98.1**		**5.24**		**204**		**2,040**		**3.27**		**46.4**		**8.72**		**104**	
MW-6	6/12/2001	04/24/01	United Consulting			NA		NA		NA		NA		NA		NR		NR						
		06/12/01	United Consulting			BRL		BRL		BRL		BRL		BRL		NR		NR						
		07/12/01	United Consulting		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0			NR						
		11/25/03	ERM		< 2.0		< 2.0		< 2.0		< 2.0		< 2.0		< 2.0		< 2.0							
		06/10/05	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/14/06	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/26/07	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/26/07 DUP	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/05/07	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/05/07 DUP	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/10/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/15/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/17/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/17/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/18/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/18/10 DUP	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/08/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/20/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/15/11	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/10/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/04/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/23/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		11/24/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		10/31/16	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/30/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	
MW-7	04/14/05	04/24/12	ERM	Low-Flow	< 2.0		< 2.0		< 2.0		< 2.0		< 2.0		< 2.0		< 2.0							
		06/09/05	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 2.0							
		12/15/06	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/27/07	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/04/07	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/10/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/18/08	ERM	Low-Flow	< 5.0		< 5.0		6.3		< 5.0		< 5.0		< 5.0		< 2.0							
		06/11/09	ERM	Low-Flow	< 5.0		< 5.0		5.8		< 5.0		< 5.0		< 5.0		< 2.0							
		12/21/09	ERM	Low-Flow	< 5.0		< 5.0		5.6		< 5.0		< 5.0		< 5.0		< 2.0							
		03/26/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		09/15/10	ERM	Low-Flow	< 5.0		< 5.0		7.6		< 5.0		< 5.0		< 5.0		< 2.0							
		12/07/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/26/11	ERM	Low-Flow	< 5.0		< 5.0		8.5		< 5.0		< 5.0		< 5.0		< 2.0							
		12/15/11	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/10/12	ERM	Low-Flow	< 5.0				12		< 5.0		< 5.0		< 5.0		< 2.0							
		12/05/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/23/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		11/23/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/01/16	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		12/01/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	

TABLE 2-1
Groundwater VOC Concentrations (ug/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HSI No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Sample Method	1,1,1 Trichloroethane	Qualifier	1,1-Dichloroethene	Qualifier	Tetrachloroethene	Qualifier	Trichloroethene	Qualifier	cis-1,2-Dichloroethene	Qualifier	trans-1,2-Dichloroethene	Qualifier	Vinyl Chloride	Qualifier	1,1-Dichloroethane	Qualifier	Benzene	Qualifier	1,4-Dioxane	Qualifier
RRS Type 4					**13,600**		**524**		**98.1**		**5.24**		**204**		**2,040**		**3.27**		**46.4**		**8.72**		**104**	
MW-8	04/27/05	06/09/05	ERM	Low-Flow	< 2.0		< 2.0		55		< 2.0		< 2.0		< 2.0		< 2.0							
		12/18/06	ERM	Low-Flow	< 5.0		< 5.0		**1200**		< 5.0		< 5.0		< 5.0		< 2.0							
		12/18/06DUP	ERM	Low-Flow	< 5.0		< 5.0		**1300**		< 5.0		< 5.0		< 5.0		< 2.0							
		06/26/07	ERM	Low-Flow	< 5.0		< 5.0		42		< 5.0		< 5.0		< 5.0		< 2.0							
		12/03/07	ERM	Low-Flow	< 5.0		< 5.0		9.6		< 5.0		< 5.0		< 5.0		< 2.0							
		06/09/08	ERM	Low-Flow	< 5.0		< 5.0		**510**		< 5.0		< 5.0		< 5.0		< 2.0							
		12/23/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/18/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/17/09	ERM	Low-Flow	< 5.0		< 5.0		19		< 5.0		< 5.0		< 5.0		< 2.0							
		08/18/10	ERM	Low-Flow	< 5.0		< 5.0		**190**		< 5.0		< 5.0		< 5.0		< 2.0							
		12/07/10	ERM	Low-Flow	< 5.0		< 5.0		87		< 5.0		< 5.0		< 5.0		< 2.0							
		07/27/11	ERM	Low-Flow	< 5.0		< 5.0		120		< 5.0		< 5.0		< 5.0		< 2.0							
		12/21/11	ERM	Low-Flow	< 5.0		< 5.0		53		< 5.0		< 5.0		< 5.0		< 2.0							
		07/18/12	ERM	Low-Flow	< 5.0				15		< 5.0		< 5.0		< 5.0		< 2.0							
		12/12/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/26/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		9.3		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		09/25/14	ERM	PDB	< 5.0		< 5.0		8.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		11/24/15	ERM	PDB	< 5.0		< 5.0		40		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/24/2015 DUP	ERM	PDB	< 5.0		< 5.0		42		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		10/31/16	ERM	PDB	< 5.0		< 5.0		5.6		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		10/31/2016 DUP	ERM	PDB	< 5.0		< 5.0		<5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/30/17	ERM	Low-Flow	< 5.0		< 5.0		**140**		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	
MW-9	04/19/05	06/09/05	ERM	Low-Flow	< 2.0		< 2.0		**900**		**17**		< 2.0		< 2.0		< 2.0							
		12/13/06	ERM	Low-Flow	< 5.0		< 5.0		**230**		**27**		66		< 5.0		< 2.0							
		06/26/07	ERM	Low-Flow	< 5.0		< 2.0		**460**		**12**		18		< 5.0		< 2.0							
		12/03/07	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/05/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/18/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/24/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/09	ERM			dry				dry		dry		dry		dry		dry						
		08/19/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/10/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/22/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/11	ERM	Bailer	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/17/12	ERM	Bailer	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/12/12	ERM	Bailer	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/29/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		11/24/15	ERM	PDB	< 5.0		< 5.0		**100**		**5.3**		18		< 5.0		< 2.0		< 5.0			NA		
		11/24/2015 DUP	ERM	PDB	< 5.0		< 5.0		**110**		**5.4**		18		< 5.0		< 2.0		< 5.0			NA		
		01/23/16	ERM	Low-Flow	< 5.0		< 5.0		92		< 5.0		< 5.0		< 5.0		< 2.0					NA		
		1/23/2016 DUP	ERM	Low-Flow	< 5.0		< 5.0		82		< 5.0		< 5.0		< 5.0		< 2.0					NA		
		11/01/16	ERM	PDB	< 5.0		< 5.0		<5.0		< 5.0		< 5.0		< 5.0		< 2.0					NA		
		11/1/2016 DUP	ERM	PDB	< 5.0		< 5.0		<5.0		< 5.0		< 5.0		< 5.0		< 2.0					NA		
		11/30/17	ERM	Low-Flow	< 5.0		< 5.0		31		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	

TABLE 2-1
Groundwater VOC Concentrations (ug/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HSI No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Sample Method	1,1,1 Trichloroethane	Qualifier	1,1-Dichloroethene	Qualifier	Tetrachloroethene	Qualifier	Trichloroethene	Qualifier	cis-1,2-Dichloroethene	Qualifier	trans-1,2-Dichloroethene	Qualifier	Vinyl Chloride	Qualifier	1,1-Dichloroethane	Qualifier	Benzene	Qualifier	1,4-Dioxane	Qualifier
RRS Type 4					**13,600**		**524**		**98.1**		**5.24**		**204**		**2,040**		**3.27**		**46.4**		**8.72**		**104**	
MW-10	04/21/05	06/10/05	ERM	Low-Flow	< 2.0		< 2.0		51		**17**		7		< 2.0		< 2.0							
		12/18/06	ERM	Low-Flow	< 2.0		< 2.0		8		< 2.0		91		< 2.0		< 2.0							
		06/25/07	ERM			dry				dry		dry		dry		dry		dry						
		12/03/07	ERM			dry				dry		dry		dry		dry		dry						
		06/04/08	ERM			NS				NS		NS		NS		NS		NS						
		12/15/08	ERM			dry				dry		dry		dry		dry		dry						
		12/16/09	ERM			dry				dry		dry		dry		dry		dry						
		12/09/10	ERM			dry				dry		dry		dry		dry		dry						
		07/19/11	ERM			dry				dry		dry		dry		dry		dry						
		12/16/11	ERM			dry				dry		dry		dry		dry		dry						
		07/06/12	ERM			dry				dry		dry		dry		dry		dry						
		12/06/12	ERM			dry				dry		dry		dry		dry		dry						
		07/22/13	ERM			dry				dry		dry		dry		dry		dry						
		03/06/14	ERM			dry				dry		dry		dry		dry		dry		dry		dry		
		11/23/15	ERM			dry				dry		dry		dry		dry		dry		dry		dry		
		11/30/17	ERM			dry				dry		dry		dry		dry		dry		dry		dry		dry
MW-11	04/18/05	06/12/05	ERM	Low-Flow	< 2.0		< 2.0		25		**8**		3		< 2.0		< 2.0							
		12/12/06	ERM			dry				dry		dry		dry		dry		dry						
		06/25/07	ERM			dry				dry		dry		dry		dry		dry						
		12/03/07	ERM			dry				dry		dry		dry		dry		dry						
		06/04/08	ERM			dry				dry		dry		dry		dry		dry						
		01/22/09	ERM	Low-Flow	< 5.0		< 5.0		**500**		**350**		**220**		< 5.0		**6.9**							
		03/09/09	ERM	Low-Flow	< 5.0		< 5.0		**580**		**400**		**250**		< 5.0		< 2.0							
		12/16/09	ERM			dry				dry		dry		dry		dry		dry						
		12/09/10	ERM			dry				dry		dry		dry		dry		dry						
		07/19/11	ERM			dry				dry		dry		dry		dry		dry						
		12/16/11	ERM			dry				dry		dry		dry		dry		dry						
		07/06/12	ERM			dry				dry		dry		dry		dry		dry						
		12/06/12	ERM			dry				dry		dry		dry		dry		dry						
		08/02/13	ERM	Bailer	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0				NA	
		11/30/17	ERM			dry				dry		dry		dry		dry		dry		dry		dry		dry
MW-12	05/02/05	06/13/05	ERM	Low-Flow	< 2.0		< 2.0		46		**28**		< 2.0		4		< 2.0							
		12/20/06	ERM	Low-Flow	< 5.0		< 5.0		30		**1200**		28		160		< 2.0							
		06/26/07	ERM	Low-Flow	< 5.0		< 5.0		6		**81**		< 5.0		10		< 2.0							
		12/05/07	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		**60**		11		17		< 2.0							
		06/10/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		**76**		< 5.0		14		< 2.0							
		12/23/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		**65**		< 5.0		8.7		< 2.0							
		06/30/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		**88**		6		15		< 2.0							
		12/22/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/24/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/24/10 DUP	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/09/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/26/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/22/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/13/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/12/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/30/13	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/06/14	ERM			NS		NS		NS		NS		NS		NS		NS		NS		NS		
		09/25/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0				NA	
		11/24/15	ERM			NS		NS		NS		NS		NS		NS		NS		NS		NS		
		12/01/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	

TABLE 2-1
Groundwater VOC Concentrations (ug/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HSI No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Sample Method	1,1,1 Trichloroethane	Qualifier	1,1-Dichloroethene	Qualifier	Tetrachloroethene	Qualifier	Trichloroethene	Qualifier	cis-1,2-Dichloroethene	Qualifier	trans-1,2-Dichloroethene	Qualifier	Vinyl Chloride	Qualifier	1,1-Dichloroethane	Qualifier	Benzene	Qualifier	1,4-Dioxane	Qualifier
RRS Type 4					**13,600**		**524**		**98.1**		**5.24**		**204**		**2,040**		**3.27**		**46.4**		**8.72**		**104**	
MW-13	05/02/05	07/18/11	ERM			dry				dry		dry		dry		dry		dry						
		12/15/11	ERM			dry				dry		dry		dry		dry		dry						
		07/06/12	ERM			dry				dry		dry		dry		dry		dry						
		12/06/12	ERM			dry				dry		dry		dry		dry		dry						
		08/02/13	ERM	Bailer	< 5.0		< 5.0		**470**		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		21		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		09/25/14	ERM	PDB	< 5.0		< 5.0		37		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0				NA	
		11/24/15	ERM			dry				dry		dry		dry		dry		dry					dry	
		11/30/17	ERM			dry				dry		dry		dry		dry		dry					dry	dry
MW-14	05/02/05	07/28/05	ERM	Low-Flow	< 2.0		< 2.0		< 5.0		< 2.0		< 2.0		< 2.0		< 2.0							
		12/12/06	ERM			dry		dry		dry		dry		dry		dry		dry						
		06/25/07	ERM			dry		dry		dry		dry		dry		dry		dry						
		12/03/07	ERM			dry		dry		dry		dry		dry		dry		dry						
		06/04/08	ERM			dry		dry		dry		dry		dry		dry		dry						
		12/15/08	ERM			dry		dry		dry		dry		dry		dry		dry						
		12/16/09	ERM			dry		dry		dry		dry		dry		dry		dry						
		07/19/11	ERM			dry		dry		dry		dry		dry		dry		dry						
		12/16/11	ERM			dry		dry		dry		dry		dry		dry		dry						
		07/06/12	ERM			dry		dry		dry		dry		dry		dry		dry						
		12/06/12	ERM			dry		dry		dry		dry		dry		dry		dry						
		07/22/13	ERM			dry		dry		dry		dry		dry		dry		dry		dry		dry		
		03/06/14	ERM			dry		dry		dry		dry		dry		dry		dry		dry		dry		
		11/30/17	ERM			dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
MW-15	11/15/05	11/15/05	ERM	Low-Flow	< 2.0		< 2.0		< 2.0		< 2.0		< 2.0		< 2.0		< 2.0							
		12/22/06	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/25/07	ERM			dry		dry		dry		dry		dry		dry		dry						
		12/03/07	ERM			dry		dry		dry		dry		dry		dry		dry						
		06/12/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/17/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/09	ERM			dry		dry		dry		dry		dry		dry		dry						
		08/24/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/14/10	ERM	Bailer	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/19/11	ERM			dry		dry		dry		dry		dry		dry	< 2.0	dry						
		12/16/11	ERM			dry		dry		dry		dry		dry		dry	< 2.0	dry						
		07/11/12	ERM	Bailer	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/06/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/23/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/06/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		11/24/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0				NA	
		11/30/17	ERM			CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL			CNL	CNL
MW-16	12/02/06	12/18/06	ERM	Low-Flow	< 5.0		7		**1800**		**42**		54		< 5.0		< 2.0							
		06/25/07	ERM	Low-Flow	< 5.0		3		**810**		**21**		51		< 5.0		< 2.0							
		12/03/07	ERM			dry		dry		dry		dry		dry		dry		dry						
		07/07/08	ERM	Low-Flow	< 5.0		< 5.0		**190**		< 5.0		< 5.0		< 5.0		< 2.0							
		12/23/08	ERM	Low-Flow	< 5.0		< 5.0		**130**		< 5.0		< 5.0		< 5.0		< 2.0							
		06/26/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/21/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/28/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/22/11	ERM	Low-Flow	< 5.0		0.56	J*	< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/18/12	ERM	Bailer	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/13/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/29/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		03/06/14	ERM			NS		NS		NS		NS		NS		NS		NS		NS		NS		
		11/23/15	ERM			dry		dry		dry		dry		dry		dry		dry		dry				
		11/30/17	ERM			NS		NS		NS		NS		NS		NS		NS		NS		NS		NS

TABLE 2-1
Groundwater VOC Concentrations (ug/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HSI No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Sample Method	1,1,1 Trichloroethane	Qualifier	1,1-Dichloroethene	Qualifier	Tetrachloroethene	Qualifier	Trichloroethene	Qualifier	cis-1,2-Dichloroethene	Qualifier	trans-1,2-Dichloroethene	Qualifier	Vinyl Chloride	Qualifier	1,1-Dichloroethane	Qualifier	Benzene	Qualifier	1,4-Dioxane	Qualifier
RRS Type 4					**13,600**		**524**		**98.1**		**5.24**		**204**		**2,040**		**3.27**		**46.4**		**8.72**		**104**	
MW-17	12/20/06	12/12/06	ERM			dry				dry		dry		dry		dry		dry						
		06/25/07	ERM			dry				dry		dry		dry		dry		dry						
		12/04/07	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/06/08	ERM	Low-Flow	< 500.0		< 500.0		< 500.0		< 500.0		< 500.0		< 500.0		< 200.0							
		12/30/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/29/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/29/09DUP	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/09	ERM			dry		dry		dry		dry		dry		dry		dry						
		08/25/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/14/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/20/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/22/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/18/12	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/13/12	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/30/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		3/7/2014 DUP	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		01/21/16	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0					NA		
		10/31/16	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0					NA		
		11/30/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	
MW-18	12/05/06	12/13/06	ERM	Low-Flow	< 5.0		< 5.0		**100**		**8**		25		< 5.0		< 2.0							
		06/26/07	ERM	Low-Flow	< 5.0		< 2.0		**360**		**9**		21		< 5.0		< 2.0							
		12/03/07	ERM	Low-Flow	< 5.0		< 5.0		8.4		< 5.0		22		< 5.0		< 2.0							
		06/06/08	ERM	Low-Flow	< 5.0		< 5.0		61		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/08	ERM	Low-Flow	< 5.0		< 5.0		50		< 5.0		5.8		< 5.0		< 2.0							
		06/24/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/21/09	ERM	Low-Flow	< 5.0		< 5.0		12		< 5.0		< 5.0		< 5.0		< 2.0							
		08/18/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/20/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/11	ERM	Bailer	< 5.0		< 5.0		34		3.6	J*	2.0	J*	< 5.0		< 2.0							
		07/11/12	ERM	Bailer	< 5.0		< 5.0		16		1.1	J	0.74	J	< 5.0		< 2.0							
		12/05/12	ERM	Bailer	< 5.0				19		< 5.0		< 5.0		< 5.0		< 2.0							
		07/25/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14 DUP	ERM	PDB	< 5.0		< 5.0		< 5.0		**6.5**		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		5.2		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		09/25/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.1		< 5.1			NA		
		9/25/2014 DUP	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/24/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		10/31/16	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/29/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	

TABLE 2-1
Groundwater VOC Concentrations (ug/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HSI No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Sample Method	1,1,1 Trichloroethane	Qualifier	1,1-Dichloroethene	Qualifier	Tetrachloroethene	Qualifier	Trichloroethene	Qualifier	cis-1,2-Dichloroethene	Qualifier	trans-1,2-Dichloroethene	Qualifier	Vinyl Chloride	Qualifier	1,1-Dichloroethane	Qualifier	Benzene	Qualifier	1,4-Dioxane	Qualifier
RRS Type 4					**13,600**		**524**		**98.1**		**5.24**		**204**		**2,040**		**3.27**		**46.4**		**8.72**		**104**	
MW-19	11/30/06	12/21/06	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		7.0		< 5.0		< 2.0							
		06/26/07	ERM	Low-Flow	< 5.0		< 5.0		25		< 5.0		17.0		< 5.0		< 2.0							
		12/05/07	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/11/08	ERM	Low-Flow	< 50.0		< 50.0		< 50.0		< 50.0		< 50.0		< 50.0		< 20.0							
		12/30/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/25/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/09	ERM			dry		dry		dry		dry		dry		dry		dry						
		08/25/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/14/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/21/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/11	ERM			dry		dry		dry		dry		dry		dry		dry						
		07/19/12	ERM	Bailer	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/12/12	ERM	Bailer	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/30/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		9.1					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		16		< 5.0			
		09/25/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		5.6			NA		
		11/24/15	ERM	PDB	< 5.0		< 5.0		11		< 5.0		10		< 5.0		< 2.0		7.4			NA		
		11/28/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	
MW-20	11/30/06	12/16/06	ERM	Low-Flow	< 5.0		< 5.0		**220**		< 5.0		< 5.0		< 5.0		< 2.0							
		06/26/07	ERM			NS		NS		NS		NS		NS		NS		NS						
		12/04/07	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/11/08	ERM	Low-Flow	< 50.0		< 50.0		< 50.0		< 50.0		< 50.0		< 50.0		< 20.0							
		12/30/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/30/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/22/09	ERM	Low-Flow					11															
		08/26/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/09/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/21/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/11	ERM	Bailer	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/19/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/12/12	ERM	Bailer	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/31/13	ERM	Low-Flow	< 5.0		< 5.0		56		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		31		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		09/25/14	ERM	PDB	< 5.0		< 5.0		26		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/24/15	ERM	PDB	< 5.0		< 5.0		36		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		10/31/16	ERM	PDB	< 5.0		< 5.0		<5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		10/31/16 DUP	ERM	PDB	< 5.0		< 5.0		<5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/29/17	ERM	Low-Flow	< 5.0		< 5.0		<5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		7.1	
MW-22	08/23/07	12/05/07	ERM	Low-Flow	< 5.0		< 5.0		20		< 5.0		< 5.0		< 5.0		< 2.0							
		06/09/08	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 2.0		< 2.0		< 2.0		< 2.0							
		12/30/08	ERM	Low-Flow	< 5.0		< 5.0		9.1		< 5.0		< 5.0		< 5.0		< 2.0							
		12/30/08 DUP	ERM	Low-Flow	< 5.0		< 5.0		8.1		< 5.0		< 5.0		< 5.0		< 2.0							
		06/25/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/09	ERM			dry		dry		dry		dry		dry		dry		dry						
		08/25/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/14/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/22/10 DUP	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/22/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/21/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/20/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/13/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/01/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		09/25/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/24/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		10/31/16	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/30/17	ERM	Low-Flow	< 5.0		< 5.0		7.2		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	

TABLE 2-1
Groundwater VOC Concentrations (ug/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HSI No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Sample Method	1,1,1 Trichloroethane	Qualifier	1,1-Dichloroethene	Qualifier	Tetrachloroethene	Qualifier	Trichloroethene	Qualifier	cis-1,2-Dichloroethene	Qualifier	trans-1,2-Dichloroethene	Qualifier	Vinyl Chloride	Qualifier	1,1-Dichloroethane	Qualifier	Benzene	Qualifier	1,4-Dioxane	Qualifier
RRS Type 4					**13,600**		**524**		**98.1**		**5.24**		**204**		**2,040**		**3.27**		**46.4**		**8.72**		**104**	
MW-23	09/14/07	12/05/07	ERM	Low-Flow	< 5.0		43		**3400**		**560**		**2000**		18		**1700**							
		06/11/08	ERM	Low-Flow	< 50.0		< 50.0		< 50.0		< 50.0		< 50.0		< 50.0		< 20.0							
		12/18/08	ERM	Low-Flow	< 100.0		< 100.0		< 100.0		< 100.0		< 100.0		< 100.0		< 40.0							
		06/30/09	ERM	Low-Flow	< 5.0		< 5.0		8.3		< 5.0		< 5.0		< 5.0		< 2.0							
		12/23/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/20/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/13/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/25/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/19/11	ERM	Low-Flow	< 5.0		2.4 J*		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/20/12	ERM	Bailer	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/13/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/31/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		11/24/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		10/31/16	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/30/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		5.3	
MW-24	05/07/10	06/18/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/19/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/15/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/25/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/11	ERM	Low-Flow	< 5.0		< 5.0		2.1	J*	< 5.0		< 5.0		< 5.0		< 2.0							
		07/06/12	ERM			NA				NA		NA		NA		NA		NA						
		12/05/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/23/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/06/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		3/6/2014 DUP	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		12/15/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/29/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	
		11/29/2017 DUP	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	
MW-25	05/08/10	06/18/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/19/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/15/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/25/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/11	ERM	Low-Flow	< 5.0		< 5.0		2.1	J*	< 5.0		< 5.0		< 5.0		< 2.0							
		07/06/12	ERM			NA		NA		NA		NA		NA		NA		NA						
		12/05/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/24/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/06/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		<5.0			
		12/15/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/29/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	

TABLE 2-1
Groundwater VOC Concentrations (ug/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HSI No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Sample Method	1,1,1 Trichloroethane	Qualifier	1,1-Dichloroethene	Qualifier	Tetrachloroethene	Qualifier	Trichloroethene	Qualifier	cis-1,2-Dichloroethene	Qualifier	trans-1,2-Dichloroethene	Qualifier	Vinyl Chloride	Qualifier	1,1-Dichloroethane	Qualifier	Benzene	Qualifier	1,4-Dioxane	Qualifier
RRS Type 4					**13,600**		**524**		**98.1**		**5.24**		**204**		**2,040**		**3.27**		**46.4**		**8.72**		**104**	
MW-26	05/06/09	06/10/09	ERM	Low-Flow	< 5.0		< 5.0		8.9		< 5.0		< 5.0		< 5.0		< 2.0							
		07/13/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/13/09 DUP	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/09	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/09 DUP	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/18/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/07/10	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/26/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/15/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/11/12	ERM	Low-Flow	< 5.0				3.0	J	< 5.0		< 5.0		< 5.0		< 2.0							
		12/05/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/25/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		11/23/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		10/31/16	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		12/01/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	
MW-27	05/05/09	06/19/09	ERM	Low-Flow	< 5.0		13		**3000**		**2800**		**4500**		26		**110**							
		12/16/09	ERM	Low-Flow	< 5.0		5.6		**1400**		**1900**		**4100**		16		**31**							
		08/24/10	ERM	Low-Flow	< 5.0		7.0		**1800**		**2000**		**3300**		15		**31**							
		12/08/10	ERM	Low-Flow	< 5.0		< 5.0		**1100**		**1000**		**2300**		8.9		**16**							
		07/28/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/21/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/19/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/13/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/31/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		11/23/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/28/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		27	
MW-28	3/24/2011 Destroyed	07/29/11	ERM	Bailer	< 5.0		< 5.0		**210**		**130**		35		< 5.0		**21**							
		12/20/11	ERM	Low-Flow	< 5.0		< 5.0		**110**		**96**		120		< 5.0		**20**							
		07/11/12	ERM	Low-Flow	< 5.0				**240**		**500**		**1100**		7.8		**28**							
		12/07/12	ERM	Low-Flow	< 5.0				37		**150**		**300**		< 5.0		**12**							
		08/02/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		09/25/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		9/25/14 DUP	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/24/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		10/31/16	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		11/30/17	ERM			NS		NS		NS		NS		NS		NS		NS		NS		NS		NS
MW-29	03/25/11	07/28/11	ERM	Low-Flow	< 5.0		< 5.0		**4900**		**14**		< 5.0		< 5.0		< 2.0							
		12/16/11	ERM	Low-Flow	< 250		< 250		**7800**		**1000**		**1500**		< 250		< 2.0							
		07/11/12	ERM	Bailer	< 5.0				**2000**		**390**		**880**		9.8		**34**							
		12/06/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/30/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		18		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		09/25/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/24/15	ERM			dry		dry		dry		dry		dry		dry		dry		dry		NA		
		01/22/16	ERM	PDB	< 5.0		< 5.0		**97**		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		10/31/16	ERM	PDB	< 5.0		<5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		<5.0			NA		
		11/29/17	ERM	Low-Flow	< 5.0		<5.0		**960**		< 5.0		< 5.0		< 5.0		< 2.0		<5.0		<5.0		<5.0	

TABLE 2-1
Groundwater VOC Concentrations (ug/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HSI No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Sample Method	1,1,1 Trichloroethane	Qualifier	1,1-Dichloroethene	Qualifier	Tetrachloroethene	Qualifier	Trichloroethene	Qualifier	cis-1,2-Dichloroethene	Qualifier	trans-1,2-Dichloroethene	Qualifier	Vinyl Chloride	Qualifier	1,1-Dichloroethane	Qualifier	Benzene	Qualifier	1,4-Dioxane	Qualifier
RRS Type 4					**13,600**		**524**		**98.1**		**5.24**		**204**		**2,040**		**3.27**		**46.4**		**8.72**		**104**	
MW-A-1	9/6/2011 Destroyed	09/08/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/20/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/17/12	ERM	Low-Flow	< 5.0		< 5.0		2.8	J	< 5.0		< 5.0		< 5.0		< 2.0							
		07/24/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/06/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		11/30/17	ERM			CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL
MW-A-2	09/12/11	09/30/11	ERM	Low-Flow	< 5.0		< 5.0		**220**		**15**		26		< 5.0		< 2.0							
		12/20/11	ERM	Low-Flow	< 5.0		< 5.0		**560**		**31**		43		< 5.0		< 2.0							
		07/16/12	ERM	Low-Flow	< 5.0				**580**		**55**		**76**		< 5.0		< 2.0							
		12/06/12	ERM	Low-Flow	< 5.0				**400**		**27**		42		< 5.0		< 2.0							
		07/24/13	ERM	Low-Flow	< 5.0		< 5.0		81		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/06/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		09/25/14	ERM	PDB	< 5.0		< 5.0		17		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		01/21/16	ERM	Low-Flow	< 5.0		< 5.0		28		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/30/17	ERM			CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL
MW-A-3	09/12/11	09/30/11	ERM	Low-Flow	< 5.0		< 5.0		**140**		< 5.0		9.4		< 5.0		< 2.0							
		12/20/11	ERM	Low-Flow	< 5.0		< 5.0		66		3.0	J*	5.2		< 5.0		< 2.0							
		07/16/12	ERM	Low-Flow	< 5.0				79		< 5.0		5.8		< 5.0		< 2.0							
		12/07/12	ERM	Low-Flow	< 5.0				40		< 5.0		< 5.0		< 5.0		< 2.0							
		07/24/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/06/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		3/6/2014 DUP	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		09/25/14	ERM	PDB	< 5.0		< 5.0		5.8		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/23/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/30/17	ERM			CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL
MW-A-4	03/27/12	03/27/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/28/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/16/12	ERM	Low-Flow	< 5.0				3.5	J	< 5.0		< 5.0		< 5.0		< 2.0							
		12/07/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/25/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/06/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		<5.0			
		11/24/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		11/24/2015 DUP	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		11/28/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	
MW-A-5	03/27/12	03/28/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/28/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/17/12	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/11/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/25/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		**950**			
		03/06/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		**210**			
		11/24/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/30/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		**1800**		< 5.0	
		11/30/2017 DUP	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		**1800**		< 5.0	

TABLE 2-1
Groundwater VOC Concentrations (ug/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HSI No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Sample Method	1,1,1 Trichloroethane	Qualifier	1,1-Dichloroethene	Qualifier	Tetrachloroethene	Qualifier	Trichloroethene	Qualifier	cis-1,2-Dichloroethene	Qualifier	trans-1,2-Dichloroethene	Qualifier	Vinyl Chloride	Qualifier	1,1-Dichloroethane	Qualifier	Benzene	Qualifier	1,4-Dioxane	Qualifier
RRS Type 4					**13,600**		**524**		**98.1**		**5.24**		**204**		**2,040**		**3.27**		**46.4**		**8.72**		**104**	
MW-B-1	09/07/11	09/09/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/19/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/12/12	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/12/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/25/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		11/23/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/28/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	
MW-B-2	09/14/11	09/28/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/19/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/13/12	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/12/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/26/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		11/23/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/29/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	
MW-B-3	09/15/11	09/29/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/20/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/13/12	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/11/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/26/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/07/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		<5.0			
		09/25/14	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/23/15	ERM	PDB	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/29/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	
MW-B-4	09/20/11	09/29/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/19/11	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/13/12	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/11/12	ERM	Low-Flow	< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/26/13	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		01/22/16	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/28/17	ERM	Low-Flow	< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	

TABLE 2-1
Groundwater VOC Concentrations (ug/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HSI No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Sample Method	1,1,1 Trichloroethane	Qualifier	1,1-Dichloroethene	Qualifier	Tetrachloroethene	Qualifier	Trichloroethene	Qualifier	cis-1,2-Dichloroethene	Qualifier	trans-1,2-Dichloroethene	Qualifier	Vinyl Chloride	Qualifier	1,1-Dichloroethane	Qualifier	Benzene	Qualifier	1,4-Dioxane	Qualifier
RRS Type 4					**13,600**		**524**		**98.1**		**5.24**		**204**		**2,040**		**3.27**		**46.4**		**8.72**		**104**	
Trip Blank	-	07/20/11	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/22/11	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/27/11	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/29/11	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		09/30/11	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/11	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/22/11	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/28/11	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		03/28/12	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/11/12	ERM		< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/13/12	ERM		< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/18/12	ERM		< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/20/12	ERM		< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/04/12	ERM		< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/05/12	ERM		< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/06/12	ERM		< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/07/12	ERM		< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/13/12	ERM		< 5.0				< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/23/13	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		07/24/13	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		07/25/13	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		07/29/13	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		07/30/13	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		07/31/13	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		08/02/13	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		03/06/14	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			
		09/25/14	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0			NA		
		11/24/15	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		12/15/15	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		01/22/16	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		12/01/17	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			NA
Equipment Blank	-	06/10/09	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/27/07	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/06/07	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		06/05/08	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/17/08	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/13/09	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/09	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/18/10	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/19/10	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/20/10	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/23/10	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/24/10	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/25/10	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		08/26/10	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/14/10	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/28/11	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/16/11	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		12/04/12	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0							
		07/23/13	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		01/22/16	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0					
		11/30/17	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0		< 5.0	
Water Blank	-	03/07/14	ERM		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 5.0		< 2.0		< 5.0		< 5.0			

Notes:
MW-2 and MW-13 are dry wells.
Bolded values indicate concentrations above the applicable RRS
BRL - Below Reporting Limit
CNL - Could Not Locate
NA - Not Analyzed
NR - Not Reported
NS - Not Sampled
J - Estimated level of VOC detected below Reporting Limit

Prepared By: H. Beaugh 12/27/2017 Checked By:

TABLE 2-2
Groundwater Metals Concentrations (mg/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HIS No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Total Arsenic	Qualifier	Dissolved Arsenic	Qualifier	Total Barium	Qualifier	Dissolved Barium	Qualifier	Total Cadmium	Qualifier	Dissolved Cadmium	Qualifier	Total Chromium	Qualifier	Dissolved Chromium	Qualifier	Total Copper	Qualifier	Dissolved Copper	Qualifier	Total Iron	Qualifier	Dissolved Iron	Qualifier	Total Lead	Qualifier	Dissolved Lead	Qualifier	Total Mercury	Qualifier	Dissolved Mercury	Qualifier	Total Selenium	Qualifier	Dissolved Selenium	Qualifier	Total Silver	Qualifier	Dissolved Silver	Qualifier
GA EPD RRS Type 4				0.0019077		0.0019077		20.44		20.44		0.1022		0.1022		0.1		0.1		4.088		4.088		NA		NA		0.015		0.015		0.000876		0.000876		0.511		0.511		0.511		0.511	
MW-1	4/18/2001	12/12/06	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		6/25/07	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/3/07	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		6/4/08	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/15/08	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		6/29/09	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/22/09	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/12/10	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		7/18/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/15/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		7/6/12	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/6/12	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		8/2/13	ERM	<0.0500		<0.0500		0.0532		0.0278		<0.0050		<0.0050		<0.0100		<0.0100		NS		NS		5.09		<0.100		<0.0100		<0.0100		<0.00020		<0.00020		<0.0200		<0.0200		<0.0100		<0.0100	
		11/28/17	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry	
MW-2	4/18/2001	7/18/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/15/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		7/6/12	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/6/12	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		7/22/13	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		11/30/17	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
MW-3	4/18/2001	12/12/06	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		6/25/07	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/3/07	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		6/11/08	ERM	< 0.5		< 0.5		0.534		0.332		< 0.005		< 0.005		**0.156**		**0.241**				NA		NA		8.12		< 0.1		**0.0355**		**0.226**		**0.0254**		**0.025**		0.221		0.371		0.0196		0.0462	
		12/15/08	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry	
		6/29/09	ERM	< 0.5			NA	0.083			NA	< 0.005			NA	0.0944			NA		NA		NA		2.25			NA	**0.0225**			NA	**0.0105**			NA	0.146			NA	0.0106		NA
		12/22/09	ERM	< 0.25			NA	< 0.1			NA	< 0.025			NA	**0.166**			NA		NA		NA		3.5			NS	**0.05**			NA	**0.00331**			NA	0.133			NA	< 0.05		NA
		8/23/10	ERM	< 0.5		< 0.5		0.021		0.02		< 0.005		< 0.005		**0.125**		**0.132**				NA		NA		1.48		< 0.1		**0.0153**		**0.029**		**0.00618**		**0.00613**		0.0582		0.205		0.0255		0.0202	
		12/13/10	ERM	< 0.5		**2.5**		< 0.21		1.00		< 0.005		< 0.025		0.062		< 0.5				NA		NA		4.12		< 0.05		**0.0282**		< 0.05		**0.00361**		**0.00383**		0.217		<10		0.0176		< 0.05	
		7/19/11	ERM	< 0.25		< 0.5		< 0.1		< 0.2		< 0.02		< 0.05		**0.129**		< 0.1				NA		NA		6.76		< 0.1		**0.0742**		< 0.1		**0.00186**		0.00017		0.472		< 0.277		< 0.05		< 0.1	
		12/16/11	ERM	< 0.5			NS	0.0432			NS	0.0016			NS	0.0986			NS		NA		NA		25.2			NS	**0.0406**			NS	**0.00139**			NS	0.318			NS	0.0197		< 0.03	NS
		7/17/2012	ERM	< 0.05		< 0.05		0.101		< 0.02		1.29J		< 0.05		< 0.01		**0.641**	J	NA	NA	NA	NA	< 0.01		< 0.1		< 0.01		**1.02**		**0.00511**		0.00081		< 0.01		**2.82**		< 0.05		< 0.01	
		12/12/12	ERM	< 0.5			NA	7.3900			NA	< 0.05			NA	**0.208**			NA		NA		NA		1090			NA	**0.279**			NA	**0.00778**			NA	**0.858**			NA	< 0.1			NA
		7/26/13	ERM	<0.0500		<2.50		<0.0200		<1.00		<0.0050		<0.250		0.0871		<0.500				NA		NA		0.238		<5.00		**0.0349**		<0.500		0.00058		0.00051		0.250		<1.00		0.0181		<0.500	
		11/29/17	ERM	<0.0500			NA	0.1810			NA	<0.0050			NA	0.0764			NA		NA		NA		73.000			NA	**0.0851**			NA	**0.00113**			NA	<0.0200			NA	<0.0100			NA
MW-4	6/12/2001	12/19/06	ERM		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*
		6/26/07	ERM	< 0.03		< 0.03		0.17		0.16		< 0.01		< 0.01		**1.2**		< 0.01		NA		NA		6.6		0.93		< 0.025		< 0.025		< 0.005		< 0.005		< 0.04		< 0.04		< 0.0		< 0.0	
		12/4/07	ERM	< 0.05		< 0.05		0.176		0.159		< 0.005		< 0.005		< 0.01		< 0.01		NA		NA		0.117		< 0.01		< 0.1		< 0.1		< 0.002		< 0.002		< 0.02		< 0.02		< 0.01		< 0.01	
		6/9/08	ERM	< 0.05			NA	0.181			NA	< 0.005			NA	< 0.01			NA		NA		NA		< 0.01			NA	< 0.1			NA	< 0.002			NA	< 0.02			NA	< 0.01			NA
		12/17/08	ERM	< 0.05		< 0.05		0.182		0.175		< 0.005		< 0.005		< 0.01		< 0.01				NA		NA		< 0.01		< 0.01		< 0.1		< 0.1		< 0.002		< 0.002		< 0.02		< 0.02		< 0.01		< 0.01	
		6/18/09	ERM	< 0.05			NA	0.167			NA	< 0.005			NA	0.0541			NA		NA		NA		1.08			NA	< 0.1			NA	< 0.002			NA	< 0.02			NA	< 0.01			NA
		8/20/10	ERM	< 0.05			NA	0.208			NA	< 0.005			NA	< 0.01			NA		NA		NA		< 1.51			NA	< 0.1			NA	< 0.002			NA	0.024			NA	< 0.01			NA
		12/8/10	ERM	< 0.05		< 0.05		0.183		0.173		< 0.005		< 0.005		< 0.01		< 0.01				NA		NA		< 0.309		< 0.1		< 0.1		< 0.1		< 0.002		< 0.002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/27/11	ERM	< 0.05		< 0.05		0.145		0.148		< 0.005		< 0.005		< 0.01		< 0.01								0.124		< 0.1		< 0.1		< 0.1		< 0.002		< 0.002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/27/11 DUP	ERM	< 0.05		< 0.05		0.15		0.15		< 0.005		< 0.005		< 0.01		< 0.01								0.163		< 0.1		< 0.1		< 0.1		< 0.002		< 0.002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/15/11	ERM	< 0.05		< 0.05		0.173	NS			< 0.005			NS	0.0079			NS		NA		NA	0.335			NS	< 0.1			NS	< 0.002			NS	< 0.02			NS	< 0.01			NS
		12/15/11 DUP	ERM	< 0.05		< 0.05		0.174	NS			< 0.005			NS	0.0063			NS		NA		NA	0.480			NS	0.0007			NS	< 0.002			NS	0.0082			NS	< 0.01			NS
		7/10/12	ERM	< 0.05		< 0.05		0.185		0.179		< 0.005		< 0.005		0.0007	J	< 0.01				NA		NA	0.109		< 0.1		< 0.1		< 0.1		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/10/2012 DUP	ERM	< 0.05		< 0.05		0.185		0.178		< 0.005		< 0.005		0.0008	J	< 0.01				NA		NA	0.147		< 0.1		< 0.1		< 0.1		< 0.0002		< 0.0002		< 0.02		0.005	J	< 0.01		< 0.01	
		12/4/12	ERM	< 0.05			NA	0.170			NA	< 0.005			NA	< 0.010			NA		NA		NA	< 0.10			NA	< 0.01			NA	< 0.0002			NA	< 0.20			NA	< 0.01			NA
		12/4/12 DUP	ERM	< 0.05			NA	0.174			NA	< 0.005			NA	< 0.01			NA		NA		NA	< 0.1			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/24/13	ERM	<0.0500			NA	0.178			NA	<0.0050			NA	<0.0100			NA		NA		NA	0.120			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
		7/24/13 DUP	ERM	<0.0500			NA	0.183			NA	<0.0050			NA	<0.0100			NA		NA		NA	0.134			NA	<0.0100			NA	<0.00020			NA	< 0.0200			NA	< 0.0100			NA
		11/30/17	ERM	<0.0500			NA	0.15			NA	<0.0050			NA	<0.0100			NA		NA		NA	0.257			NA	<0.0100			NA	<0.00020			NA	< 0.0200			NA	< 0.0100			NA
MW-5	6/12/2001	12/12/06	ERM	< 0.03		< 0.03		0.04		0.04		< 0.01		< 0.01		< 0.01		< 0.01		< 0.02		< 0.02		0.09		< 0.04		< 0.025		< 0.025			NA		NA	< 0.04		< 0.04			NA		NA
		6/26/07	ERM		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS
		12/5/07	ERM	< 0.05		< 0.05		< 0.02		< 0.02		< 0.005		< 0.005		**0.1040**		0.0270				NA		NA	0.43		< 0.1		**0.0701**		< 0.01		< 0.0002		< 0.0002		0.470		< 0.02		0.05		< 0.01	
		6/5/08	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	0.0640			NA		NA		NA	< 0.1			NA	**0.0457**			NA	< 0.0002			NA	0.317			NA	0.0306			NA
		6/5/08DUP	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	0.0649			NA		NA		NA	< 0.1			NA	**0.0485**			NA	< 0.0002			NA	0.336			NA	0.0283			NA
		12/18/08	ERM	< 0.05		< 0.05		< 0.02		< 0.02		< 0.005		< 0.005		0.0249		0.0281				NA		NA	0.148		< 0.1		< 0.1		< 0.01		< 0.0002		< 0.0002		0.031		< 0.02		< 0.01		< 0.01	
		6/25/09	ERM	< 0.25			NA	2.4			NA	< 0.025			NA	**0.2370**			NA		NA		NA	13.5			NA	**0.1790**			NA	**0.00168**			NA	**1.140**			NA	0.0796			NA
		12/22/09	ERM	< 0.25		< 0.05		< 0.1		< 0.02		< 0.025		0.015		**0.44**		**0.536**				NA		NA	< 0.5		< 0.1		**0.1930**		**0.3420**		< 0.0002		< 0.0002		**1.170**		**1.980**		0.178		0.311	
		8/19/10	ERM	< 0.05		< 0.05		< 0.2		< 0.2		< 0.05		< 0.05		**0.2900**		**0.2660**				NA		NA	< 0.1		< 0.1		< 0.1		< 0.1		< 0.0002		< 0.0002		0.266		0.248		< 0.1		< 0.1	
		12/10/10	ERM	< 0.05		**2.5**		< 0.02		< 0.1		< 0.005		< 0.25		0.0946		< 0.5							0.195		< 0.5		**0.0497**		< 0.5		< 0.0002		< 0.0002		0.421		<10.0		0.0326		< 0.5	
		7/19/11	ERM	< 0.25		< 0.5		< 0.1		< 0.2		< 0.025		< 0.05		**0.2840**		**0.185**				NA		NA	< 0.5		<1.0		**0.1200**		< 0.1		< 0.0002		< 0.0002		**0.901**		**0.581**		0.0618		< 0.1	
		12/19/11	ERM	< 0.05		< 0.05		< 0.02		< 0.02		0.0035	J*	0.031		0.0829		**0.409**				NA		NA	0.2		0.0254	J*	**0.0602**		**0.430**		0.00002	J*	< 0.0002		0.486		**3.49**		0.0308		0.201	
		7/17/12	ERM	< 0.05		< 0.05		< 0.1		< 0.1		**0.207**	J	< 0.005		< 0.01		< 0.01				NA		NA	< 0.1		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		**2.55**	J	< 0.01		< 0.01	
		12/4/12	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	0.0450			NA		NA		NA	< 0.1			NA	**0.0288**			NA	< 0.0002			NA	0.197			NA	0.0101			NA
		8/1/13	ERM	<0.0500		<25.0		<0.0200		<10.0		<0.0050		<2.50		0.0677		<5.00				NA		NA	< 0.100		<50.0		**0.0410**		<5.00		<0.00020		<0.00020		0.292		<10		0.0194		<5.00	
		11/30/17	ERM	<0.0500			NA	<0.0200			NA	<0.0050			NA	<0.0100			NA		NA		NA	< 0.100			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA

TABLE 2-2
Groundwater Metals Concentrations (mg/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HIS No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Total Arsenic	Qualifier	Dissolved Arsenic	Qualifier	Total Barium	Qualifier	Dissolved Barium	Qualifier	Total Cadmium	Qualifier	Dissolved Cadmium	Qualifier	Total Chromium	Qualifier	Dissolved Chromium	Qualifier	Total Copper	Qualifier	Dissolved Copper	Qualifier	Total Iron	Qualifier	Dissolved Iron	Qualifier	Total Lead	Qualifier	Dissolved Lead	Qualifier	Total Mercury	Qualifier	Dissolved Mercury	Qualifier	Total Selenium	Qualifier	Dissolved Selenium	Qualifier	Total Silver	Qualifier	Dissolved Silver	Qualifier
GA EPD RRS Type 4				0.0019077		0.0019077		20.44		20.44		0.1022		0.1022		0.1		0.1		4.088		4.088		NA		NA		0.015		0.015		0.000876		0.000876		0.511		0.511		0.511		0.511	
MW-6	6/12/2001	12/14/06	ERM		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*
		6/26/07	ERM	< 0.03			NA	0.01			NA	< 0.01			NA	< 0.01			NA		NA		NA	0.39			NA	< 0.025			NA	< 0.0005			NA	< 0.04			NA	< 0.01			NA
		6/26/07DUP	ERM	< 0.03			NA	0.02			NA	< 0.01			NA	< 0.01			NA		NA		NA	0.29			NA	< 0.025			NA	< 0.0005			NA	< 0.04			NA	< 0.01			NA
		12/5/07	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.372			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		12/5/07DUP	ERM	< 0.05			NA	0.0312			NA	< 0.005			NA	< 0.01			NA		NA		NA	4.89			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		6/10/08	ERM	< 0.05			NA	0.0239			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.149			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		12/15/08	ERM	< 0.05		< 0.05		< 0.02		< 0.02		< 0.005		< 0.005		< 0.01		< 0.01					NA	< 0.1		0.45		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		6/17/09	ERM	< 0.05			NA	0.0206			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.492			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		12/17/09	ERM	< 0.05		< 0.05		0.0531		< 0.02		< 0.005		< 0.005		0.0107		< 0.01					NA	8.41		< 0.1		0.011		0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		8/18/10	ERM	< 0.05		< 0.05		0.0241		.0212		< 0.005		< 0.005		< 0.01		< 0.01					NA	.933		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		8/18/10 DUP	ERM	< 0.05		< 0.05		.025		.0208		< 0.005		< 0.005		< 0.01		< 0.01					NA	.96		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/8/10	ERM	< 0.05		NA		< 0.02		< 0.02		< 0.005		< 0.005		< 0.01		< 0.01					NA	1.1		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/20/11	ERM	< 0.05		< 0.05		< 0.056		< 0.02		< 0.005		< 0.005		< 0..013		< 0.01						12.1		< 0.1		< 0.021		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/15/11	ERM	< 0.05			NA	0.015			NA	< 0.005			NA	0.0012			NA		NA		NA	0.616			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/10/12	ERM	< 0.05			NA	0.018	J		NA	0.0004	J		NA	0.0019	J		NA		NA		NA	0.362			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		12/4/12	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.665			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/23/13	ERM	<0.0500		<0.0500		0.0442		<0.0200		<0.0050		<0.0050		0.0107		<0.0100					NA	10.8		<0.100		0.0121		<0.0100		<0.00020		<0.00020		<0.0200		<0.0200		<0.0100		<0.0100	
		11/30/17	ERM	<0.0500			NA	0.0215			NA	<0.0050			NA	< 0.01			NA		NA		NA	0.538			NA	< 0.01			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
MW-7	4/14/2005	12/15/06	ERM		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*
		6/27/07	ERM	< 0.03			NA	0.08			NA	< 0.01			NA	< 0.01			NA		NA		NA	0.97			NA	< 0..025			NA	< 0.0005			NA	< 0.04			NA	< 0.01			NA
		12/4/07	ERM	0.133		< 0.05		0.67		0.0502		< 0.005		< 0.005		1.15		< 0.01					NA	377		< 0.1		0.203		< 0.01		0.00112		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		6/10/08	ERM	< 0.05			NA	0.117			NA	< 0.005			NA	0.167			NA		NA		NA	28.3			NA	0.0216			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		12/18/08	ERM	< 0.05		< 0.05		0.0463		0.0455		< 0.005		< 0.005		< 0.01		< 0.01					NA	1.03		0.482		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		6/11/09	ERM	< 0.05		< 0.05		0.0749		0.0739		< 0.005		< 0.005		0.0246		< 0.01						5.54		<< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/21/09	ERM	< 0.25		< 0.05		0.124		0.0659		< 0.005		< 0.005		< 0.05		< 0.01					NA	5.01		< 0.1		< 0.005		< 0.01		< 0.0002		< 0.0002		< 0.1		< 0.02		< 0.05		< 0.01	
		12/7/10	ERM	< 0.05			NA	0.0813			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.258			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/26/11	ERM	< 0.05		< 0.05		0.0833		0.0417		< 0.005		< 0.005		< 0.028		< 0.01					NA	7.8		0.47		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/15/11	ERM	< 0.05			NA	0.0779			NA	< 0.005			NA	0.002			NA		NA		NA	0.525			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/10/12	ERM	< 0.05		< 0.05		0.0859		0.0839		< 0.005		< 0.005		0.0014	J	< 0.01					NA	0.271		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		<0.02		< 0.01		< 0.01	
		12/5/12	ERM	< 0.05			NA	0.0609			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.389			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/23/13	ERM	<0.0500			NA	0.0796			NA	< 0.0050			NA	<0.0100			NA		NA		NA	0.278			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
		12/1/17	ERM	<0.0500			NA	<0.0200			NA	< 0.0050			NA	0.095			NA		NA		NA	0.137			NA	<0.0100			NA	0.00128			NA	<0.0200			NA	<0.0100			NA
MW-8	4/27/2005	12/18/06	ERM		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*
		6/26/07	ERM	< 0.03		< 0.03		0.15		0.09		< 0.01		< 0.01		0.06		0.05				NA		7.4		< 0.04		< 0.02		< 0.025		0.0042		0.004		<.04		<.04		< 0.01		< 0.01	
		12/4/07	ERM	< 0.05			NA	0.0923			NA	< 0.005			NA	0.0396			NA		NA		NA	0.367			NA	< 0.01			NA	0.00231			NA	< 0.02			NA	< 0.01			NA
		6/9/08	ERM	< 0.05			NA	0.0519			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.171			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		12/23/08	ERM	< 0.05			NA	0.0677			NA	< 0.005			NA	0.105			NA		NA		NA	< 0.1			NA	< 0.01			NA	0.00131			NA	0.0395			NA	0.0141			NA
		6/18/09	ERM	< 0.05		< 0.05		0.103		0.048		< 0.005		< 0.005		0.0416		0.037				NA		3.64		< 0.1		< 0.01		< 0.01		0.00122		0.00110		0.0266		< 0.02		< 0.01		< 0.01	
		12/18/09	ERM	< 0.05			NA	0.0335			NA	< 0.005			NA	< 0.01			NA		NA		NA	< 0.1			NA	< 0.01			NA	< 0..00002			NA	< 0.02			NA	< 0.01			NA
		8/18/10	ERM	< 0.05			NA	0.0328			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.146			NA	< 0.01			NA	< 0.00002			NA	< 0.02			NA	< 0.01			NA
		12/7/10	ERM	< 0.05			NA	0.0411			NA	< 0.005			NA	0.0169			NA		NA		NA	< 0.1			NA	< 0.01			NA	0.00124			NA	< 0.02			NA	< 0.01			NA
		7/27/11	ERM	< 0.05		< 0.05		0.0416		0.0357		< 0.005		< 0.005		0.0114		< 0.01						< 0.138		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/21/11	ERM	< 0.05		NA	NA	0.0613		NA	NA	< 0.005		NA	NA	0.0126		NA	NA	NA	NA	NA		0.08	J*	NA	NA	< 0.01		NA	NA	0.00024		NA	NA	0.008	J*	NA	NA	< 0.01		NA	NA
		7/18/2012	ERM	< 0.05				0.04				0.0003J				0.0018	J							0.10				< 0.01				< 0.0002				<2.0				<1.0			
		12/12/12	ERM	< 0.05			NA	0.0491			NA	< 0.005			NA	0.0128			NA		NA		NA	< 0.1			NA	< 0.01			NA	0.00027			NA	< 0.02			NA	< 0.01			NA
		7/26/13	ERM	<0.0500			NA	0.0384			NA	<0.0050			NA	<0.0100			NA		NA		NA	0.18			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
		11/30/17	ERM	<0.0500			NA	0.0358			NA	<0.0050			NA	<0.0100			NA		NA		NA	0.217			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
MW-9	4/19/2005	12/13/06	ERM	0.12		< 0.03		1.4		0.07		< 0.01		< .01		0.21		< .01		0.13		< .02		160		2.4		0.16		< .025			NA		NA	< .04		< .04			NA		NA
		6/26/07	ERM		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*
		12/3/07	ERM	< 0.05		< 0.025		0.0734		< 0.02		< 0.005		< 0.005		0.2150		0.2160				NA		4.30		< 0.1		0.0272		0.0119		0.0194		0.0199		0.1540		0.0671		0.0165		0.0206	
		6/5/08	ERM	< 0.05			NA	0.0361			NA	< 0.005			NA	0.205			NA		NA		NA	0.671			NA	0.0169			NA	0.00691			NA	0.115			NA	< 0.01			NA
		12/18/08	ERM	< 0.05		< 0.05		< 0.02		< 0.02		< 0.005		< 0.005		0.203		0.1980				NA		< 0.1		< 0.1		< 0.01		< 0.01		0.003		0.00309		0.041		0.0233		< 0.01		< 0.01	
		6/24/09	ERM	< 0.05		< 0.05		< 0.02		< 0.02		< 0.005		< 0.005		0.216		0.2200				NA		0.140		< 0.1		< 0.01		< 0.01		0.00399		0.00299		0.066		0.0355		< 0.01		< 0.01	
		8/19/10	ERM	< 0.05		< 0.05		< 0..2		< 0..2		< 0.005		< 0.05		0.203		0.1960				NA		< 0.1		< 0.1		< 0.1		< 0.1		0.00116		0.00113		0.251		0.2630		< 0.1		< 0.1	
		12/10/10	ERM	< 0.05			NA	0.385		NA		< 0.005		NA		0.132		NA				NA		8.04			NA	0.0745			NA	0.00812			NA	0.584			NA	0.0521			NA
		7/22/11	ERM	< 0.05		< 0.05		0.845		< 0..2		< 0.005		< 0.05		0.118		< 0.1				NA		13.80		< 0.1		0.0687		< 0.1		0.00824		0.00123		0.519		< 0.2		0.0401		< 0.1	
		12/16/11	ERM	< 0.05			NA	0.0084			NA	0.0008			NA	0.0947			NA		NA		NA	0.47			NA	0.0205			NA	0.00052			NA	0.168			NA	0.0086			NA
		7/17/2012	ERM	< 0.05		< 0.05		0.101		< 0.02		0.565		< 0.05		0.0665		0.0956		NA	NA	NA	NA	2.21		< 0.1		< 0.01		0.101		0.00167		0.00028		< 0.01		0.319		0.04		< 0.01	
		12/12/12	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	0.0706			NA		NA		NA	< 0.1			NA	0.0232			NA	0.00024			NA	0.183			NA	0.0100			NA
		7/29/13	ERM	<0.0500		<1.00		<0.0200		<0.400		<0.0050		<0.100		0.0645		<0.200				NA		0.552		<2.00		0.0182		<0.200		<0.00020		<0.00020		0.122		<0.400		<0.0100		<0.200	
		11/30/17	ERM	<0.0500			NA	0.1630			NA	<0.0050			NA	0.0188			NA		NA		NA	6.160			NA	<0.0100			NA	0.00024			NA	<0.0200			NA	<0.0100			NA
MW-10	4/21/2005	12/18/06	ERM	< .03		< .03		0.12		0.02		< .01		< .01		0.02		< .01		0.03		< .02		28		< .04		0.051		< .025			NA		NA	< .04		< .04			NA		NA
		6/25/07	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/3/07	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		6/4/08	ERM		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS
		12/15/08	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/9/10	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		7/18/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/15/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		7/6/12	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/6/12	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		7/22/13	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		11/30/17	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry

TABLE 2-2
Groundwater Metals Concentrations (mg/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HIS No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Total Arsenic	Qualifier	Dissolved Arsenic	Qualifier	Total Barium	Qualifier	Dissolved Barium	Qualifier	Total Cadmium	Qualifier	Dissolved Cadmium	Qualifier	Total Chromium	Qualifier	Dissolved Chromium	Qualifier	Total Copper	Qualifier	Dissolved Copper	Qualifier	Total Iron	Qualifier	Dissolved Iron	Qualifier	Total Lead	Qualifier	Dissolved Lead	Qualifier	Total Mercury	Qualifier	Dissolved Mercury	Qualifier	Total Selenium	Qualifier	Dissolved Selenium	Qualifier	Total Silver	Qualifier	Dissolved Silver	Qualifier
GA EPD RRS Type 4				0.0019077		0.0019077		20.44		20.44		0.1022		0.1022		0.1		0.1		4.088		4.088		NA		NA		0.015		0.015		0.000876		0.000876		0.511		0.511		0.511		0.511	
MW-11	4/18/2005	12/12/06	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		6/25/07	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/3/07	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		6/4/08	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		1/22/09	ERM	< 0.05		< 0.05		0.105		< 0.02		< 0.005		< 0.005		0.0346		0.0194				NA		NA		6.55		< 0.1		**0.01900**		< 0.01		**0.00165**		**0.00128**		< 0.02		< 0.02		< 0.01		< 0.01	
		12/9/10	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		7/18/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/15/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		7/6/12	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/6/12	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		8/2/13	ERM	<0.0500		<0.0500		0.0695		<0.0200		<0.0050		<0.0050		0.0517		0.0402				NA		NA		18.4		<0.100		**0.03130**		<0.0100		0.00024		0.0002		<0.0200		<0.0200		<0.0100		<0.0100	
		11/30/17	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
MW-12	5/2/2005	12/20/06	ERM	< 0.03		< 0.03		0.66		0.06		< 0.01		< 0.01		0.03		< 0.01		< 0.02		< 0.02		8.9		< 0.04		<0.025		< 0.025				NA		NA		< 0.04		< 0.04				NA		NA
		6/26/07	ERM	< 0.03			NA	0.02			NA	< 0.01			NA	< 0.01			NA		NA		NA	1.6			NA	**0.06**			NA	< 0.005			NA	< 0.04			NA	< 0.01			NA
		12/5/07	ERM	< 0.05		< 0.05		0.0478		0.0573		< 0.005		< 0.005		< 0.1		< 0.1				NA		NA		0.457		< 0.1		0.0127		< 0.1		< 0.002		< 0.002		< 0.02		< 0.02		< 0.01		< 0.01	
		6/10/08	ERM	< 0.05		< 0.05		< 0.02		< 0.02		< 0.005		< 0.005		< 0.1		< 0.1				NA		NA		0.0379		< 0.01		**0.0414**		0.0127		< 0.002		< 0.002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/23/08	ERM	< 0.05			NA	0.203			NA	< 0.005			NA	< 0.1			NA		NA		NA		0.89			NA	**0.0648**			NA	0.00031			NA	< 0.02			NA	< 0.01			NA
		6/30/09	ERM	< 0.05			NA	0.0464			NA	< 0.005			NA	< 0.1			NA		NA		NA	0.993			NA	**0.0309**			NA	< 0.002			NA	< 0.02			NA	< 0.01			NA
		12/22/09	ERM	< 0.05			NA	< 0.1			NA	< 0.025			NA	**0.542**			NA		NA		NA	< 0.5			NA	**0.1800**			NA	< 0.002			NA	**1.140**			NA	0.164			NA
		8/24/10	ERM	< 0.05		< 0.5		< 0.02		< 0.2		< 0.005		< 0.05		0.0681		**0.513**				NA		NA		< 0.1		<1.0		0.0135		**0.195**		< 0.002		< 0.002		0.116		**1.43**		0.0153		0.1770	
		8/24/10 DUP	ERM	< 0.05		< 0.05		< 0.02		< 0.2		< 0.005		< 0.05		0.0647		**0.597**								< 0.1		<1.0		**0.0162**		**0.204**		< 0.002		< 0.002		0.126		**1.48**		0.0146		0.1800	
		12/9/10	ERM	< 0.05		**2.50**		< 0.02		<1.0		< 0.005		< 0.25		0.0813		**0.525**				NA		NA		< 0.1		<5.0		**0.0448**		< 0.5		< 0.002		< 0.002		0.361		**10**		0.0275		< 0.5	
		7/26/11	ERM	< 0.05		< 0.05		< 0.05		< 0.2		< 0.005		< 0.05		0.0730		**0.421**								< 0.1		<1.0		**0.025**		**0.239**		< 0.002		< 0.002		0.191		**1.77**		0.0161		< 0.133	
		12/22/11	ERM	< 0.05		< 0.05		< 0.02		< 0.02		0.0046	J*	0.0309		**0.105**		**0.401**		NA	NA	NA	NA	0.111		< 0.1		**0.0584**		**0.429**		< 0.002		< 0.002		0.451		**3.50**		0.0281		0.203	
		7/13/12	ERM	< 0.05		< 0.05		< 0.02		< 0.02		0.0046	J	< 0.05		**0.109**		**0.605**	J	NA	NA	NA	NA	0.185		< 0.1		**0.0625**		< 0.5		< 0.002		0.00007		0.478		**3.95**		0.0315		< 0.01	
		12/12/12	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	0.0574			NA		NA		NA	< 0.1			NA	**0.0516**			NA	< 0.0002			NA	0.398			NA	0.0249			NA
		7/30/13	ERM	<0.0500		<50.0		<0.0200		<20.0		<0.0050		<5.00		0.0916		<10.0				NA		NA		<0.100		<100		**0.0525**		<10.0		<0.00020		<0.00020		0.374		<20.0		0.0247		<10.0	
		12/1/17	ERM	<0.0500			NA	<0.0200			NA	<0.0050			NA	0.0378			NA		NA		NA	0.217			NA	**0.0287**			NA	<0.00020			NA	<0.100			NA	0.0156			NA
MW-13		7/18/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/15/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		7/6/12	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/6/12	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		8/2/13	ERM		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS
		11/30/17	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
MW-14		7/18/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		
		12/15/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		
		7/6/12	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/6/12	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		7/22/13	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		11/30/17	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
MW-15		12/22/06	ERM		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*
		6/25/07	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/3/07	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		6/12/08	ERM	< 0.05			NA	< 0.05			NA	< 0.005			NA	0.0116		NA				NA		NA	4.58			NA	< 0.01			NA	< 0.002			NA	< 0.02			NA	< 0.01			NA
		12/17/08	ERM	< 0.05		< 0.05		< 0.05		< 0.02		< 0.005		< 0.005		< 0.01		< 0.01				NA		NA	4.18		< 0.1		< 0.01		< 0.01		< 0.002		< 0.002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/14/10	ERM	< 0.05		< 0.05		< 0.05		< 0.02		< 0.005		< 0.005		< 0.01		< 0.01		NA		NA		1.35		< 0.1		< 0.01		< 0.01		< 0.002		< 0.002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/18/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/15/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		7/10/12	ERM	**0.0075**	J	0.0019	J	0.0373		0.0104	J	< 0.005		<0.005		0.0156		<0.01				NA		NA	17.7		0.0631	J	**0.0176**		<0.01		0.00017	J	< 0.0002		<0.02		<0.02		<0.01		<0.01	
		12/6/12	ERM	< 0.05		< 0.05		< 0.02		< 0.02		< 0.005		< 0.005		< 0.01		< 0.01				NA		NA	2.65		0.244		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/23/13	ERM	<0.0500		<0.0500		<0.0200		<0.0200		<0.0050		<0.0050		<0.0100		<0.0100				NA		NA	6.66		<0.100		<0.0100		<0.0100		<0.00020		<0.00020		<0.0200		<0.0200		<0.0100		<0.0100	
		11/30/17	ERM		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL
MW-16	12/2/2006	12/18/06	ERM	< 0.03		< 0.03		0.07		0.07		< 0.01		< 0.01		< 0.01		< 0.01		< 0.02		< 0.02		< 0.04		< 0.04		< 0.025		< 0..025				NA		NA		< 0.04		< 0.04				NA		NA
		6/25/07	ERM	< 0.03		< 0.03		0.11		0.1		< 0.01		< 0.01		< 0.01		< 0.01				NA		NA	2.1		< 0.04		< 0.025		< 0.025		< 0.0005		< 0.0005		< 0.04		< 0.04		< 0.01		< 0.01	
		12/3/07	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry	.	dry		dry	< 0.01	dry		dry		dry		dry		dry		dry		dry		dry
		7/7/08	ERM	< 0.05		< 0.05		0.0672		< 0.02		< 0.005		0.0427		0.055		< 0.01				NA		NA	0.458		< 0.01		< 0.01		< 0.01		**0.00153**		**0.00172**		< 0.02		< 0.02		< 0.01		< 0.01	
		12/23/08	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	0.0384			NA		NA		NA	< 0.1			NA	< 0.01			NA	**0.00104**			NA	< 0.02			NA	< 0.01			NA
		6/26/09	ERM	< 0.25			NA	0.164			NA	< 0.025			NA	**0.215**			NA		NA		NA	1.34			NA	**0.1440**			NA	0.00027			NA	**1**			NA	0.0695			NA
		12/21/09	ERM	< 0.25		< 0.05		< 0.1		< 0.04		< 0.025		0.0256		**0.568**		**0.782**				NA		NA	< 0.5		< 0.1		**0.2070**		**0.5560**		< 0.0002		< 0.0002		**1.320**		**3.210**		0.189		**0.522**	
		12/14/10	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		7/28/11	ERM	< 0.05		< 0.5		< 0.036		< 0.2		< 0.005		< 0.05		0.0748		**0.115**				NA		NA	1.34		< 0.1		**0.0259**		< 0.1		0.00065		0.00063		0.186		0.4		0.0142		< 0.1	
		12/22/11	ERM	< 0.05		< 0.5		0.0393		<.02		0.0029	J*	0.0138		**0.11**		**0.23**		NA	NA	NA	NA	1.45		< 0.1		**0.0526**		**0.208**		0.00059		0.00053		0.42		**1.67**		0.027		0.107	
		7/18/12	ERM	< 0.05				0.0095				< 0.005				0.01						NA		NA	0.273				< 0.01				**0.00211**				0.0324				0.0023	J		
		12/13/12	ERM	< 0.05			NA	0.0226			NA	< 0.005			NA	0.0733			NA		NA		NA	0.512			NA	0.0145			NA	**0.00179**			NA	0.102			NA	< 0.01			NA
		7/29/13	ERM	<0.0500		<1.00		0.0378		<0.400		<0.0050		<0.100		0.0749		<0.200				NA		NA	1.72		<2.00		0.0171		<0.200		0.00059		0.00024		0.1		<0.400		<0.0100		<0.200	
		11/30/17	ERM		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS

TABLE 2-2
Groundwater Metals Concentrations (mg/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HIS No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Total Arsenic	Qualifier	Dissolved Arsenic	Qualifier	Total Barium	Qualifier	Dissolved Barium	Qualifier	Total Cadmium	Qualifier	Dissolved Cadmium	Qualifier	Total Chromium	Qualifier	Dissolved Chromium	Qualifier	Total Copper	Qualifier	Dissolved Copper	Qualifier	Total Iron	Qualifier	Dissolved Iron	Qualifier	Total Lead	Qualifier	Dissolved Lead	Qualifier	Total Mercury	Qualifier	Dissolved Mercury	Qualifier	Total Selenium	Qualifier	Dissolved Selenium	Qualifier	Total Silver	Qualifier	Dissolved Silver	Qualifier
GA EPD RRS Type 4				0.0019077		0.0019077		20.44		20.44		0.1022		0.1022		0.1		0.1		4.088		4.088		NA		NA		0.015		0.015		0.000876		0.000876		0.511		0.511		0.511		0.511	
MW-17**	12/20/2006	12/12/06	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		6/25/07	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/4/07	ERM	< 0.05		< 0.05		< 0.02		< 0.02		< 0.005		< 0.005		0.280		0.251						NA		NA		0.0746		< 0.1		0.00038		0.00059		0.505		0.0336		0.0535		< 0.1	
		6/6/08	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	0.131			NA		NA		NA		NA		NA	0.0455			NA	< 0.0002			NA	0.312			NA	0.0264			NA
		12/30/08	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	0.017			NA		NA		NA	0.130			NA	< 0.1			NA	0.00022			NA	< 0.02			NA	< 0.1			NA
		6/29/09	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	0.039			NA		NA		NA	0.525			NA	0.0182			NA	< 0.0002			NA	0.094			NA	< 0.1			NA
		6/29/2009DUP	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	0.030			NA		NA		NA	0.348			NA	0.0163			NA	< 0.0002			NA	0.099			NA	< 0.1			NA
		8/25/10	ERM	< 0.05		<1.0		< 0.02		< 0.4		< 0.005		< 0.1		0.0582		1.600				NA		NA		<2.0		< 0.1		0.485		0.00045		< 0.0002		0.0317		3.9000		0.0173		0.612	
		12/14/10	ERM	< 0.05		< 0.25		< 0.02		<1.0		< 0.005		< 0.25		0.0336		< 0.5				NA		NA		<5.0		0.0215		< 0.5		< 0.0002		< 0.0002		0.167		<1.0		0.0116		< 0.5	
		7/20/11	ERM	< 0.25		< 0.25		< 0.1		< 0.1		< 0.025		< 0.05		0.455		0.152						< 0.5		<1.0		0.1350		< 0.1		< 0.0002		< 0.0002		0.996		< 0.27		< 0.0599		< 0.01	
		12/22/11	ERM	< 0.05		< 0.05		< 0.02		< 0.02		0.0031	J*	0.0424		0.0739		0.536		NA	NA	NA	NA	0.0273	J*	0.0464	J*	0.0562		0.6030		< 0.0002		< 0.0002		0.455		4.79		0.0281		0.300	
		7/18/12	ERM	< 0.05		< 0.25		< 0.02		< 0.1		< 0.005		< 0.025		< 0.1		< 0.5						< 0.1		<5.0		< 0.1		< 0.5		< 0.0002		< 0.0002		< 0.2		0.4800	J	< 0.5		< 0.1	
		12/13/12	ERM	< 0.05		<50		< 0.02		<20		< 0.005		<5.0		0.0425		<10.0				NA		< 0.1		<100		0.0511		<10.0		< 0.0002		< 0.0002		0.395		<20.0		0.0227		<10.0	
		7/30/13	ERM	<0.0500		<50.0		<0.0200		<20.0		<0.0050		<5.00		0.0423		<10.0				NA		<0.100		<100		0.0500		<10.0		<0.00020		<0.00020		0.360		<20.0		0.0243		<10.0	
		11/30/17	ERM	<0.0500			NA	<0.0200			NA	<0.0050			NA	0.0161			NA		NA		NA	<0.100			NA	< 0.1			NA	<0.00020			NA	< 0.2			NA	0.0128			NA
MW-18	12/5/2006	12/13/06	ERM		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*
		6/26/07	ERM		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*
		12/3/07	ERM	< 0.05		< 0.05		0.0209		< 0.02		< 0.005		< 0.005		0.0198		0.0293				NA		1.07		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		6/6/08	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	0.0441			NA		NA		NA	1.21			NA	< 0.01			NA	0.00024			NA	< .02			NA	< 0.01			NA
		12/16/08	ERM	< 0.05		< 0.05		0.0377		0.0257		< 0.005		< 0.005		< 0.01		< 0.01				NA		1.92		< 0.1		< 0.01		< 0.01			NA		NA	< 0.02		< 0.02		< 0.01		< 0.01	
		6/24/09	ERM	< 0.05		< 0.05		0.0304		< 0.02		< 0.005		< 0.005		0.0115		< 0.01				NA		1.5		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/21/09	ERM	< 0.25		< 0.05		< 0.1		0.0337		< 0.005		< 0.005		< 0.05		< 0.01				NA		1.14		< 0.1		< 0.5		< 0.01		< 0.0002		< 0.0002		< 0.1		< 0.02		< 0.05		< 0.01	
		8/18/10	ERM	< 0.05		< 0.05		0.182		< 0.02		< 0.005		< 0.005		0.04		< 0.01				NA		31.3		< 0.1		0.0338		< 0.01		0.00046		< 0.0002		< 0.02		< 0.02		< .01		< 0.01	
		12/10/10	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		< 0.01	dry		dry
		7/20/11	ERM	< 0.05		< 0.05		0.032		< 0.02		< 0.005		< 0.005		0.02		< 0.01				NA		3.07		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/16/11	ERM	< 0.05			NA	0.0184			NA	< 0.005			NA	0.01			NA		NA		NA	0.281			NA	< 0.01			NA	< 0.0002			NA	0.0057			NA	< 0.01			NA
		7/10/12	ERM	0.0242J		< 0.05		0.484		0.0093J		< 0.005		<0.005		0.169		<0.01				NA		95.2		0.0507	J	0.1020		<0.01		0.00013	J	< 0.0002		0.0466		< 0.02		0.0071	J	<0.01	
		12/5/12	ERM	< 0.05		< 0.05		0.0683		< 0.02		< 0.005		< 0.005		0.0164		< 0.01				NA		7.61		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/25/13	ERM	<0.0500		<0.0500		0.0262		<0.0200		<0.0050		<0.0050		0.0422		0.0494				NA		0.124		<0.100		<0.0100		<0.0100		0.0009		0.00073		0.0386		<0.0200		<0.0100		<0.0100	
		11/29/17	ERM	<0.0500			NA	0.0223			NA	<0.0050			NA	0.0222			NA		NA		NA	0.171			NA	<0.0100			NA	< 0.0002			NA	< 0.02			NA	<0.0100			NA
MW-19	11/30/2006	12/21/06	ERM	< 0.03		< 0.03		0.14		0.13		< 0.01		< 0.01		< 0.01		< 0.01		< 0.02		< 0.02		1.2		< 0.04		< 0.025		< 0.025			NA		NA	< 0.04	< 0.04	< 0.04			NA		NA
		6/26/07	ERM		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*
		12/5/07	ERM		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*		NS*
		6/11/08	ERM	< 0.05		< 0.05		1.790				< 0.005		0.0069		0.138		0.329				NA		5.21		< 0.1		0.0423		0.224		0.0251		0.0240		0.256		1.02		0.0211		0.131	
		12/30/08	ERM	< 0.05			NA	0.136			NA	< 0.005			NA	0.222			NA		NA		NA	< 0.1			NA	0.0218			NA	0.0164			NA	0.124			NA	0.0359			NA
		6/25/09	ERM	< 0.025			NA	1.010			NA	< 0.005			NA	0.311			NA		NA		NA	2.44			NA	0.108			NA	0.0106			NA	0.695			NA	0.0539			NA
		8/25/10	ERM	< 0.05		< 0.1		0.219		< 0.4		< 0.005		< 0.1		0.138		0.338				NA		< 0.1		<2.0		0.0171		<2.0		0.00789		0.0079		0.0721		< 0.4		0.0344		< 0.2	
		12/14/10	ERM	< 0.05		<2.5		0.235		<1.0		< 0.005		< 0.25		0.109		< 0.5				NA		< 0.1		<5.0		0.0256		<5.0		0.0105		0.0097		0.202		<1.0		0.0174		< 0.5	
		40745.00	ERM	< 0.05		< 0.5		0.25		< 0..2		< 0.005		< 0.05		0.11		0.21				NA		< 0.1		< 0.1		0.0265		< 0.1		0.0076		0.0075		0.21		0.60		0.01		< 0.1	
		12/15/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		
		7/19/2012	ERM	< 0.05				0.43	J			< 0.005				< 0.1								< 0.1				< 0.01				0.00624				<2.0				<1.0			
		12/12/12	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	0.156			NA		NA		NA	< 0.1			NA	0.0349			NA	0.00631			NA	0.269			NA	0.017			NA
		7/30/13	ERM	<0.0500		<2.50		<0.0200		<1.00		<0.0050		<0.250		0.122		<0.500				NA		<0.100		<5.00		0.0258		<0.500		0.00137		0.0014		0.177		<1.00		0.0123		<0.500	
		11/28/17	ERM	<0.0500			NA	0.349			NA	<0.0050			NA	0.157			NA		NA		NA	2			NA	0.0121				0.00237			NA	<0.1			NA	0.0108			NA
MW-20	11/30/2006	12/16/06	ERM	< 0.03		< 0.3		0.12		0.1		< 0.01		< 0.01		< 0.01		< 0.01		< 0.02		< 0.02		4.1		< 0.025		< 0.025		< 0.025			NA		NA	< 0.04		< 0.04			NA		NA
		6/26/07	ERM		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS
		12/4/07	ERM	< 0.05		< 0.05		0.529		0.104		< 0.005		< 0.005		0.2300		0.1530				NA		10.7		< 0.1		0.0710		< 0.1		0.0127		0.0128		0.4830		< 0.2		0.0571		< 0.1	
		6/11/08	ERM	< 0.05			NA	0.114			NA	< 0.005			NA	0.1620			NA		NA		NA	0.536			NA	0.0426			NA	0.00412			NA	0.2950			NA	0.0253			NA
		12/30/08	ERM	<1.0		<1.0		< 0.2		< 0.4		< 0.05		< 0.05		0.3800		0.3620				NA		< 0.1		< 0.1		0.2120		< 0.2		0.00205		0.0018		0.9460		0.830		< 0.1		< 0.1	
		6/30/09	ERM	< 0.05			NA	0.102			NA	< 0.005			NA	0.1030			NA		NA		NA	< 0.1			NA	0.0267			NA	0.00179			NA	0.1820			NA	0.0133			NA
		12/22/09	ERM	< 0.25			NA	< 0.1			NA	< 0.025			NA	< 0.05			NA		NA		NA	< 0.1			NA	< 0.0			NA	0.00022			NA	< 0.1			NA	< 0.05			NA
		8/26/10	ERM	< 0.5		< 0.5		< 0.2		< 0.2		< 0.05		< 0.05		0.1090		0.1250				NA		< 0.1		< 0.1		< 0.1		<1.0		0.00072		0.00082		0.2270		0.474		< 0.1		< 0.1	
		12/9/10	ERM	< 0.05		2.5		< 0.02		<1.0		< 0.005		< 0.25		0.1220		< 0.5				NA		0.172		<5.0		0.0443		< 0..5		0.00028		0.00041		0.3730		<10.0		< 0.1		< 0.5	
		7/21/11	ERM	< 0.05		< 0.5		0.0384		< 0.2		< 0.005		< 0.05		0.1100		0.297				NA		< 0.1		< 0.1		0.0235		< 0.1		0.00143		0.00042		0.1960		0.433		0.0100		< 0.1	
		12/16/11	ERM	< 0.05			NA	0.0605			NA	0.0026			NA	0.0893			NA		NA		NA	0.912			NA	0.0452			NA	0.00028			NA	0.3750			NA	0.0237			NA
		7/19/12	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	< 0.05			NA		NA		NA	< 0.1			NA	< 0.1			NA	0.00127			NA	< 0.2			NA	< 0.1			NA
		12/12/12	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	0.0558			NA		NA		NA	< 0.1			NA	0.0464			NA	< 0.00020			NA	0.3590			NA	0.0240			NA
		7/31/13	ERM	<0.0500			NA	0.0225			NA	<0.0050			NA	0.0108			NA		NA		NA	<0.100			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
		11/29/17	ERM	<0.0500			NA	0.78			NA	<0.0050			NA	0.0875			NA		NA		NA	1.180			NA	0.0178			NA	0.00062			NA	<0.0200			NA	0.0186			NA
MW-21	Abandoned	7/18/11	ERM		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
		12/15/11	ERM		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
		7/6/12	ERM		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
MW-22	8/23/2007	10/17/07	ERM	< 0.03		< 0.03		0.09		0.08		< 0.01		< 0.01		< 0.01		< 0.01				NA		2.9		< 0.04		< 0.025		< 0.025		< 0.0005		< 0.0005		< 0.04		< 0.04		< 0.01		< 0.01	
		6/9/08	ERM	< 0.05		< 0.05		0.0966		0.0773		< 0.005		< 0.005		0.0867		0.0881				NA		0.242		< 0.01		< 0.01		< 0.01		0.0101		0.00999		< 0.02		< 0.02		< 0.01		< 0.01	
		12/30/08	ERM	< 0.05			NA	0.0441			NA	< 0.005			NA	0.0298			NA		NA		NA	0.238			NA	< 0.01			NA	0.00143			NA	< 0.02			NA	< 0.01			NA
		12/60/08 DUP	ERM	< 0.05			NA	0.042			NA	< 0.005			NA	0.0295			NA		NA		NA	0.253			NA	< 0.01			NA	0.00152			NA	< 0.02			NA	< 0.01			NA
		6/25/09	ERM	< 0.05			NA	0.107			NA	< 0.005			NA	0.0326			NA		NA		NA	4.81			NA	< 0.01			NA	0.00138			NA	< 0.02			NA	< 0.01			NA
		8/25/10	ERM	< 0.05			NA	0.0533			NA	< 0.005			NA	0.0480			NA		NA		NA	0.209			NA	< 0.01			NA	0.00092			NA	0.0439			NA	0.0142			NA
		12/14/10	ERM	< 0.05		< 0.05		0.0284		< 0.02		< 0.005		< 0.005		0.0183		0.0206				NA		< 0.1		< 0.1		< 0.01		< 0.01		0.00054		0.00051		< 0.02		< 0.02		< 0.01		< 0.01	
		12/22/10 DUP	ERM	< 0.05		< 0.05		0.0306		< 0.02		< 0.005		< 0.005		0.0165		0.019				NA		< 0.105		< 0.1		< 0.01		< 0.01		0.00048		0.00045		< 0.02		< 0.02		< 0.01		< 0.01	
		7/22/11	ERM	< 0.05		< 0.05		0.0354		0.0299		< 0.005		< 0.005		0.0158		0.0162				NA		0.116		< 0.1		< 0.01		< 0.01		0.00061		0.00066		< 0.02		< 0.02		< 0.01		< 0.01	
		12/21/11	ERM	< 0.05			NA	0.0369			NA	< 0.005			NA	0.0158			NA		NA		NA	0.111			NA	0.0023	J*		NA	0.00052			NA	0.0172	J*		NA	< 0.01			NA
		7/20/12	ERM	< 0.05			NA	0.0567			NA	< 0.005			NA	0.0133			NA		NA		NA	0.631			NA	< 0.01			NA	0.00044			NA	< 0.0157			NA	0.001			NA
		12/31/12	ERM	< 0.05		< 0.5		0.0413		< 0.2		< 0.005		< 0.05		0.0294		< 0.1				NA		0.483		<1.0		< 0.01		< 0.1		0.00069		0.00084		0.0522		< 0.2		< 0.01		< 0.1	
		8/1/13	ERM	<0.0500		<0.0500		0.0505		0.03		<0.0050		<0.0050		0.0130		0.0126				NA		0.79		<0.100		<0.0100		<0.0100		<0.00020		<0.00020		<0.0200		<0.0200		<0.0100		<0.0100	
		11/30/17	ERM	<0.0500			NA	0.0442			NA	<0.0050			NA	< 0.01			NA		NA		NA	0.19			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA

TABLE 2-2
Groundwater Metals Concentrations (mg/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HIS No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Total Arsenic	Qualifier	Dissolved Arsenic	Qualifier	Total Barium	Qualifier	Dissolved Barium	Qualifier	Total Cadmium	Qualifier	Dissolved Cadmium	Qualifier	Total Chromium	Qualifier	Dissolved Chromium	Qualifier	Total Copper	Qualifier	Dissolved Copper	Qualifier	Total Iron	Qualifier	Dissolved Iron	Qualifier	Total Lead	Qualifier	Dissolved Lead	Qualifier	Total Mercury	Qualifier	Dissolved Mercury	Qualifier	Total Selenium	Qualifier	Dissolved Selenium	Qualifier	Total Silver	Qualifier	Dissolved Silver	Qualifier
GA EPD RRS Type 4				0.0019077		0.0019077		20.44		20.44		0.1022		0.1022		0.1		0.1		4.088		4.088		NA		NA		0.015		0.015		0.000876		0.000876		0.511		0.511		0.511		0.511	
MW-23	9/14/2007	10/16/07	ERM	< 0.03			NA	0.34			NA	< 0.01			NA	0.07			NA		NA		NA	0.08			NA	< 0.025			NA	< 0.0005			NA	< 0.04			NA	< 0.01			NA
		6/11/08	ERM	< 0.05			NA	0.446			NA	< 0.005			NA	0.0995			NA		NA		NA	< 0.1			NA	**0.0424**			NA	< 0.0002			NA	0.300			NA	0.0259			NA
		12/18/08	ERM	< 0.25		< 0.1		0.921		0.798		< 0.025		< 0..01		**0.408**		**0.221**			NA		NA	18.3		< 0.2		**0.108**		< 0.2		0.00027		0.00024		0.417		0.0473		0.0542		< 0.002	
		6/30/09	ERM	< 0.05			NA	0.0744			NA	< 0.005			NA	0.0227			NA		NA		NA	0.843			NA	**0.0236**			NA	< 0.0002			NA	< 0.0			NA	< 0.01			NA
		12/23/09	ERM	< 0.25		< 0.05		1.19		0.568		< 0.025		< 0.005		**0.455**		**0.18**			NA		NA	< 0.5		< 0.1		**0.136**		**0.0537**		< 0.0002		< 0.0002		**0.644**		0.313		0.098		0.0447	
		8/20/10	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	**0.114**			NA		NA		NA	< 0.1			NA	**0.0159**			NA	< 0.0002		NA		0.0727		NA		0.0343		NA	
		12/13/10	ERM	< 0.05		**2.5**		< 0.02		<1.0		< 0.005		< 0.25		0.0603		**0.792**			NA		NA	< 0.1		<5.0		**0.0307**		< 0.5		< 0.0002		< 0.0002		0.2400		**10.000**		0.0191		< 0.5	
		7/25/11	ERM	< 0.5		< 0.5		< 0.02		< 0.02		< 0.005		< 0.005		0.0819		**0.445**						<1.0		<1.0		**0.23**		< 0.021		< 0.0002		< 0.0002		0.1710		**1.780**		0.0122		0.14	
		12/19/11	ERM	< 0.05		< 0.05		< 0.02		< 0.02		0.0035	J*	0.0258		**0.127**		**0.382**		NA	NA	NA	NA	< 0.1		0.153		**0.059**		**0.367**		0.00003	J*	0.00004	J*	0.4710		**2.980**		0.0298		0.189	
		7/20/12	ERM	< 0.05		< 0.05		< 0.02		< 0.02		< 0.005		< 0.005		< 0.01		< 0.01		NA	NA	NA	NA	< 0.1		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		0.0298		0.189	
		12/13/12	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	0.0999			NA		NA		NA	< 0.1			NA	**0.0500**			NA	< 0.0002			NA	0.3670			NA	0.0211			NA
		7/31/13	ERM	<0.0500		<25.0		<0.200		<10.0		<0.0050		<2.50		0.0839		<5.00			NA		NA	<0.100		<50.0		**0.0538**		<5.00		<0.00020		<0.00020		0.3880		<10.0		0.0292		<5.00	
		11/30/17	ERM	<0.0500			NA	0.29			NA	<0.0050			NA	0.0558			NA		NA		NA	0.31			NA	**0.0348**			NA	<0.00020			NA	0.0782			NA	0.0284			NA
MW-24	5/7/2010	8/19/10	ERM	< 0.5			NA	< 0.2			NA	< 0.05			NA	< 0.1			NA		NA		NA	<1.0			NA	< 0.1		NA		0.00029			NA	< 0.2			NA	< 0.1			NA
		12/15/10	ERM	< 0.05		< 0.05		0.0746		0.0565		< 0.005		< 0.005		< 0.01		< 0.01			NA		NA	1.04		< 0.1		< 0.01		< 0..01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/18/11	ERM		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry		dry
		12/16/11	ERM	< 0.05			NA	0.0643			NA	< 0.005			NA	0.0011			NA				NA	0.383			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/6/12	ERM		NS				NS				NS				NS				NS				NS				NA				NS				NS		NS				
		12/5/12	ERM	< 0.05			NA	0.0603			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.115			NA	< 0.01			NS	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/23/13	ERM	**0.0528**		<0.0500		0.886		0.0482		<0.0050		<0.0050		0.0419		<0.0100			NA		NA	84.1		<0.100		**0.0477**		<0.0100		0.00038		<0.00020		<0.0200		<0.0200		<0.0100		<0.0100	
		11/29/17	ERM	<0.0500			NA	0.0772			NA	<0.0050			NA	<0.0100			NA		NA		NA	1.29			NA	<0.01			NA	< 0.0002			NA	<0.0200			NA	<0.0100			NA
MW-25	5/8/2010	8/19/10	ERM	< 0.5		< 0.5		< 0.2		< 0.2		< 0.05		< 0.05		**0.499**		**0.411**			NA		NA	<1.0		<1.0		<1.0	<1.0	<1.0		< 0.0002		< 0.0002		**0.542**		< 0.2		< 0.1		< 0.1	
		12/15/10	ERM	< 0.05		< 0.05		0.0273		0.0205		< 0.005		< 0.005		**0.373**		**0.347**			NA		NA	0.21		< 0..1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/25/11	ERM	< 0.05		< 0.05		0.0257		0.024		< 0.005		< 0.005		**0.244**		**0.252**						< 0..1		< 0..1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/16/11	ERM	**0.007**			NA	0.0387			NA	< 0.005			NA	**0.156**			NA		NA		NA	0.0361			NA	< 0.01			NA	< 0.0002			NA	0.0068			NA	< 0.01			NA
		7/6/12	ERM		NS				NS				NS				NS				NS				NS				NA				NS				NS		NS				
		12/5/12	ERM	< 0.05			NA	0.0413			NA	< 0.05			NA	0.094			NA		NA		NA	< 0.1			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/24/13	ERM	<0.0500			NA	0.0584			NA	<0.0050			NA	0.0261			NA		NA		NA	<0.100			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
		11/29/17	ERM	<0.0500			NA	0.193			NA	<0.0050			NA	<0.0100			NA		NA		NA	1.9200			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
MW-26	5/6/2009	6/10/09	ERM	< 0.05				0.1				< 0.005				< 0.01								0.328				< 0.01				< 0.0002				< 0.2				< 0.01			
		7/13/09	ERM	< 0.05		< 0.05		0.103		0.101		< 0.005		< 0.005		< 0.01		< 0.01			NA		NA	< 0.1		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.2		0.0224		< 0.01		< 0.01	
		7/13/09DUP	ERM	< 0.05		< 0.05		0.104		0.0997		< 0.005		< 0.005		< 0.01		< 0.01			NA		NA	1.8		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		0.0226		0.0226		< 0.01		< 0.01	
		12/16/09	ERM	< 0.05			NA	0.097			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.341			NA	< 0.01			NA	< 0.0002			NA	< 0.2			NA	< 0.01			NA
		12/16/2009 DUP	ERM	< 0.05			NA	0.098			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.375			NA	< 0.01			NA	< 0.0002			NA	< 0.2			NA	< 0.01			NA
		8/18/10	ERM	< 0.05		< 0.05		0.0983		0.0948		< 0.005		< 0.005		< 0.01		< 0.01			NA		NA	0.129		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.2		< 0.2		< 0.01		< 0.01	
		12/7/10	ERM	< 0.05			NA	0.0979			NA	< 0.005			NA	< 0.01			NA		NA		NA	< 0.1			NA	< 0.01			NA	< 0.0002			NA	< 0.2			NA	< 0.01			NA
		7/26/11	ERM	< 0.05		< 0.05		0.086		0.0885		< 0.005		< 0.005		< 0.01		< 0.01						< 0.1		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.2		< 0.2		< 0.01		< 0.01	
		12/15/11	ERM	< 0.05			NA	0.0919			NA	< 0.005			NA	0.0039			NA		NA		NA	0.105			NA	< 0.01			NA	< 0.0002			NA	< 0.2			NA	< 0.01			NA
		7/11/12	ERM	< 0.05			NA	0.097			NA	< 0.005			NA	0.0144			NA		NA		NA	0.0556J			NA	< 0.01			NA	< 0.0002			NA	< 0.2			NA	< 0.01			NA
		12/5/12	ERM	< 0.05			NA	0.0971			NA	< 0.005			NA	< 0.01			NA		NA		NA	< 0.1			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/25/13	ERM	<0.0500			NA	0.0915			NA	<0.0050			NA	<0.0100			NA		NA		NA	<0.100			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
		12/1/17	ERM	<0.0500			NA	0.0557			NA	<0.0050			NA	<0.0100			NA		NA		NA	0.243			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
MW-27	5/5/2009	6/19/09	ERM	< 0.05			NA	0.0341			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.211			NA	< 0.1			NA	< 0.0002			NA	< 0.2			NA	< 0.01			NA
		12/16/09	ERM	< 0.05			NA	0.0256			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.739			NA	< 0.1			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		8/24/10	ERM	< 0.05		< 0.05		0.038		< 0.02		< 0.005		< 0.005		< 0.01		< 0.01			NA		NA	1.01		< 0.1		< 0.1		< 0.1		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/8/10	ERM	< 0.05			NA	0.0371			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.225			NA	< 0.1			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/28/11	ERM	< 0.05		< 0.05		0.04		< 0.2		< 0.005		< 0.05		< 0.097		**0.130**						1.28		<1.0		< 0.024		< 0.1		**0.00244**		**0.0031**		0.171		0.374		< 0.01		< 0.1	
		12/21/11	ERM	< 0.05		< 0.05		< 0.02		< 0.02		0.0019	J*	0.0262		0.0610		**0.323**						1.68		< 0.1		**0.037**		**0.359**		0.0004		**0.00149**		0.305		**2.950**		0.0167		0.187	
		7/19/12	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	< 0.01			NA		NA		NA	1.81			NA	< 0.1			NA	0.00069			NA	< 0.02			NA	< 0.01			NA
		12/13/12	ERM	< 0.05		<2.5		< 0.02		<1.0		< 0.005		< 0.250		0.0865		< 0.5			NA		NA	< 0.1		<5.0		**0.0295**		< 0.5		**0.00351**		**0.00308**		0.227		<1.0		0.0150		< 0.5	
		7/31/13	ERM	<0.0500		<5.00		<0.0200		<2.00		<0.0050		<0.500		0.0790		<1.00			NA		NA	0.594		<10.0		**0.0391**		<1.00		**0.00287**		**0.00292**		0.277		<2.00		0.0183		<1.00	
		11/28/17	ERM	<0.0500			NA	<0.0200			NA	<0.0050			NA	0.0185			NA		NA		NA	0.175			NA	<0.0100			NA	< 0.0002			NA	< 0.0002			NA	0.0104			NA
MW-28	3/24/2011 Destroyed	7/29/11	ERM	< 0.05		< 0.05		0.0294		0.0215		< 0.005		< 0.005		< 0.01		< 0.01			NA		NA	21.8		5.33		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/20/11	ERM	< 0.05		< 0.05		0.0161	J*	0.0119	J*	< 0.005		0.0002	J*	< 0.01		0.0026	J*	NA	NA	NA	NA	2.84		< 0.1		0.0021	J*	< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/11/12	ERM	**0.0056**		< 0.05		0.0935		0.0449		< 0.005		< 0.005		**0.578**		< 0.01		NA	NA	NA	NA	26.7		0.0447		0.0136		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/7/12	ERM	< 0.05			NA	0.0267			NA	< 0.005			NA	< 0.01			NA		NA		NA	2.84			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		8/2/13	ERM	<0.0500		<0.0500		<0.0200		<0.0200		<0.0050		<0.0050		0.0107		<0.0100			NA		NA	6.86		<0.100		<0.0100		<0.0100		<0.00020		<0.00020		<0.0200		<0.0200		<0.0100		<0.0100	
MW-29	3/25/2011	7/28/11	ERM	< 0.05		< 0.05		0.0206		< 0.2		< 0.005		< 0.005		0.03		0.0259			NA		NA	1.49		< 0.1		< 0.01		< 0.01		**0.0011**		**0.0015**		< 0.02		< 0.02		< 0.01		< 0.01	
		12/16/11	ERM	< 0.05				0.0202				< 0.005				0.0270								0.512				< 0.01				0.00067				< 0.02				< 0.01			
		7/11/12	ERM	**0.0233**	J	< 0.05		0.348		0.0094	J	< 0.005		< 0.005		0.0648		0.0253			NA		NA	62.2		0.0174	J	**0.054**		< 0.01		0.00063		< 0.0002		0.0072	J	< 0.02		0.001	J	< 0.01	
		12/6/12	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	**0.226**			NA		NA		NA	0.378			NA	**0.046**			NA	**0.0178**			NA	0.33			NA	0.0173			NA
		7/30/13	ERM	<0.0500		<0.250		<0.0200		<0.100		<0.0050		<0.0250		0.064		0.0638			NA		NA	0.338		<0.500		<0.0100		<0.0500		**0.0013**		**0.00095**		0.0268		<0.100		<0.0100		<0.0500	
		11/29/17	ERM	<0.0500			NA	0.0306			NA	<0.0050			NA	0.0472			NA		NA		NA	0.64			NA	<0.0100			NA	**0.00092**			NA	<0.02			NA	<0.0100			NA

TABLE 2-2
Groundwater Metals Concentrations (mg/L)
Semiannual Progress Report #1
Murata Electronics N. A., Inc. (HIS No. 10771)
Rockmart, Georgia

Well No.	Installation Date	Sampling Date	Collected By	Total Arsenic	Qualifier	Dissolved Arsenic	Qualifier	Total Barium	Qualifier	Dissolved Barium	Qualifier	Total Cadmium	Qualifier	Dissolved Cadmium	Qualifier	Total Chromium	Qualifier	Dissolved Chromium	Qualifier	Total Copper	Qualifier	Dissolved Copper	Qualifier	Total Iron	Qualifier	Dissolved Iron	Qualifier	Total Lead	Qualifier	Dissolved Lead	Qualifier	Total Mercury	Qualifier	Dissolved Mercury	Qualifier	Total Selenium	Qualifier	Dissolved Selenium	Qualifier	Total Silver	Qualifier	Dissolved Silver	Qualifier
GA EPD RRS Type 4				0.0019077		0.0019077		20.44		20.44		0.1022		0.1022		0.1		0.1		4.088		4.088		NA		NA		0.015		0.015		0.000876		0.000876		0.511		0.511		0.511		0.511	
MW-A-1	9/6/2011 Destroyed	9/8/11	ERM	< 0.05		< 0.05		0.0324		0.0215		< 0.005		< 0.005		< 0.01		< 0.01		NA		NA		3.12		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/20/11	ERM	< 0.05		< 0.05		0.0208		0.0208		< 0.005		0.0001	J*	0.0006	J*	< 0.01		NA		NA		0.422		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/17/12	ERM	< 0.05		< 0.05		0.0232		0.0193J		< 0.005		< 0.005		0.0008		< 0.01			NA		NA	0.451		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/6/12	ERM		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS
		7/24/13	ERM	<0.0500		<0.0500		0.038		0.0241		<0.0050		<0.0050		0.0117		<0.0100			NA		NA	8.21		0.128		**0.0155**		<0.0100		<0.00020		<0.00020		<0.0200		<0.0200		<0.0100		<0.0100	
MW-A-2	9/12/2011	9/30/11	ERM	< 0.05		< 0.05		0.0899		0.0267		< 0.005		< 0.005		0.0174		< 0.01		NA		NA		16.2		< 0.1		0.0143		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/20/11	ERM	< 0.05		< 0.05		0.0415		0.0385		< 0.005		< 0.005		0.0041	J*	< 0.01		NA		NA		1.44		< 0.1		0.0018	J*	< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/16/12	ERM	< 0.05			NA	0.0378			NA	< 0.005			NA	0.004	J		NA		NA		NA	0.617			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		12/6/12	ERM	< 0.05			NA	0.0428			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.488			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/24/13	ERM	<0.0500		<0.0500		0.0738		<0.0200		<0.0050		<0.0050		**0.102**		0.0821			NA		NA	1.47		0.461		<0.0100		<0.0100		**0.00679**		**0.00567**		<0.0200		<0.0200		<0.0100		<0.0100	
		11/30/17	ERM		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL
MW-A-3	9/12/2011 Destroyed	9/30/11	ERM	< 0.05		< 0.05		0.0205		< 0.02		< 0.005		< 0.005		0.0425		0.0385		NA		NA		4.38		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/20/11	ERM	< 0.05		< 0.05		0.0095	J*	0.0099	J*	< 0.005		0.0001	J*	0.0126		0.0057	J*	NA		NA		0.177		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/16/12	ERM	< 0.05		0.0016	J	0.0209		0.0157	J	< 0.005		0.0004	J	0.004	J	0.0011	J		NA		NA	1.1		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/7/12	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.702			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/24/13	ERM	<0.0500		<0.0500		<0.0200		<0.0200		<0.0050		<0.0050		**0.216**		**0.937**			NA		NA	1.37		0.966		<0.0100		<0.0100		**0.0081**		**0.00659**		0.0694		0.0572		<0.0100		<0.0100	
		11/30/17	ERM		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL		CNL
MW-A-4	3/27/2012	3/27/12	ERM	< 0.05		< 0.05		0.0874		0.0860		< 0.005		< 0.005		< 0.01		< 0.01			NA		NA	0.357		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		6/28/12	ERM	< 0.05		< 0.05		0.118		0.0901		< 0.005		< 0.005		**0.158**		< 0.01			NA		NA	4.74	B	< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/16/12	ERM	**0.0876**		< 0.05		0.887		0.0883		< 0.005		< 0.005		**0.989**		< 0.01			NA		NA	265		< 0.1		**0.185**		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/7/12	ERM	< 0.05		< 0.05		0.111		0.0923		< 0.005		< 0.005		0.0127		< 0.01			NA		NA	3.35		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/25/13	ERM	<0.0500			NA	0.101			NA	<0.0050			NA	<0.0100			NA		NA		NA	0.985			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
		11/28/17	ERM	<0.0500			NA	0.0863			NA	<0.0050			NA	<0.0100			NA		NA		NA	<0.100			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
MW-A-5	3/27/2012	3/28/12	ERM	< 0.05		< 0.05		0.304		0.287		< 0.005		< 0.005		< 0.01		< 0.01			NA		NA	1.92		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		6/28/12	ERM	**0.104**		< 0.05		10.1		0.245		0.0074		< 0.005		**6.3**		< 0.01			NA		NA	1310		0.151		**0.791**		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/17/12	ERM	**0.0163**		< 0.05		0.784		0.464		< 0.005		< 0.005		0.0928		< 0.01			NA		NA	44.1		< 0.1		**0.026**		< 0.01		0.00011		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/11/12	ERM	< 0.05		< 0.05		0.562		0.468		< 0.005		< 0.005		0.0177		< 0.01			NA		NA	14.5		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/25/13	ERM	<0.0500			NA	0.27			NA	<0.0050			NA	<0.0100			NA		NA		NA	3.15			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
		11/30/17	ERM	<0.0500			NA	0.645			NA	<0.0050			NA	<0.0100			NA		NA		NA	5.94			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
MW-B-1	9/7/2011	9/9/11	ERM	< 0.05		< 0.05		0.053		0.0469		< 0.005		< 0.005		0.0744		0.0641			NA		NA	1.55		< 0.01		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/19/11	ERM	< 0.05		< 0.05		0.0423		0.0444		< 0.005		< 0.005		0.0012	J*	< 0.0100			NA		NA	0.629		< 0.01		0.0006	J*	< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/12/12	ERM	< 0.05			NA	0.0422			NA	< 0.005			NA	0.0009	J		NA		NA		NA	0.142			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		12/12/12	ERM	< 0.05			NA	0.0442			NA	< 0.005			NA	< 0.01			NA		NA		NA	0.531			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/25/13	ERM	<0.0500			NA	0.0331			NA	<0.0050			NA	<0.0100			NA		NA		NA	0.155			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
		11/28/17	ERM	<0.0500			NA	0.0432			NA	<0.0050			NA	<0.0100			NA		NA		NA	0.155			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
MW-B-2	9/14/2011	9/9/11	ERM	< 0.05			NA	0.0287			NA	< 0.005			NA	**0.13**			NA		NA		NA	5.6			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		12/19/11	ERM	< 0.05			NA	0.0197	J*		NA	< 0.005			NA	0.0016	J*		NA		NA		NA	0.0367	J*		NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/13/12	ERM	**0.0033**		**0.004**		0.0295		0.0281		< 0.005		< 0.005		0.0059		< 0.0100			NA		NA	0.705		< 0.01		< 0.01		< 0.01		< 0.0002		< 0.0002		0.009		0.0079J		< 0.01		< 0.01	
		12/12/12	ERM	< 0.05		< 0.05		0.0411		0.0304		< 0.005		< 0.005		< 0.01		< 0.01			NA		NA	0.605		0.102		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/26/13	ERM	<0.0500		<0.0500		0.0347		0.0333		<0.0050		<0.0050		<0.0100		<0.0100			NA		NA	0.285		<0.100		<0.0100		<0.0100		<0.00020		<0.00020		<0.0200		<0.0200		<0.0100		<0.0100	
		11/29/17	ERM	<0.0500			NA	<0.0200			NA	<0.0050			NA	<0.0100			NA		NA		NA	0.545			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
MW-B-3	9/15/2011	9/29/11	ERM	< 0.05			NA	0.0263			NA	< 0.005			NA	0.0224			NA		NA		NA	3.66			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		12/20/11	ERM	< 0.05			NA	0.029			NA	< 0.005			NA	0.0012	J*		NA		NA		NA	< 0.1			NA	< 0.01			NA	< 0.0002			NA	0.0058	J*		NA	< 0.01			NA
		7/13/12	ERM	**0.0025**			NA	0.0335			NA	< 0.005			NA	0.0665			NA		NA		NA	2			NA	< 0.01			NA	< 0.0002			NA	0.0056	J		NA	< 0.01			NA
		12/11/12	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	< 0.01			NA		NA		NA	< 0.1			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		7/26/13	ERM	<0.0500		<0.0500		0.0513		0.0551		<0.0050		<0.0050		<0.0100		<0.0100			NA		NA	0.206		0.104		<0.0100		<0.0100		<0.00020		<0.00020		<0.0200		<0.0200		<0.0100		<0.0100	
		11/29/17	ERM	<0.0500			NA	< 0.02			NA	<0.0050			NA	<0.0100			NA		NA		NA	0.441			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
MW-B-4	9/20/2011	9/29/11	ERM	< 0.05			NA	0.0212			NA	< 0.005			NA	< 0.01			NA		NA		NA	< 0.1			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		12/19/11	ERM	< 0.05		< 0.05		0.0242		0.0233		< 0.005		< 0.005		0.0009	J*	< 0.01			NA		NA	0.126		< 0.1		0.0017	J*	< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/13/12	ERM	**0.006**		**0.0063**		0.106		0.0087		< 0.005		< 0.005		0.0203		< 0.01			NA		NA	4.76		< 0.1		0.0047	J*	< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/11/12	ERM	< 0.05		< 0.05		0.19		0.462		< 0.005		< 0.005		< 0.01		< 0.01			NA		NA	< 0.1		< 0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/26/13	ERM	<0.0500		<0.0500		0.595		0.472		<0.0050		<0.0050		<0.0100		<0.0100			NA		NA	<0.100		<0.100		<0.0100		<0.0100		<0.00020		<0.00020		<0.0200		<0.0200		<0.0100		<0.0100	
		11/28/17	ERM	<0.0500			NA	0.312			NA	<0.0050			NA	<0.0100			NA		NA		NA	<0.100			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA
Equipment Blank		6/27/07	ERM	< 0.05			NA	< 0.01			NA	< 0.01			NA	< 0.01			NA		NA		NA	< 0.04			NA	< 0.025			NA	< 0.0005			NA	< 0.04			NA	< 0.01			NA
		12/17/2008	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	< 0.01			NA		NA		NA	< 0.1			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		6/12/2009	ERM	< 0.05		< 0.05		< 0.02		< 0.02		< 0.005		< 0.005		< 0.01		< 0.01						< 0.1		0.119		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/13/2009	ERM	< 0.05				< 0.02				< 0.005				< 0.01								< 0.1				< 0.01				< 0.0002				< 0.02				< 0.01			
		12/16/2009	ERM	< 0.05			NA	< 0.02			NA	< 0.005			NA	< 0.01			NA		NA		NA	< 0.1			NA	< 0.01			NA	< 0.0002			NA	< 0.02			NA	< 0.01			NA
		8/18/2010	ERM	< 0.05				< 0.02				< 0.005				< 0.01								0.123				< 0.01				< 0.0002				< 0.02				< 0.01			
		7/28/2011	ERM	< 0.05		< 0.05		< 0.02		< 0.02		< 0.005		< 0.005		< 0.01		< 0.01						< 0.1		<0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		12/4/2012	ERM	< 0.05		< 0.05		< 0.02		< 0.02		< 0.005		< 0.005		< 0.01		< 0.01	NA		NA		NA	< 0.1		<0.1		< 0.01		< 0.01		< 0.0002		< 0.0002		< 0.02		< 0.02		< 0.01		< 0.01	
		7/23/2013	ERM	<0.0500			NA	<0.0200			NA	<0.0050			NA	<0.0100			NA		NA		NA	<0.100			NA	<0.0100			NA	<0.00020			NA	<0.0200			NA	<0.0100			NA

Notes:
J* - Estimated level of VOC Below Reporting Limit
MW-2 and MW-13 are dry wells.
Ground water metals samples were not collected at the site before the December 2006 sampling event.
NA - Not Analyzed
NS - Not Sampled
NS* - Insufficient water for sampling. Only VOCs sampled.
CNL - Could Note Locate
MW-17** - MW-17 was a dry well when installed. It is suspected that the liquid sampled during sampling events was residual injection fluid instead of ground water.
Full scale ISCO began in October 2007.
ISCO Pilot Test began in March 2007. MW-5, MW-8, MW-18, and MW-20 were affected by this pilot test. Therefore, metals samples collected after March 2007 for these wells are not considered baseline.
ISCO Full scale injections began October 2007. Therefore metals samples collected after October 2007 are not considered baseline.
Indicates baseline sampling result before ISCO in ISCO area wells.
Indicates increase in concentration from baseline sampling result.
Indicates increase in concentration from baseline sampling result and an exceedance of the GA EPD Type 4 RRS
Indicates an exceedance of the GA EPD Type 4 RRS, but no baseline sampling performed.
Bold concentration indicates an exceedance of the applicable GA EPD Type 4 Risk Reduction Standard (RRS).
When samples are turbid (>10 NTUs) two samples are collected, one field filtered (dissolved), and one unfiltered (total). In these cases, only the dissolved sample result is considered for compliance. In this case, the total result is for comparison purposes only.

Prepared By: H. Beaugh 12/27/2017 Checked By:

Table 2-3
Monitoring Well Groundwater Elevations
November 27, 2017
Semiannual Status Report #1
Murata Electronics, N.A.
Rockmart, GA

Monitor Well	Top of Casing (ft MSL)	Screen Interval (ft)	November, 27, 2017	
			Depth to Groundwater (ft)	Groundwater Elevation (ft MSL)
MW-1	497.96	36.50-56.50	56.91	441.05
MW-2	493.44	26.50-36.50	36.31	457.13
MW-3	491.85	32.50-47.50	40.50	451.35
MW-4	481.74	49.50-69.50	CNL	NA
MW-5	490.00	48.50-73.50	51.51	438.49
MW-6	499.83	50.50-80.50	66.10	433.73
MW-7	489.98	63.45-73.45	55.81	434.17
MW-8	491.64	62.00-72.00	58.67	432.97
MW-9	491.20	49.00-59.00	54.23	436.97
MW-10	488.76	63.50-73.50	DRY	DRY
MW-11	492.77	54.00-64.00	52.46	440.31
MW-12	497.66	160-200.5*	54.21	443.45
MW-13	497.66	15.50-55.50	54.00	443.66
MW-14	469.86	29.00-39.00	DRY	NA
MW-15	476.85	34.50-44.50	CNL	NA
MW-16	497.63	61.94-75.66	NM	NA
MW-17	492.75	65.11-75.11	47.03	445.72
MW-18	490.46	50.10-60.10	57.87	432.59
MW-19	497.72	53.20-63.20	64.73	432.99
MW-20	493.85	52.30-62.30	58.90	434.95
MW-22	496.60	60.00-80.00	61.86	434.74
MW-23	491.84	53.00-73.00	32.88	458.96
MW-24	485.86	58.00-68.00	55.80	430.06
MW-25	481.08	69.30-79.30	43.21	437.87
MW-26	499.94	74.00-89.00	43.80	456.14
MW-27	492.68	59.20-69.20	36.18	456.50
MW-28	491.36	51.00-68.00*	DAMAGED	NA
MW-29	494.70	56.20-66.20	61.78	432.92
MW-A-1	477.72	63.20-73.20	CNL	NA
MW-A-2	478.41	69.10-79.10	CNL	NA
MW-A-3	479.02	63.50-73.50	CNL	NA
MW-A-4	478.14	38.43-48.43	44.35	433.79
MW-A-5	477.32	50.80-60.80	NM	NA
MW-B-1	484.30	64.30-74.30	52.35	431.95
MW-B-2	491.40	79.10-91.10	35.11	456.29
MW-B-3	480.11	79.00-99.00	47.95	432.16
MW-B-4	483.25	79.30-99.30	49.41	433.84

Notes:
Elevation data represents survey completed on October 5, 2011 completed by Williams, Sweitzer and Barnum, Inc.
NA= Not Applicable
NM= Not Measured
DRY= Monitoring well is dry, no water in well
CNL = Can not locate
Monitoring Well MW-16 is a slanted well with screening under the building.

Table 2-4
Field Groundwater Quality Parameters
Semiannual Status Report #1
Murata Electronics, N.A.
Rockmart, GA

	Location ID	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-12	MW-17
	Sample Date	29-Nov-17	30-Nov-17	30-Nov-17	30-Nov-17	1-Dec-17	30-Nov-17	30-Nov-17	1-Dec-17	30-Nov-17
	Unit									
Field Groundwater Quality Parameters										
Temperature	°C	NM	18.51	18.30	20.29	NM	18.45	17.57	NM	NM
Specific Conductivity	mS/cm	NM	766.30	533.20	397.50	NM	576.10	641.30	NM	NM
Dissolved Oxygen	mg/L	NM	1.85	8.89	4.19	NM	3.55	6.24	NM	NM
pH	pH units	NM	7.11	7.73	7.32	NM	7.05	7.41	NM	NM
Oxidation-Reduction Potential	mV	NM	-27.90	58.80	-31.10	NM	587.50	372.90	NM	NM
Turbidity	NTU	OR	16.70	1.15	46.40	1.97	13.70	2374.00	0.07	-0.71

	Location ID	MW-18	MW-19	MW-20	MW-22	MW-23	MW-24	MW-25	MW-26	MW-27
	Sample Date	29-Nov-17	11/28/17	29-Nov-17	30-Nov-17	11/130/17	29-Nov-17	29-Nov-17	1-Dec-17	28-Nov-17
	Unit									
Field Groundwater Quality Parameters										
Temperature	°C	NM	NM	NM	18.98	NM	16.94	20.21	16.57	NM
Specific Conductivity	mS/cm	NM	NM	NM	557.30	NM	520.70	976.30	800.70	NM
Dissolved Oxygen	mg/L	NM	NM	NM	4.55	NM	1.53	0.35	0.86	NM
pH	pH units	NM	NM	NM	6.93	NM	6.76	7.10	7.44	NM
Oxidation-Reduction Potential	mV	NM	NM	NM	69.00	NM	86.80	114.30	146.90	NM
Turbidity	NTU	9.87	43.00	OR	7.35	OR	32.50	10.57	5.17	-0.75

	Location ID	MW-29	MW-A-4	MW-A-5	MW-B-1	MW-B-2	MW-B-3	MW-B-4
	Sample Date	29-Nov-17	28-Nov-17	30-Nov-17	28-Nov-17	29-Nov-17	29-Nov-17	28-Nov-17
	Unit							
Field Groundwater Quality Parameters								
Temperature	°C	NM	22.22	18.29	18.40	18.46	18.36	18.62
Specific Conductivity	mS/cm	NM	586.70	652.10	403.90	118.10	156.00	596.80
Dissolved Oxygen	mg/L	NM	4.92	0.21	1.21	0.35	10.68	2.72
pH	pH units	NM	7.12	7.02	6.97	6.96	8.49	11.41
Oxidation-Reduction Potential	mV	NM	38.70	-91.90	20.80	59.50	98.90	135.10
Turbidity	NTU	17.60	6.30	9.93	9.14	9.16	15.70	9.23

NM = Not Measured due to Permanganate in well
OR = Out of Range

Table 2-5
Soil Analytical Summary
Semiannual Status Report #1
Murata Electronics, N.A.
Rockmart, Georgia

Investigation Area	Boring ID	Sample Depth	Collection Date	Volatile Organic Compounds									
				PCE	TCE	cDCE	tDCE	1,1-DCA	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	Acetone
		Ft BGS		(µg/Kg)dry	(µg/Kg)dry	(µg/Kg)dry	(µg/Kg)dry	(µg/Kg)dry	(µg/Kg)dry	(µg/Kg)dry	(µg/Kg)dry	(µg/Kg)dry	(µg/Kg)dry
Type 2 Risk Reduction Standard				*173*	*35.7*	*412*	*1,960*	*22,200*	*13,800*	*15,700*	*2,280*	*1,150*	*32,700*
Type 4 Risk Reduction Standard (including Mass Limit) [1]				*2,750*	*147*	*5,720*	*57,200*	*53,600*	*147,000*	*19,600*	*16,100*	*8,060*	*1,280,000*
VRP Remedial Standards (DC only) [2]				*150,000*	*7,070*	*4.09E+06*	*4.09E+07*	*53,600*	*3.28E+07*	*122,000*	*1.07E+06*	*1.26E+06*	*2.60E+08*
Area 1: Northern perimeter near storage shed	SB-101	0 - 2	7/13/17	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	68
	SB-101	9 - 10		< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 88
	SB-102	0 - 2	7/13/17	4.7	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 61
	SB-102	12 - 13		< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 94
	SB-103	0 - 2	7/13/17	5.5	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	77
	SB-103	9 - 10		< 5.5	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5	< 110
	SB-104	0 - 2	7/13/17	35	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	63
	SB-104	19 - 20		2500	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 50
	SB-105	0 - 2	7/13/17	33	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 55
	SB-105	19 - 20		< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 88
	SB-106	0 - 2	7/13/17	31	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 57
	SB-106	24 - 25		6.0	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 72
	SB-107	0 - 2	7/12/17	**25000**	< 1,700	**8100**	< 1,700	< 1,700	< 1,700	5500	**34000**	3600	< 35000
	SB-107	6 - 7		980	5.2	**6100**	56	< 3.3	< 3.3	< 3.3	13	7.1	< 67
	SB-108	0 - 2	7/12/17	4.8	< 3.2	94	< 3.2	< 3.2	52	430	1700	880	< 63
	SB-108	21 - 22		11	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 90
	SB-109	0 - 2	7/12/17	690	4.7	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 60
	SB-109	24 - 25		< 200	18	15	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 77
	SB-110	0 - 2	7/12/17	580	11	7.2	< 3.2	< 3.2	< 3.2	< 3.2	< 3.2	< 3.2	< 64
	SB-110	11 - 12		3.8	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 71
	SB-111	0 - 2	7/12/17	5.1	< 3.4	9.3	< 3.4	< 3.4	< 3.4	88	200	56	< 68
	SB-111	19 - 20		< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 63
	SB-112	0 - 2	7/12/17	6.6	< 2.4	2.8	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 48
	SB-112	19 - 20		< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 91
Area 1 Averages					**NE**		**NE**	**NE**	**NE**	**NE**		**NE**	**NE**
Area 2: Area within the facility	SB-113	0 - 2	7/16/17	10	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 63
	SB-113	13 - 14		< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 88
	SB-114	0 - 2	7/16/17	2100	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	180
	SB-114	13 - 14		< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 74
	SB-115	0 - 2	7/15/17	2700	7.5	3.9	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	420
	SB-115	6 - 7		< 6.9	< 6.9	< 6.9	< 6.9	< 6.9	< 6.9	< 6.9	< 6.9	< 6.9	< 140
	SB-116	0 - 2	7/15/17	9.1	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 92
	SB-116	5 - 6		7.5	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 74
	SB-117	0 - 2	7/15/17	76	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 73
	SB-117	10 - 11		4.0	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 72
	SB-119	0 - 2	7/16/17	110	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	81
	SB-119	9-10		< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 75
	SB-120	0 - 2	7/15/17	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100
	SB-120	18 - 19		< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 90
	SB-121	0 - 2	7/15/17	20	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	130
	SB-121	14 - 15		< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 92
	SB-122	0 - 2	7/15/17	4.0	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 78
	SB-122	26 - 27		4.2	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 78
	SB-123	0 - 2	7/15/17	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 98
	SB-123	18 - 19		< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 93
Area 2 Averages				**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
Area 3: Parking lot south of facility	SB-125	0 - 2	7/13/17	18	120	210	17	4.7	< 4.2	< 4.2	< 4.2	< 4.2	< 85
	SB-125	16 - 17		< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 90
	SB-126	0 - 2	7/13/17	900	**290**	37	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 49
	SB-126	8 - 9		1100	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 69
	SB-127	0 - 2	7/13/17	12	< 2.9	17	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 57
	SB-127	14 - 15		320	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 66
	SB-128	0 - 2	7/13/17	9.1	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 75
	SB-128	14 - 15		< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 59
	SB-129	0 - 2	7/13/17	7.5	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	340
	SB-129	9 - 10		< 3.5	40	1100	16	< 3.5	4.5	< 3.5	< 3.5	< 3.5	85
	SB-130	0 - 2	7/14/17	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 92
	SB-130	14 - 15		< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 81
	SB-131	0 - 2	7/14/17	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 72
	SB-131	14 - 15		< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 68
	SB-132	0 - 2	7/14/17	5.6	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 63
	SB-132	13 - 14		< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 77
	SB-133	0 - 2	7/14/17	< 2.7	< 2.7	48	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 54
	SB-133	8 - 9		32	< 4.6	34	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 92
	SB-134	0 - 2	7/14/17	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	160
	SB-134	11 - 12		< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 79
Area 3 Averages				**NE**		**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
Area 4: Grass area east of building	SB-118	0 - 2	7/14/17	11	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	95
	SB-118	12 - 13		< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 77
	SB-124	0 - 2	7/14/17	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	100
	SB-124	12 - 13		< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 62
Area 4 Averages				**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**

Notes:
Sample results are compared to Georgia Environmental Protection Division (GA EPD) Type 4 Risk Reduction Standards (RRS)
Exceeds Type 4 RRS
Type 2 RRS included for reference values only
bgs - below ground surface
µg/Kg-dry- micrograms per kilogram dry
NE - No Type 4 RRS Exceedances
1 - Both the partitioning and mass limit equations are included in the selection of Type 4 RRS for soil. Default assumptions were used for all parameters in the mass limit equation (Eqn 4-14 from USEPA, 2002) with the exception of depth of source:

Depth of source (ds)	6 m	site-specific, approximately 20 ft (~6 meters)
Infiltration rate (I)	0.18 m/yr	USEPA, 2002. Default value.
Exposure Duration (ED)	70 yr	USEPA, 2002. Default value.
Soil bulk density (ρb)	1.5 kg/L	USEPA, 2002. Default value.

2 - VRP Remedial Standards were calculated to be protective of complete pathways. The leaching to groundwater pathway will be incomplete based on UECs that will restrict groundwater use beneath the site and adjacent properties. Values are calculated for direct contact pathway

Table 2-6
Vapor Intrusion Assessment - Sub-Slab Results
Semiannual Status Report #1
Murata Electronics, N.A.
Rockmart, Georgia

	Soil Gas	Murata Warehouse													
	EPA VISLs Sub-Slab Soil Gas R=10^{-5}, HI=1 Commercial Exposure, [µg/m^3]														
LOCATION		**SG-1**		**SG-2**			**SG-3**		**SG-4**			**SG-5**		**SG-6**	
						DUP-01				**DUP-01**					
SAMPLING DATE		**11-Jun-18**	**13-Jul-18**	**11-Jun-18**	**13-Jul-18**	**13-Jul-18**	**11-Jun-18**	**13-Jul-18**	**11-Jun-18**	**11-Jun-18**	**13-Jul-18**	**11-Jun-18**	**13-Jul-18**	**11-Jun-18**	**13-Jul-18**
Tetrachlorothene	5,820	**719,000**	314	**410,000**	21.1	542.0	4,380	1,410	**41,500**	**41,800**	**43,900**	**11,300**	**30,600**	**20,800**	6.33
Trichloroethene	292	**4,900**	3.24	< 1,580	< 1.07	< 1.07	< 15.4	< 5.37	< 127	< 126	< 107	< 31.4	< 109	< 62.9	< 1.07

	Indoor Air	Murata Warehouse							Outdoor
	EPA VISLs Indoor Air R=10^{-5}, HI=1 Commercial Exposure, [µg/m^3]								
LOCATION		**IA-1**	**IA-2**		**IA-3**	**IA-4**	**IA-5**	**IA-6**	**OA-1**
				DUP-01					
SAMPLING DATE		**13-Jul-18**	**13-Jul-18**	**13-Jul-18**	**13-Jul-18**	**13-Jul-18**	**13-Jul-18**	**13-Jul-18**	**13-Jul-18**
Tetrachlorothene	175	8.21	13.4	14.3	1.34	2.33	6.27	6.85	0.346
Trichloroethene	8.76	0.210	0.188	0.215	< 0.107	< 0.107	0.177	0.167	< 0.107

Notes:
Bold and highlighted - exceeds relevant EPA VISL screening level.
Results reporting in µg/m$^{3.}$
µg/m^3 = micrograms per cubic meter.

Table 3-1
Groundwater Monitoring Schedule
Semiannual Status Report #1
Murata Electronics, N.A.
Rockmart, GA

Well ID	Total Depth (ft bgs)	Ground Surface Elevation (ft MSL)	Top of Casing Elevation (ft MSL)	Screened Interval (ft bgs)	Top of Rock (ft bgs)	Schedule
MW-1	57.00	498.19	497.96	36.5-56.5	56.50	Gauge and Abandon
MW-2	37.00	493.8	493.44	26.5-36.5	NA	18 mos.
MW-3	48.00	492.2	491.85	32.5-47.5	NA	Gauge and Abandon
MW-4	70.00	482.05	481.74	49.5-69.5	24.50	18 mos.
MW-5	74.00	490.16	490.00	48.5-73.5	31.50	Gauge and Abandon
MW-6	81.00	500.22	499.83	50.5-80.5	11.50	POD - 9 mos.
MW-7	74.05	490.16	489.98	63.45-73.45	50.00	POD - 9 mos.
MW-8	72.50	491.80	491.64	62-72	31.00	18 mos.
MW-9	59.50	491.33	491.20	49-59	24.00	Gauge and Abandon
MW-10	73.80	488.47	488.76	63.5-73.5	34.00	Gauge and Abandon
MW-11	56.50	492.94	492.77	54-64	41.50	Gauge and Abandon
MW-12	200.50	497.84	497.66	160-200.5*	55.00	Gauge and Abandon
MW-13	57.00	497.89	497.66	15.5-55.5	52.50	Gauge and Abandon
MW-14	39.50	470.33	469.86	29-39	39.50	Gauge and Abandon
MW-15	45.00	477.15	476.85	34.5-44.5	41.00	Destroyed
MW-16	77.80	497.70	497.63	61.94-75.66	42.00	Gauge and Abandon
MW-17	87.50	493.11	492.75	65.11-75.11	51.00	Gauge and Abandon
MW-18	60.15	490.86	490.46	50.1-60.1	NA	18 mos.
MW-19	68.78	497.81	497.72	53.2-63.2	38.00	Gauge and Abandon
MW-20	63.55	494.07	493.85	52.3-62.3	34.00	Gauge and Abandon
MW-22	81.00	496.84	496.60	60-80	54.00	18 mos.
MW-23	109.00	492.08	491.84	53-73	16.00	Gauge and Abandon
MW-24	68.00	483.18	485.86	58-68	51.00	POD - 9 mos.
MW-25	80.00	477.90	481.08	69.3-79.3	37.00	Gauge and Abandon
MW-26	90.50	500.28	499.94	74-89	45.00	POD - 9 mos.
MW-27	70.00	492.79	492.68	59.2-69.2	56.40	Gauge and Abandon
MW-28	140.00	492.41	491.36	51-68**	28.00	18 mos.
MW-29	67.00	491.40	494.70	56.2-66.2	53.00	Gauge and Abandon
MW-A-1	74.00	478.09	477.72	63.2-73.2	37.50	Destroyed
MW-A-2	80.00	478.91	478.41	69.1-79.1	57.00	Destroyed
MW-A-3	75.00	479.55	479.02	63.5-73.5	60.00	Destroyed
MW-A-4	49.00	478.63	478.14	48.43-38.43	38.00	Gauge and Abandon
MW-A-5	61.00	477.82	477.32	50.8-60.8	16.00	POD - 9 mos.
MW-B-1	75.00	484.65	484.30	64.3-74.3	60.00	POD - 9 mos.
MW-B-2	100.00	491.40	491.40	79.1-91.1	45.00	Gauge and Abandon
MW-B-3	100.00	480.39	480.11	79-99	40.00	18 mos.
MW-B-4	100.00	483.52	483.25	79.3-99.3	33.00	18 mos.

NOTES:

*Monitor well MW-12 installed as a double-cased, 4-inch, open hole well completed in rock at a depth interval from 160 feet to 200.5 feet.

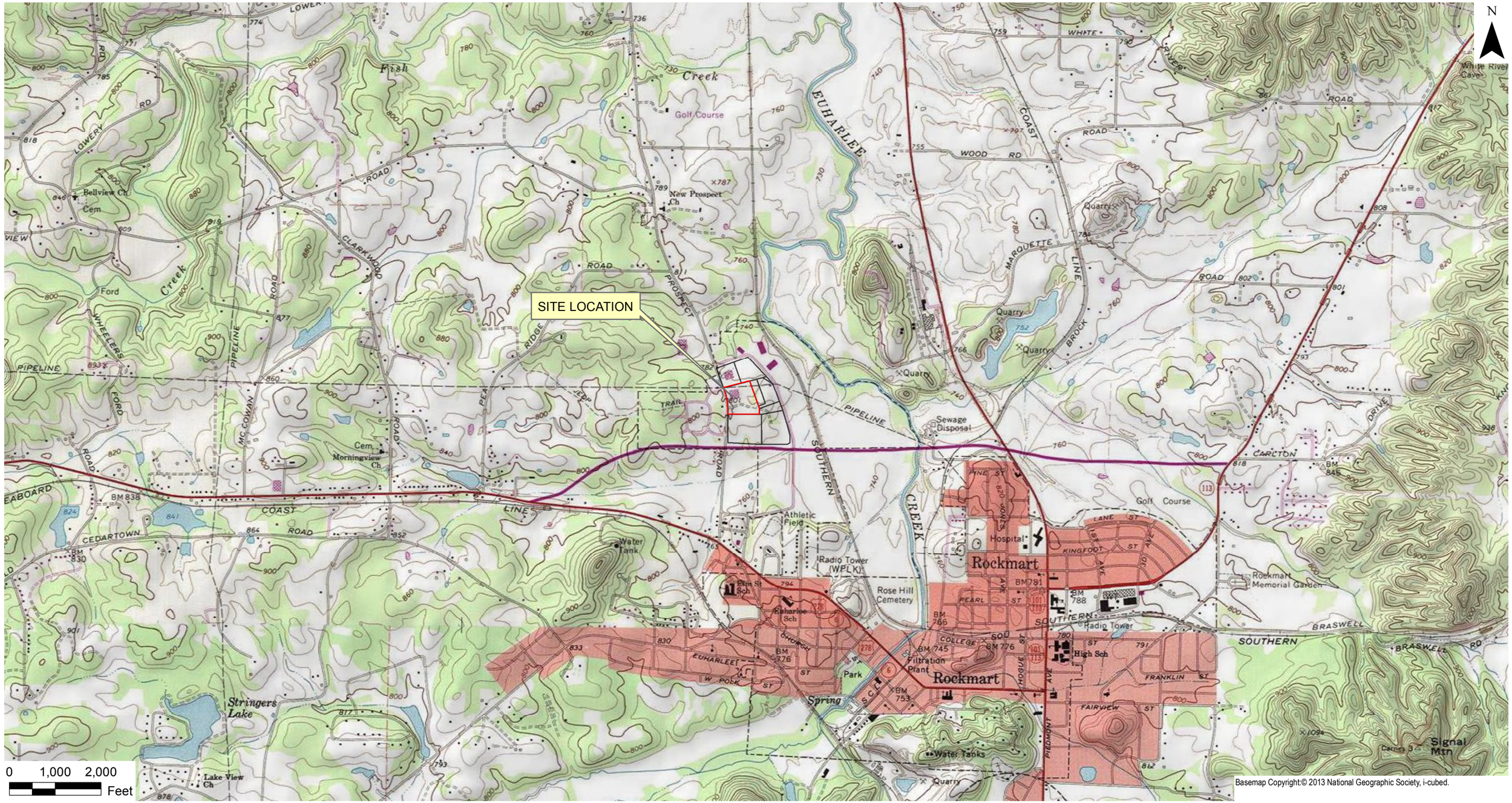
**Monitor well MW-28 installed as a double-cased, 2-inch, open hole well completed in rock at a depth interval from 51 feet to 68 feet.

NA - Not Applicable

Figures

Project No. 0190949
Murata Electronics North America

Environmental Resources Management
3200 Windy Hill Road SE, Suite 1500W
Atlanta, Georgia 30339
(678) 486-2700



Environmental Resources Management

DESIGN:	S Vizuete	DRAWN:	N Vrey	CHKD.:	H Sartain
DATE:	3/21/2017	SCALE:	AS SHOWN	REVISION:	0

FILE: E:\MurataGIS\MXD\2017\2017 03-Mar VIRP Rpt\F1-1_SiteLocMap.mxd

FIGURE 1-1
SITE LOCATION MAP

VRP Progress Report #1

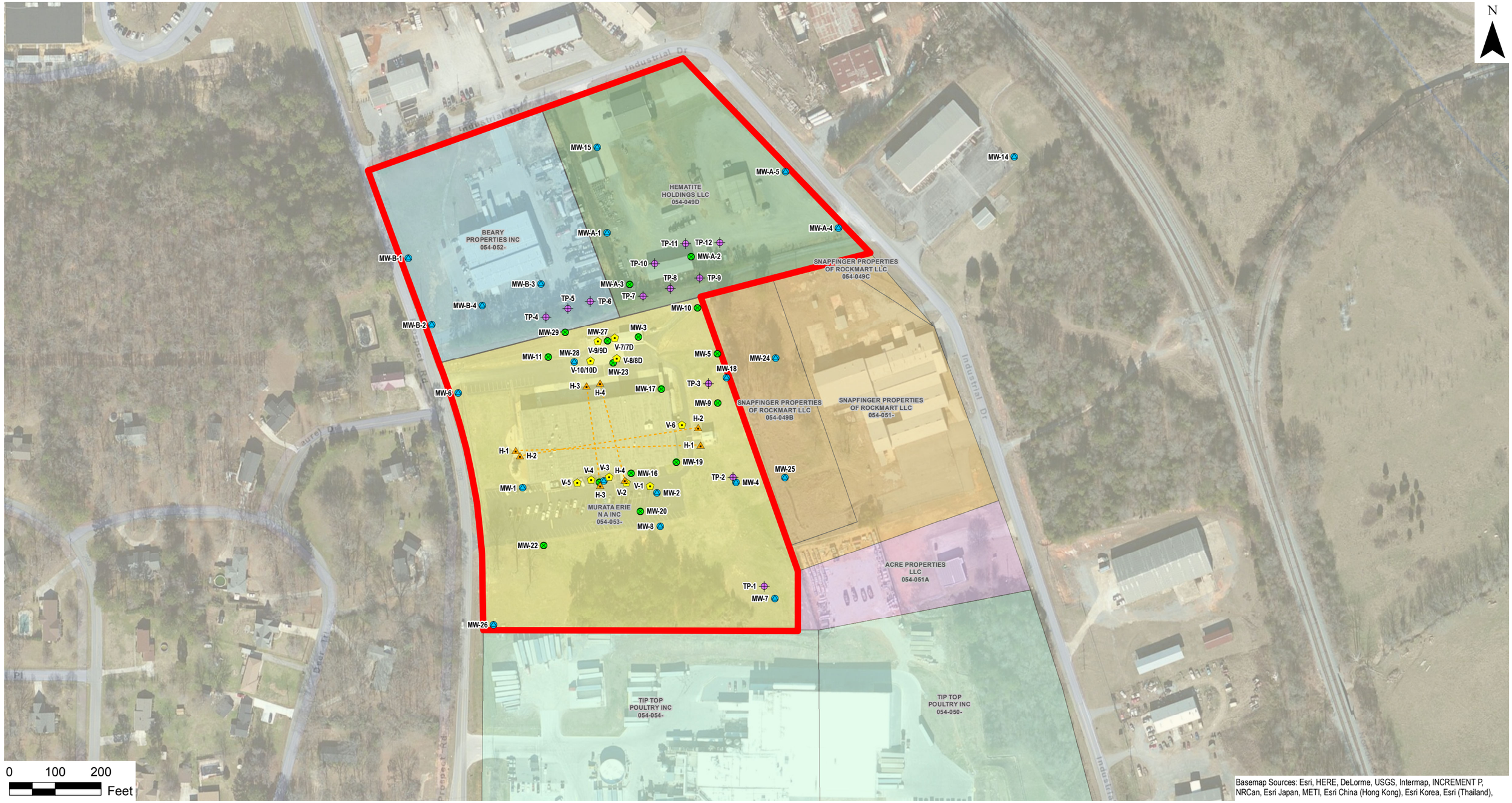
Murata Electronics N.A., Inc.

Rockmart, Georgia

CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

QUADRANGLE LOCATION

ERM



Environmental Resources Management

DESIGN:	S Vizuete	DRAWN:	N Vrey	CHKD.:	H Sartain
DATE:	3/21/2017	SCALE:	AS SHOWN	REVISION:	0
FILE:	E:\MurataGIS\MXD\2017\2017 03-Mar VIRP Rpt\F1-2_SiteLay&PropOwn.mxd				

FIGURE 1-2 - SITE LAYOUT & PROPERTY OWNERSHIP MAP

VRP Progress Report #1

Murata Electronics N.A., Inc.

Rockmart, Georgia

- Monitoring Well Location
- Injection Well Location
- Temporary Injection Well Location
- SVE Horizontal Well Location
- SVE Vertical Well Location
- Horizontal SVE Well Line Location
- APPLICANT & QUALIFYING PROPERTIES

APPLICANT & QUALIFYING PROPERTIES

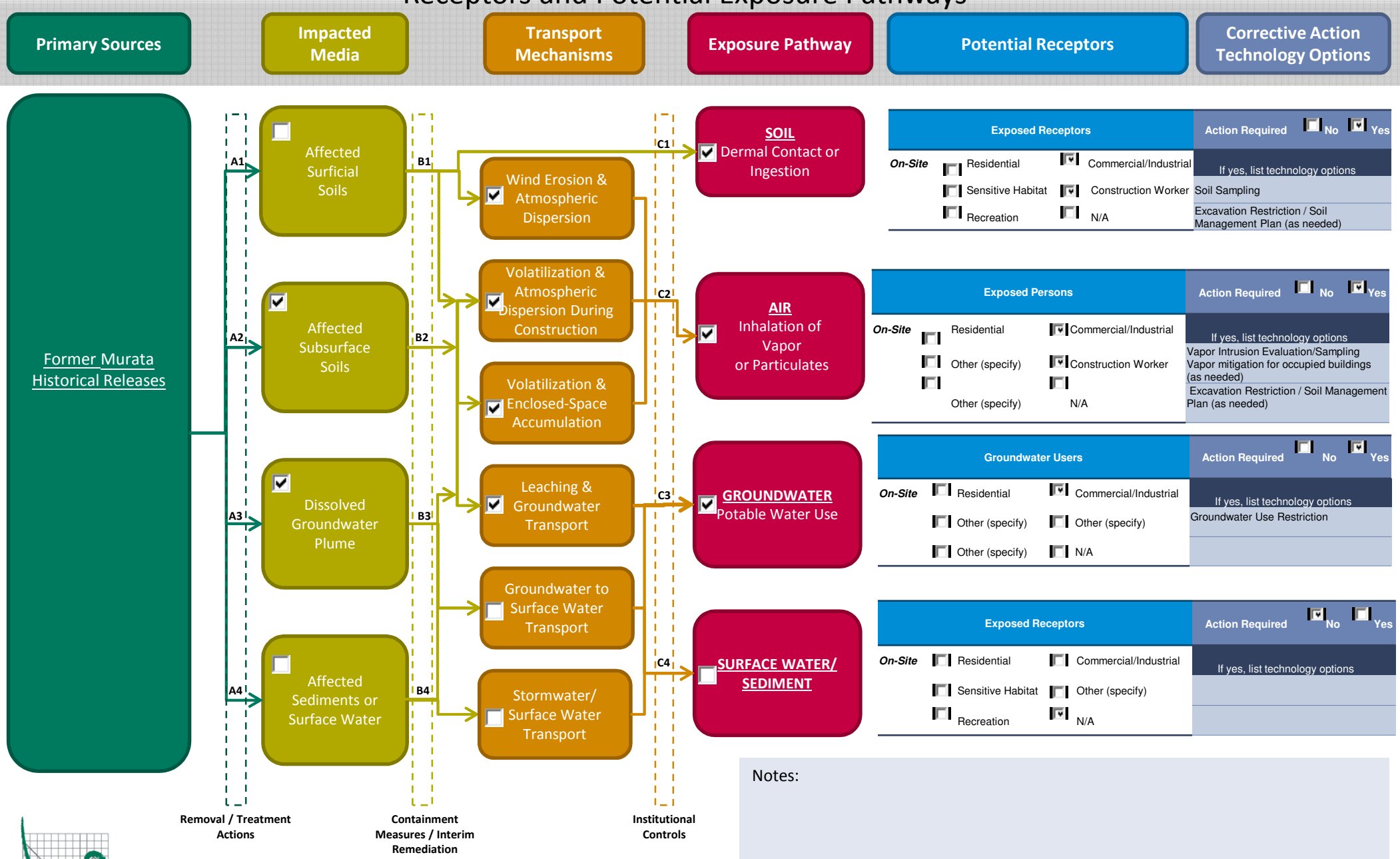
- BEARY PROPERTIES INC 054-052-
- HEMATITE HOLDINGS LLC 054-049D
- MURATA ERIE N A INC 054-053-

ADJOINING PROPERTIES

- ACRE PROPERTIES LLC 054-051A
- SNAPFINGER PROPERTIES OF ROCKMART LLC 054-049C, 054-051-, & 054-049B
- TIP TOP POULTRY INC 054-050- & 054-054-

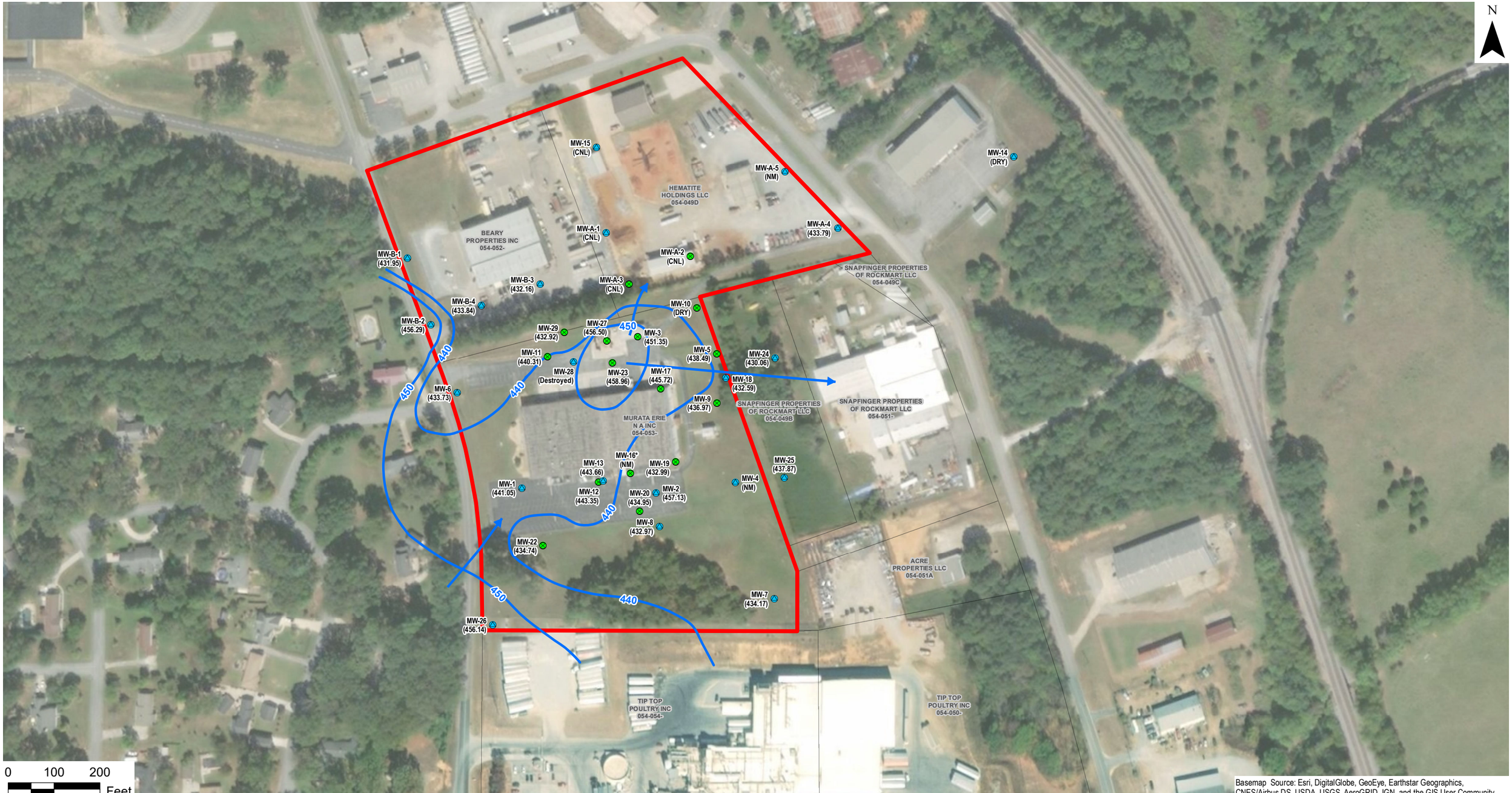
ERM

Figure 1-3
Murata Electronics- Site Conceptual Model
Receptors and Potential Exposure Pathways



Notes:

ERM



Environmental Resources Management

DESIGN:	S Vizuete	DRAWN:	C. Hurdle	CHKD.:	H Sartain
DATE:	12/8/2017	SCALE:	AS SHOWN	REVISION:	0

FILE: \\USATLDC01\Data\Atlanta\Projects\0190949 Murata Electronics Annual O&M 2016.NV\05 - ERM Outputs\MurataGIS\MXD\2018\F2-1_PotMap_20171127.mxd

FIGURE 2-1 - POTENTIOMETRIC SURFACE MAP - November 27, 2017

Semi-Annual Progress Report

Murata Electronics N.A., Inc.

Rockmart, Georgia

Monitoring Well Location

Injection Well Location

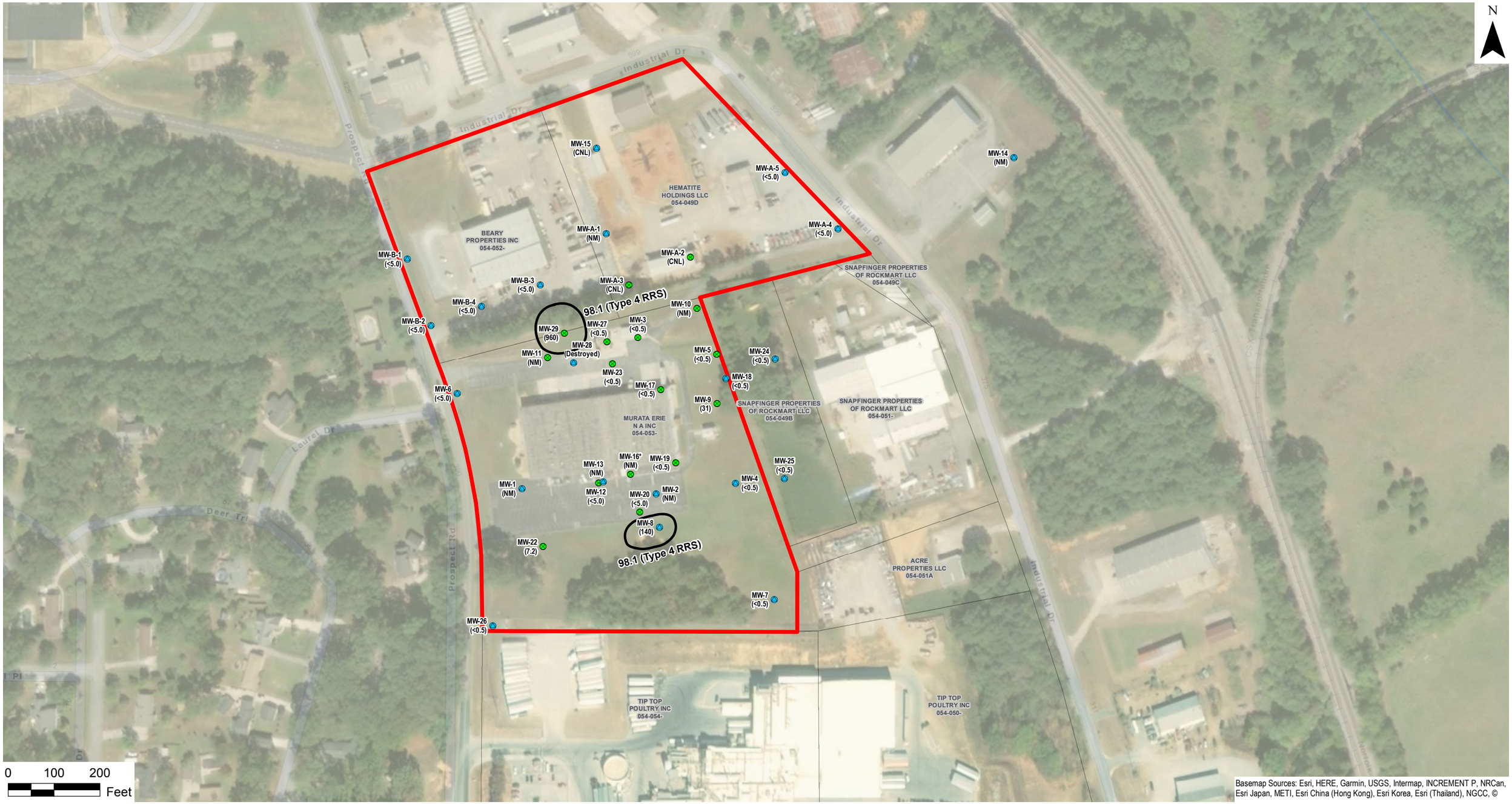
Potentiometric Surface Contour

Dashed where inferred

Apparent Groundwater Flow Direction

Notes:
NM = Not Measured
CNL = Can Not Locate
*MW-16 is 45° well with screening under building

ERM



Environmental Resources Management

DESIGN:	S Vizuete	DRAWN:	H. Beaugh	CHKD.:	H Sartain
DATE:	12/8/2017	SCALE:	AS SHOWN	REVISION:	0

FILE:\\usatldc01\data\Atlanta\Projects\0190949 Murata Electronics Annual O&M 2016.NV\05 - ERM Outputs\MurataGIS\MXD\2018\F2-2_PCE_20171127.mxd

FIGURE 2-2
PCE IN GROUNDWATER
November 2017

VRP Semiannual Progress Report #1

Murata Electronics N.A., Inc.

Rockmart, Georgia

Monitoring Well Location

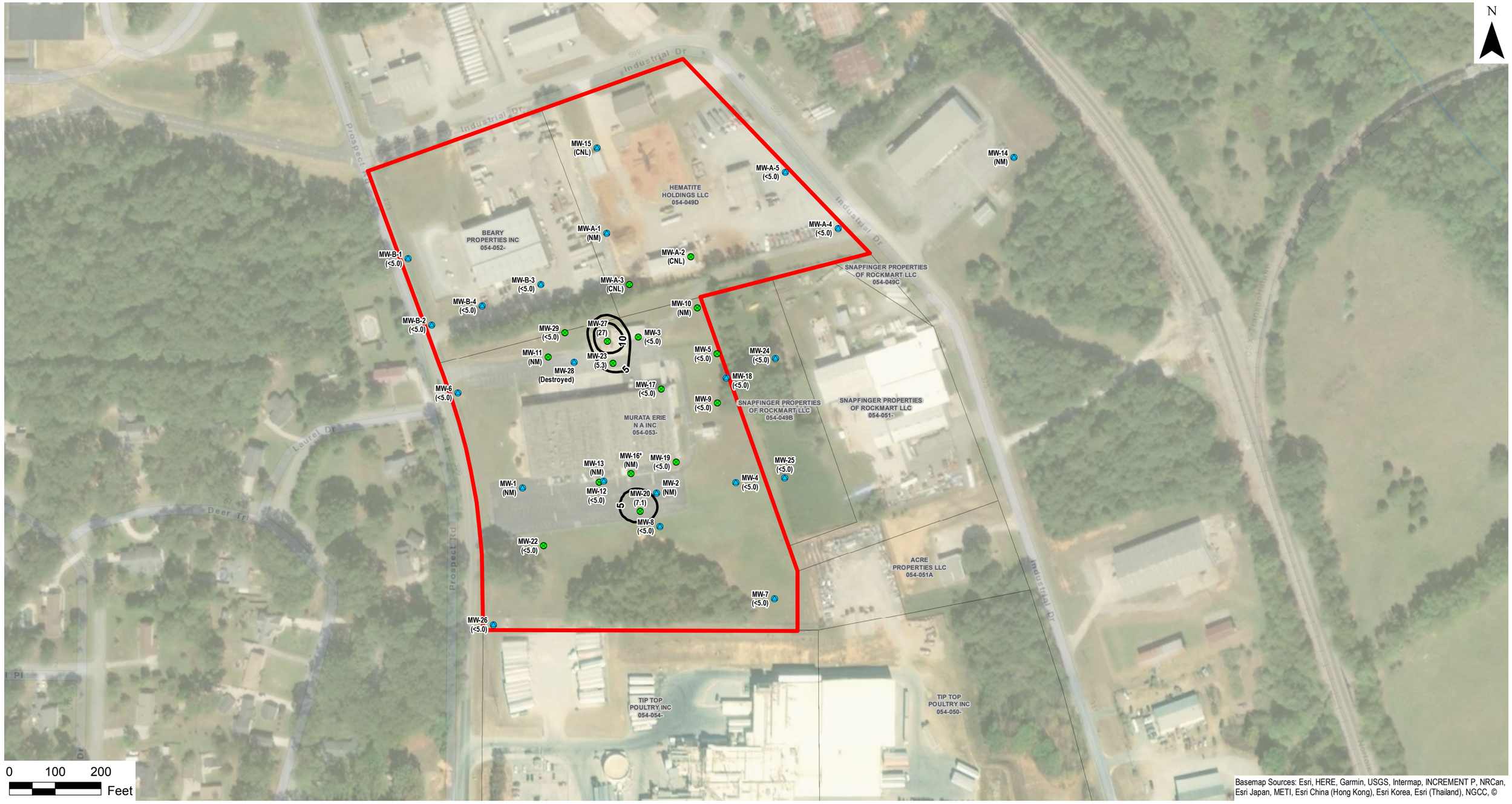
Injection Well Location

PCE Groundwater Contour

(140) PCE Concentration

Notes:
PCE = Tetrachloroethene
NM = Not Measured
CNL = Could Not Locate

ERM



Environmental Resources Management

DESIGN:	S Vizuete	DRAWN:	H. Beaugh	CHKD.:	H Sartain
DATE:	12/8/2017	SCALE:	AS SHOWN	REVISION:	0

FILE:\\usatldc01\data\Atlanta\Projects\0190949 Murata Electronics Annual O&M 2016.NV\05 - ERM Outputs\MurataGIS\MXD\2018\F2-3_14Diox_20171127.mxd

FIGURE 2-3
1,4-DIOXANE IN GROUNDWATER
November 2017

VRP Semiannual Progress Report #1

Murata Electronics N.A., Inc.

Rockmart, Georgia

Monitoring Well Location

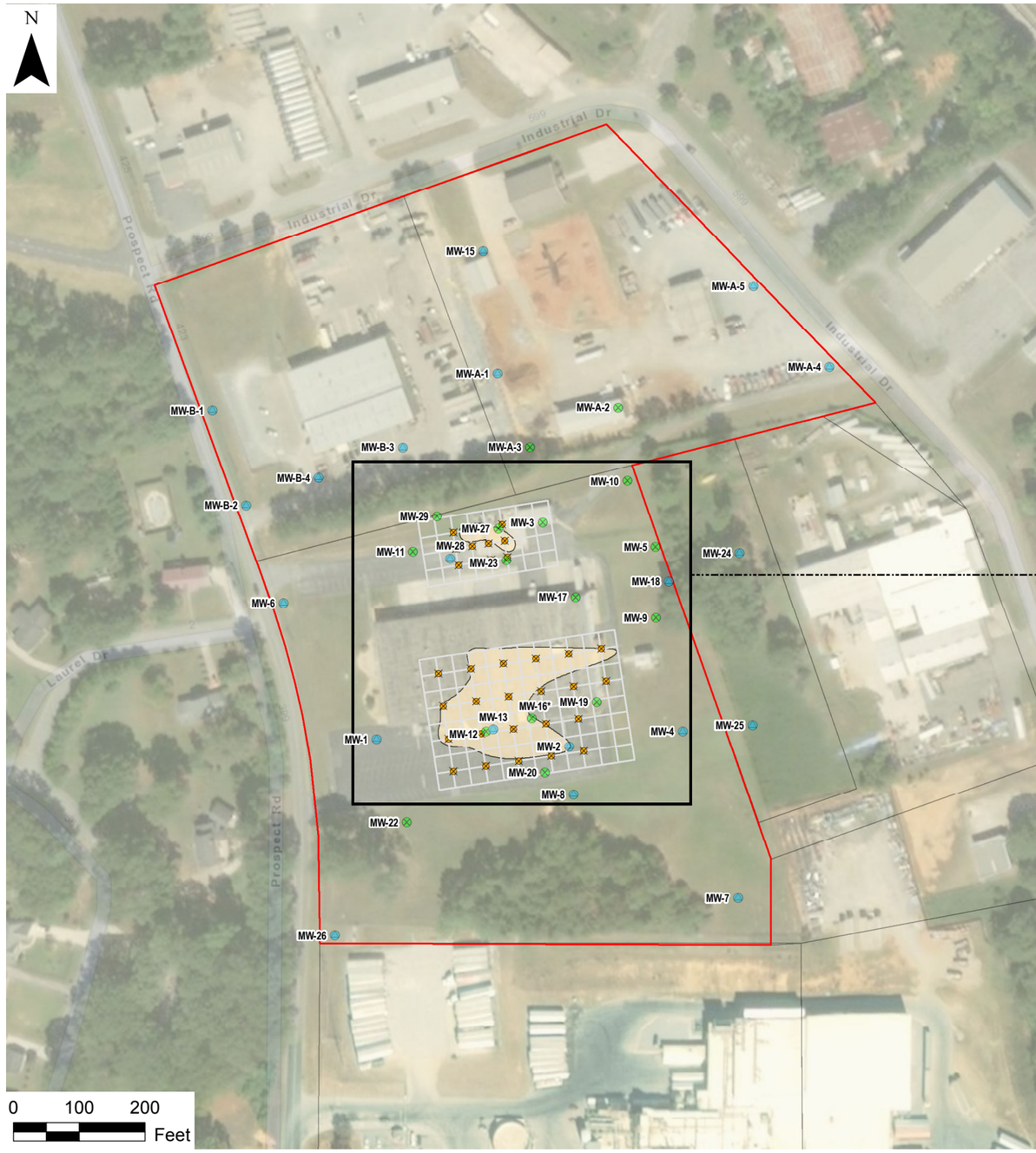
Injection Well Location

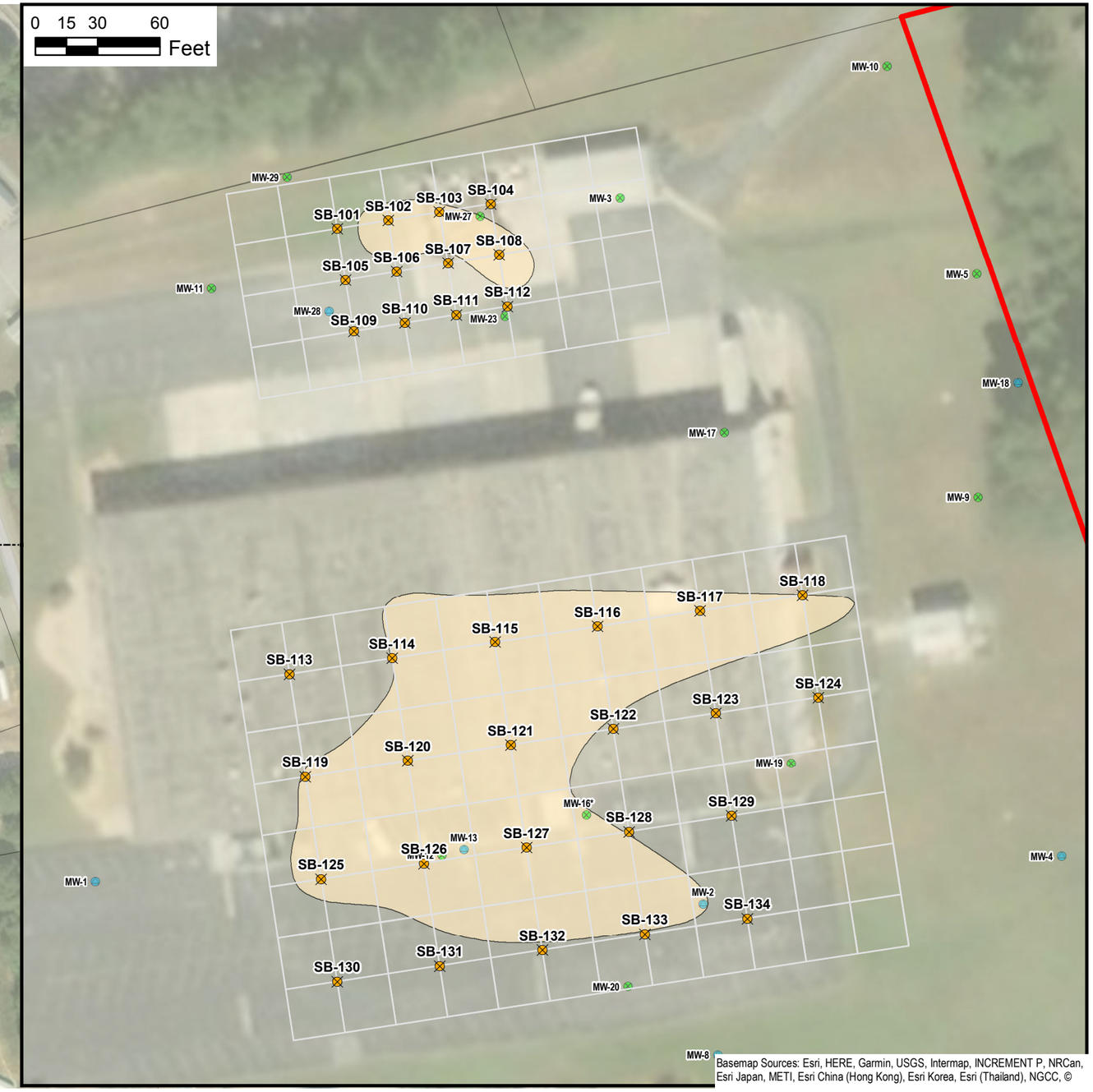
1,4-Dioxane Groundwater Contour

(27) 1,4-Dioxane Concentration

Notes:
NM = Not Measured
CNL = Could Not Locate

ERM





Basemap Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, ©

Environmental Resources Management

DESIGN:	S Vizuete	DRAWN:	N Vrey	CHKD.:	H Sartain
DATE:	8/15/2018	SCALE:	AS SHOWN	REVISION:	0

FILE:\\usatldc01\data\Atlanta\Projects\0190949 Murata Electronics Annual O&M 2016.NV\05 - ERM Outputs\MurataGIS\MXD\2018\F2-4_SoilSamp_SoilConfWP.mxd

FIGURE 2-4 - SOIL SAMPLE LOCATION MAP

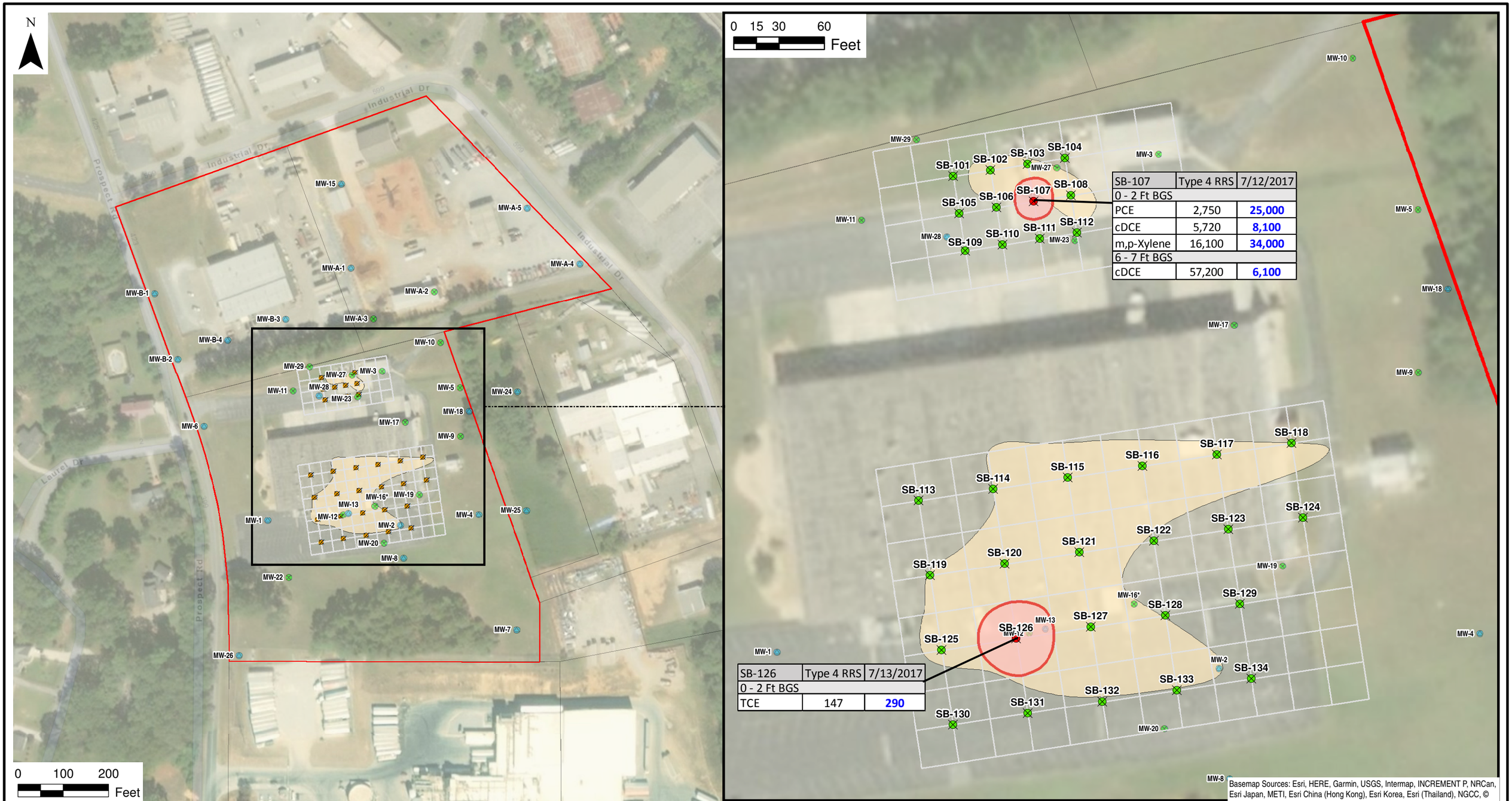
VRP Semiannual Progress Report #1

Murata Electronics N.A., Inc.

Rockmart, Georgia

- Soil Sample Locations
- Monitoring Well Location
- Injection Well Location
- Grid
- Historical Soil Contamination
- APPLICANT & QUALIFYING PROPERTIES

ERM



SB-107	Type 4 RRS	7/12/2017
0 - 2 Ft BGS		
PCE	2,750	25,000
cDCE	5,720	8,100
m,p-Xylene	16,100	34,000
6 - 7 Ft BGS		
cDCE	57,200	6,100

SB-126	Type 4 RRS	7/13/2017
0 - 2 Ft BGS		
TCE	147	290

Environmental Resources Management

DESIGN:	S Vizuete	DRAWN:	N Vrey	CHKD.:	H Sartain
DATE:	8/15/2018	SCALE:	AS SHOWN	REVISION:	0

FILE:\\usatldc01\data\Atlanta\Projects\0190949 Murata Electronics Annual O&M 2016.NV\05 - ERM Outputs\MurataGIS\MXD\2018\F2-5_SoilSamp_Results.mxd

FIGURE 2-5 - SOIL SAMPLING RESULTS

VRP Semiannual Progress Report #1

Murata Electronics N.A., Inc.

Rockmart, Georgia

- Soil Sample Locations with Type 4 RRS exceedances
- Soil Sample Locations with no exceedances
- Monitoring Well Location
- Injection Well Location
- Grid
- Historical Soil Contamination
- Current Soil Contamination
- APPLICANT & QUALIFYING PROPERTIES

ERM

Environmental Resources Management

DESIGN:	S Vizuete	DRAWN:	N Vrey	CHKD.:	H Sartain
DATE:	8/14/2018	SCALE:	AS SHOWN	REVISION:	0

FILE: \\USATLDC01\Data\Atlanta\Projects\0190949 Murata Electronics Annual O&M 2016.NV\05 - ERM Outputs\MurataGIS\MXD\2018\August\Figure 2-6 Vapor Intrusion Assessment Sample Location Map.mxd

FIGURE 2-6 - VAPOR INTRUSION ASSESSMENT SAMPLE LOCATION MAP

Semiannual Progress Report # 1

Murata Electronics N.A., Inc.

Rockmart, Georgia

▲ Collocated Sub-Slab Soil Gas & Indoor Air Sample Location

⬟ Outdoor Air Sample Location

SG = Soil Gas

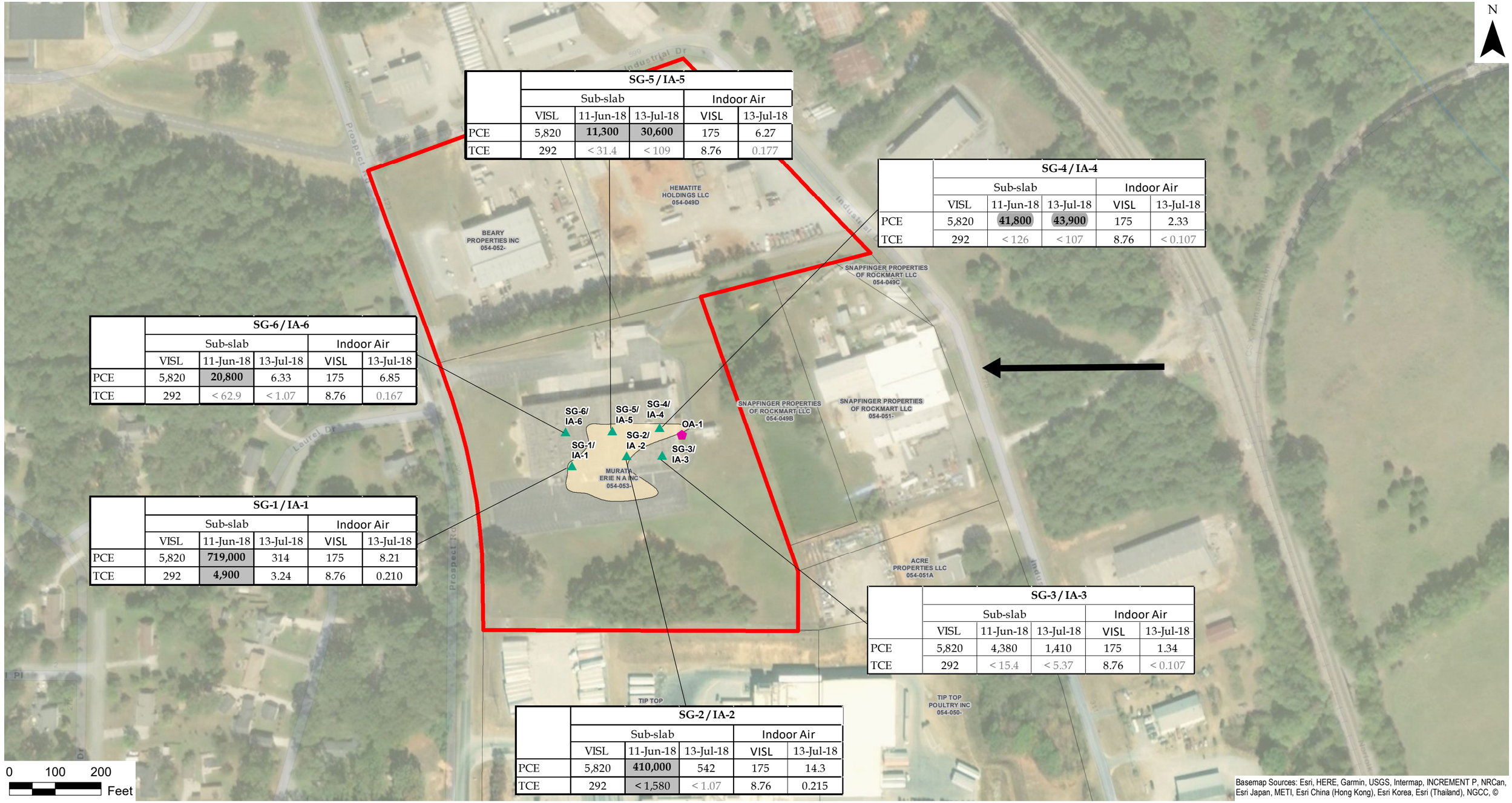
IA = Indoor Air

OA = Outdoor Air

Historical Soil Above RRS

Wind Direction July 13, 2018

ERM



SG-5 / IA-5

	Sub-slab			Indoor Air	
	VISL	11-Jun-18	13-Jul-18	VISL	13-Jul-18
PCE	5,820	**11,300**	**30,600**	175	6.27
TCE	292	< 31.4	< 109	8.76	0.177

SG-4 / IA-4

	Sub-slab			Indoor Air	
	VISL	11-Jun-18	13-Jul-18	VISL	13-Jul-18
PCE	5,820	**41,800**	**43,900**	175	2.33
TCE	292	< 126	< 107	8.76	< 0.107

SG-6 / IA-6

	Sub-slab			Indoor Air	
	VISL	11-Jun-18	13-Jul-18	VISL	13-Jul-18
PCE	5,820	**20,800**	6.33	175	6.85
TCE	292	< 62.9	< 1.07	8.76	0.167

SG-1 / IA-1

	Sub-slab			Indoor Air	
	VISL	11-Jun-18	13-Jul-18	VISL	13-Jul-18
PCE	5,820	**719,000**	314	175	8.21
TCE	292	**4,900**	3.24	8.76	0.210

SG-3 / IA-3

	Sub-slab			Indoor Air	
	VISL	11-Jun-18	13-Jul-18	VISL	13-Jul-18
PCE	5,820	4,380	1,410	175	1.34
TCE	292	< 15.4	< 5.37	8.76	< 0.107

SG-2 / IA-2

	Sub-slab			Indoor Air	
	VISL	11-Jun-18	13-Jul-18	VISL	13-Jul-18
PCE	5,820	**410,000**	542	175	14.3
TCE	292	< 1,580	< 1.07	8.76	0.215

Environmental Resources Management

DESIGN:	S Vizuete	DRAWN:	N Vrey	CHKD.:	H Sartain
DATE:	8/14/2018	SCALE:	AS SHOWN	REVISION:	0

FILE: P:\Projects\0190949 Murata Electronics Annual O&M 2016.NV\05 - ERM Outputs\MurataGIS\MXD\2018\August\Figure 2-7 Vapor Intrusion Sample Results.mxd

FIGURE 2-7 - VAPOR INTRUSION SAMPLE RESULTS

VRP Semiannual Progress Report # 1

Murata Electronics N.A., Inc.

Rockmart, Georgia

▲ Colllocated Sub-Slab Soil Gas & Indoor Air Sample Location

⬟ Outdoor Air Sample Location

SG = Soil Gas

IA = Indoor Air

OA = Outdoor Air

Soil Above RRS

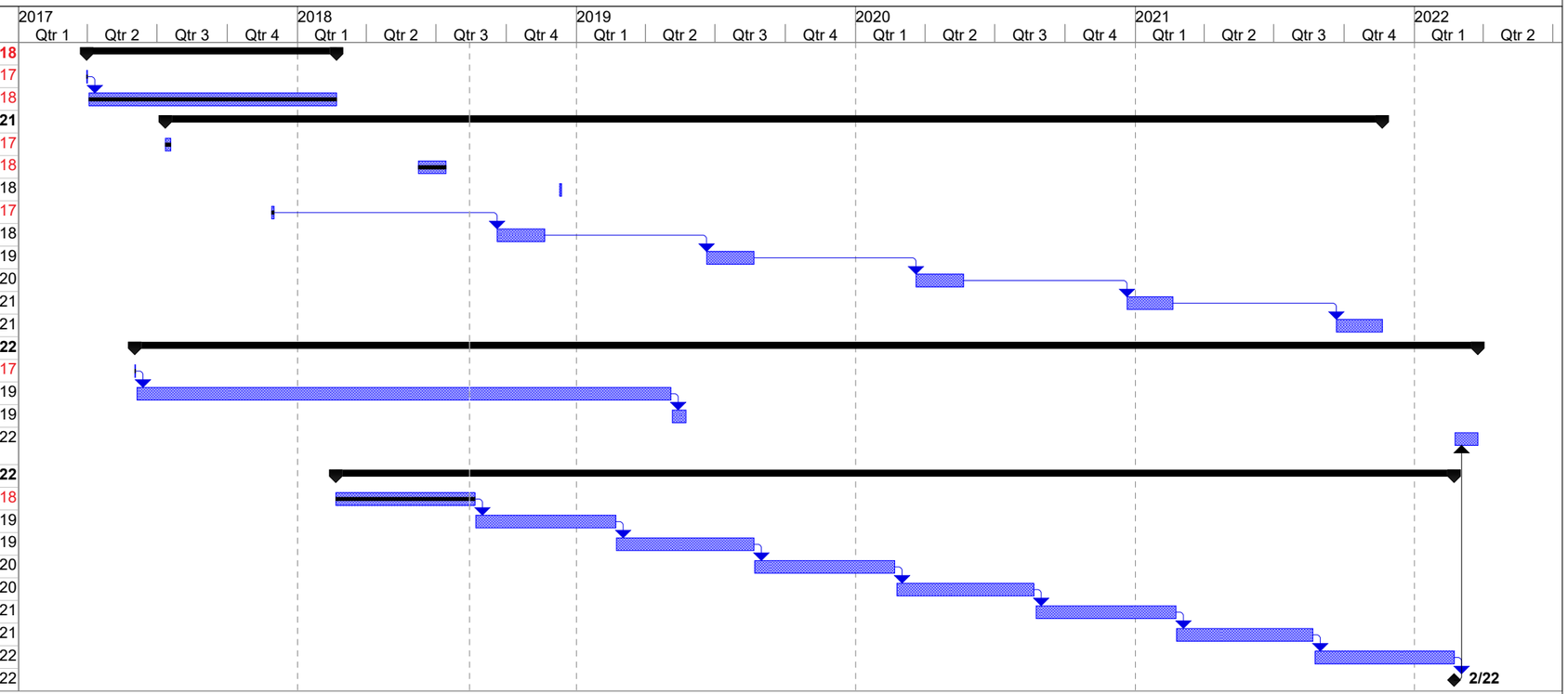
Wind Direction July 13, 2018

-All concentrations in micrograms per meter cubed (ug/m3)
-VISL = Vapor Intrusion Screening Level
-1x10-5 target risk for carcinogens was selected and a target hazard quotient of 1.0 was used for non-carcinogens

ERM

Figure 3-1
Project Schedule
VRP Semiannual Progress Report #1
Murata Electronics North America
Rockmart, GA

ID		Task Name	Duration	Start	Finish
1	✓	**VIRP/VRP Application**	**233 days**	**Fri 3/31/17**	**Tue 2/20/18**
2	✓	Submit VIRP/VRP Application	1 day	Fri 3/31/17	Fri 3/31/17
3	✓	Site Accepted in VRP/EPD Comments	232 days	Mon 4/3/17	Tue 2/20/18
4		**Sampling Activities**	**1138 days?**	**Wed 7/12/17**	**Fri 11/19/21**
5	✓	Soil Sampling	5 days	Wed 7/12/17	Tue 7/18/17
6	✓	VI Sampling "Summer"	26 days	Fri 6/8/18	Fri 7/13/18
7		VI Sampling "Winter"	2 days?	Mon 12/10/18	Tue 12/11/18
8	✓	GW Sampling Event 1	3 days	Tue 11/28/17	Thu 11/30/17
9		GW Sampling Event 2	44 days	Wed 9/19/18	Mon 11/19/18
10		GW Sampling Event 3	44 days	Thu 6/20/19	Tue 8/20/19
11		GW Sampling Event 4	44 days	Fri 3/20/20	Wed 5/20/20
12		GW Sampling Event 5	44 days	Mon 12/21/20	Thu 2/18/21
13		GW Sampling Event 6	44 days	Tue 9/21/21	Fri 11/19/21
14		**Equipment Activities**	**1255 days**	**Fri 6/2/17**	**Thu 3/24/22**
15	✓	Cease SVE Operation	1 day	Fri 6/2/17	Fri 6/2/17
16		Decomission Equipment	500 days	Mon 6/5/17	Fri 5/3/19
17		Initial Well Abandonment	14 days	Mon 5/6/19	Thu 5/23/19
18		Final Equipment Removal and Well Abandonment	22 days	Wed 2/23/22	Thu 3/24/22
19		**VRP Reporting**	**1045 days**	**Tue 2/20/18**	**Mon 2/21/22**
20	✓	2018 Semi-Annual Report H2	130 days	Tue 2/20/18	Mon 8/20/18
21		2019 Semi-Annual Report H1	131 days	Wed 8/22/18	Wed 2/20/19
22		2019 Semi-Annual Report H2	128 days	Fri 2/22/19	Tue 8/20/19
23		2020 Semi-Annual Report H1	131 days	Thu 8/22/19	Thu 2/20/20
24		2020 Semi-Annual Report H2	129 days	Mon 2/24/20	Thu 8/20/20
25		2021 Semi-Annual Report H1	131 days	Mon 8/24/20	Mon 2/22/21
26		2021 Semi-Annual Report H2	128 days	Wed 2/24/21	Fri 8/20/21
27		2022 Semi-Annual Report H1	130 days	Tue 8/24/21	Mon 2/21/22
28		**GA EPD - H.S.I. Delisting**	1 day	Tue 2/22/22	Tue 2/22/22



Project: Figure 3-1 VIRP Schedule - M
Date: Tue 8/14/18

Task		Project Summary		Inactive Task		Duration-only		Finish-only	
Split		External Tasks		Inactive Milestone		Manual Summary Rollup		Progress	
Milestone		External Milestone		Inactive Summary		Manual Summary		Deadline	
Summary		Inactive Task		Manual Task		Start-only			

Environmental Resources Management

DESIGN:	S Vizuete	DRAWN:	N Vrey	CHKD.:	H Sartain
DATE:	8/14/2018	SCALE:	AS SHOWN	REVISION:	0

FILE: \\USATLDC01\Data\Atlanta\Projects\0190949 Murata Electronics Annual O&M 2016.NV\05 - ERM Outputs\MurataGIS\MXD\2018\August\Figure 3-2 Proposed Groundwater Monitoring.mxd

FIGURE 3-2 - PROPOSED GROUNDWATER MONITORING

VRP Semiannual Progress Report # 1

Murata Electronics N.A., Inc.

Rockmart, Georgia

- Point-of-Determination Well Location
- Routine Monitoring Well Location
- Gauge & Abandon Monitoring Well Location
- Destroyed Monitoring Well Location

ERM

EPD Correspondence

Appendix A

Project No. 0190949
Murata Electronics North America

Environmental Resources Management
3200 Windy Hill Road SE, Suite 1500W
Atlanta, Georgia 30339
(678) 486-2700

Voluntary Investigation and Remediation Plan Application Form and Checklist

VRP APPLICANT INFORMATION

COMPANY NAME	Murata Erie NA, Inc.				
CONTACT PERSON/TITLE	Donnie Boatright / Corporate QA Manager, Murata Erie NA, Inc.				
ADDRESS	2200 Lake Park Drive , Smyrna, Ga 30080				
PHONE	770-436-1300	**FAX**	770-436-3030	**E-MAIL**	dboatright@murata.com

GEORGIA CERTIFIED PROFESSIONAL GEOLOGIST OR PROFESSIONAL ENGINEER OVERSEEING CLEANUP

NAME	Hunter S. Sartain			**GA PE/PG NUMBER**	PE 032318
COMPANY	Environmental Resources Management (ERM)				
ADDRESS	3200 Windy Hill Road, SE, Suite 1500W, Atlanta, Georgia 30339				
PHONE	678/486-2700	**FAX**	404/745-0103	**E-MAIL**	hunter.sartain@erm.com

APPLICANT'S CERTIFICATION

In order to be considered a qualifying property for the VRP:

(1) The property must have a release of regulated substances into the environment;
(2) The property shall not be:
- (A) Listed on the federal National Priorities List pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601.
- (B) Currently undergoing response activities required by an order of the regional administrator of the federal Environmental Protection Agency; or
- (C) A facility required to have a permit under Code Section 12-8-66.

(3) Qualifying the property under this part would not violate the terms and conditions under which the division operates and administers remedial programs by delegation or similar authorization from the United States Environmental Protection Agency.
(4) Any lien filed under subsection (e) of Code Section 12-8-96 or subsection (b) of Code Section 12-13-12 against the property shall be satisfied or settled and released by the director pursuant to Code Section 12-8-94 or Code Section 12-13-6.

In order to be considered a participant under the VRP:
- (1) The participant must be the property owner of the voluntary remediation property or have express permission to enter another's property to perform corrective action.
- (2) The participant must not be in violation of any order, judgment, statute, rule, or regulation subject to the enforcement authority of the director.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify that this property is eligible for the Voluntary Remediation Program (VRP) as defined in Code Section 12-8-105 and I am eligible as a participant as defined in Code Section 12-8-106.

APPLICANT'S SIGNATURE	Donnie Boatright		
APPLICANT'S NAME/TITLE (PRINT)	Donnie Boatright/QA Manager	**DATE**	March 29, 2017

QUALIFYING PROPERTY INFORMATION (For additional qualifying properties, please refer to the last page of application form)			
HAZARDOUS SITE INVENTORY INFORMATION (if applicable)			
HSI Number	10771	Date HSI Site listed	10/16/2003
HSI Facility Name	MENA Rockmart Facility	NAICS CODE	423690
PROPERTY INFORMATION			
TAX PARCEL ID	054-053	PROPERTY SIZE (ACRES)	9.8
PROPERTY ADDRESS	308 Prospect Road		
CITY	Rockmart	COUNTY	Polk
STATE	Georgia	ZIPCODE	30153
LATITUDE (decimal format)	34.014 North	LONGITUDE (decimal format)	85.063 West
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Murata Erie NA, Inc.	PHONE #	770-436-1300
MAILING ADDRESS	2200 Lake Park Drive		
CITY	Smyrna	STATE/ZIPCODE	GA 30080

ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (Leave Blank)
1.	**$5,000 APPLICATION FEE** IN THE FORM OF A CHECK PAYABLE TO THE GEORGIA DEPARTMENT OF NATURAL RESOURCES. (PLEASE LIST CHECK DATE AND CHECK NUMBER IN COLUMN TITLED "LOCATION IN VRP." PLEASE DO NOT INCLUDE A SCANNED COPY OF CHECK IN ELECTRONIC COPY OF APPLICATION.)	March 31, 2017 Ck # - 205184	
2.	**WARRANTY DEED(S)** FOR QUALIFYING PROPERTY.	See Appendix E	
3.	**TAX PLAT** OR OTHER FIGURE INCLUDING QUALIFYING PROPERTY BOUNDARIES, ABUTTING PROPERTIES, AND TAX PARCEL IDENTIFICATION NUMBER(S).	See Appendix E	
4.	**ONE (1) PAPER COPY AND TWO (2) COMPACT DISC (CD) COPIES** OF THE VOLUNTARY REMEDIATION PLAN IN A SEARCHABLE PORTABLE DOCUMENT FORMAT (PDF).	Paper copy and CDs included with this Application and Checklist.	

5.	The VRP participant's initial plan and application must include, using all reasonably available current information to the extent known at the time of application, a graphic three-dimensional preliminary conceptual site model (CSM) including a preliminary remediation plan with a table of delineation standards, brief supporting text, charts, and figures (no more than 10 pages, total) that illustrates the site's surface and subsurface setting, the known or suspected source(s) of contamination, how contamination might move within the environment, the potential human health and ecological receptors, and the complete or incomplete exposure pathways that may exist at the site; the preliminary CSM must be updated as the investigation and remediation progresses and an up-to-date CSM must be included in each semi-annual status report submitted to the director by the participant; a **PROJECTED MILESTONE SCHEDULE** for investigation and remediation of the site, and after enrollment as a participant, must update the schedule in each semi-annual status report to the director describing implementation of the plan during the preceding period. A Gantt chart format is preferred for the milestone schedule. The following four (4) generic milestones are required in all initial plans with the results reported in the participant's next applicable semi-annual reports to the director. The director may extend the time for or waive these or other milestones in the participant's plan where the director determines, based on a showing by the participant, that a longer time period is reasonably necessary:	See Section 2/3 of VIRP, including Figures 2-1 through 3-4 and Table 3-2. Milestone schedule provided as Figure 4-2 in the VIRP.	
5.a.	Within the first 12 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern on property where access is available at the time of enrollment;	Completed – See Section 2 and 3 of the VIRP	
5.b.	Within the first 24 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern extending onto property for which access was not available at the time of enrollment;	Completed – See Section 2 and 3 of the VIRP	
5.c.	Within 30 months after enrollment, the participant must update the site CSM to include vertical delineation, finalize the remediation plan and provide a preliminary cost estimate for implementation of remediation and associated continuing actions; and	CSM provided as 3-1, and as needed in future submittals	
5.d.	Within 60 months after enrollment, the participant must submit the compliance status report required under the VRP, including the requisite certifications.	TBD	

6.	**SIGNED AND SEALED PE/PG CERTIFICATION** AND SUPPORTING DOCUMENTATION: "I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances. Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." __Hunter S. Sartain, PE 032318_____ Printed Name and GA PE Number _____ Signature and Stamp _March 31, 2017_____ Date		

ADDITIONAL QUALIFYING PROPERTIES

PROPERTY INFORMATION			
TAX PARCEL ID	054-052	PROPERTY SIZE (ACRES)	4.3
PROPERTY ADDRESS	515 Industrial Drive		
CITY	Rockmart	COUNTY	Polk
STATE	GA	ZIPCODE	30153
LATITUDE (decimal format)	34.0153 North	LONGITUDE (decimal format)	85.0643 West
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Beary Properties, Inc.	PHONE #	To Be Determined
MAILING ADDRESS	2500 W Arthingon		
CITY	Chicago	STATE/ZIPCODE	IL 60612

PROPERTY INFORMATION			
TAX PARCEL ID	054-049D	PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS	457 Industrial Drive		
CITY	Rockmart	COUNTY	Polk
STATE	GA	ZIPCODE	30153
LATITUDE (decimal format)	34.0157 North	LONGITUDE (decimal format)	85.0629 West
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Hematite Holdings LLC	PHONE #	770-856-1965
MAILING ADDRESS	481 Iron Hill Road		
CITY	Taylorsville	STATE/ZIPCODE	GA 30178

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Land Protection Branch
2 Martin Luther King, Jr. Drive
Suite 1054, East Tower
Atlanta, Georgia 30334
404-657-8600

February 20, 2018

Via U.S. Mail
And Email: dboatright@murata.com

Murata Erie NA, Inc.
c/o Donnie Boatright, Corporate QA Manager
2200 Lake Park Drive
Smyrna, Georgia 30080

Subject: EPD Comments
Voluntary Investigation and Remediation Plan
MENA Rockmart Facility, HSI Site No. 10771
308 Prospect Road, Rockmart, Polk County, GA

Dear Mr. Boatright:

The Georgia Environmental Protection Division (EPD) has reviewed the Voluntary Investigation and Remediation Plan (VIRP) dated March 31, 2017 that was submitted by Murata Erie NA, Inc. (Murata) as an application for enrollment in the Voluntary Remediation Program (VRP) for the referenced site. EPD has the following comments:

1. In addition to the 308 Prospect Road property owned by Murata, the 457 and 515 Industrial Drive properties not owned by Murata were proposed as additional qualifying properties for enrollment in the VRP. However, EPD understands that 457 and 515 Industrial Drive have recently not been accessible. In order to enroll these properties in the VRP, Murata must have express permission to enter the properties to perform corrective action.
2. Based on historical sampling results, 1,4-dioxane should be considered as a potential constituent of concern for soil and groundwater. Please collect soil and groundwater samples in locations representative of where the substance would most likely be encountered (e.g., in soil near the water table and in groundwater at the source and the leading edge of the plume). Samples should be analyzed for 1,4-dioxane using EPA Method 8260 with selective ion monitoring (SIM) to obtain an appropriate detection limit.
3. Figure 3-4 (Murata Electronics – Site Conceptual Model): It appears that the primary sources column, on the far left of the figure, was labeled incorrectly with another site's name (M&J Solvents) in the Atlanta, Georgia area. Please revise this figure accordingly in future submittals.
4. Table 3-1 (Monitoring Well Groundwater Elevations): Please include the depth interval of the open section of monitoring wells MW-12 and MW-28, in the space for the "screen interval" along with the "open hole" label shown, to indicate the interval monitored by the well.

5. Table 3-2 (Groundwater VOC Concentrations): In future versions of Table 3-2 (Groundwater VOC Concentrations), please identify the sample collection method [e.g., permeable diffusion bag (PDB) samplers, traditional volumetric purging and soda straw collection method, etc.].

6. Cross-Section(s): A minimum of two cross-sections are necessary to depict the surficial and subsurface conditions at the site. Please provide an additional cross-section that extends (left to right) from MW-7 (SE corner of the Murata property) through MW-26, MW-22, MW-12/13, MW-23, MW-27, MW-A-3, MW-A-1, and MW-15.

   a. Please tabulate the most recent groundwater analytical results on the cross-sections immediately adjacent to the screened interval where they were collected.

   b. Please include all soil borings along the lines of cross-sections. Soil sampling intervals should be clearly depicted and associated analytical results tabulated. Soil analytical results should include sample acquisition dates and collection depths and should be clearly identified as pre- or post-remediation samples.

   c. Please depict major above ground structures, especially structures that were the source of the contaminant release(s), ground surface type (pavement, bare earth, etc.) along with known subsurface features associated with utilities and remediation system components.

7. In Appendix B, the groundwater Type 1 – 4 Risk Reduction Standards (RRS) and the soil Type 1 – 3 RRS are acceptable for use at the site. For the soil Type 4 RRS, please clarify the input values used for the mass limit leaching calculations and provide a justification for the use of the values.

8. EPD has the following comments regarding groundwater purging and sampling methods used during the 2016 groundwater monitoring event based on a review of the single groundwater sampling field log provided in Appendix D of the VIRP.

   a. The low-flow purging method, as described in the EPA Region 4 SESD Groundwater Sampling operating procedure dated April 26, 2017, involves maintaining the depth to water during the purge. It appears that field personnel were unable to do so for MW-7 as even the last three recorded depth to water measurements varied more than +0.3 ft. In the future, if field personnel are unable to stabilize groundwater measurements during purging, they should use the Traditional Multiple-Volume Purge method described in Section 3.4 of the referenced SOPs by pulling the pump intake to a depth just below the water table and lowering it as necessary to continue pumping water.

   b. The use of Low Density Polyethylene (LDPE) return tubing and pump bladder for collection of groundwater samples for volatile organic compound (VOC) analysis is not consistent with the referenced EPA SOPs and should not be used to demonstrate compliance with Type 1 – 4 RRS. Groundwater samples collected for said purposes should be collected using Teflon® or Teflon®-lined return tubing, and bladders, as recommended in the referenced EPA SOPs.

9. Depth to groundwater should be measured in all existing monitoring wells during future groundwater monitoring events regardless of whether they are sampled.

10. Murata intends to decommission several groundwater monitoring wells as summarized on Table 4-1. EPD concurs with the plan to decommission monitoring wells that are consistently dry and cannot be sampled or gauged for water levels. Prior to well decommissioning, please conduct a comprehensive groundwater monitoring event in which all monitoring wells (not dry) are purged and sampled for VOC analysis using either the traditional or low-flow purge methods referenced above. Groundwater samples collected in the vicinity of past in-situ chemical oxidation injections should also be analyzed for the eight RCRA metals. Well decommissioning plans should then be adjusted based on the results of the comprehensive monitoring event if necessary.
11. Efforts should be made to locate and properly decommission monitoring wells assumed to have been destroyed or buried on adjacent properties.
12. The draft Uniform Environmental Covenant (UEC) should be finalized once the activity and use limitations have been finalized. EPD will review the updated UEC at that time.
13. The vapor intrusion pathway should be evaluated for buildings within 100 feet of VOC contamination in soil or groundwater. For guidance in conducting the evaluation, please refer to the EPA *Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air* dated June 2015.

The above comments must be addressed to EPD's satisfaction in order to demonstrate compliance with the provisions, purposes, standards, and policies of the Act. EPD may, at its sole discretion, review and comment on documents submitted by Murata. However, failure of EPD to respond to a submittal within any timeframe does not relieve Murata from complying with the provisions, purposes, standards, and policies of the Act. If you have any questions, please contact Gordon Terhune of the Response and Remediation Program at (404) 657-8600.

Sincerely,

Jason Metzger
Program Manager
Response and Remediation Program

c: Hunter Sartain, ERM (via email: hunter.sartain@erm.com)
Nic Vrey, ERM (via email: nic.vrey@erm.com)

File: 233-0054 (VRP)
S:\RDRIVE\LARRYK\Murata Electric\VRP\2018-2-20 vrp application comments.docx

Updated Cross-Sections

Appendix B

Project No. 0190949
Murata Electronics North America

Environmental Resources Management
3200 Windy Hill Road SE, Suite 1500W
Atlanta, Georgia 30339
(678) 486-2700

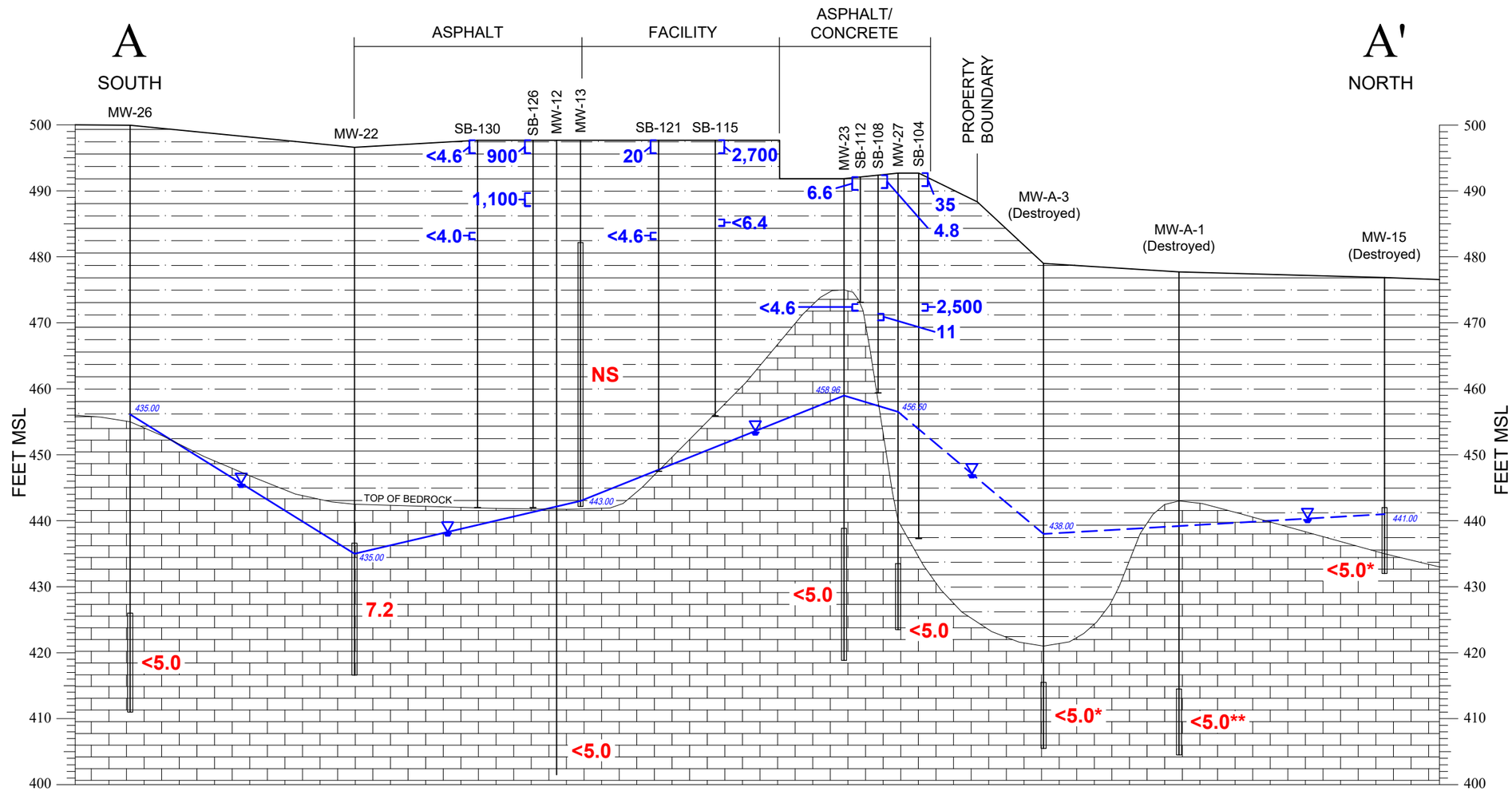
LEGEND

WELL CASING

432.62 GROUND WATER ELEVATION ON 8/8/05

SCEEN INTERVAL

GROUND WATER TABLE



NOTES

<5.0 PCE CONCENTRATION IN µg/L (NOVEMBER 2017)

<4.0 PCE CONCENTRATION IN µg/kg (JULY 2017)

* NOVEMBER 2015

** MARCH 2014

NS NOT SAMPLED

REGOLITH
Yellowish red, clayey silt with some sand, fragments of chert and slate, possible residuum of Newala Limestone and the overlying Rockmart Slate.

BEDROCK
Interbedded, bioturbated limestone and dolostone with brecciated clasts in the upper portion, shown in a borehole core: Newala Limestone (Cressler, 1970)

10
5
SCALE IN FEET
VE = 6
0
50
100

SOURCE: TOP OF CASING ELEVATION AND WELL LOCATIONS WERE SURVEYED BY DLM CIVIL ENGINEERING LAND SUIRVEYING, KENNESAW, GEORGIA.

HTX: T:\DWG\AutoCAD\dwg\0190949\0190949_XsecsAABB.dwg, 8/16/2018

ERM Environmental Resources Management

SITE CONCEPTUAL MODEL CROSS-SECTION A-A'
MURATA ELECTRONICS N.A., INC.
ROCKMART, GEORGIA

FIGURE
B-1

LEGEND

WELL CASING

432.62 GROUND WATER ELEVATION ON 8/8/05

SCEEN INTERVAL

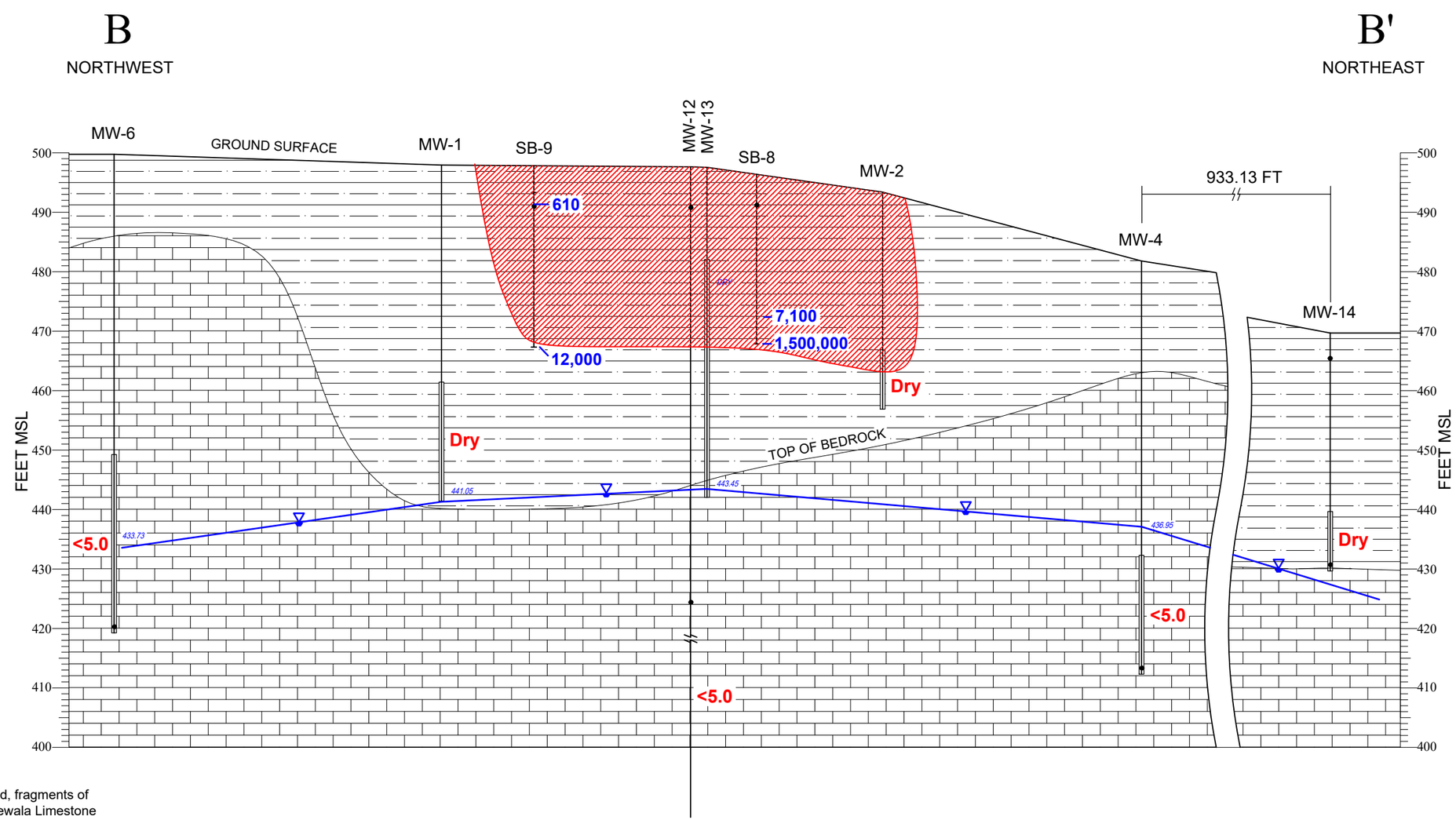
GROUND WATER TABLE

APPROXIMATE EXTENT OF SOIL ABOVE RRS (2008 CAR)

7.2 PCE CONCENTRATION IN µg/L (NOVEMBER 2017)

NS NOT SAMPLED

900 PCE CONCENTRATION IN µg/kg (2005)



NOTES

1. LITHOLOGIC DESCRIPTION FOR MONITORING WELLS MW-1 THROUGH MW-6 WAS OBTAINED FROM UNITED CONSULTING

2. TOTAL DEPTH OF DOUBLE-CASED OPEN-HOLE WELL MW-12 IS 200.5 FT. (SEE WELL CONSTRUCTION DIAGRAM)

REGOLITH
Yellowish red, clayey silt with some sand, fragments of chert and slate, possible residuum of Newala Limestone and the overlying Rockmart Slate.

BEDROCK
Interbedded, bioturbated limestone and dolostone with brecciated clasts in the upper portion, shown in a borehole core: Newala Limestone (Cressler, 1970)

10
5
SCALE IN FEET
VE = 8
0
40
80

SOURCE: TOP OF CASING ELEVATION AND WELL LOCATIONS WERE SURVEYED BY DLM CIVIL ENGINEERING LAND SUIRVEYING, KENNESAW, GEORGIA.

HTX: T:\DWG\AutoCAD\dwg\0190949\0190949_XsecsAABB.dwg, 8/16/2018

ERM Environmental Resources Management

SITE CONCEPTUAL MODEL CROSS-SECTION B-B'
MURATA ELECTRONICS N.A., INC.
ROCKMART, GEORGIA

FIGURE
B-2

Type 4 RRS and Proposed VRP Remedial Standard Calculations for Soil

Appendix C

Project No. 0190949
Murata Electronics North America

Environmental Resources Management
3200 Windy Hill Road SE, Suite 1500W
Atlanta, Georgia 30339
(678) 486-2700

Table 7
Murata
VRP Progress Report #1
Type 4 Risk Reduction Standards for Soil

Chemical	CAS No.	Appendix III Table 2 (mg/kg)	Leachate Parameters: Organic Carbon Partition Coef. Koc (L/kg)	Leachate Parameters: Soil-Water Partition Coef Kd (cm3/g)	Leachate Parameters: Henry's Law Constant (H') (unitless)	Leachate Parameters: Leachate Partition Factor (LPF) (mg/L)/(mg/kg)	Leachate Parameters: Target GW RRS Max Type 3/4 (mg/L)	Leachate Parameters: Target Leachate Conc. (Cw) DF=2 (mg/L)	SSL_P Leachability Criteria (SSL): SSG Eqn 10 Partitioning (mg/kg)	SSL_M Leachability Criteria (SSL): SSG Eqn 14 Mass Limit (mg/kg)	RAGS7 RAGS B NonResidential Calculations: Type 4 Non-Carcinogen (mg/kg)	RAGS6 RAGS B NonResidential Calculations: Type 4 Carcinogen (mg/kg)	Type 4 RRS (excluding Mass Limit): Surface Soil (0-2') (mg/kg)	Type 4 RRS (excluding Mass Limit): Subsurface Soil (>2') (mg/kg)	Soil (0-2') Basis	Soil (>2') Basis	Type 4 RRS (with Mass Limit): Surface Soil (0-2') (mg/kg)	Type 4 RRS (with Mass Limit): Subsurface Soil (>2') (mg/kg)	Soil (0-2') Basis	Soil (>2') Basis
1,1-Dichloroethane	75-34-3	-	3.18E+01	6.36E-02	2.30E-01	2.84E-01	4.00E+00	8.00E+01	2.27E+01	1.12E+02	4.09E+05	5.36E+01	2.27E+01	2.27E+01	SSL_P	SSL_P	5.36E+01	1.12E+02	RAGS6	SSL_M
1,2-Dichloroethene, cis-	156-59-2	-	3.96E+01	7.92E-02	1.67E-01	2.94E-01	2.04E-01	4.09E+00	1.20E+00	5.72E+00	4.09E+03	-	1.20E+00	1.20E+00	SSL_P	SSL_P	5.72E+00	5.72E+00	SSL_M	SSL_M
1,2-Dichloroethene, trans-	156-60-5	-	3.96E+01	7.92E-02	3.83E-01	3.13E-01	2.04E+00	4.09E+01	1.28E+01	5.72E+01	4.09E+04	-	1.28E+01	1.28E+01	SSL_P	SSL_P	5.72E+01	5.72E+01	SSL_M	SSL_M
Acetone	67-64-1	-	2.36E+00	4.73E-03	1.43E-03	2.05E-01	4.56E+01	9.12E+02	1.87E+02	1.28E+03	2.60E+05	-	1.87E+02	1.87E+02	SSL_P	SSL_P	1.28E+03	1.28E+03	SSL_M	SSL_M
Ethylbenzene	100-41-4	-	4.46E+02	8.92E-01	3.22E-01	1.12E+00	7.00E-01	1.40E+01	1.57E+01	1.96E+01	1.05E+04	1.22E+02	1.57E+01	1.57E+01	SSL_P	SSL_P	1.96E+01	1.96E+01	SSL_M	SSL_M
Tetrachloroethene	127-18-4	-	9.49E+01	1.90E-01	7.24E-01	4.55E-01	9.81E-02	1.96E+00	8.92E-01	2.75E+00	1.52E+02	4.09E+02	8.92E-01	8.92E-01	SSL_P	SSL_P	2.75E+00	2.75E+00	SSL_M	SSL_M
Toluene	108-88-3	-	2.34E+02	4.68E-01	2.71E-01	6.92E-01	5.24E+00	1.05E+02	7.25E+01	1.47E+02	3.28E+04	-	7.25E+01	7.25E+01	SSL_P	SSL_P	1.47E+02	1.47E+02	SSL_M	SSL_M
Trichloroethene	79-01-6	-	6.07E+01	1.21E-01	4.03E-01	3.57E-01	5.24E-03	1.05E-01	3.75E-02	1.47E-01	7.07E+00	2.38E+01	3.75E-02	3.75E-02	SSL_P	SSL_P	1.47E-01	1.47E-01	SSL_M	SSL_M
Xylene, m-	108-38-3	-	3.75E+02	7.51E-01	2.94E-01	9.77E-01	2.88E-01	R 5.76E+00	5.62E+00	8.06E+00	1.07E+03	-	5.62E+00	5.62E+00	SSL_P	SSL_P	8.06E+00	8.06E+00	SSL_M	SSL_M
Xylene, o- (1,2-Dimethylbenzene)	95-47-6	-	3.83E+02	7.66E-01	2.12E-01	9.85E-01	2.88E-01	R 5.76E+00	5.67E+00	8.06E+00	1.26E+03	-	5.67E+00	5.67E+00	SSL_P	SSL_P	8.06E+00	8.06E+00	SSL_M	SSL_M
Xylene, p-	106-42-3	-	3.75E+02	7.51E-01	2.82E-01	9.76E-01	2.88E-01	R 5.76E+00	5.62E+00	8.06E+00	1.09E+03	-	5.62E+00	5.62E+00	SSL_P	SSL_P	8.06E+00	8.06E+00	SSL_M	SSL_M

Notes:
- Not Available
RRS - Risk Reduction Standards
Appendix III Table 2 - provides soil criteria for certain inorganics.
DL - The maximum of the Type 3 or Type 4 RRS for ground water used to calculate the leachability criteria is based on the ground water detection limit.
SSL - Soil Screening Level for protection of ground water, see further details below.
RAGS Part B Calculations are provided in Table 2.
Type 4 RRS - concentrations that pose no significant risk on the basis of a site-specific risk assessment for non-residential properties. Per Rule 391-3-19-.07(9)(d), the soil criteria for Type 4 are identified as the minimum of the following:

(1) Per Rule 391-3-19-07(09)(d)1, concentrations at any point above the uppermost ground water zone that will not result in contamination of groundwater at levels which exceed the higher of the Type 3 or Type 4 groundwater criteria. Leachability Criteria Soil Screening Levels (SSLs) were calculated using either the partitioning equation (Eqn. 4-10) or the Mass-Limit equation (Eqn. 4-14) for migration to ground water provided in the USEPA 2002 Supplemental Soil Screening Guidance and parameters defined below.

(2) Concentrations in surface soil (0-2 feet below ground surface) shall meet criteria of (1) above, and additionally shall not exceed the minimum of (i) through (iii) below:

(i) Per Rule 391-3-19-.07(9)(d)2(i), concentration unlikely to result in any non-cancer toxic effects on human health due to ingestion of soil and inhalation of volatiles and particulates, determined using Equation 7 of RAGS Part B and site-specific exposure assumptions for the non-residential use scenario. Calculations are provided in Table 2.

(ii) Per Rule 391-3-19-.07(9)(d)2(ii), concentration for which the target excess cancer risk is less than or equal to 1E-05 from ingestion of soil and inhalation of volatiles and particulates using Equation 6 of RAGS Part B and site-specific exposure assumptions for the non-residential use scenario. Calculations are provided in Table 2.

(iii) Per Rule 391-3-19-.07(9)(d)2(iii), for lead, the minimum of the concentration determined using the GALM (930 mg/kg, see Table 9), as defined in this Rule, and the soil criterion at Item 1 above (i.e., the SSL).

Leachate Parameters (Partitioning)	Symbols	Values	Units	Source
Soil bulk density	ρ_b	1.5	kg/L	USEPA, 2002. Default value.
Water-filled soil porosity	θ_w	0.3	Lwater/Lsoil	USEPA, 2002. Default value.
Air-filled soil porosity	θ_a	0.13	Lair/Lsoil	USEPA, 2002. $n-q_w$
Fraction of organic carbon in soil	f_{oc}	0.002	g/g	USEPA, 2002. Default value.
Soil particle density	ρ_s	2.65	kg/L	USEPA, 2002. Default value.
Soil porosity	n	0.43	Lpore/Lsoil	USEPA, 2002. $(1 - \rho_b/\rho_s)$
Dilution Factor (a)	DAF	20	unitless	USEPA, 2002. Default value.
Organic carbon partition coefficient (b)	Koc	chem-spec	L/kg	USEPA, Regional Screening Level Tables, May 2016, unless otherwise noted "R" (b)
Soil-water partition coefficient	Kd	chem-spec	cm3/g	Inorganics - USEPA, Regional Screening Level Tables, May 2016 Organics - calculated as Koc * Foc
Henry's Law Constant	H'	chem-spec	unitless	Inorganics (except mercury) - per USEPA, 2002, assume H'=0 Organics - USEPA, Regional Screening Level Tables, May 2016
Leachate Partition Factor	LPF	chem-spec	(mg/L)/(mg/kg)	$=(K_d + ((\theta_w + \theta_a H')/\rho_b))$
Target soil leachate concentration (c)	Cw	chem-spec	mg/L	Max of Type 3 and Type 4 GW RRS multiplied by the DF (c)
Leachability Criteria, Partitioning	SSL_P	chem-spec	mg/kg	= LPF * Cw

(a) See site-specific DAF calculation on Table 10

(b) "R" indicates value not available in EPA RSL Tables or Soil Screening Guidance. Value obtained from the Risk Assessment Information System (RAIS) online database, search performed on 3/21/2017.

(c) When the higher of the Type 3/4 GW RRS used in the leachability calculation was equal to the ground water detection limit, "DL" is noted.

For Mass Limit:				
Depth of source	ds	6	m	site-specific, approximately 20 ft (~6 meters) to water table
Infiltration rate	I	0.18	m/yr	USEPA, 2002. Default value.
Exposure Duration	ED	70	yr	USEPA, 2002. Default value.
Leachability Criteria, Mass Limit	SSL_M	chem-spec	mg/kg	= Cw * I * ED/ (ρb * ds) (Eqn 4-14 from USEPA, 2002)

Table 7
Murata
VRP Progress Report #1
Type 4 Risk Reduction Standards for Soil

Chemical	CAS No.	Appendix III Table 2 (mg/kg)	Leachate Parameters: Organic Carbon Partition Coef. Koc (L/kg)	Soil-Water Partition Coef Kd (cm3/g)	Henry's Law Constant (H') (unitless)	Leachate Partition Factor (LPF) (mg/L)/(mg/kg)	Target GW RRS Max Type 3/4 (mg/L)		Target Leachate Conc. (Cw) DF=2 (mg/L)	Leachability Criteria (SSL): SSL_P SSG Eqn 10 Partitioning (mg/kg)	SSL_M SSG Eqn 14 Mass Limit (mg/kg)	RAGS7 RAGS B Nonresidential Calculations: Type 4 Non-Carcinogen (mg/kg)	RAGS6 Type 4 Carcinogen (mg/kg)	VRP Remedial Standards: Surface Soil (0-2') (mg/kg)	Subsurface Soil (>2') (mg/kg)
1,1-Dichloroethane	75-34-3	-	3.18E+01	6.36E-02	2.30E-01	2.84E-01	4.00E+00		8.00E+01	-	-	4.09E+05	5.36E+01	5.36E+01	5.36E+01
1,2-Dichloroethene, cis-	156-59-2	-	3.96E+01	7.92E-02	1.67E-01	2.94E-01	2.04E-01		4.09E+00	-	-	4.09E+03	-	4.09E+03	4.09E+03
1,2-Dichloroethene, trans-	156-60-5	-	3.96E+01	7.92E-02	3.83E-01	3.13E-01	2.04E+00		4.09E+01	-	-	4.09E+04	-	4.09E+04	4.09E+04
Acetone	67-64-1	-	2.36E+00	4.73E-03	1.43E-03	2.05E-01	4.56E+01		9.12E+02	-	-	2.60E+05	-	2.60E+05	2.60E+05
Ethylbenzene	100-41-4	-	4.46E+02	8.92E-01	3.22E-01	1.12E+00	7.00E-01		1.40E+01	-	-	1.05E+04	1.22E+02	1.22E+02	1.22E+02
Tetrachloroethene	127-18-4	-	9.49E+01	1.90E-01	7.24E-01	4.55E-01	9.81E-02		1.96E+00	-	-	1.52E+02	4.09E+02	1.52E+02	1.52E+02
Toluene	108-88-3	-	2.34E+02	4.68E-01	2.71E-01	6.92E-01	5.24E+00		1.05E+02	-	-	3.28E+04	-	3.28E+04	3.28E+04
Trichloroethene	79-01-6	-	6.07E+01	1.21E-01	4.03E-01	3.57E-01	5.24E-03		1.05E-01	-	-	7.07E+00	2.38E+01	7.07E+00	7.07E+00
Xylene, m-	108-38-3	-	3.75E+02	7.51E-01	2.94E-01	9.77E-01	2.88E-01	R	5.76E+00	-	-	1.07E+03	-	1.07E+03	1.07E+03
Xylene, o- (1,2-Dimethylbenzene)	95-47-6	-	3.83E+02	7.66E-01	2.12E-01	9.85E-01	2.88E-01	R	5.76E+00	-	-	1.26E+03	-	1.26E+03	1.26E+03
Xylene, p-	106-42-3	-	3.75E+02	7.51E-01	2.82E-01	9.76E-01	2.88E-01	R	5.76E+00	-	-	1.09E+03	-	1.09E+03	1.09E+03

Notes:
- Not Available
RRS - Risk Reduction Standards
Appendix III Table 2 - provides soil criteria for certain inorganics.
DL - The maximum of the Type 3 or Type 4 RRS for ground water used to calculate the leachability criteria is based on the ground water detection limit.
SSL - Soil Screening Level for protection of ground water, see further details below.
RAGS Part B Calculations are provided in Table 2.
Type 4 RRS - concentrations that pose no significant risk on the basis of a site-specific risk assessment for non-residential properties. Per Rule 391-3-19-.07(9)(d), the soil criteria for Type 4 are identified as the minimum of the following:

(1) Per Rule 391-3-19-07(09)(d)1, concentrations at any point above the uppermost ground water zone that will not result in contamination of groundwater at levels which exceed the higher of the Type 3 or Type 4 groundwater criteria. Leachability Criteria Soil Screening Levels (SSLs) were calculated using either the partitioning equation (Eqn. 4-10) or the Mass-Limit equation (Eqn. 4-14) for migration to ground water provided in the USEPA 2002 Supplemental Soil Screening Guidance and parameters defined below.

(2) Concentrations in surface soil (0-2 feet below ground surface) shall meet criteria of (1) above, and additionally shall not exceed the minimum of (i) through (iii) below:

(i) Per Rule 391-3-19-.07(9)(d)2(i), concentration unlikely to result in any non-cancer toxic effects on human health due to ingestion of soil and inhalation of volatiles and particulates, determined using Equation 7 of RAGS Part B and site-specific exposure assumptions for the non-residential use scenario. Calculations are provided in Table 2.

(ii) Per Rule 391-3-19-.07(9)(d)2(ii), concentration for which the target excess cancer risk is less than or equal to 1E-05 from ingestion of soil and inhalation of volatiles and particulates using Equation 6 of RAGS Part B and site-specific exposure assumptions for the non-residential use scenario. Calculations are provided in Table 2.

(iii) Per Rule 391-3-19-.07(9)(d)2(iii), for lead, the minimum of the concentration determined using the GALM (930 mg/kg, see Table 9), as defined in this Rule, and the soil criterion at Item 1 above (i.e., the SSL).

Leachate Parameters (Partitioning)	Symbols	Values	Units	Source
Soil bulk density	ρ_b	1.5	kg/L	USEPA, 2002. Default value.
Water-filled soil porosity	θ_w	0.3	Lwater/Lsoil	USEPA, 2002. Default value.
Air-filled soil porosity	θ_a	0.13	Lair/Lsoil	USEPA, 2002. n-q_w
Fraction of organic carbon in soil	f_{oc}	0.002	g/g	USEPA, 2002. Default value.
Soil particle density	ρ_s	2.65	kg/L	USEPA, 2002. Default value.
Soil porosity	n	0.43	Lpore/Lsoil	USEPA, 2002. (1 - ρ_b/ρ_s)
Dilution Factor (a)	DAF	20	unitless	USEPA, 2002. Default value.
Organic carbon partition coefficient (b)	Koc	chem-spec	L/kg	USEPA, Regional Screening Level Tables, May 2016, unless otherwise noted "R" (b)
Soil-water partition coefficient	Kd	chem-spec	cm3/g	Inorganics - USEPA, Regional Screening Level Tables, May 2016 Organics - calculated as Koc * Foc
Henry's Law Constant	H'	chem-spec	unitless	Inorganics (except mercury) - per USEPA, 2002, assume H'=0 Organics - USEPA, Regional Screening Level Tables, May 2016
Leachate Partition Factor	LPF	chem-spec	(mg/L)/(mg/kg)	=(K_d + ((θ_w +θ_aH')/ρ_b))
Target soil leachate concentration (c)	Cw	chem-spec	mg/L	Max of Type 3 and Type 4 GW RRS multiplied by the DF (c)
Leachability Criteria, Partitioning	SSL_P	chem-spec	mg/kg	= LPF * Cw

(a) See site-specific DAF calculation on Table 10
(b) "R" indicates value not available in EPA RSL Tables or Soil Screening Guidance. Value obtained from the Risk Assessment Information System (RAIS) online database, search performed on 3/21/2017.
(c) When the higher of the Type 3/4 GW RRS used in the leachability calculation was equal to the ground water detection limit, "DL" is noted.

Groundwater Laboratory Analytical Report

Appendix D

Project No. 0190949
Murata Electronics North America

Environmental Resources Management
3200 Windy Hill Road SE, Suite 1500W
Atlanta, Georgia 30339
(678) 486-2700

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

December 14, 2017

Nic Very
ERM-Southeast

3200 Windy Hill Rd
Atlanta GA 30341

RE: Murata

Dear Nic Very: Order No: 1712085

Analytical Environmental Services, Inc. received 32 samples on December 1, 2017 2:29 pm for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/17-06/30/18.
State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective 07/01/17-06/30/18 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.
-NELAP/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/17-06/30/18.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/19.
These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Mirzeta Kararic

Mirzeta Kararic

Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 1712085

Date: ~~11/30/17~~ V.T. 12/1/17 Page 1 of 3

COMPANY: ERM

ADDRESS: 3200 WINDY HILL RD SE STE 1500W ATLANTA, GA

PHONE: 678-486-2700

EMAIL: NIC.VREY@ERM.COM

SAMPLED BY: V.T. C.H. H.B

SIGNATURE: [signature]

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

ANALYSIS REQUESTED

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	MURATA VOCs - TCL (H+I)	VOCs - GC (H+I)	TOTAL METALS, TOTAL Fe, TOTAL Hg - RCRA METALS (N)	1,4-DIOXANE SIM (H+I)	REMARKS	Number of Containers
1	MW-19	11/28/17	1420	X		GW	X	X	X	X	MnO4	5
2	MW-27	↓	1236	X		GW	X	X	X	X	MnO4	5
3	MW-A-4		1146	X		GW	X	X	X	X		5
4	MW-B-1		1638	X		GW	X	X	X	X		5
5	MW-B-4	↓	1620	X		GW	X	X	X	X		5
6	MW-3	11/29/17	1459	X		GW	X	X	X	X	MnO4	5
7	MW-18	↓	0910	X		GW	X	X	X	X	MnO4	5
8	MW-20		0940	X		GW	X	X	X	X	MnO4	5
9	MW-24		1132	X		GW	X	X	X	X		5
10	MW-25		1347	X		GW	X	X	X	X		5
11	MW-29		1251	X		GW	X	X	X	X	MnO4	5
12	MW-B-2		1530	X		GW	X	X	X	X		5
13	MW-B-3		1150	X		GW	X	X	X	X		5
14	DUP-1	↓	—	X		GW	X	X		X		4

PRESERVATION (see codes)

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1. Cayce Unsdle	12-1-17/1428	1. [signature]	12/01/17 2:29pm
2.		2.	
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier Greyhound
other: _____

PROJECT INFORMATION
PROJECT NAME: MURATA
PROJECT #: 0190949
SITE ADDRESS: 308 PROSPECT RD ROCKMART, GA
SEND REPORT TO: NIC.VREY@ERM.COM
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers: 69

Turnaround Time (TAT) Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush (auth req.)
- [ ] Other _____

STATE PROGRAM (if any): _____
E-mail? [ ] Fax? [ ]
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 1712085

Date: 12/1/17 Page 2 of 3

COMPANY: ERM

ADDRESS: 3200 WINDY HILL RD SE STE 1500W ATANTA, GA

PHONE: 678-486-2700

EMAIL: NIC.VREY@ERM.COM

SAMPLED BY: V.T. C.H. H.B

SIGNATURE: [signature]

ANALYSIS REQUESTED: MURATA VOCs-TCL; 1,4-DIOXANE SIM ~~VOCs-GCMS~~; TOTAL METALS, TOTAL Fe, TOTAL Hg; RCRA METALS

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	PRESERVATION (see codes) H+I	H+I	N	REMARKS	Number of Containers
1	MW-23	11/30/17	1118	X		GW	X	X	X	MnO4	5
2	MW-A-5		1030	X		GW	X	X	X		5
3	MW-5		1030	X		GW	X	X	X		5
4	MW-4		1640	X		GW	X	X	X		5
5	MW-6		1400	X		GW	X	X	X		5
6	MW-8		1808	X		GW	X	X	X		5
7	MW-9		1820	X		GW	X	X	X	Product and MnO4 in sample	5
8	~~MW-12~~ V.T.		~~1020~~	~~X~~		~~GW~~	~~X~~	~~X~~	~~X~~	~~Product and V.T. MnO4 in sample~~	~~5~~ V.T.
9	MW-17		1426	X		GW	X	X	X	MnO4	5
10	MW-22		1610	X		GW	X	X	X		5
11	DUP-2		—	X		GW	X	X			4
12	DUP-3		—	X		GW	X	X			4
13	FERB-1		1040	X		~~G~~ W	X	X			4
14										V.T.	~~62~~ 58

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1. Cayce Uurdle	12-1-17/1428	1. [signature]	12/01/17 2:29PM
2.		2.	
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier Greyhound
other: _____

PROJECT INFORMATION
PROJECT NAME: MURATA
PROJECT #: 0190949
SITE ADDRESS: 308 PROSPECT RD ROCKMART, GA
SEND REPORT TO: NIC.VREY@ERM.COM
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers

Turnaround Time (TAT) Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush (auth req.)
- [ ] Other _____

STATE PROGRAM (if any): _____
E-mail? [ ] Fax? [ ]
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 1712085

Date: 12/1/17 Page 3 of 3

COMPANY: ERM

ADDRESS: 3200 WINDY HILL RD SE STE 1500W ATANTA, GA

PHONE: 678-486-2700

EMAIL: NIC.VREY@ERM.COM

SAMPLED BY: V.T. C.H. ~~A.B~~ VT

SIGNATURE: [signature]

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	MURATA VOCs - TCL	1,4-DIOXANE SIM	TOTAL METALS, RCRA TOTAL FE, TOTAL Hg										REMARKS	Number of Containers
1	MW-7	12/1/17	1111	X		GW	X	X	X										MnO4	5
2	MW-26	↓	0848	X		GW	X	X	X											5
3	MW-12	↓	1020	X		GW	X	X	X										MnO4	5
4	FERB-2	↓	1110	X		W	X	X												4
5	TB-1	—	—	—	—	W	X	~~X~~												2
6	TB-2	—	—	—	—	W	X													2
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				

PRESERVATION (see codes)

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1. [signature]	12-1-17/1428	1. [signature]	12/01/17 2:29PM
2.		2.	
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier Greyhound
other: _____

PROJECT INFORMATION
PROJECT NAME: MURATA
PROJECT #: 0190949
SITE ADDRESS: 308 PROSPECT RD ROCKMART, GA
SEND REPORT TO: NIC.VREY@ERM.COM
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers: 23

Turnaround Time (TAT) Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush (auth req.)
- [ ] Other _____

STATE PROGRAM (if any): _____
E-mail? [ ] Fax? [ ]
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client: ERM-Southeast
Project: Murata
Lab ID: 1712085

Case Narrative

Volatile Organic Compounds Analysis by Method 8260B:

Samples 1712085-001A, -002A, -006A, -007A, -008A, -011A, -015A, -021A, -022A, -027A, & -029 exhibited a positive result for the presence of residual chlorine or other oxidizing agent. The presence of free chlorine in aqueous samples can cause the formation of trihalomethanes and other possible chemical reactions.

Metals Analysis by Method 6010D:

Due to sample matrix, samples 1712085-029B, 1712085-001B, and 1712085-008B required dilution during analysis resulting in elevated reporting limits.

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-19
Project Name:	Murata	**Collection Date:**	11/28/2017 2:20:00 PM
Lab ID:	1712085-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**			
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
1,1-Dichloroethane	10	5.0		ug/L	252427	1	12/04/2017 23:37	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
2-Butanone	BRL	50		ug/L	252427	1	12/04/2017 23:37	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/04/2017 23:37	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/04/2017 23:37	NP
Acetone	BRL	50		ug/L	252427	1	12/04/2017 23:37	NP
Benzene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Chloroethane	BRL	10		ug/L	252427	1	12/04/2017 23:37	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Chloromethane	BRL	10		ug/L	252427	1	12/04/2017 23:37	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/04/2017 23:37	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Freon-113	BRL	10		ug/L	252427	1	12/04/2017 23:37	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-19
Project Name:	Murata	**Collection Date:**	11/28/2017 2:20:00 PM
Lab ID:	1712085-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Styrene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Toluene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/04/2017 23:37	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/04/2017 23:37	NP
Surr: 4-Bromofluorobenzene	90.9	68-127		%REC	252427	1	12/04/2017 23:37	NP
Surr: Dibromofluoromethane	114	84.4-122		%REC	252427	1	12/04/2017 23:37	NP
Surr: Toluene-d8	85.8	80.1-116		%REC	252427	1	12/04/2017 23:37	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	0.00237	0.00020		mg/L	252464	1	12/06/2017 03:37	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/08/2017 05:29	NP
Surr: 4-Bromofluorobenzene	94.5	85.7-115		%REC	252620	1	12/08/2017 05:29	NP
Surr: Dibromofluoromethane	107	73.4-129		%REC	252620	1	12/08/2017 05:29	NP
Surr: Toluene-d8	68.2	85-115	S	%REC	252620	1	12/08/2017 05:29	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 14:08	JR
Barium	0.349	0.0200		mg/L	252363	1	12/06/2017 14:08	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 14:08	JR
Chromium	0.157	0.0100		mg/L	252363	1	12/06/2017 14:08	JR
Iron	2.00	0.100		mg/L	252363	1	12/06/2017 14:08	JR
Lead	0.0121	0.0100		mg/L	252363	1	12/06/2017 14:08	JR
Selenium	BRL	0.100		mg/L	252363	5	12/13/2017 14:08	JR
Silver	0.0108	0.0100		mg/L	252363	1	12/06/2017 14:08	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-27
Project Name:	Murata	**Collection Date:**	11/28/2017 12:36:00 PM
Lab ID:	1712085-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**			
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 00:02	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 00:02	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 00:02	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 00:02	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 00:02	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 00:02	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 00:02	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 00:02	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-27
Project Name:	Murata	**Collection Date:**	11/28/2017 12:36:00 PM
Lab ID:	1712085-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 00:02	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 00:02	NP
Surr: 4-Bromofluorobenzene	87.6	68-127		%REC	252427	1	12/05/2017 00:02	NP
Surr: Dibromofluoromethane	113	84.4-122		%REC	252427	1	12/05/2017 00:02	NP
Surr: Toluene-d8	90.4	80.1-116		%REC	252427	1	12/05/2017 00:02	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252464	1	12/06/2017 03:41	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	27	5.0		ug/L	252620	1	12/08/2017 05:56	NP
Surr: 4-Bromofluorobenzene	91.9	85.7-115		%REC	252620	1	12/08/2017 05:56	NP
Surr: Dibromofluoromethane	106	73.4-129		%REC	252620	1	12/08/2017 05:56	NP
Surr: Toluene-d8	54	85-115	S	%REC	252620	1	12/08/2017 05:56	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 14:11	JR
Barium	BRL	0.0200		mg/L	252363	1	12/06/2017 14:11	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 14:11	JR
Chromium	0.0185	0.0100		mg/L	252363	1	12/06/2017 14:11	JR
Iron	0.175	0.100		mg/L	252363	1	12/06/2017 14:11	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 14:11	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 14:11	JR
Silver	0.0104	0.0100		mg/L	252363	1	12/06/2017 14:11	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-A-4
Project Name:	Murata	**Collection Date:**	11/28/2017 11:46:00 AM
Lab ID:	1712085-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 00:27	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 00:27	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 00:27	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 00:27	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 00:27	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 00:27	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 00:27	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 00:27	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-A-4
Project Name:	Murata	**Collection Date:**	11/28/2017 11:46:00 AM
Lab ID:	1712085-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 00:27	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 00:27	NP
Surr: 4-Bromofluorobenzene	94.2	68-127		%REC	252427	1	12/05/2017 00:27	NP
Surr: Dibromofluoromethane	111	84.4-122		%REC	252427	1	12/05/2017 00:27	NP
Surr: Toluene-d8	97.6	80.1-116		%REC	252427	1	12/05/2017 00:27	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252464	1	12/06/2017 03:45	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/07/2017 14:04	NP
Surr: 4-Bromofluorobenzene	100	85.7-115		%REC	252620	1	12/07/2017 14:04	NP
Surr: Dibromofluoromethane	104	73.4-129		%REC	252620	1	12/07/2017 14:04	NP
Surr: Toluene-d8	99.4	85-115		%REC	252620	1	12/07/2017 14:04	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 13:52	JR
Barium	0.0863	0.0200		mg/L	252363	1	12/06/2017 13:52	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 13:52	JR
Chromium	BRL	0.0100		mg/L	252363	1	12/06/2017 13:52	JR
Iron	BRL	0.100		mg/L	252363	1	12/06/2017 13:52	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 13:52	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 13:52	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 13:52	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-B-1
Project Name:	Murata	**Collection Date:**	11/28/2017 4:38:00 PM
Lab ID:	1712085-004	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 01:40	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 01:40	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 01:40	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 01:40	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 01:40	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 01:40	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 01:40	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 01:40	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-B-1
Project Name:	Murata	**Collection Date:**	11/28/2017 4:38:00 PM
Lab ID:	1712085-004	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 01:40	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 01:40	NP
Surr: 4-Bromofluorobenzene	94.1	68-127		%REC	252427	1	12/05/2017 01:40	NP
Surr: Dibromofluoromethane	111	84.4-122		%REC	252427	1	12/05/2017 01:40	NP
Surr: Toluene-d8	96.4	80.1-116		%REC	252427	1	12/05/2017 01:40	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252464	1	12/06/2017 03:49	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/07/2017 14:31	NP
Surr: 4-Bromofluorobenzene	100	85.7-115		%REC	252620	1	12/07/2017 14:31	NP
Surr: Dibromofluoromethane	104	73.4-129		%REC	252620	1	12/07/2017 14:31	NP
Surr: Toluene-d8	100	85-115		%REC	252620	1	12/07/2017 14:31	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 14:14	JR
Barium	0.0432	0.0200		mg/L	252363	1	12/06/2017 14:14	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 14:14	JR
Chromium	BRL	0.0100		mg/L	252363	1	12/06/2017 14:14	JR
Iron	0.155	0.100		mg/L	252363	1	12/06/2017 14:14	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 14:14	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 14:14	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 14:14	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-B-4
Project Name:	Murata	**Collection Date:**	11/28/2017 4:20:00 PM
Lab ID:	1712085-005	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 02:05	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 02:05	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 02:05	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 02:05	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 02:05	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 02:05	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 02:05	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 02:05	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-B-4
Project Name:	Murata	**Collection Date:**	11/28/2017 4:20:00 PM
Lab ID:	1712085-005	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 02:05	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 02:05	NP
Surr: 4-Bromofluorobenzene	87.7	68-127		%REC	252427	1	12/05/2017 02:05	NP
Surr: Dibromofluoromethane	114	84.4-122		%REC	252427	1	12/05/2017 02:05	NP
Surr: Toluene-d8	97.5	80.1-116		%REC	252427	1	12/05/2017 02:05	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252464	1	12/06/2017 04:00	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/07/2017 14:59	NP
Surr: 4-Bromofluorobenzene	99.9	85.7-115		%REC	252620	1	12/07/2017 14:59	NP
Surr: Dibromofluoromethane	104	73.4-129		%REC	252620	1	12/07/2017 14:59	NP
Surr: Toluene-d8	99.6	85-115		%REC	252620	1	12/07/2017 14:59	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 14:18	JR
Barium	0.312	0.0200		mg/L	252363	1	12/06/2017 14:18	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 14:18	JR
Chromium	BRL	0.0100		mg/L	252363	1	12/06/2017 14:18	JR
Iron	BRL	0.100		mg/L	252363	1	12/06/2017 14:18	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 14:18	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 14:18	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 14:18	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-3
Project Name:	Murata	**Collection Date:**	11/29/2017 2:59:00 PM
Lab ID:	1712085-006	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 02:29	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 02:29	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 02:29	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 02:29	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 02:29	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 02:29	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 02:29	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 02:29	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-3
Project Name:	Murata	**Collection Date:**	11/29/2017 2:59:00 PM
Lab ID:	1712085-006	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 02:29	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 02:29	NP
Surr: 4-Bromofluorobenzene	90.5	68-127		%REC	252427	1	12/05/2017 02:29	NP
Surr: Dibromofluoromethane	112	84.4-122		%REC	252427	1	12/05/2017 02:29	NP
Surr: Toluene-d8	97	80.1-116		%REC	252427	1	12/05/2017 02:29	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	0.00113	0.00020		mg/L	252464	1	12/06/2017 04:04	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/08/2017 06:24	NP
Surr: 4-Bromofluorobenzene	97.8	85.7-115		%REC	252620	1	12/08/2017 06:24	NP
Surr: Dibromofluoromethane	106	73.4-129		%REC	252620	1	12/08/2017 06:24	NP
Surr: Toluene-d8	86	85-115		%REC	252620	1	12/08/2017 06:24	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 14:21	JR
Barium	0.181	0.0200		mg/L	252363	1	12/06/2017 14:21	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 14:21	JR
Chromium	0.0764	0.0100		mg/L	252363	1	12/06/2017 14:21	JR
Iron	73.0	0.100		mg/L	252363	1	12/06/2017 14:21	JR
Lead	0.0851	0.0100		mg/L	252363	1	12/06/2017 14:21	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 14:21	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 14:21	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-18
Project Name:	Murata	**Collection Date:**	11/29/2017 9:10:00 AM
Lab ID:	1712085-007	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 02:54	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 02:54	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 02:54	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 02:54	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 02:54	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 02:54	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 02:54	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 02:54	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-18
Project Name:	Murata	**Collection Date:**	11/29/2017 9:10:00 AM
Lab ID:	1712085-007	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 02:54	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 02:54	NP
Surr: 4-Bromofluorobenzene	91.7	68-127		%REC	252427	1	12/05/2017 02:54	NP
Surr: Dibromofluoromethane	109	84.4-122		%REC	252427	1	12/05/2017 02:54	NP
Surr: Toluene-d8	94.4	80.1-116		%REC	252427	1	12/05/2017 02:54	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	0.00024	0.00020		mg/L	252464	1	12/06/2017 04:08	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/07/2017 15:26	NP
Surr: 4-Bromofluorobenzene	100	85.7-115		%REC	252620	1	12/07/2017 15:26	NP
Surr: Dibromofluoromethane	104	73.4-129		%REC	252620	1	12/07/2017 15:26	NP
Surr: Toluene-d8	99.2	85-115		%REC	252620	1	12/07/2017 15:26	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 14:31	JR
Barium	0.0223	0.0200		mg/L	252363	1	12/06/2017 14:31	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 14:31	JR
Chromium	0.0222	0.0100		mg/L	252363	1	12/06/2017 14:31	JR
Iron	0.171	0.100		mg/L	252363	1	12/06/2017 14:31	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 14:31	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 14:31	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 14:31	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-20
Project Name:	Murata	**Collection Date:**	11/29/2017 9:40:00 AM
Lab ID:	1712085-008	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 03:18	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 03:18	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 03:18	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 03:18	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 03:18	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 03:18	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 03:18	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 03:18	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-20
Project Name:	Murata	**Collection Date:**	11/29/2017 9:40:00 AM
Lab ID:	1712085-008	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 03:18	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 03:18	NP
Surr: 4-Bromofluorobenzene	86.8	68-127		%REC	252427	1	12/05/2017 03:18	NP
Surr: Dibromofluoromethane	112	84.4-122		%REC	252427	1	12/05/2017 03:18	NP
Surr: Toluene-d8	74.7	80.1-116	S	%REC	252427	1	12/05/2017 03:18	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	0.00062	0.00020		mg/L	252464	1	12/06/2017 04:12	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	7.1	5.0		ug/L	252620	1	12/08/2017 06:51	NP
Surr: 4-Bromofluorobenzene	86.2	85.7-115		%REC	252620	1	12/08/2017 06:51	NP
Surr: Dibromofluoromethane	104	73.4-129		%REC	252620	1	12/08/2017 06:51	NP
Surr: Toluene-d8	29.4	85-115	S	%REC	252620	1	12/08/2017 06:51	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 14:34	JR
Barium	0.780	0.0200		mg/L	252363	1	12/06/2017 14:34	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 14:34	JR
Chromium	0.0875	0.0100		mg/L	252363	1	12/06/2017 14:34	JR
Iron	1.18	0.100		mg/L	252363	1	12/06/2017 14:34	JR
Lead	0.0178	0.0100		mg/L	252363	1	12/06/2017 14:34	JR
Selenium	BRL	0.200		mg/L	252363	10	12/13/2017 14:20	JR
Silver	0.0186	0.0100		mg/L	252363	1	12/06/2017 14:34	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-24
Project Name:	Murata	**Collection Date:**	11/29/2017 11:32:00 AM
Lab ID:	1712085-009	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 03:43	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 03:43	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 03:43	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 03:43	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 03:43	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 03:43	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 03:43	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 03:43	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-24
Project Name:	Murata	**Collection Date:**	11/29/2017 11:32:00 AM
Lab ID:	1712085-009	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 03:43	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 03:43	NP
Surr: 4-Bromofluorobenzene	95.1	68-127		%REC	252427	1	12/05/2017 03:43	NP
Surr: Dibromofluoromethane	115	84.4-122		%REC	252427	1	12/05/2017 03:43	NP
Surr: Toluene-d8	98.3	80.1-116		%REC	252427	1	12/05/2017 03:43	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252464	1	12/06/2017 04:16	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/07/2017 15:53	NP
Surr: 4-Bromofluorobenzene	98.9	85.7-115		%REC	252620	1	12/07/2017 15:53	NP
Surr: Dibromofluoromethane	103	73.4-129		%REC	252620	1	12/07/2017 15:53	NP
Surr: Toluene-d8	98.9	85-115		%REC	252620	1	12/07/2017 15:53	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 14:37	JR
Barium	0.0772	0.0200		mg/L	252363	1	12/06/2017 14:37	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 14:37	JR
Chromium	BRL	0.0100		mg/L	252363	1	12/06/2017 14:37	JR
Iron	1.29	0.100		mg/L	252363	1	12/06/2017 14:37	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 14:37	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 14:37	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 14:37	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-25
Project Name:	Murata	**Collection Date:**	11/29/2017 1:47:00 PM
Lab ID:	1712085-010	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 04:07	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 04:07	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 04:07	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 04:07	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 04:07	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 04:07	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 04:07	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 04:07	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-25
Project Name:	Murata	**Collection Date:**	11/29/2017 1:47:00 PM
Lab ID:	1712085-010	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 04:07	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 04:07	NP
Surr: 4-Bromofluorobenzene	92.5	68-127		%REC	252427	1	12/05/2017 04:07	NP
Surr: Dibromofluoromethane	113	84.4-122		%REC	252427	1	12/05/2017 04:07	NP
Surr: Toluene-d8	96.8	80.1-116		%REC	252427	1	12/05/2017 04:07	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252464	1	12/06/2017 04:20	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/07/2017 16:20	NP
Surr: 4-Bromofluorobenzene	99.6	85.7-115		%REC	252620	1	12/07/2017 16:20	NP
Surr: Dibromofluoromethane	104	73.4-129		%REC	252620	1	12/07/2017 16:20	NP
Surr: Toluene-d8	99.6	85-115		%REC	252620	1	12/07/2017 16:20	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 14:40	JR
Barium	0.193	0.0200		mg/L	252363	1	12/06/2017 14:40	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 14:40	JR
Chromium	BRL	0.0100		mg/L	252363	1	12/06/2017 14:40	JR
Iron	1.92	0.100		mg/L	252363	1	12/06/2017 14:40	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 14:40	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 14:40	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 14:40	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-29
Project Name:	Murata	**Collection Date:**	11/29/2017 12:51:00 PM
Lab ID:	1712085-011	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 04:32	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 04:32	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 04:32	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 04:32	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 04:32	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 04:32	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 04:32	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 04:32	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-29
Project Name:	Murata	**Collection Date:**	11/29/2017 12:51:00 PM
Lab ID:	1712085-011	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Tetrachloroethene	960	50		ug/L	252427	10	12/05/2017 12:39	OM
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 04:32	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 04:32	NP
Surr: 4-Bromofluorobenzene	88.2	68-127		%REC	252427	10	12/05/2017 12:39	OM
Surr: 4-Bromofluorobenzene	92.7	68-127		%REC	252427	1	12/05/2017 04:32	NP
Surr: Dibromofluoromethane	109	84.4-122		%REC	252427	10	12/05/2017 12:39	OM
Surr: Dibromofluoromethane	114	84.4-122		%REC	252427	1	12/05/2017 04:32	NP
Surr: Toluene-d8	95.5	80.1-116		%REC	252427	10	12/05/2017 12:39	OM
Surr: Toluene-d8	97.6	80.1-116		%REC	252427	1	12/05/2017 04:32	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	0.00092	0.00020		mg/L	252464	1	12/06/2017 04:24	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	6.6	5.0		ug/L	252620	1	12/07/2017 17:15	NP
Surr: 4-Bromofluorobenzene	99.8	85.7-115		%REC	252620	1	12/07/2017 17:15	NP
Surr: Dibromofluoromethane	104	73.4-129		%REC	252620	1	12/07/2017 17:15	NP
Surr: Toluene-d8	97.7	85-115		%REC	252620	1	12/07/2017 17:15	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 14:44	JR
Barium	0.0306	0.0200		mg/L	252363	1	12/06/2017 14:44	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 14:44	JR
Chromium	0.0472	0.0100		mg/L	252363	1	12/06/2017 14:44	JR
Iron	0.640	0.100		mg/L	252363	1	12/06/2017 14:44	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 14:44	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 14:44	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 14:44	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-B-2
Project Name:	Murata	**Collection Date:**	11/29/2017 3:30:00 PM
Lab ID:	1712085-012	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 04:57	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 04:57	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 04:57	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 04:57	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 04:57	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 04:57	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 04:57	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 04:57	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-B-2
Project Name:	Murata	**Collection Date:**	11/29/2017 3:30:00 PM
Lab ID:	1712085-012	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 04:57	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 04:57	NP
Surr: 4-Bromofluorobenzene	95.4	68-127		%REC	252427	1	12/05/2017 04:57	NP
Surr: Dibromofluoromethane	113	84.4-122		%REC	252427	1	12/05/2017 04:57	NP
Surr: Toluene-d8	99	80.1-116		%REC	252427	1	12/05/2017 04:57	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252464	1	12/06/2017 04:28	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/07/2017 16:48	NP
Surr: 4-Bromofluorobenzene	99.7	85.7-115		%REC	252620	1	12/07/2017 16:48	NP
Surr: Dibromofluoromethane	103	73.4-129		%REC	252620	1	12/07/2017 16:48	NP
Surr: Toluene-d8	99.7	85-115		%REC	252620	1	12/07/2017 16:48	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 14:47	JR
Barium	BRL	0.0200		mg/L	252363	1	12/06/2017 14:47	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 14:47	JR
Chromium	BRL	0.0100		mg/L	252363	1	12/06/2017 14:47	JR
Iron	0.545	0.100		mg/L	252363	1	12/06/2017 14:47	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 14:47	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 14:47	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 14:47	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-B-3
Project Name:	Murata	**Collection Date:**	11/29/2017 11:50:00 AM
Lab ID:	1712085-013	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 05:21	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 05:21	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 05:21	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 05:21	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 05:21	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 05:21	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 05:21	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 05:21	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-B-3
Project Name:	Murata	**Collection Date:**	11/29/2017 11:50:00 AM
Lab ID:	1712085-013	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 05:21	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 05:21	NP
Surr: 4-Bromofluorobenzene	94.3	68-127		%REC	252427	1	12/05/2017 05:21	NP
Surr: Dibromofluoromethane	117	84.4-122		%REC	252427	1	12/05/2017 05:21	NP
Surr: Toluene-d8	100	80.1-116		%REC	252427	1	12/05/2017 05:21	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252464	1	12/06/2017 03:25	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/07/2017 17:42	NP
Surr: 4-Bromofluorobenzene	99.5	85.7-115		%REC	252620	1	12/07/2017 17:42	NP
Surr: Dibromofluoromethane	103	73.4-129		%REC	252620	1	12/07/2017 17:42	NP
Surr: Toluene-d8	98.2	85-115		%REC	252620	1	12/07/2017 17:42	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 14:50	JR
Barium	BRL	0.0200		mg/L	252363	1	12/06/2017 14:50	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 14:50	JR
Chromium	BRL	0.0100		mg/L	252363	1	12/06/2017 14:50	JR
Iron	0.441	0.100		mg/L	252363	1	12/06/2017 14:50	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 14:50	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 14:50	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 14:50	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	DUP-1
Project Name:	Murata	**Collection Date:**	11/29/2017
Lab ID:	1712085-014	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**			
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 05:45	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 05:45	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 05:45	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 05:45	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 05:45	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 05:45	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 05:45	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 05:45	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	DUP-1
Project Name:	Murata	**Collection Date:**	11/29/2017
Lab ID:	1712085-014	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 05:45	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 05:45	NP
Surr: 4-Bromofluorobenzene	91.6	68-127		%REC	252427	1	12/05/2017 05:45	NP
Surr: Dibromofluoromethane	119	84.4-122		%REC	252427	1	12/05/2017 05:45	NP
Surr: Toluene-d8	98.7	80.1-116		%REC	252427	1	12/05/2017 05:45	NP
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/07/2017 18:09	NP
Surr: 4-Bromofluorobenzene	100	85.7-115		%REC	252620	1	12/07/2017 18:09	NP
Surr: Dibromofluoromethane	105	73.4-129		%REC	252620	1	12/07/2017 18:09	NP
Surr: Toluene-d8	99.7	85-115		%REC	252620	1	12/07/2017 18:09	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW -23
Project Name:	Murata	**Collection Date:**	11/30/2017 11:18:00 AM
Lab ID:	1712085-015	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 06:10	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 06:10	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 06:10	NP
Acetone	98	50		ug/L	252427	1	12/05/2017 06:10	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 06:10	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 06:10	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 06:10	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 06:10	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW -23
Project Name:	Murata	**Collection Date:**	11/30/2017 11:18:00 AM
Lab ID:	1712085-015	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 06:10	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 06:10	NP
Surr: 4-Bromofluorobenzene	91.8	68-127		%REC	252427	1	12/05/2017 06:10	NP
Surr: Dibromofluoromethane	113	84.4-122		%REC	252427	1	12/05/2017 06:10	NP
Surr: Toluene-d8	85.7	80.1-116		%REC	252427	1	12/05/2017 06:10	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252464	1	12/06/2017 04:32	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	5.3	5.0		ug/L	252620	1	12/08/2017 07:18	NP
Surr: 4-Bromofluorobenzene	88.9	85.7-115		%REC	252620	1	12/08/2017 07:18	NP
Surr: Dibromofluoromethane	103	73.4-129		%REC	252620	1	12/08/2017 07:18	NP
Surr: Toluene-d8	36.3	85-115	S	%REC	252620	1	12/08/2017 07:18	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 14:53	JR
Barium	0.290	0.0200		mg/L	252363	1	12/06/2017 14:53	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 14:53	JR
Chromium	0.0558	0.0100		mg/L	252363	1	12/06/2017 14:53	JR
Iron	0.310	0.100		mg/L	252363	1	12/06/2017 14:53	JR
Lead	0.0348	0.0100		mg/L	252363	1	12/07/2017 13:34	JR
Selenium	0.0782	0.0200		mg/L	252363	1	12/06/2017 14:53	JR
Silver	0.0284	0.0100		mg/L	252363	1	12/06/2017 14:53	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-A-5
Project Name:	Murata	**Collection Date:**	11/30/2017 10:30:00 AM
Lab ID:	1712085-016	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 06:34	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 06:34	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 06:34	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 06:34	NP
Benzene	1800	50		ug/L	252427	10	12/05/2017 13:03	OM
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 06:34	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 06:34	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Cyclohexane	85	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 06:34	NP
Ethylbenzene	110	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 06:34	NP
Isopropylbenzene	13	5.0		ug/L	252427	1	12/05/2017 06:34	NP
m,p-Xylene	77	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Methyl tert-butyl ether	350	50		ug/L	252427	10	12/05/2017 13:03	OM
Methylcyclohexane	26	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-A-5
Project Name:	Murata	**Collection Date:**	11/30/2017 10:30:00 AM
Lab ID:	1712085-016	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	17	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Toluene	250	50		ug/L	252427	10	12/05/2017 13:03	OM
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 06:34	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Xylenes, Total	94	5.0		ug/L	252427	1	12/05/2017 06:34	NP
Surr: 4-Bromofluorobenzene	98.2	68-127		%REC	252427	10	12/05/2017 13:03	OM
Surr: 4-Bromofluorobenzene	113	68-127		%REC	252427	1	12/05/2017 06:34	NP
Surr: Dibromofluoromethane	96.3	84.4-122		%REC	252427	1	12/05/2017 06:34	NP
Surr: Dibromofluoromethane	104	84.4-122		%REC	252427	10	12/05/2017 13:03	OM
Surr: Toluene-d8	94.6	80.1-116		%REC	252427	1	12/05/2017 06:34	NP
Surr: Toluene-d8	97.6	80.1-116		%REC	252427	10	12/05/2017 13:03	OM
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252464	1	12/06/2017 04:36	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/07/2017 18:36	NP
Surr: 4-Bromofluorobenzene	101	85.7-115		%REC	252620	1	12/07/2017 18:36	NP
Surr: Dibromofluoromethane	104	73.4-129		%REC	252620	1	12/07/2017 18:36	NP
Surr: Toluene-d8	99.8	85-115		%REC	252620	1	12/07/2017 18:36	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 14:57	JR
Barium	0.645	0.0200		mg/L	252363	1	12/06/2017 14:57	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 14:57	JR
Chromium	BRL	0.0100		mg/L	252363	1	12/06/2017 14:57	JR
Iron	5.94	0.100		mg/L	252363	1	12/06/2017 14:57	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 14:57	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 14:57	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 14:57	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-5
Project Name:	Murata	**Collection Date:**	11/30/2017 10:30:00 AM
Lab ID:	1712085-017	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 06:59	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 06:59	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 06:59	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 06:59	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 06:59	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 06:59	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 06:59	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 06:59	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-5
Project Name:	Murata	**Collection Date:**	11/30/2017 10:30:00 AM
Lab ID:	1712085-017	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 06:59	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 06:59	NP
Surr: 4-Bromofluorobenzene	92.6	68-127		%REC	252427	1	12/05/2017 06:59	NP
Surr: Dibromofluoromethane	110	84.4-122		%REC	252427	1	12/05/2017 06:59	NP
Surr: Toluene-d8	96.2	80.1-116		%REC	252427	1	12/05/2017 06:59	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252464	1	12/06/2017 04:48	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/07/2017 19:04	NP
Surr: 4-Bromofluorobenzene	100	85.7-115		%REC	252620	1	12/07/2017 19:04	NP
Surr: Dibromofluoromethane	103	73.4-129		%REC	252620	1	12/07/2017 19:04	NP
Surr: Toluene-d8	99.2	85-115		%REC	252620	1	12/07/2017 19:04	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 15:00	JR
Barium	BRL	0.0200		mg/L	252363	1	12/06/2017 15:00	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 15:00	JR
Chromium	BRL	0.0100		mg/L	252363	1	12/06/2017 15:00	JR
Iron	BRL	0.100		mg/L	252363	1	12/06/2017 15:00	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 15:00	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 15:00	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 15:00	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-4
Project Name:	Murata	**Collection Date:**	11/30/2017 4:40:00 PM
Lab ID:	1712085-018	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 07:24	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 07:24	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 07:24	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 07:24	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 07:24	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 07:24	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 07:24	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 07:24	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-4
Project Name:	Murata	**Collection Date:**	11/30/2017 4:40:00 PM
Lab ID:	1712085-018	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 07:24	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 07:24	NP
Surr: 4-Bromofluorobenzene	95.5	68-127		%REC	252427	1	12/05/2017 07:24	NP
Surr: Dibromofluoromethane	113	84.4-122		%REC	252427	1	12/05/2017 07:24	NP
Surr: Toluene-d8	98.3	80.1-116		%REC	252427	1	12/05/2017 07:24	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252464	1	12/06/2017 04:52	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/07/2017 19:31	NP
Surr: 4-Bromofluorobenzene	100	85.7-115		%REC	252620	1	12/07/2017 19:31	NP
Surr: Dibromofluoromethane	105	73.4-129		%REC	252620	1	12/07/2017 19:31	NP
Surr: Toluene-d8	99.2	85-115		%REC	252620	1	12/07/2017 19:31	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 15:10	JR
Barium	0.150	0.0200		mg/L	252363	1	12/06/2017 15:10	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 15:10	JR
Chromium	BRL	0.0100		mg/L	252363	1	12/06/2017 15:10	JR
Iron	0.257	0.100		mg/L	252363	1	12/06/2017 15:10	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 15:10	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 15:10	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 15:10	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-6
Project Name:	Murata	**Collection Date:**	11/30/2017 2:00:00 PM
Lab ID:	1712085-019	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 07:48	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 07:48	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 07:48	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 07:48	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 07:48	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 07:48	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 07:48	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 07:48	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-6
Project Name:	Murata	**Collection Date:**	11/30/2017 2:00:00 PM
Lab ID:	1712085-019	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Tetrachloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 07:48	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 07:48	NP
Surr: 4-Bromofluorobenzene	94.3	68-127		%REC	252427	1	12/05/2017 07:48	NP
Surr: Dibromofluoromethane	114	84.4-122		%REC	252427	1	12/05/2017 07:48	NP
Surr: Toluene-d8	99.5	80.1-116		%REC	252427	1	12/05/2017 07:48	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252464	1	12/06/2017 04:56	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/07/2017 19:58	NP
Surr: 4-Bromofluorobenzene	99.8	85.7-115		%REC	252620	1	12/07/2017 19:58	NP
Surr: Dibromofluoromethane	104	73.4-129		%REC	252620	1	12/07/2017 19:58	NP
Surr: Toluene-d8	99.6	85-115		%REC	252620	1	12/07/2017 19:58	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 15:13	JR
Barium	0.0215	0.0200		mg/L	252363	1	12/06/2017 15:13	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 15:13	JR
Chromium	BRL	0.0100		mg/L	252363	1	12/06/2017 15:13	JR
Iron	0.538	0.100		mg/L	252363	1	12/06/2017 15:13	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 15:13	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 15:13	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 15:13	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-8
Project Name:	Murata	**Collection Date:**	11/30/2017 6:08:00 PM
Lab ID:	1712085-020	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
2-Butanone	BRL	50		ug/L	252427	1	12/05/2017 08:13	NP
2-Hexanone	BRL	10		ug/L	252427	1	12/05/2017 08:13	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252427	1	12/05/2017 08:13	NP
Acetone	BRL	50		ug/L	252427	1	12/05/2017 08:13	NP
Benzene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Bromodichloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Bromoform	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Bromomethane	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Carbon disulfide	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Carbon tetrachloride	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Chlorobenzene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Chloroethane	BRL	10		ug/L	252427	1	12/05/2017 08:13	NP
Chloroform	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Chloromethane	BRL	10		ug/L	252427	1	12/05/2017 08:13	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Cyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Dibromochloromethane	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Dichlorodifluoromethane	BRL	10		ug/L	252427	1	12/05/2017 08:13	NP
Ethylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Freon-113	BRL	10		ug/L	252427	1	12/05/2017 08:13	NP
Isopropylbenzene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
m,p-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Methyl acetate	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Methylcyclohexane	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Methylene chloride	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Naphthalene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-8
Project Name:	Murata	**Collection Date:**	11/30/2017 6:08:00 PM
Lab ID:	1712085-020	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Styrene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Tetrachloroethene	140	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Toluene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Trichloroethene	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Vinyl chloride	BRL	2.0		ug/L	252427	1	12/05/2017 08:13	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Xylenes, Total	BRL	5.0		ug/L	252427	1	12/05/2017 08:13	NP
Surr: 4-Bromofluorobenzene	91.7	68-127		%REC	252427	1	12/05/2017 08:13	NP
Surr: Dibromofluoromethane	110	84.4-122		%REC	252427	1	12/05/2017 08:13	NP
Surr: Toluene-d8	96.2	80.1-116		%REC	252427	1	12/05/2017 08:13	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252464	1	12/06/2017 05:00	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252620	1	12/07/2017 20:25	NP
Surr: 4-Bromofluorobenzene	100	85.7-115		%REC	252620	1	12/07/2017 20:25	NP
Surr: Dibromofluoromethane	107	73.4-129		%REC	252620	1	12/07/2017 20:25	NP
Surr: Toluene-d8	100	85-115		%REC	252620	1	12/07/2017 20:25	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 15:16	JR
Barium	0.0358	0.0200		mg/L	252363	1	12/06/2017 15:16	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 15:16	JR
Chromium	BRL	0.0100		mg/L	252363	1	12/06/2017 15:16	JR
Iron	0.217	0.100		mg/L	252363	1	12/06/2017 15:16	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 15:16	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 15:16	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 15:16	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-9
Project Name:	Murata	**Collection Date:**	11/30/2017 6:20:00 PM
Lab ID:	1712085-021	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
2-Butanone	BRL	50		ug/L	252358	1	12/04/2017 16:40	NP
2-Hexanone	BRL	10		ug/L	252358	1	12/04/2017 16:40	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252358	1	12/04/2017 16:40	NP
Acetone	BRL	50		ug/L	252358	1	12/04/2017 16:40	NP
Benzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Bromodichloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Bromoform	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Bromomethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Carbon disulfide	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Carbon tetrachloride	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Chlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Chloroethane	BRL	10		ug/L	252358	1	12/04/2017 16:40	NP
Chloroform	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Chloromethane	BRL	10		ug/L	252358	1	12/04/2017 16:40	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Cyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Dibromochloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Dichlorodifluoromethane	BRL	10		ug/L	252358	1	12/04/2017 16:40	NP
Ethylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Freon-113	BRL	10		ug/L	252358	1	12/04/2017 16:40	NP
Isopropylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
m,p-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Methyl acetate	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Methylcyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Methylene chloride	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Naphthalene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-9
Project Name:	Murata	**Collection Date:**	11/30/2017 6:20:00 PM
Lab ID:	1712085-021	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Styrene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Tetrachloroethene	31	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Toluene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Trichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Vinyl chloride	BRL	2.0		ug/L	252358	1	12/04/2017 16:40	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Xylenes, Total	BRL	5.0		ug/L	252358	1	12/04/2017 16:40	NP
Surr: 4-Bromofluorobenzene	90.7	68-127		%REC	252358	1	12/04/2017 16:40	NP
Surr: Dibromofluoromethane	117	84.4-122		%REC	252358	1	12/04/2017 16:40	NP
Surr: Toluene-d8	99.7	80.1-116		%REC	252358	1	12/04/2017 16:40	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	0.00024	0.00020		mg/L	252464	1	12/06/2017 05:04	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252624	1	12/08/2017 00:57	NP
Surr: 4-Bromofluorobenzene	100	85.7-115		%REC	252624	1	12/08/2017 00:57	NP
Surr: Dibromofluoromethane	105	73.4-129		%REC	252624	1	12/08/2017 00:57	NP
Surr: Toluene-d8	99.2	85-115		%REC	252624	1	12/08/2017 00:57	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252363	1	12/06/2017 15:20	JR
Barium	0.163	0.0200		mg/L	252363	1	12/06/2017 15:20	JR
Cadmium	BRL	0.0050		mg/L	252363	1	12/06/2017 15:20	JR
Chromium	0.0188	0.0100		mg/L	252363	1	12/06/2017 15:20	JR
Iron	6.16	0.100		mg/L	252363	1	12/06/2017 15:20	JR
Lead	BRL	0.0100		mg/L	252363	1	12/06/2017 15:20	JR
Selenium	BRL	0.0200		mg/L	252363	1	12/06/2017 15:20	JR
Silver	BRL	0.0100		mg/L	252363	1	12/06/2017 15:20	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-17
Project Name:	Murata	**Collection Date:**	11/30/2017 2:26:00 PM
Lab ID:	1712085-022	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
2-Butanone	BRL	50		ug/L	252358	1	12/04/2017 17:04	NP
2-Hexanone	BRL	10		ug/L	252358	1	12/04/2017 17:04	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252358	1	12/04/2017 17:04	NP
Acetone	BRL	50		ug/L	252358	1	12/04/2017 17:04	NP
Benzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Bromodichloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Bromoform	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Bromomethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Carbon disulfide	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Carbon tetrachloride	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Chlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Chloroethane	BRL	10		ug/L	252358	1	12/04/2017 17:04	NP
Chloroform	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Chloromethane	BRL	10		ug/L	252358	1	12/04/2017 17:04	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Cyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Dibromochloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Dichlorodifluoromethane	BRL	10		ug/L	252358	1	12/04/2017 17:04	NP
Ethylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Freon-113	BRL	10		ug/L	252358	1	12/04/2017 17:04	NP
Isopropylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
m,p-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Methyl acetate	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Methylcyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Methylene chloride	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Naphthalene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-17
Project Name:	Murata	**Collection Date:**	11/30/2017 2:26:00 PM
Lab ID:	1712085-022	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Styrene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Tetrachloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Toluene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Trichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Vinyl chloride	BRL	2.0		ug/L	252358	1	12/04/2017 17:04	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Xylenes, Total	BRL	5.0		ug/L	252358	1	12/04/2017 17:04	NP
Surr: 4-Bromofluorobenzene	90.3	68-127		%REC	252358	1	12/04/2017 17:04	NP
Surr: Dibromofluoromethane	114	84.4-122		%REC	252358	1	12/04/2017 17:04	NP
Surr: Toluene-d8	96	80.1-116		%REC	252358	1	12/04/2017 17:04	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252463	1	12/06/2017 05:43	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252624	1	12/08/2017 07:45	NP
Surr: 4-Bromofluorobenzene	98.7	85.7-115		%REC	252624	1	12/08/2017 07:45	NP
Surr: Dibromofluoromethane	106	73.4-129		%REC	252624	1	12/08/2017 07:45	NP
Surr: Toluene-d8	88.5	85-115		%REC	252624	1	12/08/2017 07:45	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252365	1	12/05/2017 14:23	JR
Barium	BRL	0.0200		mg/L	252365	1	12/05/2017 14:23	JR
Cadmium	BRL	0.0050		mg/L	252365	1	12/05/2017 14:23	JR
Chromium	0.0161	0.0100		mg/L	252365	1	12/05/2017 14:23	JR
Iron	BRL	0.100		mg/L	252365	1	12/05/2017 14:23	JR
Lead	BRL	0.0100		mg/L	252365	1	12/06/2017 13:35	JR
Selenium	BRL	0.0200		mg/L	252365	1	12/06/2017 13:35	JR
Silver	0.0128	0.0100		mg/L	252365	1	12/05/2017 14:23	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-22
Project Name:	Murata	**Collection Date:**	11/30/2017 4:10:00 PM
Lab ID:	1712085-023	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
2-Butanone	BRL	50		ug/L	252358	1	12/04/2017 17:29	NP
2-Hexanone	BRL	10		ug/L	252358	1	12/04/2017 17:29	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252358	1	12/04/2017 17:29	NP
Acetone	BRL	50		ug/L	252358	1	12/04/2017 17:29	NP
Benzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Bromodichloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Bromoform	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Bromomethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Carbon disulfide	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Carbon tetrachloride	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Chlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Chloroethane	BRL	10		ug/L	252358	1	12/04/2017 17:29	NP
Chloroform	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Chloromethane	BRL	10		ug/L	252358	1	12/04/2017 17:29	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Cyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Dibromochloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Dichlorodifluoromethane	BRL	10		ug/L	252358	1	12/04/2017 17:29	NP
Ethylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Freon-113	BRL	10		ug/L	252358	1	12/04/2017 17:29	NP
Isopropylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
m,p-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Methyl acetate	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Methylcyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Methylene chloride	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Naphthalene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-22
Project Name:	Murata	**Collection Date:**	11/30/2017 4:10:00 PM
Lab ID:	1712085-023	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Styrene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Tetrachloroethene	7.2	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Toluene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Trichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Vinyl chloride	BRL	2.0		ug/L	252358	1	12/04/2017 17:29	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Xylenes, Total	BRL	5.0		ug/L	252358	1	12/04/2017 17:29	NP
Surr: 4-Bromofluorobenzene	89.2	68-127		%REC	252358	1	12/04/2017 17:29	NP
Surr: Dibromofluoromethane	114	84.4-122		%REC	252358	1	12/04/2017 17:29	NP
Surr: Toluene-d8	97.5	80.1-116		%REC	252358	1	12/04/2017 17:29	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252463	1	12/06/2017 05:47	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252624	1	12/08/2017 01:25	NP
Surr: 4-Bromofluorobenzene	101	85.7-115		%REC	252624	1	12/08/2017 01:25	NP
Surr: Dibromofluoromethane	106	73.4-129		%REC	252624	1	12/08/2017 01:25	NP
Surr: Toluene-d8	99.7	85-115		%REC	252624	1	12/08/2017 01:25	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252365	1	12/05/2017 14:07	JR
Barium	0.0442	0.0200		mg/L	252365	1	12/05/2017 14:07	JR
Cadmium	BRL	0.0050		mg/L	252365	1	12/05/2017 14:07	JR
Chromium	BRL	0.0100		mg/L	252365	1	12/05/2017 14:07	JR
Iron	0.190	0.100		mg/L	252365	1	12/05/2017 14:07	JR
Lead	BRL	0.0100		mg/L	252365	1	12/05/2017 14:07	JR
Selenium	BRL	0.0200		mg/L	252365	1	12/05/2017 14:07	JR
Silver	BRL	0.0100		mg/L	252365	1	12/05/2017 14:07	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	DUP-2
Project Name:	Murata	**Collection Date:**	11/30/2017
Lab ID:	1712085-024	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
2-Butanone	BRL	50		ug/L	252358	1	12/04/2017 17:53	NP
2-Hexanone	BRL	10		ug/L	252358	1	12/04/2017 17:53	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252358	1	12/04/2017 17:53	NP
Acetone	BRL	50		ug/L	252358	1	12/04/2017 17:53	NP
Benzene	1800	50		ug/L	252358	10	12/05/2017 13:28	OM
Bromodichloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Bromoform	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Bromomethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Carbon disulfide	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Carbon tetrachloride	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Chlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Chloroethane	BRL	10		ug/L	252358	1	12/04/2017 17:53	NP
Chloroform	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Chloromethane	BRL	10		ug/L	252358	1	12/04/2017 17:53	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Cyclohexane	81	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Dibromochloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Dichlorodifluoromethane	BRL	10		ug/L	252358	1	12/04/2017 17:53	NP
Ethylbenzene	110	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Freon-113	BRL	10		ug/L	252358	1	12/04/2017 17:53	NP
Isopropylbenzene	13	5.0		ug/L	252358	1	12/04/2017 17:53	NP
m,p-Xylene	78	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Methyl acetate	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Methyl tert-butyl ether	350	50		ug/L	252358	10	12/05/2017 13:28	OM
Methylcyclohexane	25	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Methylene chloride	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Naphthalene	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	DUP-2
Project Name:	Murata	**Collection Date:**	11/30/2017
Lab ID:	1712085-024	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	17	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Styrene	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Tetrachloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Toluene	250	50		ug/L	252358	10	12/05/2017 13:28	OM
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Trichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Vinyl chloride	BRL	2.0		ug/L	252358	1	12/04/2017 17:53	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Xylenes, Total	95	5.0		ug/L	252358	1	12/04/2017 17:53	NP
Surr: 4-Bromofluorobenzene	97.4	68-127		%REC	252358	10	12/05/2017 13:28	OM
Surr: 4-Bromofluorobenzene	110	68-127		%REC	252358	1	12/04/2017 17:53	NP
Surr: Dibromofluoromethane	98.4	84.4-122		%REC	252358	1	12/04/2017 17:53	NP
Surr: Dibromofluoromethane	99	84.4-122		%REC	252358	10	12/05/2017 13:28	OM
Surr: Toluene-d8	90.8	80.1-116		%REC	252358	10	12/05/2017 13:28	OM
Surr: Toluene-d8	98.2	80.1-116		%REC	252358	1	12/04/2017 17:53	NP
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252624	1	12/08/2017 02:46	NP
Surr: 4-Bromofluorobenzene	101	85.7-115		%REC	252624	1	12/08/2017 02:46	NP
Surr: Dibromofluoromethane	104	73.4-129		%REC	252624	1	12/08/2017 02:46	NP
Surr: Toluene-d8	99.2	85-115		%REC	252624	1	12/08/2017 02:46	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	DUP-3
Project Name:	Murata	**Collection Date:**	11/30/2017
Lab ID:	1712085-025	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
2-Butanone	BRL	50		ug/L	252358	1	12/04/2017 18:17	NP
2-Hexanone	BRL	10		ug/L	252358	1	12/04/2017 18:17	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252358	1	12/04/2017 18:17	NP
Acetone	BRL	50		ug/L	252358	1	12/04/2017 18:17	NP
Benzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Bromodichloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Bromoform	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Bromomethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Carbon disulfide	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Carbon tetrachloride	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Chlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Chloroethane	BRL	10		ug/L	252358	1	12/04/2017 18:17	NP
Chloroform	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Chloromethane	BRL	10		ug/L	252358	1	12/04/2017 18:17	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Cyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Dibromochloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Dichlorodifluoromethane	BRL	10		ug/L	252358	1	12/04/2017 18:17	NP
Ethylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Freon-113	BRL	10		ug/L	252358	1	12/04/2017 18:17	NP
Isopropylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
m,p-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Methyl acetate	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Methylcyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Methylene chloride	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Naphthalene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	DUP-3
Project Name:	Murata	**Collection Date:**	11/30/2017
Lab ID:	1712085-025	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Styrene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Tetrachloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Toluene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Trichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Vinyl chloride	BRL	2.0		ug/L	252358	1	12/04/2017 18:17	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Xylenes, Total	BRL	5.0		ug/L	252358	1	12/04/2017 18:17	NP
Surr: 4-Bromofluorobenzene	88.8	68-127		%REC	252358	1	12/04/2017 18:17	NP
Surr: Dibromofluoromethane	110	84.4-122		%REC	252358	1	12/04/2017 18:17	NP
Surr: Toluene-d8	97.6	80.1-116		%REC	252358	1	12/04/2017 18:17	NP
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252624	1	12/08/2017 03:13	NP
Surr: 4-Bromofluorobenzene	100	85.7-115		%REC	252624	1	12/08/2017 03:13	NP
Surr: Dibromofluoromethane	105	73.4-129		%REC	252624	1	12/08/2017 03:13	NP
Surr: Toluene-d8	99.7	85-115		%REC	252624	1	12/08/2017 03:13	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	FERB-1
Project Name:	Murata	**Collection Date:**	11/30/2017 10:40:00 AM
Lab ID:	1712085-026	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
2-Butanone	BRL	50		ug/L	252358	1	12/04/2017 18:42	NP
2-Hexanone	BRL	10		ug/L	252358	1	12/04/2017 18:42	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252358	1	12/04/2017 18:42	NP
Acetone	BRL	50		ug/L	252358	1	12/04/2017 18:42	NP
Benzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Bromodichloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Bromoform	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Bromomethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Carbon disulfide	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Carbon tetrachloride	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Chlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Chloroethane	BRL	10		ug/L	252358	1	12/04/2017 18:42	NP
Chloroform	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Chloromethane	BRL	10		ug/L	252358	1	12/04/2017 18:42	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Cyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Dibromochloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Dichlorodifluoromethane	BRL	10		ug/L	252358	1	12/04/2017 18:42	NP
Ethylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Freon-113	BRL	10		ug/L	252358	1	12/04/2017 18:42	NP
Isopropylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
m,p-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Methyl acetate	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Methylcyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Methylene chloride	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Naphthalene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	FERB-1
Project Name:	Murata	**Collection Date:**	11/30/2017 10:40:00 AM
Lab ID:	1712085-026	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Styrene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Tetrachloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Toluene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Trichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Vinyl chloride	BRL	2.0		ug/L	252358	1	12/04/2017 18:42	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Xylenes, Total	BRL	5.0		ug/L	252358	1	12/04/2017 18:42	NP
Surr: 4-Bromofluorobenzene	86.5	68-127		%REC	252358	1	12/04/2017 18:42	NP
Surr: Dibromofluoromethane	114	84.4-122		%REC	252358	1	12/04/2017 18:42	NP
Surr: Toluene-d8	98.6	80.1-116		%REC	252358	1	12/04/2017 18:42	NP
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252624	1	12/08/2017 03:40	NP
Surr: 4-Bromofluorobenzene	100	85.7-115		%REC	252624	1	12/08/2017 03:40	NP
Surr: Dibromofluoromethane	105	73.4-129		%REC	252624	1	12/08/2017 03:40	NP
Surr: Toluene-d8	99.6	85-115		%REC	252624	1	12/08/2017 03:40	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-7
Project Name:	Murata	**Collection Date:**	12/1/2017 11:11:00 AM
Lab ID:	1712085-027	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
2-Butanone	BRL	50		ug/L	252358	1	12/04/2017 19:07	NP
2-Hexanone	BRL	10		ug/L	252358	1	12/04/2017 19:07	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252358	1	12/04/2017 19:07	NP
Acetone	BRL	50		ug/L	252358	1	12/04/2017 19:07	NP
Benzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Bromodichloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Bromoform	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Bromomethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Carbon disulfide	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Carbon tetrachloride	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Chlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Chloroethane	BRL	10		ug/L	252358	1	12/04/2017 19:07	NP
Chloroform	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Chloromethane	BRL	10		ug/L	252358	1	12/04/2017 19:07	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Cyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Dibromochloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Dichlorodifluoromethane	BRL	10		ug/L	252358	1	12/04/2017 19:07	NP
Ethylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Freon-113	BRL	10		ug/L	252358	1	12/04/2017 19:07	NP
Isopropylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
m,p-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Methyl acetate	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Methylcyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Methylene chloride	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Naphthalene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-7
Project Name:	Murata	**Collection Date:**	12/1/2017 11:11:00 AM
Lab ID:	1712085-027	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Styrene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Tetrachloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Toluene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Trichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Vinyl chloride	BRL	2.0		ug/L	252358	1	12/04/2017 19:07	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Xylenes, Total	BRL	5.0		ug/L	252358	1	12/04/2017 19:07	NP
Surr: 4-Bromofluorobenzene	87.2	68-127		%REC	252358	1	12/04/2017 19:07	NP
Surr: Dibromofluoromethane	113	84.4-122		%REC	252358	1	12/04/2017 19:07	NP
Surr: Toluene-d8	99.2	80.1-116		%REC	252358	1	12/04/2017 19:07	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	0.00128	0.00020		mg/L	252463	1	12/06/2017 05:51	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252624	1	12/08/2017 04:08	NP
Surr: 4-Bromofluorobenzene	100	85.7-115		%REC	252624	1	12/08/2017 04:08	NP
Surr: Dibromofluoromethane	105	73.4-129		%REC	252624	1	12/08/2017 04:08	NP
Surr: Toluene-d8	96.1	85-115		%REC	252624	1	12/08/2017 04:08	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252365	1	12/05/2017 14:26	JR
Barium	BRL	0.0200		mg/L	252365	1	12/05/2017 14:26	JR
Cadmium	BRL	0.0050		mg/L	252365	1	12/05/2017 14:26	JR
Chromium	0.0945	0.0100		mg/L	252365	1	12/05/2017 14:26	JR
Iron	0.137	0.100		mg/L	252365	1	12/05/2017 14:26	JR
Lead	BRL	0.0100		mg/L	252365	1	12/05/2017 14:26	JR
Selenium	BRL	0.0200		mg/L	252365	1	12/05/2017 14:26	JR
Silver	BRL	0.0100		mg/L	252365	1	12/05/2017 14:26	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-26
Project Name:	Murata	**Collection Date:**	12/1/2017 8:48:00 AM
Lab ID:	1712085-028	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
2-Butanone	BRL	50		ug/L	252358	1	12/04/2017 19:31	NP
2-Hexanone	BRL	10		ug/L	252358	1	12/04/2017 19:31	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252358	1	12/04/2017 19:31	NP
Acetone	BRL	50		ug/L	252358	1	12/04/2017 19:31	NP
Benzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Bromodichloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Bromoform	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Bromomethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Carbon disulfide	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Carbon tetrachloride	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Chlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Chloroethane	BRL	10		ug/L	252358	1	12/04/2017 19:31	NP
Chloroform	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Chloromethane	BRL	10		ug/L	252358	1	12/04/2017 19:31	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Cyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Dibromochloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Dichlorodifluoromethane	BRL	10		ug/L	252358	1	12/04/2017 19:31	NP
Ethylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Freon-113	BRL	10		ug/L	252358	1	12/04/2017 19:31	NP
Isopropylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
m,p-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Methyl acetate	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Methylcyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Methylene chloride	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Naphthalene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-26
Project Name:	Murata	**Collection Date:**	12/1/2017 8:48:00 AM
Lab ID:	1712085-028	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Styrene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Tetrachloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Toluene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Trichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Vinyl chloride	BRL	2.0		ug/L	252358	1	12/04/2017 19:31	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Xylenes, Total	BRL	5.0		ug/L	252358	1	12/04/2017 19:31	NP
Surr: 4-Bromofluorobenzene	88.7	68-127		%REC	252358	1	12/04/2017 19:31	NP
Surr: Dibromofluoromethane	112	84.4-122		%REC	252358	1	12/04/2017 19:31	NP
Surr: Toluene-d8	95.6	80.1-116		%REC	252358	1	12/04/2017 19:31	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252463	1	12/06/2017 05:55	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252624	1	12/08/2017 04:35	NP
Surr: 4-Bromofluorobenzene	101	85.7-115		%REC	252624	1	12/08/2017 04:35	NP
Surr: Dibromofluoromethane	107	73.4-129		%REC	252624	1	12/08/2017 04:35	NP
Surr: Toluene-d8	99.7	85-115		%REC	252624	1	12/08/2017 04:35	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252365	1	12/05/2017 14:42	JR
Barium	0.0557	0.0200		mg/L	252365	1	12/05/2017 14:42	JR
Cadmium	BRL	0.0050		mg/L	252365	1	12/05/2017 14:42	JR
Chromium	BRL	0.0100		mg/L	252365	1	12/05/2017 14:42	JR
Iron	0.243	0.100		mg/L	252365	1	12/05/2017 14:42	JR
Lead	BRL	0.0100		mg/L	252365	1	12/05/2017 14:42	JR
Selenium	BRL	0.0200		mg/L	252365	1	12/05/2017 14:42	JR
Silver	BRL	0.0100		mg/L	252365	1	12/05/2017 14:42	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-12
Project Name:	Murata	**Collection Date:**	12/1/2017 10:20:00 AM
Lab ID:	1712085-029	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
2-Butanone	BRL	50		ug/L	252358	1	12/04/2017 19:56	NP
2-Hexanone	BRL	10		ug/L	252358	1	12/04/2017 19:56	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252358	1	12/04/2017 19:56	NP
Acetone	BRL	50		ug/L	252358	1	12/04/2017 19:56	NP
Benzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Bromodichloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Bromoform	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Bromomethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Carbon disulfide	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Carbon tetrachloride	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Chlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Chloroethane	BRL	10		ug/L	252358	1	12/04/2017 19:56	NP
Chloroform	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Chloromethane	BRL	10		ug/L	252358	1	12/04/2017 19:56	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Cyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Dibromochloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Dichlorodifluoromethane	BRL	10		ug/L	252358	1	12/04/2017 19:56	NP
Ethylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Freon-113	BRL	10		ug/L	252358	1	12/04/2017 19:56	NP
Isopropylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
m,p-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Methyl acetate	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Methylcyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Methylene chloride	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Naphthalene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	MW-12
Project Name:	Murata	**Collection Date:**	12/1/2017 10:20:00 AM
Lab ID:	1712085-029	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Styrene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Tetrachloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Toluene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Trichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Vinyl chloride	BRL	2.0		ug/L	252358	1	12/04/2017 19:56	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Xylenes, Total	BRL	5.0		ug/L	252358	1	12/04/2017 19:56	NP
Surr: 4-Bromofluorobenzene	87.7	68-127		%REC	252358	1	12/04/2017 19:56	NP
Surr: Dibromofluoromethane	113	84.4-122		%REC	252358	1	12/04/2017 19:56	NP
Surr: Toluene-d8	95.7	80.1-116		%REC	252358	1	12/04/2017 19:56	NP
Mercury, Total SW7470A				**(SW7470A)**				
Mercury	BRL	0.00020		mg/L	252463	1	12/06/2017 05:58	AS
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252624	1	12/08/2017 08:12	NP
Surr: 4-Bromofluorobenzene	99	85.7-115		%REC	252624	1	12/08/2017 08:12	NP
Surr: Dibromofluoromethane	105	73.4-129		%REC	252624	1	12/08/2017 08:12	NP
Surr: Toluene-d8	83.6	85-115	S	%REC	252624	1	12/08/2017 08:12	NP
METALS, TOTAL SW6010D				**(SW3010A)**				
Arsenic	BRL	0.0500		mg/L	252365	1	12/05/2017 14:46	JR
Barium	BRL	0.0200		mg/L	252365	1	12/05/2017 14:46	JR
Cadmium	BRL	0.0050		mg/L	252365	1	12/05/2017 14:46	JR
Chromium	0.0378	0.0100		mg/L	252365	1	12/05/2017 14:46	JR
Iron	0.217	0.100		mg/L	252365	1	12/05/2017 14:46	JR
Lead	0.0287	0.0100		mg/L	252365	1	12/05/2017 14:46	JR
Selenium	BRL	0.100		mg/L	252365	5	12/06/2017 16:28	JR
Silver	0.0156	0.0100		mg/L	252365	1	12/05/2017 14:46	JR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	FERB-2
Project Name:	Murata	**Collection Date:**	12/1/2017 11:10:00 AM
Lab ID:	1712085-030	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
2-Butanone	BRL	50		ug/L	252358	1	12/04/2017 20:21	NP
2-Hexanone	BRL	10		ug/L	252358	1	12/04/2017 20:21	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252358	1	12/04/2017 20:21	NP
Acetone	BRL	50		ug/L	252358	1	12/04/2017 20:21	NP
Benzene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Bromodichloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Bromoform	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Bromomethane	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Carbon disulfide	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Carbon tetrachloride	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Chlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Chloroethane	BRL	10		ug/L	252358	1	12/04/2017 20:21	NP
Chloroform	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Chloromethane	BRL	10		ug/L	252358	1	12/04/2017 20:21	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Cyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Dibromochloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Dichlorodifluoromethane	BRL	10		ug/L	252358	1	12/04/2017 20:21	NP
Ethylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Freon-113	BRL	10		ug/L	252358	1	12/04/2017 20:21	NP
Isopropylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
m,p-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Methyl acetate	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Methylcyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Methylene chloride	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Naphthalene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	FERB-2
Project Name:	Murata	**Collection Date:**	12/1/2017 11:10:00 AM
Lab ID:	1712085-030	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Styrene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Tetrachloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Toluene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Trichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Vinyl chloride	BRL	2.0		ug/L	252358	1	12/04/2017 20:21	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Xylenes, Total	BRL	5.0		ug/L	252358	1	12/04/2017 20:21	NP
Surr: 4-Bromofluorobenzene	86.2	68-127		%REC	252358	1	12/04/2017 20:21	NP
Surr: Dibromofluoromethane	114	84.4-122		%REC	252358	1	12/04/2017 20:21	NP
Surr: Toluene-d8	96	80.1-116		%REC	252358	1	12/04/2017 20:21	NP
1,4-Dioxane by SIM GC/MS SW8260B-SIM				**(SW5030B)**				
1,4-Dioxane	BRL	5.0		ug/L	252624	1	12/08/2017 05:02	NP
Surr: 4-Bromofluorobenzene	100	85.7-115		%REC	252624	1	12/08/2017 05:02	NP
Surr: Dibromofluoromethane	105	73.4-129		%REC	252624	1	12/08/2017 05:02	NP
Surr: Toluene-d8	99.3	85-115		%REC	252624	1	12/08/2017 05:02	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	TB-1
Project Name:	Murata	**Collection Date:**	12/1/2017
Lab ID:	1712085-031	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
2-Butanone	BRL	50		ug/L	252358	1	12/04/2017 15:51	NP
2-Hexanone	BRL	10		ug/L	252358	1	12/04/2017 15:51	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252358	1	12/04/2017 15:51	NP
Acetone	BRL	50		ug/L	252358	1	12/04/2017 15:51	NP
Benzene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Bromodichloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Bromoform	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Bromomethane	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Carbon disulfide	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Carbon tetrachloride	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Chlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Chloroethane	BRL	10		ug/L	252358	1	12/04/2017 15:51	NP
Chloroform	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Chloromethane	BRL	10		ug/L	252358	1	12/04/2017 15:51	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Cyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Dibromochloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Dichlorodifluoromethane	BRL	10		ug/L	252358	1	12/04/2017 15:51	NP
Ethylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Freon-113	BRL	10		ug/L	252358	1	12/04/2017 15:51	NP
Isopropylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
m,p-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Methyl acetate	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Methylcyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Methylene chloride	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Naphthalene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	TB-1
Project Name:	Murata	**Collection Date:**	12/1/2017
Lab ID:	1712085-031	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Styrene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Tetrachloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Toluene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Trichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Vinyl chloride	BRL	2.0		ug/L	252358	1	12/04/2017 15:51	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Xylenes, Total	BRL	5.0		ug/L	252358	1	12/04/2017 15:51	NP
Surr: 4-Bromofluorobenzene	91.6	68-127		%REC	252358	1	12/04/2017 15:51	NP
Surr: Dibromofluoromethane	114	84.4-122		%REC	252358	1	12/04/2017 15:51	NP
Surr: Toluene-d8	102	80.1-116		%REC	252358	1	12/04/2017 15:51	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	TB-2
Project Name:	Murata	**Collection Date:**	12/1/2017
Lab ID:	1712085-032	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
1,1-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
1,1-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
1,2-Dibromoethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
1,2-Dichloroethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
1,2-Dichloropropane	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
2-Butanone	BRL	50		ug/L	252358	1	12/04/2017 16:15	NP
2-Hexanone	BRL	10		ug/L	252358	1	12/04/2017 16:15	NP
4-Methyl-2-pentanone	BRL	10		ug/L	252358	1	12/04/2017 16:15	NP
Acetone	BRL	50		ug/L	252358	1	12/04/2017 16:15	NP
Benzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Bromodichloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Bromoform	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Bromomethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Carbon disulfide	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Carbon tetrachloride	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Chlorobenzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Chloroethane	BRL	10		ug/L	252358	1	12/04/2017 16:15	NP
Chloroform	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Chloromethane	BRL	10		ug/L	252358	1	12/04/2017 16:15	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Cyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Dibromochloromethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Dichlorodifluoromethane	BRL	10		ug/L	252358	1	12/04/2017 16:15	NP
Ethylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Freon-113	BRL	10		ug/L	252358	1	12/04/2017 16:15	NP
Isopropylbenzene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
m,p-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Methyl acetate	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Methylcyclohexane	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Methylene chloride	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Naphthalene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 14-Dec-17

Client:	ERM-Southeast	**Client Sample ID:**	TB-2
Project Name:	Murata	**Collection Date:**	12/1/2017
Lab ID:	1712085-032	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Styrene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Tetrachloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Toluene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Trichloroethene	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Trichlorofluoromethane	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Vinyl chloride	BRL	2.0		ug/L	252358	1	12/04/2017 16:15	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Xylenes, Total	BRL	5.0		ug/L	252358	1	12/04/2017 16:15	NP
Surr: 4-Bromofluorobenzene	86.4	68-127		%REC	252358	1	12/04/2017 16:15	NP
Surr: Dibromofluoromethane	113	84.4-122		%REC	252358	1	12/04/2017 16:15	NP
Surr: Toluene-d8	98.4	80.1-116		%REC	252358	1	12/04/2017 16:15	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Clear | Save as

AES ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **ERM-Southeast** AES Work Order Number: **1712085**

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ■ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	●	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 1.6 °C Cooler 2 Temperature 2.9 °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). KH 12/1/17

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	●	○	○		
26.	Were trip blanks submitted?	●	○	○	listed on COC ■ not listed on COC ☐	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). MA 12/2/17

This section only applies to samples where pH can be checked at Sample Receipt.

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	●	○	○		
29.	Containers meet preservation guidelines?	●	○	○		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). MA 12/2/17

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: 252358

Sample ID: **MB-252358** Client ID: Units: **ug/L** Prep Date: **12/04/2017** Run No: **358063**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **252358** Analysis Date: **12/04/2017** Seq No: **7893846**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloroethene, Total	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: 252358

Sample ID: **MB-252358** Client ID: Units: **ug/L** Prep Date: **12/04/2017** Run No: **358063**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **252358** Analysis Date: **12/04/2017** Seq No: **7893846**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
Naphthalene	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	47.60	0	50.00		95.2	68	127				
Surr: Dibromofluoromethane	55.63	0	50.00		111	84.4	122				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: 252358

Sample ID: **MB-252358** Client ID: Units: **ug/L** Prep Date: **12/04/2017** Run No: **358063**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **252358** Analysis Date: **12/04/2017** Seq No: **7893846**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Toluene-d8	48.72	0	50.00		97.4	80.1	116				

Sample ID: **LCS-252358** Client ID: Units: **ug/L** Prep Date: **12/04/2017** Run No: **358063**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **252358** Analysis Date: **12/04/2017** Seq No: **7893847**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	51.09	5.0	50.00		102	69	136				
Benzene	44.55	5.0	50.00		89.1	73.7	126				
Chlorobenzene	48.94	5.0	50.00		97.9	73.5	124				
Toluene	47.80	5.0	50.00		95.6	76.8	125				
Trichloroethene	52.81	5.0	50.00		106	70.9	124				
Surr: 4-Bromofluorobenzene	45.55	0	50.00		91.1	68	127				
Surr: Dibromofluoromethane	54.62	0	50.00		109	84.4	122				
Surr: Toluene-d8	47.75	0	50.00		95.5	80.1	116				

Sample ID: **1712085-028AMS** Client ID: **MW-26** Units: **ug/L** Prep Date: **12/04/2017** Run No: **358063**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **252358** Analysis Date: **12/04/2017** Seq No: **7894439**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	56.19	5.0	50.00		112	65.7	143				
Benzene	49.07	5.0	50.00		98.1	66.1	137				
Chlorobenzene	57.23	5.0	50.00		114	70.9	132				
Toluene	53.33	5.0	50.00		107	63.8	141				
Trichloroethene	57.10	5.0	50.00		114	70.6	128				
Surr: 4-Bromofluorobenzene	47.05	0	50.00		94.1	68	127				
Surr: Dibromofluoromethane	53.43	0	50.00		107	84.4	122				
Surr: Toluene-d8	46.92	0	50.00		93.8	80.1	116				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: **252358**

Sample ID: **1712085-028AMSD** Client ID: **MW-26** Units: **ug/L** Prep Date: **12/04/2017** Run No: **358063**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **252358** Analysis Date: **12/04/2017** Seq No: **7894440**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	55.12	5.0	50.00		110	65.7	143	56.19	1.92	17.7	
Benzene	49.84	5.0	50.00		99.7	66.1	137	49.07	1.56	20	
Chlorobenzene	57.52	5.0	50.00		115	70.9	132	57.23	0.505	20	
Toluene	53.85	5.0	50.00		108	63.8	141	53.33	0.970	20	
Trichloroethene	57.50	5.0	50.00		115	70.6	128	57.10	0.698	20	
Surr: 4-Bromofluorobenzene	45.93	0	50.00		91.9	68	127	47.05	0	0	
Surr: Dibromofluoromethane	54.32	0	50.00		109	84.4	122	53.43	0	0	
Surr: Toluene-d8	46.80	0	50.00		93.6	80.1	116	46.92	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: **252363**

Sample ID: **MB-252363** Client ID: Units: **mg/L** Prep Date: **12/04/2017** Run No: **358363**
SampleType: **MBLK** TestCode: **METALS, TOTAL** **SW6010D** BatchID: **252363** Analysis Date: **12/06/2017** Seq No: **7900411**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	0.0500									
Barium	BRL	0.0200									
Cadmium	BRL	0.0050									
Chromium	BRL	0.0100									
Iron	BRL	0.100									
Lead	BRL	0.0100									
Selenium	BRL	0.0200									
Silver	BRL	0.0100									

Sample ID: **LCS-252363** Client ID: Units: **mg/L** Prep Date: **12/04/2017** Run No: **358363**
SampleType: **LCS** TestCode: **METALS, TOTAL** **SW6010D** BatchID: **252363** Analysis Date: **12/06/2017** Seq No: **7900412**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.9305	0.0500	1.000		93.1	80	120				
Barium	0.9137	0.0200	1.000		91.4	80	120				
Cadmium	0.9134	0.0050	1.000		91.3	80	120				
Chromium	0.9052	0.0100	1.000		90.5	80	120				
Iron	9.260	0.100	10.00		92.6	80	120				
Lead	0.8804	0.0100	1.000		88.0	80	120				
Selenium	0.9248	0.0200	1.000		92.5	80	120				
Silver	0.09250	0.0100	0.1000		92.5	80	120				

Sample ID: **1712085-003BMS** Client ID: **MW-A-4** Units: **mg/L** Prep Date: **12/04/2017** Run No: **358363**
SampleType: **MS** TestCode: **METALS, TOTAL** **SW6010D** BatchID: **252363** Analysis Date: **12/06/2017** Seq No: **7900416**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.9149	0.0500	1.000		91.5	75	125				
Barium	0.9425	0.0200	1.000	0.08625	85.6	75	125				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: 252363

Sample ID: **1712085-003BMS** Client ID: **MW-A-4** Units: **mg/L** Prep Date: **12/04/2017** Run No: **358363**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D** BatchID: **252363** Analysis Date: **12/06/2017** Seq No: **7900416**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cadmium	0.8839	0.0050	1.000		88.4	75	125				
Chromium	0.8675	0.0100	1.000		86.8	75	125				
Iron	8.860	0.100	10.00	0.04869	88.1	75	125				
Lead	0.8299	0.0100	1.000		83.0	75	125				
Selenium	0.9094	0.0200	1.000		90.9	75	125				
Silver	0.08979	0.0100	0.1000		89.8	75	125				

Sample ID: **1712085-003BMSD** Client ID: **MW-A-4** Units: **mg/L** Prep Date: **12/04/2017** Run No: **358363**
SampleType: **MSD** TestCode: **METALS, TOTAL SW6010D** BatchID: **252363** Analysis Date: **12/06/2017** Seq No: **7900417**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.9276	0.0500	1.000		92.8	75	125	0.9149	1.38	20	
Barium	0.9539	0.0200	1.000	0.08625	86.8	75	125	0.9425	1.20	20	
Cadmium	0.8984	0.0050	1.000		89.8	75	125	0.8839	1.62	20	
Chromium	0.8869	0.0100	1.000		88.7	75	125	0.8675	2.20	20	
Iron	8.967	0.100	10.00	0.04869	89.2	75	125	8.860	1.20	20	
Lead	0.8391	0.0100	1.000		83.9	75	125	0.8299	1.11	20	
Selenium	0.9327	0.0200	1.000		93.3	75	125	0.9094	2.54	20	
Silver	0.09305	0.0100	0.1000		93.0	75	125	0.08979	3.57	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: 252365

Sample ID: **MB-252365** Client ID: Units: **mg/L** Prep Date: **12/04/2017** Run No: **358257**
SampleType: **MBLK** TestCode: **METALS, TOTAL SW6010D** BatchID: **252365** Analysis Date: **12/05/2017** Seq No: **7897459**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	0.0500									
Barium	BRL	0.0200									
Cadmium	BRL	0.0050									
Chromium	BRL	0.0100									
Iron	BRL	0.100									
Lead	BRL	0.0100									
Selenium	BRL	0.0200									
Silver	BRL	0.0100									

Sample ID: **LCS-252365** Client ID: Units: **mg/L** Prep Date: **12/04/2017** Run No: **358257**
SampleType: **LCS** TestCode: **METALS, TOTAL SW6010D** BatchID: **252365** Analysis Date: **12/05/2017** Seq No: **7897462**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.9570	0.0500	1.000		95.7	80	120				
Barium	0.9375	0.0200	1.000		93.8	80	120				
Cadmium	0.9088	0.0050	1.000		90.9	80	120				
Chromium	0.9209	0.0100	1.000		92.1	80	120				
Iron	8.988	0.100	10.00		89.9	80	120				
Lead	0.9433	0.0100	1.000		94.3	80	120				
Selenium	0.9744	0.0200	1.000		97.4	80	120				
Silver	0.09186	0.0100	0.1000		91.9	80	120				

Sample ID: **1712085-023BMS** Client ID: **MW-22** Units: **mg/L** Prep Date: **12/04/2017** Run No: **358257**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D** BatchID: **252365** Analysis Date: **12/05/2017** Seq No: **7897464**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.8802	0.0500	1.000		88.0	75	125				
Barium	0.8675	0.0200	1.000	0.04416	82.3	75	125				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: **252365**

Sample ID: **1712085-023BMS** Client ID: **MW-22** Units: **mg/L** Prep Date: **12/04/2017** Run No: **358257**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010D** BatchID: **252365** Analysis Date: **12/05/2017** Seq No: **7897464**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cadmium	0.8282	0.0050	1.000		82.8	75	125				
Chromium	0.8280	0.0100	1.000	0.003710	82.4	75	125				
Iron	8.117	0.100	10.00	0.1896	79.3	75	125				
Lead	0.8477	0.0100	1.000		84.8	75	125				
Selenium	0.8881	0.0200	1.000		88.8	75	125				
Silver	0.08341	0.0100	0.1000		83.4	75	125				

Sample ID: **1712085-023BMSD** Client ID: **MW-22** Units: **mg/L** Prep Date: **12/04/2017** Run No: **358257**
SampleType: **MSD** TestCode: **METALS, TOTAL SW6010D** BatchID: **252365** Analysis Date: **12/05/2017** Seq No: **7897465**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.9398	0.0500	1.000		94.0	75	125	0.8802	6.54	20	
Barium	0.9372	0.0200	1.000	0.04416	89.3	75	125	0.8675	7.73	20	
Cadmium	0.8886	0.0050	1.000		88.9	75	125	0.8282	7.04	20	
Chromium	0.8930	0.0100	1.000	0.003710	88.9	75	125	0.8280	7.56	20	
Iron	8.786	0.100	10.00	0.1896	86.0	75	125	8.117	7.91	20	
Lead	0.9078	0.0100	1.000		90.8	75	125	0.8477	6.85	20	
Selenium	0.9534	0.0200	1.000		95.3	75	125	0.8881	7.09	20	
Silver	0.08935	0.0100	0.1000		89.4	75	125	0.08341	6.88	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: **252427**

Sample ID: **MB-252427** Client ID: Units: **ug/L** Prep Date: **12/04/2017** Run No: **358153**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **252427** Analysis Date: **12/04/2017** Seq No: **7895100**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloroethene, Total	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: **252427**

Sample ID: **MB-252427** Client ID: Units: **ug/L** Prep Date: **12/04/2017** Run No: **358153**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **252427** Analysis Date: **12/04/2017** Seq No: **7895100**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
Naphthalene	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	44.88	0	50.00		89.8	68	127				
Surr: Dibromofluoromethane	56.71	0	50.00		113	84.4	122				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: **252427**

Sample ID: **MB-252427** Client ID: Units: **ug/L** Prep Date: **12/04/2017** Run No: **358153**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **252427** Analysis Date: **12/04/2017** Seq No: **7895100**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Toluene-d8	49.28	0	50.00		98.6	80.1	116				

Sample ID: **LCS-252427** Client ID: Units: **ug/L** Prep Date: **12/04/2017** Run No: **358153**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **252427** Analysis Date: **12/04/2017** Seq No: **7895099**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	48.16	5.0	50.00		96.3	69	136				
Benzene	46.19	5.0	50.00		92.4	73.7	126				
Chlorobenzene	49.49	5.0	50.00		99.0	73.5	124				
Toluene	47.26	5.0	50.00		94.5	76.8	125				
Trichloroethene	52.56	5.0	50.00		105	70.9	124				
Surr: 4-Bromofluorobenzene	47.00	0	50.00		94.0	68	127				
Surr: Dibromofluoromethane	52.36	0	50.00		105	84.4	122				
Surr: Toluene-d8	48.23	0	50.00		96.5	80.1	116				

Sample ID: **1712085-003AMS** Client ID: **MW-A-4** Units: **ug/L** Prep Date: **12/04/2017** Run No: **358153**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **252427** Analysis Date: **12/05/2017** Seq No: **7895108**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	52.29	5.0	50.00		105	65.7	143				
Benzene	49.01	5.0	50.00		98.0	66.1	137				
Chlorobenzene	54.91	5.0	50.00		110	70.9	132				
Toluene	51.81	5.0	50.00		104	63.8	141				
Trichloroethene	56.32	5.0	50.00		113	70.6	128				
Surr: 4-Bromofluorobenzene	46.71	0	50.00		93.4	68	127				
Surr: Dibromofluoromethane	52.32	0	50.00		105	84.4	122				
Surr: Toluene-d8	46.76	0	50.00		93.5	80.1	116				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: **252427**

Sample ID: **1712085-003AMSD** Client ID: **MW-A-4** Units: **ug/L** Prep Date: **12/04/2017** Run No: **358153**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **252427** Analysis Date: **12/05/2017** Seq No: **7895109**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	56.38	5.0	50.00		113	65.7	143	52.29	7.53	17.7	
Benzene	51.68	5.0	50.00		103	66.1	137	49.01	5.30	20	
Chlorobenzene	56.47	5.0	50.00		113	70.9	132	54.91	2.80	20	
Toluene	53.81	5.0	50.00		108	63.8	141	51.81	3.79	20	
Trichloroethene	58.17	5.0	50.00		116	70.6	128	56.32	3.23	20	
Surr: 4-Bromofluorobenzene	44.42	0	50.00		88.8	68	127	46.71	0	0	
Surr: Dibromofluoromethane	54.83	0	50.00		110	84.4	122	52.32	0	0	
Surr: Toluene-d8	47.56	0	50.00		95.1	80.1	116	46.76	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: **252463**

Sample ID: **MB-252463** Client ID: Units: **mg/L** Prep Date: **12/05/2017** Run No: **358244**
SampleType: **MBLK** TestCode: **Mercury, Total SW7470A** BatchID: **252463** Analysis Date: **12/06/2017** Seq No: **7897254**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	BRL	0.00020									

Sample ID: **LCS-252463** Client ID: Units: **mg/L** Prep Date: **12/05/2017** Run No: **358244**
SampleType: **LCS** TestCode: **Mercury, Total SW7470A** BatchID: **252463** Analysis Date: **12/06/2017** Seq No: **7897255**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.003820	0.00020	0.0040		95.5	80	120				

Sample ID: **1712093-004BMS** Client ID: Units: **mg/L** Prep Date: **12/05/2017** Run No: **358244**
SampleType: **MS** TestCode: **Mercury, Total SW7470A** BatchID: **252463** Analysis Date: **12/06/2017** Seq No: **7897257**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.003809	0.00020	0.0040		95.2	70	130				

Sample ID: **1712093-004BMSD** Client ID: Units: **mg/L** Prep Date: **12/05/2017** Run No: **358244**
SampleType: **MSD** TestCode: **Mercury, Total SW7470A** BatchID: **252463** Analysis Date: **12/06/2017** Seq No: **7897258**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.003804	0.00020	0.0040		95.1	70	130	0.003809	0.139	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: **252464**

Sample ID: **MB-252464** Client ID: Units: **mg/L** Prep Date: **12/05/2017** Run No: **358242**
SampleType: **MBLK** TestCode: **Mercury, Total SW7470A** BatchID: **252464** Analysis Date: **12/06/2017** Seq No: **7897140**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	BRL	0.00020									

Sample ID: **LCS-252464** Client ID: Units: **mg/L** Prep Date: **12/05/2017** Run No: **358242**
SampleType: **LCS** TestCode: **Mercury, Total SW7470A** BatchID: **252464** Analysis Date: **12/06/2017** Seq No: **7897141**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.003866	0.00020	0.0040		96.6	80	120				

Sample ID: **1712085-013BMS** Client ID: **MW-B-3** Units: **mg/L** Prep Date: **12/05/2017** Run No: **358242**
SampleType: **MS** TestCode: **Mercury, Total SW7470A** BatchID: **252464** Analysis Date: **12/06/2017** Seq No: **7897143**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.003868	0.00020	0.0040		96.7	70	130				

Sample ID: **1712085-013BMSD** Client ID: **MW-B-3** Units: **mg/L** Prep Date: **12/05/2017** Run No: **358242**
SampleType: **MSD** TestCode: **Mercury, Total SW7470A** BatchID: **252464** Analysis Date: **12/06/2017** Seq No: **7897145**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.003869	0.00020	0.0040		96.7	70	130	0.003868	0.011	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: 252620

Sample ID: **MB-252620** Client ID: Units: **ug/L** Prep Date: **12/07/2017** Run No: **358443**
SampleType: **MBLK** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **252620** Analysis Date: **12/07/2017** Seq No: **7902276**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0									
Surr: 4-Bromofluorobenzene	50.43	0	50.00		101	85.7	115				
Surr: Dibromofluoromethane	50.43	0	50.00		101	73.4	129				
Surr: Toluene-d8	50.27	0	50.00		101	85	115				

Sample ID: **LCS-252620** Client ID: Units: **ug/L** Prep Date: **12/07/2017** Run No: **358443**
SampleType: **LCS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **252620** Analysis Date: **12/07/2017** Seq No: **7902275**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	10.50	5.0	10.00		105	69.1	131				
Surr: 4-Bromofluorobenzene	50.73	0	50.00		101	85.7	115				
Surr: Dibromofluoromethane	52.35	0	50.00		105	73.4	129				
Surr: Toluene-d8	50.08	0	50.00		100	85	115				

Sample ID: **1712085-003AMS** Client ID: **MW-A-4** Units: **ug/L** Prep Date: **12/07/2017** Run No: **358443**
SampleType: **MS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **252620** Analysis Date: **12/07/2017** Seq No: **7902292**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	7.820	5.0	10.00	0.9700	68.5	60	141				
Surr: 4-Bromofluorobenzene	49.92	0	50.00		99.8	85.7	115				
Surr: Dibromofluoromethane	51.76	0	50.00		104	73.4	129				
Surr: Toluene-d8	49.47	0	50.00		98.9	85	115				

Sample ID: **1712085-003AMSD** Client ID: **MW-A-4** Units: **ug/L** Prep Date: **12/07/2017** Run No: **358443**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **252620** Analysis Date: **12/07/2017** Seq No: **7902293**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	8.580	5.0	10.00	0.9700	76.1	60	141	7.820	9.27	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: **252620**

Sample ID: **1712085-003AMSD** Client ID: **MW-A-4** Units: **ug/L** Prep Date: **12/07/2017** Run No: **358443**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **252620** Analysis Date: **12/07/2017** Seq No: **7902293**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	50.13	0	50.00		100	85.7	115	49.92	0	0	
Surr: Dibromofluoromethane	52.14	0	50.00		104	73.4	129	51.76	0	0	
Surr: Toluene-d8	49.69	0	50.00		99.4	85	115	49.47	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: **252624**

Sample ID: **MB-252624** Client ID: Units: **ug/L** Prep Date: **12/07/2017** Run No: **358446**
SampleType: **MBLK** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **252624** Analysis Date: **12/07/2017** Seq No: **7902398**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0									
Surr: 4-Bromofluorobenzene	50.60	0	50.00		101	85.7	115				
Surr: Dibromofluoromethane	52.19	0	50.00		104	73.4	129				
Surr: Toluene-d8	49.89	0	50.00		99.8	85	115				

Sample ID: **LCS-252624** Client ID: Units: **ug/L** Prep Date: **12/07/2017** Run No: **358446**
SampleType: **LCS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **252624** Analysis Date: **12/07/2017** Seq No: **7902397**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	7.690	5.0	10.00		76.9	69.1	131				
Surr: 4-Bromofluorobenzene	50.36	0	50.00		101	85.7	115				
Surr: Dibromofluoromethane	52.68	0	50.00		105	73.4	129				
Surr: Toluene-d8	50.19	0	50.00		100	85	115				

Sample ID: **1712085-023AMS** Client ID: **MW-22** Units: **ug/L** Prep Date: **12/07/2017** Run No: **358446**
SampleType: **MS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **252624** Analysis Date: **12/08/2017** Seq No: **7902403**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	8.620	5.0	10.00		86.2	60	141				
Surr: 4-Bromofluorobenzene	50.13	0	50.00		100	85.7	115				
Surr: Dibromofluoromethane	52.57	0	50.00		105	73.4	129				
Surr: Toluene-d8	50.00	0	50.00		100	85	115				

Sample ID: **1712085-023AMSD** Client ID: **MW-22** Units: **ug/L** Prep Date: **12/07/2017** Run No: **358446**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **252624** Analysis Date: **12/08/2017** Seq No: **7902404**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	9.540	5.0	10.00		95.4	60	141	8.620	10.1	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1712085

ANALYTICAL QC SUMMARY REPORT

BatchID: **252624**

Sample ID: **1712085-023AMSD** Client ID: **MW-22** Units: **ug/L** Prep Date: **12/07/2017** Run No: **358446**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **252624** Analysis Date: **12/08/2017** Seq No: **7902404**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	50.56	0	50.00		101	85.7	115	50.13	0	0	
Surr: Dibromofluoromethane	52.51	0	50.00		105	73.4	129	52.57	0	0	
Surr: Toluene-d8	49.76	0	50.00		99.5	85	115	50.00	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Groundwater Sampling Field Sheets

Appendix E

Project No. 0190949
Murata Electronics North America

Environmental Resources Management
3200 Windy Hill Road SE, Suite 1500W
Atlanta, Georgia 30339
(678) 486-2700

WATER LEVEL MEASUREMENT DATA SHEET

ERM

Client: Murata
Site/Location: Rockmart, GA

Sampled By: CH, TT, HB
11/27/17

Well I.D.	Date	Time	Well Diameter (inches)	Depth to Water (Feet BTOC)	Total Depth (Feet BTOC)	Notes (Odor, dedicated pump present, note if lock/cap need replacment,etc.)
MW-1		1513	2	56.91	57.18	
MW-2		1429	2	36.31	36.88	
MW-3		1221	2	40.50	43.70	
MW-4		—	2	~~68.66~~	68.66	CNL
MW-5		1248	2	51.51	71.94	
MW-6		1150	2	66.10	78.92	
MW-7		1438	2	55.81	64.60	
MW-8		1434	2	58.67	70.00	
~~MW-9~~ CH		1242	2	57.88		TIP-03
MW-10		1200	2	DRY	44.22	
MW-11		1228	2	52.46	~~170.00~~	
MW-12		1522	2	54.21	170.00	well lid broke & piece fell downwell
bail MW-13		1519	2	54.00	55.28	Permanganate present
MW-14		1012	2	DRY	34.64	
MW-15		—	2	—	—	metal Detector-CNL BURIED
MW-16		—	2	—	—	45° Well
MW-17		1409	2	47.03	75.11	
MW-18		1249	2	57.87	60.35	3" well
bail MW-19		1422	2	64.73	68.70	3" well permanganate present
bail MW-20		1431	2	58.90	63.05	3" well permanganate present
MW-22		1501	2	61.86	78.46	
MW-23		1207	2	32.88	71.90	
MW-24		1313	2	55.80	~~69.62~~	Damaged & repaired by Site personnel → 68.30 TOC NOT Surveyed
MW-25		1307	2	43.21	80.44	
MW-26		1705	2	43.80	90.36	
Pump MW-27		1214	2	36.18	66.50	permanganate present / VAULT LID WILL NOT CLOSE
MW-28		—	2	—		Destroyed
~~MW-29~~ CH		1104	2	49.57		TIP-4
MW-A-1		—	2			metal Detector-CNL DESTROYED
* MW-A-2		~~1029~~	2	~~46.41~~		CNL/GRAVEL/GETTING metal Detector
MW-A-3		1401	2			metal Detector-CNL-BURIED
MW-A-4		1024	2	44.35	48.71	
MW-A-5		—	2	—	60.15	CNL BURIED IN GRAVEL/LOCATED
~~MW-B-4~~			2			DUPLICATE
MW-B-1		1124	2	52.35	76.14	
MW-B-2		1129	2	35.11	100.25	
MW-B-3		1108	2	47.95	100.66	
MW-B-4		1112	2	49.41	99.98	

* ~~MW-A-2~~ ~~1029~~ ~~46.41~~ CNL

MW-29 1156 61.78 65.70

MW-9 1252 54.23 59.10

** CNL = CAN NOT LOCATE

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 0100949
Sampling Date: 11/28/17
Site/Location: Rockmart, GA
Sampler's Name: V. Thomas

Well ID: MW-1
Pump Type/Model: Bailer
Sample Collection Time:
Total Depth (ft)[1]: 57.00
Tubing Material:
Sample Purge Rate (L/min)[3]:
Depth to Water (ft): 56.96
Pump Intake Depth (ft):
Sample ID: MW-1
Well Diameter (in): 2
Start/Stop Purge Time: 1151
QA/QC Collected?
Well Volume (gal) = 0.041d²h: 0.00052
Purge Rate (L/min)[2]:
QA/QC I.D.
Well Volume (L) = WV(gal)x3.785: 0.0246
Total Purge Volume (L):
Laboratory Analyses:

d = well diameter (inches) h = length of water column (feet)

Well Condition: Good
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: Bailer
☐ Bladder pump = pump discharge (all analytes) ☒ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
	less	than	0.1	inches	of water	in well	— will	bail out	and observe
	for recharge								
1200	17.18	441.9	4.29	6.72	471.0	overrange	0.50	DRY	(1 time submerging bailer)
1200	MW-1	DRY							
									Turbidity overrange of
									meter.
									Watercolor - tan, no odor
									Total depth = 57.23
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: MURATA
Project No.: 0190949
Sampling Date: 11-29-17
Site/Location: ROCKMART, GA
Sampler's Name: C. HURDLE

Well ID: ~~MW 11 GA~~ MW-3
Pump Type/Model:
Sample Collection Time: 1459
Total Depth (ft)[1]: ~~50.50 GA~~ 48.00 (43.70)
Tubing Material:
Sample Purge Rate (L/min)[3]:
Depth to Water (ft): ~~52.53 GA~~ 40.55
Pump Intake Depth (ft):
Sample ID: MW-3
Well Diameter (in): 2
Start/Stop Purge Time:
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 0.51/1.02/1.53
Purge Rate (L/min)[2]:
QA/QC I.D. N/A
Well Volume (L) = WV(gal)x3.785: 1.96
Total Purge Volume (L): 1.96
Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: Good
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: BAIL WV
☐ Bladder pump = pump discharge (all analytes) ☑ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1432	DRY after 1 WV								
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 0190949
Sampling Date: 11/30/17
Site/Location: Rockmart, GA
Sampler's Name: V. Thomas

Well ID: MW-4
Pump Type/Model: QED Bladder
Sample Collection Time: 1640
Total Depth (ft)[1]: 70 (SCREEN 49.5 – 69.5)
Tubing Material: LDPE
Sample Purge Rate (L/min)[3]: 100
Depth to Water (ft): 48.75
Pump Intake Depth (ft): 59.5
Sample ID: MW-4
Well Diameter (in): 2
Start/Stop Purge Time: ~~1514~~ ~~1531~~ 1544
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 3.46
Purge Rate (L/min)[2]: 100
QA/QC I.D. NA
Well Volume (L) = WV(gal)x3.785: 13.11
Total Purge Volume (L): 5.5
Laboratory Analyses: VOCs, Metals, Fe

d = well diameter (inches) h = length of water column (feet)

Well Condition: Good
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: Low flow
☒ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

	Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
	1519	—	—	—	—	—	—	—	—	No water in flow cell
	1524	—	—	—	—	—	—	—	—	pump malfunction. - restarting insitu app.
1549	~~1531~~	18.11	768.80	2.10	7.13	-23.70	29.8	0.5	49.88	Begin purge
1554	~~1544~~	17.89	768.40	2.21	7.13	-24.90	28.6	1.0	50.00	
1559	~~1551~~	17.80	769.00	2.31	7.14	-25.50	21.7	~~1.0~~	50.07	1.5 Liters
1604	~~1554~~	17.91	769.30	2.35	7.14	-26.00	17.9	2.0	50.12	
	1609	~~18.0~~ 17.98	769.20	2.32	7.14	-26.40	14.3	2.5	50.12	
1614	~~1609~~	18.07	768.70	2.31	7.13	-26.40	15.1	3.0	50.12	
	1619	18.29	770.10	2.45	7.13	-27.00	16.0	3.5	50.12	
1624	~~1619~~	18.05	766.00	2.04	7.11	-27.40	16.9	4.0	50.13	
	1629	18.29	768.10	1.89	7.11	-27.70	16.9	4.5	50.13	
	1634	18.46	767.90	1.85	7.11	-27.80	16.3	5.0	50.13	
	1639	18.51	766.30	1.85	7.11	-27.90	16.7	5.5	50.13	
		parameters stable at 1639								
		purge time 1544 to 1639								
		MW-4 sampled at 1640								
										TD — 68.66
	Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Minrata
Project No.: 0190949
Sampling Date: 11/29/2017
Site/Location: Rockmart, GA
Sampler's Name: H. Beaugh

Well ID: MW-5
Pump Type/Model: QED Bladder
Sample Collection Time: not sampled
Total Depth (ft)[1]: 74
Tubing Material: LDPE
Sample Purge Rate (L/min)[3]:
Depth to Water (ft): 51.54
Pump Intake Depth (ft): 60
Sample ID: MW-5
Well Diameter (in): 2
Start/Stop Purge Time: 1538
QA/QC Collected? no
Well Volume (gal) = 0.041d²h: 3.68
Purge Rate (L/min)[2]: 0.1 / 0.05
QA/QC I.D.
Well Volume (L) = WV(gal)x3.785: 13.94 / 41.8 (3X)
Total Purge Volume (L):
Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: good
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: low flow
☒ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1543	20.08	503.60	7.27	7.42	10.50	25.6	0.5	51.68	
1548	—					23.0	1.0	51.71	Smart Troll ~~didn't take~~ reading
1553	19.77	506.00	8.12	7.42	9.30	20.9	1.5	51.79	
1558	19.59	504.80	8.32	7.44	10.60	~~14.56~~	2.0	51.81	Purge rate changed to 50 mL/min turbidity = 18.8 NTU
1603	19.64	507.40	8.67	7.45	10.60	15.5	2.25	51.82	
1608	19.86	504.80	8.77	7.47	11.70	15.5	2.5	51.84	
1613							2.75		
									Will draw down to 0.3 ft
									not sampled today
									Will do 3X well volume
									method tomorrow morning
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 090949
Sampling Date: 11/30/2017
Site/Location: Rockmart, GA
Sampler's Name: H. Beaugh

Well ID: MW-5
Pump Type/Model: QED Bladder
Sample Collection Time: 1030
Total Depth (ft)[1]: 74
Tubing Material: LDPE
Sample Purge Rate (L/min)[3]: 0.3
Depth to Water (ft): 51.54
Pump Intake Depth (ft): 60
Sample ID: MW-5
Well Diameter (in): 2
Start/Stop Purge Time: 0851/1021
QA/QC Collected? yes
Well Volume (gal) = 0.041d²h: 3.68
Purge Rate (L/min)[2]: 0.5/0.3
QA/QC I.D. DUP-3
Well Volume (L) = WV(gal)x3.785: 13.94 / 41.8 (3x)
Total Purge Volume (L): 42.0
Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: good
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: 3x well volumes
☒ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
0856	17.68	508.40	9.45	—	~~0.00~~	13.0	2.5	52.19	ORP/pH sensor missing from Smart Troll
0901	17.19	519.50	9.41	—	—	12.04	5.0	52.97	
0906	—	—	—	—	—	8.0	7.5	53.39	
0911	—	—	—	—	—	—	10.0	—	switching smart Troll
0916	—	—	—	—	—	4.81	12.5	54.41	Start new smart troll log
0921	17.68	525.50	9.35	7.67	46.40	4.21	15.0	54.91	One well volume
0926	17.72	526.90	9.31	7.66	45.00	3.40	17.5	55.25	
0931	17.69	527.40	9.30	7.68	43.60	2.45	20.0	55.74	
0936	17.73	528.10	9.26	7.70	43.60	1.97	22.5	56.23	
0941	17.81	529.70	9.14	7.72	43.70	1.49	25.0	56.75	Pump lowered to ~63ft btoc
0946	17.81	519.10	7.96	7.70	58.40	12.0	27.5	57.16	two well volumes
0951	17.75	526.40	9.17	7.70	58.30	6.56	30.0	57.54	
0956	17.81	528.20	9.25	7.72	57.90	3.72	32.5	58.06	
~~09~~ 1001	17.85	529.40	9.14	7.73	58.90	2.66	35.0	58.48	
1006	17.94	531.30	9.15	7.74	58.60	1.59	37.5	58.99	Purge rate lowered to 300mL/min
1011	18.03	532.40	9.04	7.74	58.00	1.32	39.0	59.36	
1016	18.09	533.20	8.94	7.74	57.80	1.37	40.5	59.53	
1021	18.30	533.20	8.89	7.73	58.80	1.15	42.0	59.74	three well volumes
							Sampled at 1030		
							Total Depth: 71.94		
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 0190949
Sampling Date: 11/30/17
Site/Location: Rockmart, GA
Sampler's Name: V. Thomas

Well ID: MW-6
Pump Type/Model: QED Bladder
Sample Collection Time: 1400
Total Depth (ft)[1]: 81 (screen 50.5-80.5)
Tubing Material: LDPE
Sample Purge Rate (L/min)[3]: 100 ~~(soda straw)~~
Depth to Water (ft): 66.22
Pump Intake Depth (ft): ~~65~~ 70
Sample ID: MW-6
Well Diameter (in): 2
Start/Stop Purge Time: 1244 to 1354
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h:
Purge Rate (L/min)[2]: 100
QA/QC I.D. NA
Well Volume (L) = WV(gal)x3.785:
Total Purge Volume (L): 6.5
Laboratory Analyses: VOCs, Metals, Fe

d = well diameter (inches) h = length of water column (feet)

Well Condition: Good - No Bolts
Sampling Method (check all that apply): ~~☒ soda straw (VOCs)~~ ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: Low flow
☒ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1249	—	—	—	—	—	—	~~0.5~~	—	NO WATER IN FLOW CELL
1254	21.84	393.70	5.26	7.37	-38.40	64.4	0.5	66.22	
1259	21.58	393.50	4.48	7.33	-40.80	66.5	1.0	66.22	
1304	21.36	393.70	4.32	7.32	-40.80	65.1	1.5	66.22	
1309	21.14	393.80	4.24	7.32	-40.00	70.7	2.0	66.22	
1314	21.05	393.90	4.19	7.31	-39.10	74.3	2.5	66.22	
1319	21.03	394.70	4.18	7.31	-38.10	58.8	3.0	66.22	collect turbidity reading before flow cell
1324	21.02	393.80	4.26	7.32	-36.60	58.7	3.5	66.22	
1329	20.94	395.10	4.22	7.31	-35.60	60.9	4.0	66.22	
1334	20.78	394.60	4.19	7.31	-34.70	49.0	4.5	66.22	
1339	20.59	395.10	4.18	7.32	-33.80	45.6	5.0	66.22	
1344	20.51	395.60	4.17	7.32	-32.80	47.6	5.5	66.22	
1349	~~20.51~~	396.40	4.18	7.32	-32.00	46.3	6.0	66.22	Temperature = 20.38
1354	20.29	397.50	4.19	7.32	-31.10	46.4	6.5	66.22	
	parameters stable at 1354 - exhausted all efforts to reduce turbidity								
	purge time 1244 to 1354								
	MW-6 sampled at 1400								
									Total depth = 78.82 (sediment)
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: MURATA
Project No.: 0190949
Sampling Date: 12-1-17
Site/Location: ROCKMART, GA
Sampler's Name: C. HURDLE

Well ID: MW-7
Pump Type/Model: QED BLADDER
Sample Collection Time: 1111
Total Depth (ft)[1]: 73.45
Tubing Material: LDPE 0.17 ID
Sample Purge Rate (L/min)[3]: 0.2
Depth to Water (ft): 56.00
Pump Intake Depth (ft): ~~67~~ 58
Sample ID: MW-7
Well Diameter (in): 2
Start/Stop Purge Time: 1005/
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 2.86
Purge Rate (L/min)[2]: 0.5
QA/QC I.D. N/A
Well Volume (L) = WV(gal)x3.785: 10.82 (2X) / 21.64 (3X) / 32.45
Total Purge Volume (L):
Laboratory Analyses: SEE COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: GOOD / LID ~~NOT~~ WELL CLOSE
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: WELL VOLUMES
☑ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
									PERMANGANATE PRESENT
1025						4.05	10L	56.10	-1ST WELL VOLUME LIGHT PURPLE
1050						2.91	22.5	56.20	-2ND WELL VOLUME
1110						1.97	32.5	56.25	-3RD WELL VOLUME
		TD measured = 64.60 ft btoc							
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: MURATA
Project No.: 0190949
Sampling Date: 11-30-17
Site/Location: ROCKMART, GA
Sampler's Name: C. HARDLE

Well ID: MW-8
Pump Type/Model: QED BLADDER
Sample Collection Time: 1808
Total Depth (ft)[1]: 72.00
Tubing Material: LDPE 0.17 ID
Sample Purge Rate (L/min)[3]: 0.2
Depth to Water (ft): 58.85
Pump Intake Depth (ft): 67'
Sample ID: MW-8
Well Diameter (in): 2
Start/Stop Purge Time: 1712 / 1807
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 2.16
Purge Rate (L/min)[2]: 0.1/0.2
QA/QC I.D. N/A
Well Volume (L) = WV(gal)x3.785: 8.16
Total Purge Volume (L): 10.0
Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: GOOD NO LOCK or BOLTS
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: LOW-FLOW
☑ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1717	18.23	436.0	2.09	7.27	94.30	8.15	0.5	58.89	-100mL/min
1722	18.07	502.1	2.76	7.23	127.5	36.2	1.0	58.89	
1727	18.26	488.6	2.90	7.29	409.1	23.9	2.0	58.89	-200mL/min
1732	18.21	510.5	3.24	7.28	530.5	17.2	3.0	58.89	
1737	18.25	525.3	3.38	7.25	559.7	17.6	4.0	58.89	2 RINSE FLOW CELL
1742	18.25	539.9	3.23	7.20	569.4	17.1	5.0	58.89	3
1747	18.38	548.5	3.33	7.14	575.5	14.3	6.0	58.89	
1752	18.38	555.6	3.20	7.10	579.7	13.4	7.0	58.89	
1757	18.43	560.0	3.49	7.07	583.5	11.9	8.0	58.89	
1802	18.43	568.5	3.27	7.06	585.5	11.1	9.0	58.89	
1807	18.45	576.1	3.55	7.05	587.5	13.7	10.0	58.89	
		TD=	70.00						
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 0190049
Sampling Date: 11/30/17
Site/Location: Rockmart, GA
Sampler's Name: V. Thomas

Well ID: MW-9
Pump Type/Model: ~~QED Bladder~~ Bailer
Sample Collection Time: 1820
Total Depth (ft)[1]: 59 (screen 49-59)
Tubing Material: ~~LDPE~~
Sample Purge Rate (L/min)[3]: Bailer
Depth to Water (ft): 54.32
Pump Intake Depth (ft):
Sample ID: MW-9
Well Diameter (in): 2
Start/Stop Purge Time:
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 0.763
Purge Rate (L/min)[2]:
QA/QC I.D. NA
Well Volume (L) = WV(gal)x3.785: 2.88
Total Purge Volume (L):
Laboratory Analyses: VOCs Metals Fe

d = well diameter (inches) h = length of water column (feet)

Well Condition: Good
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: Bailer
☐ Bladder pump = pump discharge (all analytes) ☒ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
~~1754~~	17.91	640.4	6.00	7.06	~~333.8~~	2218	3.00	56.32	1st well volume
1800	17.40	632.8	6.17	7.38	405.2	2037	6.00	56.98	2nd well volume
1810	17.57	641.3	6.24	7.41	372.9	2374	9.00	57.11	3rd well volume
	Allowed well to fully recharge								
	sampled @ 1820								
	- well recharges quickly - can low flow next time								
	** product in sample **								
									59.1
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 0190940
Sampling Date: 12/1/17
Site/Location: Rockmart, GA
Sampler's Name: V. Thomas

Well ID: MW-12
Pump Type/Model: QED Bladder
Sample Collection Time: 1020
Total Depth (ft)[1]: 200 (open hole)
Tubing Material: LDPE
Sample Purge Rate (L/min)[3]: 250
Depth to Water (ft): 54.00
Pump Intake Depth (ft): ~~180~~ 150
Sample ID: MW-12
Well Diameter (in): 4
Start/Stop Purge Time: 0846
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 94.05
Purge Rate (L/min)[2]: 100
QA/QC I.D. NA
Well Volume (L) = WV(gal)x3.785: 359.39
Total Purge Volume (L): 19
Laboratory Analyses: Metals, VOCs, Fe

d = well diameter (inches) h = length of water column (feet)

Well Condition: Good - No cap
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: Low flow
☒ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
0847	Tubing disconnected from Flowcell - permanganate present in well water								
0851	—	—	—	—	—	0.00	0.5	54.33	
0856	—	—	—	—	—	0.07	1.0	54.00	
	3 well volume purge not completed due to size of volumes & time constraints. 1 volume = ~12hrs of purging.								
0907	purge rate increased to 250 mL/min								
0937	—	—	—	—	—	0.09	9	56.90	(2.37 gallons)
1007	—	—	—	—	—	0.17	16.5	60.00	(4.36 gallons)
1017	—	—	—	—	—	0.07	19	60.51	(5.01 gallons)
	~~SI~~								
	MW-12 sampled at 1020								
									Total depth = 170.00
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: MURATA
Project No.: 0190949
Sampling Date: 11-29
Site/Location: ROCKMART, GA
Sampler's Name: C. HURDLE

Well ID: MW-13
Total Depth (ft)[1]: 57.00 (55.28)
Depth to Water (ft): 55.08
Well Diameter (in): 2
Well Volume (gal) = 0.041d²h: 0.31
Well Volume (L) = WV(gal)x3.785: 1.91

Pump Type/Model:
Tubing Material:
Pump Intake Depth (ft):
Start/Stop Purge Time:
Purge Rate (L/min)[2]:
Total Purge Volume (L):

Sample Collection Time:
Sample Purge Rate (L/min)[3]:
Sample ID:
QA/QC Collected?
QA/QC I.D.
Laboratory Analyses:

d = well diameter (inches) h = length of water column (feet)

Well Condition: GOOD

Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide) ☐ Bladder pump = pump discharge (all analytes) ☑ Bailer (only used if necessary)

Purge Method:

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
0900	Measured TD = 55.28ft btoc								Deployed Bailer + well is DRY
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: MURATA
Project No.: 0190949
Sampling Date: 11-30-17
Site/Location: ROCKMART, GA
Sampler's Name: C. HURDLE

Well ID: MW-17
Pump Type/Model: QED BLADDER
Sample Collection Time: 1426
Total Depth (ft)[1]: ~~61.30~~ 75.11
Tubing Material: LDPE 0.17 ID
Sample Purge Rate (L/min)[3]: 0.2
Depth to Water (ft): 47.25
Pump Intake Depth (ft): 70'
Sample ID: MW-17
Well Diameter (in): 2
Start/Stop Purge Time: 1240
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 4.57 / 9.14 / 13.71
Purge Rate (L/min)[2]: 0.5
QA/QC I.D. N/A
Well Volume (L) = WV(gal)x3.785: 17.29 / 34.58 / 51.88 (2x WV, 3x)
Total Purge Volume (L): 52.5
Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: GOOD - NO Bolts or lock
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: WELL VOLUMES
☑ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
									PERMANGANATE PRESENT
1315						-0.00	17.5	50.40	-1ST WELL VOLUME
1320						-0.03	35.0	56.30	-2ND WELL VOLUME
1425						-0.71	52.5	62.65	-3RD WELL VOLUME
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 0100949
Sampling Date: 11/28/17 & 11/29/17
Site/Location: Rockmart, GA
Sampler's Name: V. Thomas

Well ID: MW-18
Pump Type/Model: Bailer
Sample Collection Time: 11/29/17 @ 0910
Total Depth (ft)[1]: 100.15
Tubing Material:
Sample Purge Rate (L/min)[3]: Bailer
Depth to Water (ft): 57.88
Pump Intake Depth (ft):
Sample ID: MW-18
Well Diameter (in): 3
Start/Stop Purge Time: 0957 / 1114
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 0.833
Purge Rate (L/min)[2]:
QA/QC I.D. —
Well Volume (L) = WV(gal)x3.785: 3.15
Total Purge Volume (L):
Laboratory Analyses: VOCs, Metals, total Fe

d = well diameter (inches) h = length of water column (feet)

Well Condition: Good – Needs Bolts
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: Bailer
☐ Bladder pump = pump discharge (all analytes) ☒ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
									(100.15 – 57.88) = 2.27 x 0.367
									= 0.83309
									0.83309 x 3.785
11/28/17									= 3.15
1020	water level meter stainless steel probe disconnected from tape –								
	input from top of well								
1050							1.50	59.21	
1114	14.66	474.0	8.83	7.79	480.20	2700	3.15	100.35 →	total depth. well dry @ 1114
									water is dark opaque brown. No odor.
11/29/17									
0859								58.01	permanganate in water
0907						10.43			
0909						9.87			
0910	sample time								
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: MURATA
Project No.: ~~0410941 CA~~ 0190949
Sampling Date: 11-28-17
Site/Location: ROCKMART, GA
Sampler's Name: C. HURDLE

Well ID: MW-19
Pump Type/Model: N/A
Sample Collection Time: 1420
Total Depth (ft)[1]: 68.78 (68.70)
Tubing Material: N/A
Sample Purge Rate (L/min)[3]: N/A
Depth to Water (ft): 64.78
Pump Intake Depth (ft): N/A
Sample ID: MW-19
Well Diameter (in): 3
Start/Stop Purge Time: 1340/
QA/QC Collected? NO
Well Volume (gal) = $0.041d^2h$: 1.48/2.95/4.43
Purge Rate (L/min)[2]: N/A
QA/QC I.D. NO
Well Volume (L) = WV(gal)x3.785: 5.58
Total Purge Volume (L): 5.0
Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: Good, no bolts or lock
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: BAIL
☐ Bladder pump = pump discharge (all analytes) ☑ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume ~~(L)~~ gal	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1350						0.00	1.5	66.00	
1400						0.00	3.0	66.30	
1410						0.00	5.0	66.40	
1430						43.0			– FROM SAMPLE BAIL
	TD measured			68.70 ft btoc					
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

CA

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: MURATA
Project No.: 0190949
Sampling Date: 11-29-17
Site/Location: ROCKMART, GA
Sampler's Name: C. HURDLE

Well ID: MW-20
Total Depth (ft)[1]: 103.55 (103.05)
Depth to Water (ft): 58.91
Well Diameter (in): 3
Well Volume (gal) = $0.041d^2h$: 1.71/3.42/5.14
Well Volume (L) = WV(gal)x3.785: 6.48/12.96/19.44 (2xWV / 3xWV)
d = well diameter (inches) h = length of water column (feet)

Pump Type/Model: QED BLADDER
Tubing Material: LDPE 0.17 ID
Pump Intake Depth (ft): 103'
Start/Stop Purge Time: 1413
Purge Rate (L/min)[2]: 0.4
Total Purge Volume (L): 1.71 gal / 6.48 L

Sample Collection Time: 0940
Sample Purge Rate (L/min)[3]: 0.1
Sample ID: MW-20
QA/QC Collected? NO
QA/QC I.D.: N/A
Laboratory Analyses: See COC

Well Condition: Good, no bolts or lock
Purge Method: Well volumes

Sampling Method (check all that apply):
- ☐ soda straw (VOCs)
- ☐ vacuum jug (SVOCs)
- ☑ pump head discharge (Inorganics including cyanide)
- ☐ Bladder pump = pump discharge (all analytes)
- ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
11-28-17 1633									- 1st well volume
1634									DRY
11-29-17 0924						1871 AU		60.23	- purple.
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

TD measured = 103.05

CH

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: MURATA
Project No.: 0190949
Sampling Date: 11-30-17
Site/Location: ROCKMART, GA
Sampler's Name: C. HURDLE

Well ID: MW-22
Pump Type/Model: QED BLADDER
Sample Collection Time: 1610
Total Depth (ft)[1]: 80.00
Tubing Material: LDPE 0.17 ID
Sample Purge Rate (L/min)[3]: 0.2
Depth to Water (ft): 62.05
Pump Intake Depth (ft): 70'
Sample ID: MW-22
Well Diameter (in): 2
Start/Stop Purge Time: 1524/1609
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 2.94
Purge Rate (L/min)[2]: 0.1/0.2
QA/QC I.D. N/A
Well Volume (L) = WV(gal)x3.785: 11.14
Total Purge Volume (L): 8.0
Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: GOOD
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: LOW-FLOW
☑ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1529	19.07	553.9	5.15	6.90	68.40	87	0.5	62.10	-100mL/min
1534	18.96	552.9	4.90	6.92	67.3	83.8	1.0	62.10	
1539	19.02	551.1	4.68	6.93	67.1	70.8	2.0	62.10	-200mL/min
1544	19.10	551.9	4.65	6.93	67.3	55.9	3.0	62.10	
1549	19.14	552.8	4.63	6.93	67.5	30.6	4.0	62.10	
1554	19.10	554.6	4.62	6.93	67.6	16.0	5.0	62.10	
1559	19.05	556.9	4.60	6.93	68.0	13.47	6.0	62.10	
1604	18.96	557.2	4.57	6.93	68.5	9.42	7.0	62.10	
1609	18.98	557.3	4.55	6.93	69.0	7.35	8.0	62.10	
		TD = 78.46 ft btoc							
				NA					
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: MURATA
Project No.: 0190949
Sampling Date: 11-30-17
Site/Location: ROCKMART, GA
Sampler's Name: C. HURDLE

Well ID: MW-23
Pump Type/Model: QED BLADDER
Sample Collection Time: 1118
Total Depth (ft)[1]: 73.00 (71.90)
Tubing Material: LDPE 0.17 ID
Sample Purge Rate (L/min)[3]: 0.1
Depth to Water (ft): 33.30
Pump Intake Depth (ft): 63'
Sample ID: MW-23
Well Diameter (in): 2
Start/Stop Purge Time: 0850/
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 6.33/12.66/18.99
Purge Rate (L/min)[2]: 0.5
QA/QC I.D. N/A
Well Volume (L) = WV(gal)x3.785: 23.96/47.92/71.88
1x 3x
Total Purge Volume (L): 72.5
Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: GOOD NO LOCK
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: WELL VOLUME
☑ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
~~0940~~									PERMANGANATE PRESENT
0940						8.27	25.0	55.43	- 1st WELL VOLUME light PURPLE
1025						OUT OF RANGE	47.5	64.90	- 2ND WELL VOLUME DARK PURPLE
1115						OUT OF RANGE	72.5	67.35	- 3RD WELL VOLUME DARK PURPLE
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 0190949
Sampling Date: 11/29/2017
Site/Location: Rockmart, GA
Sampler's Name: H. Beaugh

Well ID: ~~MW-6~~ MW-24
Pump Type/Model: QED Bladder
Sample Collection Time: 1132
Total Depth (ft)[1]: 68
Tubing Material: LDPE
Sample Purge Rate (L/min)[3]: 0.1
Depth to Water (ft): 50.69
Pump Intake Depth (ft): 63
Sample ID: MW-24
Well Diameter (in): 2
Start/Stop Purge Time: 1000 / 1125
QA/QC Collected? yes
Well Volume (gal) = 0.041d²h: 2.84
Purge Rate (L/min)[2]: 0.1
QA/QC I.D. DUP-1
Well Volume (L) = WV(gal)x3.785: 10.74 / 32.23(3x)
Total Purge Volume (L): 8.5
Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: good
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: Low-flow
☒ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1005	16.37	559.70	2.16	6.99	87.30	91.3	0.5	54.74	PVC extention added to
1010	16.50	555.60	1.32	6.99	85.40	197	1.0	54.73	well due to grading work
1015	16.56	544.90	1.26	6.95	90.20	140	1.5	54.73	around well. H_2O Depth
1020	16.56	532.50	1.44	6.90	92.80	61.2	2.0	54.73	measurements taken from
1025	16.56	527.30	1.50	6.85	93.30	44.1	2.5	54.73	4ft above TOC
1030	16.65	527.60	1.51	6.84	97.70	30.1	3.0	54.73	
1035	16.57	527.30	1.55	6.85	99.00	27.2	3.5	54.73	
1040	16.76	528.30	1.52	6.85	98.50	24.6	4.0	54.73	
1045	16.70	527.60	1.75	6.89	99.00	27.3	4.5	54.73	
1050	16.64	526.70	1.68	6.83	98.20	25.4	5.0	54.73	
1055	16.59	526.30	1.67	6.83	97.30	23.9	5.5	54.73	
1100	16.56	526.70	1.54	6.82	95.90	24.9	6.0	54.73	pulled pump up 1ft to
1105	16.56	525.60	1.71	6.81	91.20	60.7	6.5	54.73	lower turbidity
1110	16.66	520.90	1.59	6.78	89.20	67.2	7.0	54.73	
1115	16.78	519.80	1.59	6.76	88.90	33.4	7.5	54.73	
1120	16.83	519.70	1.63	6.77	88.00	33.1	8.0	54.73	
1125	16.94	520.70	1.53	6.76	86.80	32.5	8.5	54.73	turbidity stable
							Sampled at 1132		
							Total Depth: 68.30		
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: E Murata
Project No.: 0190949
Sampling Date: 11/29/2017
Site/Location: Rockmart, GA
Sampler's Name: H. Beaugh
Well ID: MW-25
Pump Type/Model: QED Bladder
Sample Collection Time: 1347
Total Depth (ft)[1]: 80
Tubing Material: LDPE
Sample Purge Rate (L/min)[3]: 0.05
Depth to Water (ft): 43.51
Pump Intake Depth (ft): 75
Sample ID: MW-25
Well Diameter (in): 2
Start/Stop Purge Time: 1258/1338
QA/QC Collected? no
Well Volume (gal) = 0.041d²h: 5.98
Purge Rate (L/min)[2]: 0.1 / 0.05
QA/QC I.D.
Well Volume (L) = WV(gal)x3.785: 22.65 / 67.95 (x3)
Total Purge Volume (L): 3.25
Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: needs new well pad
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: low flow
☒ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1303	19.86	961.00	1.88	7.19	124.10	12.2	0.5	43.24	
1308	18.53	973.60	0.54	7.12	120.90	14.1	1.0	43.91	3 well volume method
1313	19.10	978.40	0.37	7.12	119.50	12.64	1.5	44.04	not feasable
1318	19.23	973.40	0.42	7.10	118.10	11.37	2.0	44.55	
1323	19.51	978.70	0.32	7.10	116.80	10.97	2.5	44.71	
1328	19.95	976.70	0.32	7.10	115.90	10.22	2.75	44.90	purge rate lowered to 50mL/min
1333	20.14	972.70	0.32	7.10	115.10	10.20	3.0	45.09	
1338	20.21	976.30	0.35	7.10	114.30	10.57	3.25	45.31	parameters stable
							Sampled	at	1347
							Total	Depth:	80.44
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: MURATA
Project No.: 0190949
Sampling Date: 12-1-17
Site/Location: ROCKMART, GA
Sampler's Name: C. HURDLE

Well ID: MW-26
Total Depth (ft)[1]: 89.00 (90.36)
Depth to Water (ft): 44.06
Well Diameter (in): 2
Well Volume (gal) = 0.041d²h: 7.37
Well Volume (L) = WV(gal)x3.785: 27.89

Pump Type/Model: QED BLADDER
Tubing Material: LDPE 0.17 ID
Pump Intake Depth (ft): 81'
Start/Stop Purge Time: 0817/0847
Purge Rate (L/min)[2]: 0.1
Total Purge Volume (L): 3.0

Sample Collection Time: 0848
Sample Purge Rate (L/min)[3]: 0.1
Sample ID: MW-26
QA/QC Collected? NO
QA/QC I.D. N/A
Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: GOOD
Purge Method: LOW-FLOW

Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide) ☑ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
0822	16.57	800.6	1.59	7.60	158.3	10.86	0.5	43.90*	100 mL/min *water displaced by pump
0827	16.24	812.0	1.30	7.52	152.4	7.64	1.0	44.35	
0832	16.43	807.2	1.13	7.49	149.3	5.99	1.5	44.60	- excessive drawdown, but volumes
0837	16.42	807.2	0.99	7.47	148.0	5.16	2.0	45.25	too large to purge by volume
0842	16.60	804.1	0.90	7.45	147.1	5.45	2.5	45.65	method. ∴ waiting for stabilization
0847	16.57	800.7	0.86	7.44	146.9	5.17	3.0	46.05	
		TD measured 90.36 ft bgs							
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: MURATA
Project No.: 0190949
Sampling Date: 11-28-17
Site/Location: ROCKMART, GA
Sampler's Name: C. HURDLE

Well ID: MW-27
Pump Type/Model: QED BLADDER
Sample Collection Time: 1236
Total Depth (ft)[1]: 70.0'
Tubing Material: LDPE 0.17
Sample Purge Rate (L/min)[3]: 0.2
Depth to Water (ft): 36.15
Pump Intake Depth (ft): ~~65~~ 60
Sample ID: MW-27
Well Diameter (in): 2
Start/Stop Purge Time: 1025
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 5.55/11.10/16.65
Purge Rate (L/min)[2]: 500mL/min
QA/QC I.D. N/A
Well Volume (L) = WV(gal)x3.785: 21.01/42.02/63.04 (2xWV / 3xWV)
Total Purge Volume (L): 65.0
Laboratory Analyses: METALS, MERCURY, VOCs, & VOs

d = well diameter (inches) h = length of water column (feet)

Well Condition: GOOD/no bolts or lock
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☑ pump head discharge (Inorganics including cyanide)
Purge Method: ~~LOW-FLOW~~ 3x WELL VOLUMES
☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1110		1ST	WELL	VOLUME		-0.89	22.5	39.00	PERMANGANATE PRESENT
									PURGING 3xWV & SAMPLING
									W/O PARAMETERS, EXCEPT
									TURBIDITY
1150						-0.83	42.5	39.30	- 2ND WELL VOLUME
1235						-0.75	65.0	39.71	- 3RD WELL VOLUME
		TD MEASURED @ 66.50 ft btoc							
									VAULT LID WILL NOT CLOSE
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: MURATA
Project No.: 0190949
Sampling Date: 11-29-17
Site/Location: ROCKMART, GA
Sampler's Name: C. HURDLE

Well ID: MW-29
Pump Type/Model: QED BLADDER
Sample Collection Time: 1251
Total Depth (ft)[1]: 67.00
Tubing Material: LDPE 0.17 ID
Sample Purge Rate (L/min)[3]: 0.15
Depth to Water (ft): 61.89
Pump Intake Depth (ft): 64'
Sample ID: MW-29
Well Diameter (in): 2
Start/Stop Purge Time: 1149/
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 0.84
Purge Rate (L/min)[2]: 0.4 / 0.15
QA/QC I.D. N/A
Well Volume (L) = WV(gal)x3.785: 3.17 / 6.34 / 9.52 (2x / 3x)
Total Purge Volume (L): 15.25
Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: Good / no lock
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☑ pump head discharge (Inorganics including cyanide)
Purge Method: WELL VOLUME
☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
									PERMANGANATE PRESENT
									PURGING 3WV & NOT TAKING
									PARAMETERS, EXCEPT TURBIDITY
1159						0 *	4.0	62.32	-1st WELL VOLUME
									* TURBIDITY METER READS 0, but
									looks TURBID
1209						73.0	8.0	62.32	-2nd WELL VOLUME
1214						48.7	10.0	62.32	-3rd WELL VOLUME
1219						26.8	10.75	62.10	-REDUCE PURGE RATE TO 150 mL/min
1224						25.4	~~14.0~~	62.10	11.50L
1229						22.4	~~16.0~~	62.10	12.25L
1234						20.4	~~18.0~~	62.10	13.00L
1239						19.2	~~20.0~~	62.10	13.75L
1244						18.1	~~21~~	62.10	14.50L
1249						17.6	15.25	62.10	
	TD measured 65.70 ft btoc								
	-Soft bottom								
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 0190949
Sampling Date: 11/28/2017
Site/Location: Rockmart, GA
Sampler's Name: B. Beaugh

Well ID: MW-A-4
Pump Type/Model: QED Bladder
Sample Collection Time: 1146
Total Depth (ft)[1]: 49.0
Tubing Material: LDPE
Sample Purge Rate (L/min)[3]: ~~1.0~~ 0.1
Depth to Water (ft): 44.42
Pump Intake Depth (ft): 45
Sample ID: MW-A-4
Well Diameter (in): 2
Start/Stop Purge Time: 1111/1141
QA/QC Collected? no
Well Volume (gal) = 0.041d²h: 0.75
Purge Rate (L/min)[2]: ~~1.0~~ 0.1
QA/QC I.D. ——
Well Volume (L) = WV(gal)x3.785: 2.84 / 8.5 (3X)
Total Purge Volume (L): 3.0
Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: good
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: low flow
☒ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1116	21.41	580.00	7.34	7.23	60.20	53.5	0.5	44.41	
1121	21.43	583.20	5.64	7.19	53.60	48.6	1.0	44.44	
1126	21.66	584.40	5.25	7.17	48.20	25.1	1.5	44.44	
1131	21.64	585.90	5.08	7.15	44.20	14.0	2.0	44.44	
1136	21.87	587.60	4.99	7.13	41.50	9.75	2.5	44.44	
1141	22.22	586.70	4.92	7.12	38.70	6.30	3.0	44.43	
							Sampled at 1146		
							Total Depth: 48.71		
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 0160949
Sampling Date: 11/30/17
Site/Location: Rockmart, GA
Sampler's Name: V. Thomas

Well ID: MW-A-5
Pump Type/Model: QED Bladder
Sample Collection Time:
Total Depth (ft)[1]: 61 (screen 50.8 - 60.8)
Tubing Material: LDPE
Sample Purge Rate (L/min)[3]: 100 / ~~soda straw~~
Depth to Water (ft): 45.21
Pump Intake Depth (ft): 56
Sample ID: MW-A-5
Well Diameter (in): 2
Start/Stop Purge Time: 0900
QA/QC Collected? Yes
Well Volume (gal) = 0.041d²h: 2.57
Purge Rate (L/min)[2]: 100
QA/QC I.D. DUP-2 & FERB-1
Well Volume (L) = WV(gal)x3.785: 9.74
Total Purge Volume (L):
Laboratory Analyses: VOCs, Metals, Fe

d = well diameter (inches) h = length of water column (feet)

Well Condition: Good
Sampling Method (check all that apply): ~~☐ soda straw (VOCs)~~ ☐ vacuum jug (SVOCs) ~~☐~~ pump head discharge (Inorganics including cyanide)
Purge Method: Low flow
☒ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
0905	16.90	629.80	0.60	6.83	64.60	110.0	0.5	45.25	water has strong odor - oil
0910	16.92	637.10	0.57	6.82	50.10	108.1	1.0	45.25	
0915	17.09	636.30	0.53	6.85	40.40	105.6	1.5	45.25	
0920	17.17	632.80	0.51	6.81	34.20	65.5	2.0	45.25	Turbidity Reading taken
0925	17.27	631.40	0.38	6.91	27.80	58.1	2.5	45.25	before flow cell
0930	17.40	633.40	0.35	6.95	25.10	45.5	3.0	45.25	
0935	17.36	631.90	0.32	7.01	29.50	27.9	3.5	45.25	
0940	—	—	—	—	—	25.5	4.0	45.25	smartroll skipped Reading
0945	17.83	635.90	0.28	7.07	22.90	18.8	4.5	45.30	
0950	17.82	636.50	0.27	7.07	14.50	14.8	5.0	45.34	
0955	17.79	639.70	0.25	7.04	-4.10	14.6	5.5	45.34	
1000	17.93	643.60	0.24	7.04	-32.60	12.57	6.0	45.34	
1005	18.16	645.90	0.23	7.04	-58.20	10.64	6.5	45.34	
1010	18.24	649.10	0.22	7.02	-73.40	9.41	7.0	45.34	
1015	18.25	650.70	0.22	7.02	-84.20	9.34	7.5	45.34	
1020	18.29	652.10	0.21	7.02	-91.90	9.93	8.0	45.34	
	parameters stable at 1020								
	purge time 0900 / 1020								
	MW-A-5 sampled at 1030								
	DUP-2								Total Depth: 60.15
	FERB-1								(sediment)
Stabilizing Criteria[5]	+/- 1°C	~~+/- 3%~~ 5	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 0190949
Sampling Date: 11/28/2017
Site/Location: Rockmart, GA
Sampler's Name: H. Beaugh

Well ID: MW-B-1
Pump Type/Model: QED Bladder
Sample Collection Time: 1638
Total Depth (ft)[1]: 75
Tubing Material: LDPE
Sample Purge Rate (L/min)[3]: 0.1
Depth to Water (ft): 52.42
Pump Intake Depth (ft): 66
Sample ID: MW-B-1
Well Diameter (in): 2
Start/Stop Purge Time: 1551/1631
QA/QC Collected? no
Well Volume (gal) = 0.041d²h: 3.7
Purge Rate (L/min)[2]: ~~1.0~~ 0.1
QA/QC I.D. ——
Well Volume (L) = WV(gal)x3.785: 14.02 / 42.05 (3x)
Total Purge Volume (L): 4.0
Laboratory Analyses: See COC

d = well diameter (inches) h = length of water column (feet)

Well Condition: good
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: Low-flow
☒ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1556	20.17	214.10	3.56	6.93	40.20	~~14~~	0.5	52.46	turbidity: 17.4
1601	19.46	274.10	2.87	6.82	37.20	18.0	1.0	52.47	
1606	18.97	360.10	1.72	6.91	30.30	16.4	1.5	52.46	
1611	18.74	391.60	1.31	6.96	26.70	13.8	2.0	52.46	
1616	18.61	402.20	1.15	6.98	24.00	11.9	2.5	52.46	
1621	18.50	405.70	1.13	6.98	22.70	12.15	3.0	52.46	
1626	18.46	402.80	1.17	6.98	22.00	9.55	3.5	52.46	
1631	18.40	403.90	1.21	6.97	20.80	9.14	4.0	52.46	
							Sampled at ~~1648~~ 1638		
							Total Depth: 76.14		
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

page 1 of 2

Client: Murata
Project No.: 0190949
Sampling Date: 11/29/17
Site/Location: Rockmart, GA
Sampler's Name: V. Thomas

Well ID: MW-B-2
Pump Type/Model: QED Bladder
Sample Collection Time: ~~11/29/17~~ 1530
Total Depth (ft)[1]: 100 (screen: 79-91)
Tubing Material: LDPE
Sample Purge Rate (L/min)[3]: 100 / ~~soda straw~~
Depth to Water (ft): 34.74
Pump Intake Depth (ft): ~~84~~ 86
Sample ID: MW-B-2
Well Diameter (in): 2
Start/Stop Purge Time: 1330 to 1520
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 10.64
Purge Rate (L/min)[2]: 100
QA/QC I.D. NA
Well Volume (L) = WV(gal)x3.785: 40.26
Total Purge Volume (L): 11
Laboratory Analyses: VOCs, Metals, Fe

d = well diameter (inches) h = length of water column (feet)

Well Condition: Good - overgrown vegetation
Sampling Method (check all that apply): ☒ ~~soda straw (VOCs)~~ ☐ vacuum jug (SVOCs) ☒ pump head discharge (Inorganics including cyanide)
Purge Method: Low flow
☒ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1335	17.84	257.10	2.43	7.55	124.20	132	0.5	34.82	
1340	17.98	219.00	1.14	7.84	113.50	141	1.0	35.39	3 well volume purge not
1345	17.98	235.40	0.77	7.92	107.30	115	1.5	36.02	completed due to size of
1350	17.93	221.10	0.61	7.85	104.10	79.3	2.0	38.49	volume - not feasible
1355	17.98	209.20	0.56	7.79	101.00	69.4	2.5	37.06	
1400	17.98	200.50	0.51	7.72	97.90	52.6	3.0	37.57	
1405	18.04	195.10	0.48	7.66	95.60	48.2	3.5	38.13	
1410	18.13	191.10	0.45	7.63	93.40	37.6	4.0	38.69	
1415	18.16	182.70	0.42	7.58	90.90	29.9	4.5	39.20	
1420	18.18	172.10	0.40	7.51	88.60	25.6	5.0	39.63	
1425	18.25	163.70	0.40	7.44	86.40	22.0	5.5	40.15	
1430	18.26	156.20	0.38	7.38	83.90	21.5	6.0	40.59	
1435	18.25	148.70	0.37	7.32	81.10	15.7	6.5	41.11	
1440	18.28	142.80	0.35	7.26	78.60	13.7	7.0	41.69	
1445	18.27	134.30	0.29	7.18	74.80	21.6	7.5	42.77	
1450	18.11	131.50	0.34	7.12	72.50	13.5	8.0	43.33	
1455	18.25	126.80	0.35	7.07	69.30	12.4	8.5	43.73	
1500	18.38	123.00	0.34	7.03	66.90	12.02	9.0	44.10	
1505	18.43	122.60	0.34	7.01	65.10	11.09	9.5	44.42	
1510	18.47	121.70	0.33	6.99	63.20	9.94	10	44.67	Turbidity <10 NTU
— PURGE CONTINUED ON PAGE 2 —									
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Site/Location: Rockmart, GA
Project No.: 0190949
Sampling Date: 11/29/17
Sampler's Name: V. Thomas

Well ID: MW-B-2
Total Depth (ft)[1]: 100
Depth to Water (ft): 37.74
Well Diameter (in): 2
Well Volume (gal) = 0.041d²h:
Well Volume (L) = WV(gal)x3.785:
d = well diameter (inches) h = length of water column (feet)

Pump Type/Model: GED Bladder
Tubing Material: LDPE
Pump Intake Depth (ft): 86
Start/Stop Purge Time: 1330 to 1520
Purge Rate (L/min)[2]: 100
Total Purge Volume (L): 11

Sample Collection Time: 1530
Sample Purge Rate (L/min)[3]: 100 / ~~soda straw~~
Sample ID: MW-B-2
QA/QC Collected? NO
QA/QC I.D. NA
Laboratory Analyses: VOCs, Metals, Fe

Well Condition:
Purge Method:

Sampling Method (check all that apply): ☒ ~~soda straw (VOCs)~~ ☐ vacuum jug (SVOCs) ☒ pump head discharge (Inorganics including cyanide) ☒ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1515	18.47	119.50	0.33	6.97	61.30	9.56	10.5	44.74	
1520	18.46	118.10	0.35	6.96	59.50	9.16	11.0	44.88	
	parameters stable at 1520								
	MW-B-2 sampled at 1530								
									Total depth = 100.25
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 0190949
Sampling Date: 11/29/17
Site/Location: Rockmart, GA
Sampler's Name: V. Thomas

Well ID: MW-B-3
Pump Type/Model: QED Bladder
Sample Collection Time: 1150
Total Depth (ft)[1]: 100 (screen = 70-99)
Tubing Material: LDPE
Sample Purge Rate (L/min)[3]: 100 ~~& soda straw~~
Depth to Water (ft): 48.28
Pump Intake Depth (ft): 89
Sample ID: MW-B-3
Well Diameter (in): 2
Start/Stop Purge Time: 1010
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 8.43
Purge Rate (L/min)[2]: 100
QA/QC I.D. NA
Well Volume (L) = WV(gal)x3.785: 31.9
Total Purge Volume (L):
Laboratory Analyses: VOCs, Total Metals, Fe

d = well diameter (inches) h = length of water column (feet)

Well Condition: Good - No Bolts
Sampling Method (check all that apply): ☒ ~~soda straw (VOCs)~~ ☐ vacuum jug (SVOCs) ☒ pump head discharge (Inorganics including cyanide)
Purge Method: Low flow
☒ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1015	16.95	204.20	5.49	8.35	125.60	64.4	0.5	47.68	
1020	17.62	191.60	4.20	8.45	107.80	64.4	1.0	48.11	3 well volume purge not
1025	17.98	180.00	5.23	8.48	120.60	60.6	1.5	48.57	computed - Not feasible due
1030	17.44	173.00	5.72	8.51	101.60	54.2	2.0	48.73	to size of volumes (>8 gal)
1035	17.44	171.80	6.46	8.51	100.30	47.0	2.5	49.09	
1040	17.79	168.60	7.00	8.50	99.70	45.5	3.0	49.32	
1045	17.82	166.10	8.04	8.48	100.20	47.2	3.5	49.57	
1050	18.42	162.40	9.05	8.48	99.20	41.6	4.0	50.10	
1055	18.36	161.30	9.83	8.48	99.50	31.2	4.5	50.51	
1100	18.34	159.70	10.24	8.48	99.00	29.1	5.0	50.95	
1105	18.37	158.30	10.25	8.48	99.00	25.7	5.5	51.40	
1115	18.31	157.50	10.39	8.49	99.00	20.7	6.0	51.75	
1120	18.10	157.60	10.59	8.49	99.10	18.3	6.5	52.03	
~~1125~~	~~18.~~					~~20.7~~	~~7.0~~	~~52.40~~	
1125	18.47	157.40	10.64	8.47	99.60	19.5	7.0	52.66	
1130	18.43	159.50	10.61	8.48	99.20	15.8	7.5	52.93	
1135	18.36	157.20	10.81	8.49	98.80	15.4	8.0	53.29	
1140	18.43	156.60	10.82	8.48	98.90	15.7	8.5	53.60	
1145	18.36	156.00	10.68	8.49	98.90	15.7	9.0	53.82	
	parameters stable at 1145								
	sample time 1150								Total depth = 100.66
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 0190949
Sampling Date: 11/28/17
Site/Location: Rockmart, GA
Sampler's Name: V. Thomas

Well ID: MW-B-4
Pump Type/Model: QED Bladder
Sample Collection Time: 1020
Total Depth (ft)[1]: 100ft (screen = 79 – 99)
Tubing Material: LDPE
Sample Purge Rate (L/min)[3]: 100 / ~~soda straw~~
Depth to Water (ft): 50.97
Pump Intake Depth (ft): 89
Sample ID: MW-B-4
Well Diameter (in): 2
Start/Stop Purge Time: 1523 / 1531
QA/QC Collected? NO
Well Volume (gal) = 0.041d²h: 7.99
Purge Rate (L/min)[2]: 100
QA/QC I.D. NA
Well Volume (L) = WV(gal)x3.785: 30.25
Total Purge Volume (L): 4.5
Laboratory Analyses: VOCs, Metals, Fe

d = well diameter (inches) h = length of water column (feet)

Well Condition: Good
Sampling Method (check all that apply): ☒ ~~soda straw (VOCs)~~ ☐ vacuum jug (SVOCs) ☒ pump head discharge (Inorganics including cyanide)
Purge Method: Lowflow
☒ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1529	smartTROLL	connection	problems –	restarting					orp (100 – 50.97) x 0.163 =
1531	purge	resumed							7.99
									x 3.785
1536	18.67	596.60	3.01	11.37	166.60	14.4	0.5	51.59	= 30.25
1541	18.60	597.90	2.90	11.38	160.00	11.0	1.0	52.00	
1546	18.69	596.00	2.85	11.39	154.70	13.0	1.5	52.52	
1551	18.55	597.20	2.88	11.40	150.50	13.5	2.0	52.91	3 well volume purge
1556	18.63	598.40	2.87	11.40	146.50	12.2	2.5	53.21	not completed – Not
1601	18.69	597.90	2.80	11.40	143.10	11.3	3.0	53.58	feasible due to size
1606	18.65	598.30	2.76	11.40	140.00	9.70	3.5	54.13	of volumes
1611	18.60	597.30	2.73	11.41	137.40	9.46	4.0	54.59	
1616	18.62	596.80	2.72	11.41	135.10	9.23	4.5	55.01	
	parameters stable @ 1616								
	purge time 1523 end → 1531 to 1616								
	MW-B-4 sampled at 1620								
Stabilizing Criteria[5]	+/- 1°C	+/- 3% 5	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 0100949
Sampling Date: 11/30/17
Site/Location: Rockmart, GA
Sampler's Name: V. Thomas

Well ID: MW-A-5
Pump Type/Model:
Sample Collection Time: 1040
Total Depth (ft)[1]:
Tubing Material:
Sample Purge Rate (L/min)[3]: —
Depth to Water (ft):
Pump Intake Depth (ft):
Sample ID: FERB-1
Well Diameter (in):
Start/Stop Purge Time:
QA/QC Collected?
Well Volume (gal) = 0.041d²h:
Purge Rate (L/min)[2]:
QA/QC I.D.
Well Volume (L) = WV(gal)x3.785:
Total Purge Volume (L):
Laboratory Analyses: VOCs

d = well diameter (inches) h = length of water column (feet)

Well Condition:
Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)
Purge Method: ☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
									Lab provided D.I.
									water used for
									sample
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

GROUND WATER SAMPLING LOG SHEET

Client: Murata
Project No.: 0190940
Sampling Date: 12/1/17
Site/Location: Rockmart, GA
Sampler's Name: V. Thomas

Well ID:
Total Depth (ft)[1]:
Depth to Water (ft):
Well Diameter (in):
Well Volume (gal) = $0.041d^2h$:
Well Volume (L) = WV(gal)x3.785:
d = well diameter (inches) h = length of water column (feet)

Pump Type/Model:
Tubing Material:
Pump Intake Depth (ft):
Start/Stop Purge Time:
Purge Rate (L/min)[2]:
Total Purge Volume (L):

Sample Collection Time:
Sample Purge Rate (L/min)[3]:
Sample ID: FERB-2
QA/QC Collected?
QA/QC I.D.
Laboratory Analyses: VOCs

Well Condition:
Purge Method:

Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide) ☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
									Lab provided D.I. water
									used for sample
Stabilizing Criteria[5]	+/- 1°C	+/- 3%	+/- 10% (see note below)[7]	+/- 0.1 unit	+/- 10 mV (see note below)[8]	+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling," SESD Standard Operating Procedure.

ERM

EQUIPMENT CALIBRATION LOG

Field Technician: H. Beaugh Date: 11/28/2017 Time (start): 0750 Time (finish): 0820
smarTroll SN: 449622 Turbidity Meter Type: La Motte SN: 2949-0413
Weather Conditions: Sunny, 43°F Site and Location: Murata, Rockmart, GA

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	C693065 4/2018	9.47	4490	5186	4488	+/- 5 %	Yes No	
pH (4)	C693065 4/2018	10.59	4.0	3.86	4.0	+/- 0.1 su	Yes No	
pH (7)	C4751994 6/2018	10.36	7.0	7.01	—	+/- 0.1 su	Yes No	
pH (10)	C692858 6/2018	10.71	10.0	9.81	10.0	+/- 0.1 su	Yes No	
ORP (mV)	C691584 6/2018	10.55	228	118.8	—	+/- 20mV su	Yes No	
DO (%) (1pt, 100% water saturated air cal)	—	9.12	100	97.2	—	+/- 6 % saturation	Yes No	
Turbidity 0 NTU	—		0	0.02	—	+/- 0.5 NTU	Yes No	
Turbidity ~~15 NTU~~	—		1	1.02	—	+/- 0.5 NTU	Yes No	
Turbidity ~~100 NTU~~	—		10	10.99	10.00	+/- 0.5 NTU	Yes No	
Turbidity 700 NTU	—		—			+/- 0.5 NTU	Yes No	

ERM

EQUIPMENT CALIBRATION LOG

Field Technician: V. Thomas Date: 11/28/17 Time (start): 0810 Time (finish): 0832
smarTroll SN: Not provided Turbidity Meter Type: LaMotte 2020we SN: 977-21111
Weather Conditions: Clear 32°F Site and Location: Murata - Rockmart, GA

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	C693065 4/2018	8.90	4490	5101.6	4489.6	+/- 5 %	Yes No	
pH (4)	C693065 4/2018	8.90	4.00	4.01	—	+/- 0.1 su	Yes No	
pH (7)	C475994 6/2018	10.45	7.00	7.07	—	+/- 0.1 su	Yes No	
pH (10)	C692858 6/2018	10.80 ~~10.00~~	10.00	10.10	10.01	+/- 0.1 su	Yes No	
ORP (mV)	C691584 6/2018	10.35	228	240.8	228.3	+/- 20mV su	Yes No	
DO (%) (1pt, 100% water saturated air cal)	—	11.00	100	98.8	—	+/- 6 % saturation	Yes No	
Turbidity 0 NTU			0	0.46	0.00	+/- 0.5 NTU	Yes No	
1 Turbidity ~~10~~ ~~15~~ NTU			1	0.93	—	+/- 0.5 NTU	Yes No	
10 Turbidity ~~100~~ NTU			10	10.39	9.99	+/- 0.5 NTU	Yes No	
~~Turbidity 700 NTU~~	—		—	—	—	+/- 0.5 NTU	Yes No	

EQUIPMENT CALIBRATION LOG

Field Technician: C. HARDLE Date: 11-28-17 Time (start): 0800 Time (finish): 0832
smarTroll SN: Turbidity Meter Type: Jamotte 2020We SN: 5573
Weather Conditions: 33°F SUNNY Site and Location: MURATA, ROCKMART, GA

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	C693065 4/18	20.43	4490	5080.9	4493.5	+/- 5 %	(Yes) No	
pH (4)	C693065 4/18	20.61	4.00	4.14	—	+/- 0.1 su	Yes No	3pt Calibration
pH (7)	C4751994 6/18	17.50	7.00	7.12	—	+/- 0.1 su	Yes No	
pH (10)	C692858 6/18	16.1	10.00	9.82	10.01	+/- 0.1 su	(Yes) No	
ORP (mV)	C691584 6/18	15.21	228	230.2	—	+/- 20mV su	(Yes) No	
DO (%) (1pt, 100% water saturated air cal)	DI H_2O	15.03	100	98.7	—	+/- 6 % saturation	(Yes) No	
Turbidity 0 NTU	—		0.00	0.00	—	+/- 0.5 NTU	(Yes) No	
Turbidity 15 NTU	—		1.00	1.78	1.37	+/- 0.5 NTU	(Yes) No	
Turbidity 100 NTU	—		10.00	7.07	10.09	+/- 0.5 NTU	(Yes) No	
Turbidity 700 NTU	—					+/- 0.5 NTU	Yes No	

ERM

EQUIPMENT CALIBRATION LOG

Field Technician: H. Beaugh Date: 11/29/2017 Time (start): 0750 Time (finish: 0816

smarTroll SN: 449622 Turbidity Meter Type: LaMotte 2020we SN: 2949 - 0413

Weather Conditions: Foggy, 42°F Site and Location: Murata, Rockmart, GA

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	C693065 4/2018	12.40	4490	4458	—	+/- 5 %	Yes No	
pH (4)	C693065 4/2018	12.58	4.0	4.31	4.00	+/- 0.1 su	Yes No	
pH (7)	C4751994 6/2018	12.97	7.0	6.96	—	+/- 0.1 su	Yes No	
pH (10)	C692858 6/2018	13.08	10.0	9.74	10.0	+/- 0.1 su	Yes No	
ORP (mV)	C691584 6/2018	13.00	228	235.8	—	+/- 20mV su	Yes No	
DO (%) (1pt, 100% water saturated air cal)	—	12.49	100	98.8	—	+/- 6 % saturation	Yes No	
Turbidity 0 NTU	—		0	-0.06	—	+/- 0.5 NTU	Yes No	
Turbidity ~~15 NTU~~	—		1	1.23	—	+/- 0.5 NTU	Yes No	
Turbidity ~~100 NTU~~	—		10	10.30	—	+/- 0.5 NTU	Yes No	
Turbidity 700 NTU						+/- 0.5 NTU	Yes No	

EQUIPMENT CALIBRATION LOG

Field Technician: V. Thomas Date: 11/20/17 Time (start): 0800 Time (finish): 0825
smarTroll SN: NOT PROVIDED Turbidity Meter Type: Lamotte 2020we SN: 977-21111
Weather Conditions: overcast 64°F Site and Location: Murata - Rockmart, GA

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	CW93065 4/2018	12.9	4490	3986.3	4489.1	+/- 5 %	Yes No	
pH (4)	CW93065 4/2018	12.9	4.00	3.77	—	+/- 0.1 su	Yes No	3 point calibration
pH (7)	CW751994 6/2018	~~7~~ 13.1	7.00	7.07	—	+/- 0.1 su	Yes No	↓
pH (10)	CW92858 6/2018	13.2	10.00	9.76	10.01	+/- 0.1 su	Yes No	
ORP (mV)	CW91584 6/2018	12.9	228	225	—	+/- 20mV su	Yes No	
DO (%) (1pt, 100% water saturated air cal)	—		100			+/- 6 % saturation	Yes No	
Turbidity 0 NTU			0	0.45	0.01	+/- 0.5 NTU	Yes No	
1 Turbidity ~~15~~ NTU			1	1.01	—	+/- 0.5 NTU	Yes No	
10 Turbidity ~~100~~ NTU			10	9.94	—	+/- 0.5 NTU	Yes No	
~~Turbidity 700 NTU~~						+/- 0.5 NTU	Yes No	

ERM

EQUIPMENT CALIBRATION LOG

Field Technician: C. HURDLE
Date: 11-29-17
Time (start): 0750
Time (finish): 0820
smarTroll SN: 4050116
Turbidity Meter Type: LAMOTTE 2020WE
SN: 5573
Weather Conditions: 47°F CLOUDY / FOG
Site and Location: Murata, Rockmart, GA

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	CL093025 4/18	12.89	4490	4018.3	4489.0	+/- 5 %	Yes No	
pH (4)	CL093025 4/18	12.99	4.00	3.97	—	+/- 0.1 su	Yes No	
pH (7)	CL751994 6/18	14.03	7.00	7.00	—	+/- 0.1 su	Yes No	
pH (10)	CL092858 6/18	14.46	10.00	10.00	—	+/- 0.1 su	Yes No	
ORP (mV)	CL091584 6/18	14.89	228	230.1	—	+/- 20mV su	Yes No	
DO (%) (1pt, 100% water saturated air cal)	DI H_2O	13.58	100	107.8	100.0	+/- 6 % saturation	Yes No	
Turbidity 0 NTU	—		0.00	0.00	—	+/- 0.5 NTU	Yes No	
Turbidity 15 NTU	—		1.00	2.28	1.02	+/- 0.5 NTU	Yes No	will not cal past this 'overage'
Turbidity 100 NTU	—		10.00	7.11	10.02	+/- 0.5 NTU	Yes No	
Turbidity 700 NTU						+/- 0.5 NTU	Yes No	

ERM

EQUIPMENT CALIBRATION LOG

Field Technician: H. Beaugh
Date: 11/30/2017
Time (start): 0750
Time (finish): 0824
smarTroll SN: 449622
Turbidity Meter Type: Lamotte We2020 SN: 2949-0413
Weather Conditions: Foggy, 59°F
Site and Location: Murata, Rockmart, GA

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	C693065 4/2018	15.31	4490	4383	—	+/- 5 %	Yes No	
pH (4)	C693065 4/2018	15.33	4.0	4.22	4.00	+/- 0.1 su	Yes No	
pH (7)	C4751994 6/2018	14.99	7.0	6.88	7.00	+/- 0.1 su	Yes No	
pH (10)	C692858 6/2018	14.94	10.0	9.78	10.00	+/- 0.1 su	Yes No	
ORP (mV)	C691584 6/2018	14.90	228	232.2	—	+/- 20mV su	Yes No	
DO (%) (1pt, 100% water saturated air cal)	—	14.30	100	99.1	—	+/- 6 % saturation	Yes No	
Turbidity 0 NTU	—		0	0.6	0.0	+/- 0.5 NTU	Yes No	
Turbidity ~~15 NTU~~	—		1.0	1.27	—	+/- 0.5 NTU	Yes No	
Turbidity ~~100 NTU~~	—		10	10.37	—	+/- 0.5 NTU	Yes No	
Turbidity 700 NTU						+/- 0.5 NTU	Yes No	

ERM

EQUIPMENT CALIBRATION LOG

Field Technician: V. THOMAS Date: 11/30/17 Time (start): 0740 Time (finish: 0810

smarTroll SN: NOT PROVIDED Turbidity Meter Type: LaMotte 2020we SN: 977-2111

Weather Conditions: Overcast 51°F Site and Location: Murata - Rockmart, GA

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	C693065 4/2018	14.6	4490	4603	4491	+/- 5 %	Yes No	
pH (4)	C693065 4/2018	14.6	4.00	4.20	—	+/- 0.1 su	Yes No	3 point pH calibration
pH (7)	C4751994 6/2018	14.7	7.00	7.21	—	+/- 0.1 su	Yes No	↓
pH (10)	C692858 6/2018	14.7	10.00	9.94	10.01	+/- 0.1 su	Yes No	
ORP (mV)	C691584 6/2018	14.7	228	230	—	+/- 20mV su	Yes No	
DO (%) (1pt, 100% water saturated air cal)	—	14.6	100	99.9	—	+/- 6 % saturation	Yes No	
Turbidity 0 NTU	—		0	0.55	0.00	+/- 0.5 NTU	Yes No	
Turbidity 1 ~~15~~ NTU	—		1	0.80	1.01	+/- 0.5 NTU	Yes No	
Turbidity 10 ~~100~~ NTU	—		10	9.91	—	+/- 0.5 NTU	Yes No	
~~Turbidity 700 NTU~~						+/- 0.5 NTU	Yes No	

EQUIPMENT CALIBRATION LOG

Field Technician: C. HARDLE Date: 11-30-17 Time (start): 0740 Time (finish: 0800
smarTroll SN: 4560116 Turbidity Meter Type: Lamotte 2020we SN: 5573
Weather Conditions: Site and Location: Murata

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)						+/- 5 %	Yes No	
pH (4)	CALIBRATED				YESTERDAY	+/- 0.1 su	Yes No	
pH (7)						+/- 0.1 su	Yes No	
pH (10)	& DID NOT USE					+/- 0.1 su	Yes No	
ORP (mV)						+/- 20mV su	Yes No	
DO (%) (1pt, 100% water saturated air cal)						+/- 6 % saturation	Yes No	
Turbidity 0 NTU	—		0.00	-0.02	—	+/- 0.5 NTU	Yes No	
Turbidity 15 NTU	—		1.00	1.58	1.17	+/- 0.5 NTU	Yes No	
Turbidity 100 NTU	—		10.00	7.58	9.99	+/- 0.5 NTU	Yes No	
Turbidity 700 NTU	—		—	—	—	+/- 0.5 NTU	Yes No	

EQUIPMENT CALIBRATION LOG

Field Technician: V. Thomas Date: 12/11/17 Time (start): 0653 Time (finish: 0707
smarTroll SN: NOT PROVIDED Turbidity Meter Type: LaMotte 2020we SN: 977-211
Weather Conditions: cloudy 58°F Site and Location: Murata - Rockmart, GA

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	CW93065 4/2018	17.2	4490	4430.8	4492.1	+/- 5 %	Yes No	
pH (4)	CW93065 4/2018	17.2	4.00	3.94	—	+/- 0.1 su	Yes No	
pH (7)	CW75994 6/2018	17.2	7.00	7.00	—	+/- 0.1 su	Yes No	
pH (10)	CW92858 6/2018	17.1	10.00	9.95	—	+/- 0.1 su	Yes No	
ORP (mV)	CW91584 6/2018	17.2	228	211.6	—	+/- 20mV su	Yes No	
DO (%) (1pt, 100% water saturated air cal)	—	17.2	100	100.2	—	+/- 6 % saturation	Yes No	
Turbidity 0 NTU			0	0.47	0.10	+/- 0.5 NTU	Yes No	
1 ~~Turbidity 15 NTU~~			1	0.98	0.90	+/- 0.5 NTU	Yes No	
10 ~~Turbidity 100 NTU~~			10	10.07	—	+/- 0.5 NTU	Yes No	
~~Turbidity 700 NTU~~						+/- 0.5 NTU	Yes No	

ERM

EQUIPMENT CALIBRATION LOG

Field Technician: C. HURDLE Date: 12-1-17 Time (start): 0710 Time (finish): 0730
smarTroll SN: 4605016 Turbidity Meter Type: LAMOTTE 2020WE SN:
Weather Conditions: 57°F Cloudy Site and Location: Murata, Rockmart, GA

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	CL693005 4/18	17.36	4490	4510.0	/	+/- 5 %	(Yes) No	
pH (4)	CL693005 4/18	17.36	4.00	3.99	/	+/- 0.1 su	(Yes) No	
pH (7)	CH751994 6/18	17.59	7.00	6.98	/	+/- 0.1 su	(Yes) No	
pH (10)	CL692858 6/18	17.81	10.00	9.97	/	+/- 0.1 su	(Yes) No	
ORP (mV)	CL691584 6/18	17.78	228	228.1	/	+/- 20mV su	(Yes) No	
DO (%) (1pt, 100% water saturated air cal)	DI H_2O	17.08	100	90.8	100.2	+/- 6 % saturation	(Yes) No	
Turbidity 0 NTU	/		0.00	0.05	/	+/- 0.5 NTU	(Yes) No	
Turbidity 15 NTU	/		1.00	2.77	1.87	+/- 0.5 NTU	Yes (No)	'overage'
Turbidity 100 NTU	/		10.00	9.86	/	+/- 0.5 NTU	(Yes) No	
Turbidity 700 NTU	/		/	/	/	+/- 0.5 NTU	Yes No	

Soil Laboratory Analytical Reports

Appendix F

Project No. 0190949
Murata Electronics North America

Environmental Resources Management
3200 Windy Hill Road SE, Suite 1500W
Atlanta, Georgia 30339
(678) 486-2700

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

July 27, 2017

Nic Very
ERM-Southeast

3200 Windy Hill Rd
Atlanta GA 30341

RE: Murata

Dear Nic Very: Order No: 1707D67

Analytical Environmental Services, Inc. received 76 samples on 7/17/2017 3:50:00 PM
for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/17-06/30/18.
State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective 07/01/17-06/30/18 and Total Coliforms and E. coli, effective 04/25/17-04/24/20.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/17-06/30/18.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Mirzeta Kararic

Mirzeta Kararic

Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 1707067

Date: 7-~~12~~ 16-17 Page 1 of 6

COMPANY: KRM

ADDRESS: 3200 Windy Hill Rd. Suite 1500w Atlanta Georgia 30339

PHONE: 678-486-2700

EMAIL:

SAMPLED BY: Markenaw Thomas, Victoria Thomas

SIGNATURE: [signature]

ANALYSIS REQUESTED: VOC's 8260 + 1,4 Dioxane

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	PRESERVATION (see codes) S/M+I		REMARKS	Number of Containers
1	SB-109(0-2')	7-12-17	1025	✓		SO	3	II		4
2	SB-110(0-2')		1115							
3	SB-109(24-25')		1139							
4	SB-110(11-12')		1200							
5	SB-111(0-2')		1230							
6	SB-111(19-20')		1250							
7	SB-112(0-2')		1307							
8	SB-112(19-20')		1340							
9	SB-108(0-2')		~~1345~~ 1445 MLT							
10	SB-108(21-22')		1520							
11	SB-107(0-2')		1535							
12	SB-107(6-7')		1600							
13										
14										

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1. [signature]	7/16/17 2120	1.	
2. [signature]	7/17/17 15:50	2. [signature]	7/17/17 1550
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier Greyhound
other: _____

PROJECT INFORMATION
PROJECT NAME:
PROJECT #:
SITE ADDRESS:
SEND REPORT TO:
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers

Turnaround Time (TAT) Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush (auth req.)
- [ ] Other _____

STATE PROGRAM (if any): _____
E-mail? [ ] Fax? [ ]
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 1707D67

Date: 7-13-17 Page 2 of 6

COMPANY: ERM

ADDRESS: 3200 Windy Hill Road Suite 1500W Atlanta Georgia 30339

PHONE: 678-486-2700

EMAIL:

SAMPLED BY: Markwas Thomas + Victoria Thomas

SIGNATURE: [signature]

ANALYSIS REQUESTED: VOC's $260 + 1,4 Dioxane

PRESERVATION (see codes): S/M+I, I

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	S/M+I	I	REMARKS	Number of Containers
1	SB-106(0-2')	7-13-17	0900	✓		SO	3	1		4
2	SB-106(24-25')		0920							
3	SB-105(0-2')		0925							
4	SB-105(19-20')		0940							
5	SB-101(0-2')		0950							
6	SB-102(0-2')		1020							
7	SB-103(0-2')		1045							
8	SB-104(0-2')		1100							
9	SB-125(0-2')		1225							
10	SB-126(0-2')		1250							
11	SB-101(9-10')		1305							
12	SB-102(12-13')		1320							
13	SB-103(9-10')		1330							
14	SB-104(19-20')		1345							

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1. [signature]	7/16/17 2120	1.	
2. [signature]	7/17/17 1550	2. [signature]	7/17/17 1550
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier Greyhound
other: _____

PROJECT INFORMATION
PROJECT NAME:
PROJECT #:
SITE ADDRESS:
SEND REPORT TO:
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers

Turnaround Time (TAT) Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush (auth req.)
- [ ] Other _____

STATE PROGRAM (if any): _____
E-mail? [ ] Fax? [ ]
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 1707D07

Date: 7-16-17 Page 3 of 6

COMPANY: ERM

ADDRESS: 3200 Windy Hill Road Suite 1500w Atlanta Georgia 30339

PHONE: 678-486-2700

EMAIL:

SAMPLED BY: Victoria Thomas

SIGNATURE: [signature]

ANALYSIS REQUESTED: VOC's 8260 / 1,4, Dioxane

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	PRESERVATION (see codes) S/M+I	PRESERVATION (see codes) I	REMARKS	Number of Containers
1	SB-125 (16-17')	7-13-17	1400	✓		SO	3			4
2	SB-126 (8-9')		1410							
3	SB-127 (0-2')		1525							
4	SB-127 (14-15')		1540							
5	SB-128 (0-2')		1600							
6	SB-128 (14-15')		1625							
7	SB-129 (0-2')		1640							
8	SB-129 (9-10')		1650							
9	SB-118 (0-2')	7-14-17	0910							
10	SB-118 (12-13')		0925							
11	SB-124 (0-2')		0935							
12	SB-124 (12-13')		0950							
13	SB-134 (11-12')		1020							
14	SB-134 (0-2')		1005							

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1. [signature]	7/16/17 2120	1.	
2. [signature]	7/17/17 1550	2. [signature]	7/17/17 1550
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier Greyhound
other: _____

PROJECT INFORMATION
PROJECT NAME:
PROJECT #:
SITE ADDRESS:
SEND REPORT TO:
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers

Turnaround Time (TAT) Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush (auth req.)
- [ ] Other _____

STATE PROGRAM (if any): _____
E-mail? [ ] Fax? [ ]
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 1707D07

Date: 7-16-17 Page 4 of 6

COMPANY: ERM

ADDRESS: 3200 Windy Hill Rd. Suite 1500W Atlanta Georgia, 30339

PHONE: 678-186-2700

EMAIL:

SAMPLED BY: Victoria Thomas

SIGNATURE:

ANALYSIS REQUESTED: 8260 VOCs → 1,4 Dioxane

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	PRESERVATION (see codes): S/M+I	PRESERVATION (see codes): I	REMARKS	Number of Containers
1	SB-121 (0-2')	7-15-17	0910	✓		SO	3	1		4
2	SB-120 (0-2')		1200							
3	SB-120 (18-19')		1225							
4	SB-122 (0-2')		1300							
5	SB-116 (0-2')		1510							
6	SB-117 (0-2')		1600							
7	SB-123 (0-2')		1610							
8	SB-122 ~~(31-32')~~ (26-27')		1735							
9	SB-123 (18-19')	7-16-17	0810							
10	SB-121 (14-15')		0850							
11	SB-119 (9-10')		0945							
12	SB-113 (0-2')		1025							
13	SB-113 (13-14')		1035							
14	SB-114 (0-2')		1115							

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1.	7/16/17 2120	1.	
2.	7/17/17 15:50	2.	7/17/17 1550
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier Greyhound
other: _____

PROJECT INFORMATION
PROJECT NAME:
PROJECT #:
SITE ADDRESS:
SEND REPORT TO:
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers

Turnaround Time (TAT) Request
☑ Standard 5 Business Days
☐ 2 Business Day Rush
☐ Next Business Day Rush
☐ Same-Day Rush (auth req.)
☐ Other _____

STATE PROGRAM (if any): _____
E-mail? ☐ Fax? ☐
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 1707D07

Date: 7-16-17 Page 6 of 6

COMPANY: KRM

ADDRESS: 3200 Windy Hill Rd. Suite 1500W Atlanta Georgia 30339

PHONE: 678 486 2200

EMAIL:

SAMPLED BY: Victoria Thomas

SIGNATURE:

ANALYSIS REQUESTED: 8260 VOCs; 1,4 Dioxane

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	PRESERVATION (see codes) S/M+I	PRESERVATION (see codes) I	REMARKS	Number of Containers
1	SB-115 (0-2')	7-14-17	1245	✓		SO	3	1		4
2	SB-115 (6-7')		1300							
3	SB-116 (5-6')		1310							
4	SB-117 (10-11')									
5	DUP-1	7-14-17								
6	DUP-2	7-14-17								
7	DUP-3	7-15-17								
8	DUP-4	7-15-17								
9										
10										
11										
12										
13										
14										

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1.	7-16-17 2120	1.	
2.	7/17/17 15:50	2.	7/17/17 1550
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier Greyhound
other: _____

PROJECT INFORMATION
PROJECT NAME:
PROJECT #:
SITE ADDRESS:
SEND REPORT TO:
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers

Turnaround Time (TAT) Request
☑ Standard 5 Business Days
☐ 2 Business Day Rush
☐ Next Business Day Rush
☐ Same-Day Rush (auth req.)
☐ Other _____

STATE PROGRAM (if any): _____
E-mail? ☐ Fax? ☐
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 1707D07

Date: 7-16-17 Page 6 of 6

COMPANY: ERM

ADDRESS: 3200 Windy Hill Road Suite 1500w Atlanta Georgia 30339

PHONE: 678-486-2700

EMAIL:

SAMPLED BY: Victoria Thomas

SIGNATURE: Victoria Thomas

ANALYSIS REQUESTED: VOCs 8260 + 1,4 Dioxane

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	PRESERVATION (see codes): S/MeOH	PRESERVATION (see codes): I	REMARKS	Number of Containers
1	~~SB-125 (19-20')~~	~~7-13-17~~	HOT							
2	SB-133 (0-2')	7-14-17	1035	✓	~~40~~ HOT	SO	3	1		4
3	SB-133 (5-9')	7-14-17	1050							
4	SB-132 (0-2')	7-14-17	1100							
5	SB-132 (13-14')	7-14-17	1135							
6	SB-131 (0-2')	7-14-17	1150							
7	SB-131 (14-15')	7-14-17	1225							
8	SB-130 (0-2')	7-14-17	1240							
9	SB-119 (0-2')	7-15-17	1240							
10	SB-114 (13-14')	7-16-17	1200							
11	SB-130 (14-15')	7-14-17	1300	✓	~~40~~ HOT	SO	3	1		
12										
13										
14										

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1. [signature]	7/16/17 2120	1.	
2. [signature]	7/17/17 15:50	2. [signature]	7/17/17 1550
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier Greyhound
other: _____

PROJECT INFORMATION
PROJECT NAME:
PROJECT #:
SITE ADDRESS:
SEND REPORT TO:
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers

Turnaround Time (TAT) Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush (auth req.)
- [ ] Other _____

STATE PROGRAM (if any): _____
E-mail? ☐ Fax? ☐
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client: ERM-Southeast
Project: Murata
Lab ID: 1707D67

Case Narrative

Sample Receiving Nonconformance:

Collection dates and times were not listed on the Chain of Custody for samples 1707D67-056 through 1707D67-058. Samples were logged in using the information present on the sample bottle labels.

Trip Blanks were provided but not listed on the Chain of Custody. Trip blanks were analyzed at no cost to the client.

Volatile Organic Compounds Analysis by Method 8260B:

Percent recovery for the internal standard compound 1,4-Dichlorobenzene-d4 on samples 1707D67-001A, -002A, -005A, 006A,-007A, -009A, -011A, -012A, -020A, -021A, & -056A was outside control limits biased low due to suspected matrix interference. All other internal standard recoveries were within control limits.

Due to sample matrix, samples 1707D67- 003A and 011A required dilution during preparation and/or analysis resulting in elevated reporting limits.

Acetone value for samples 1707D67-033A, & -055A is "E" qualified indicating an estimated value over linear calibration range. Sample was diluted and reanalyzed using the supplied methanol preserved sample at the minimum dilution allowed resulting in analytes being below reporting limits.

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-109(0-2')
Project Name:	Murata	**Collection Date:**	7/12/2017 10:25:00 AM
Lab ID:	1707D67-001	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5035)**				
1,4-Dioxane	BRL	91		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Dichlorodifluoromethane	BRL	6.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Chloromethane	BRL	6.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Vinyl chloride	BRL	6.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Bromomethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Chloroethane	BRL	6.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Trichlorofluoromethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
1,1-Dichloroethene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Acetone	BRL	60		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Freon-113	BRL	6.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Carbon disulfide	BRL	6.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Methyl acetate	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Methylene chloride	BRL	12		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Methyl tert-butyl ether	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
trans-1,2-Dichloroethene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
1,1-Dichloroethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
cis-1,2-Dichloroethene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
2-Butanone	BRL	30		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Chloroform	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
1,1,1-Trichloroethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Cyclohexane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Carbon tetrachloride	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Benzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
1,2-Dichloroethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Trichloroethene	4.7	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Methylcyclohexane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
1,2-Dichloropropane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Bromodichloromethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
cis-1,3-Dichloropropene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
4-Methyl-2-pentanone	BRL	6.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Toluene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
trans-1,3-Dichloropropene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
1,1,2-Trichloroethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
2-Hexanone	BRL	6.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Tetrachloroethene	690	170		ug/Kg-dry	245782	50	07/19/2017 21:55	AR
Dibromochloromethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
1,2-Dibromoethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Chlorobenzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Ethylbenzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
m,p-Xylene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
o-Xylene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-109(0-2')
Project Name:	Murata	**Collection Date:**	7/12/2017 10:25:00 AM
Lab ID:	1707D67-001	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Bromoform	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
1,1,2,2-Tetrachloroethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Isopropylbenzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
1,3-Dichlorobenzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
1,4-Dichlorobenzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
1,2-Dichlorobenzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
1,2-Dibromo-3-chloropropane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
1,2,4-Trichlorobenzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
1,2-Dichloroethene, Total	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Xylenes, Total	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 13:42	MD
Surr: 4-Bromofluorobenzene	78.5	63-125		%REC	245782	50	07/19/2017 21:55	AR
Surr: 4-Bromofluorobenzene	67.6	63-125		%REC	245698	1	07/19/2017 13:42	MD
Surr: Dibromofluoromethane	98.5	69.9-123		%REC	245782	50	07/19/2017 21:55	AR
Surr: Dibromofluoromethane	102	69.9-123		%REC	245698	1	07/19/2017 13:42	MD
Surr: Toluene-d8	87	70-122		%REC	245782	50	07/19/2017 21:55	AR
Surr: Toluene-d8	88.7	70-122		%REC	245698	1	07/19/2017 13:42	MD
PERCENT MOISTURE D2216								
Percent Moisture	13.9	0		wt%	R347922	1	07/19/2017 14:00	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-110(0-2')
Project Name:	Murata	**Collection Date:**	7/12/2017 11:15:00 AM
Lab ID:	1707D67-002	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5035)**				
1,4-Dioxane	BRL	95		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Dichlorodifluoromethane	BRL	6.4		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Chloromethane	BRL	6.4		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Vinyl chloride	BRL	6.4		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Bromomethane	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Chloroethane	BRL	6.4		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Trichlorofluoromethane	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
1,1-Dichloroethene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Acetone	BRL	64		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Freon-113	BRL	6.4		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Carbon disulfide	BRL	6.4		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Methyl acetate	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Methylene chloride	BRL	13		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Methyl tert-butyl ether	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
trans-1,2-Dichloroethene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
1,1-Dichloroethane	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
cis-1,2-Dichloroethene	7.2	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
2-Butanone	BRL	32		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Chloroform	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
1,1,1-Trichloroethane	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Cyclohexane	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Carbon tetrachloride	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Benzene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
1,2-Dichloroethane	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Trichloroethene	11	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Methylcyclohexane	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
1,2-Dichloropropane	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Bromodichloromethane	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
cis-1,3-Dichloropropene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
4-Methyl-2-pentanone	BRL	6.4		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Toluene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
trans-1,3-Dichloropropene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
1,1,2-Trichloroethane	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
2-Hexanone	BRL	6.4		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Tetrachloroethene	580	150		ug/Kg-dry	245782	50	07/19/2017 22:23	AR
Dibromochloromethane	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
1,2-Dibromoethane	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Chlorobenzene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Ethylbenzene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
m,p-Xylene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
o-Xylene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-110(0-2')
Project Name:	Murata	**Collection Date:**	7/12/2017 11:15:00 AM
Lab ID:	1707D67-002	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Bromoform	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
1,1,2,2-Tetrachloroethane	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Isopropylbenzene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
1,3-Dichlorobenzene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
1,4-Dichlorobenzene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
1,2-Dichlorobenzene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
1,2-Dibromo-3-chloropropane	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
1,2,4-Trichlorobenzene	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
1,2-Dichloroethene, Total	7.2	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Xylenes, Total	BRL	3.2		ug/Kg-dry	245698	1	07/19/2017 14:06	MD
Surr: 4-Bromofluorobenzene	76.3	63-125		%REC	245782	50	07/19/2017 22:23	AR
Surr: 4-Bromofluorobenzene	71.5	63-125		%REC	245698	1	07/19/2017 14:06	MD
Surr: Dibromofluoromethane	97.1	69.9-123		%REC	245782	50	07/19/2017 22:23	AR
Surr: Dibromofluoromethane	101	69.9-123		%REC	245698	1	07/19/2017 14:06	MD
Surr: Toluene-d8	82	70-122		%REC	245782	50	07/19/2017 22:23	AR
Surr: Toluene-d8	89.4	70-122		%REC	245698	1	07/19/2017 14:06	MD
PERCENT MOISTURE D2216								
Percent Moisture	14.6	0		wt%	R347922	1	07/19/2017 14:00	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-109(24-25')
Project Name:	Murata	**Collection Date:**	7/12/2017 11:39:00 AM
Lab ID:	1707D67-003	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	120		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Dichlorodifluoromethane	BRL	7.7		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Chloromethane	BRL	7.7		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Vinyl chloride	BRL	7.7		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Bromomethane	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Chloroethane	BRL	7.7		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Trichlorofluoromethane	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
1,1-Dichloroethene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Acetone	BRL	77		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Freon-113	BRL	7.7		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Carbon disulfide	BRL	7.7		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Methyl acetate	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Methylene chloride	BRL	15		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Methyl tert-butyl ether	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
trans-1,2-Dichloroethene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
1,1-Dichloroethane	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
cis-1,2-Dichloroethene	15	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
2-Butanone	BRL	39		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Chloroform	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
1,1,1-Trichloroethane	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Cyclohexane	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Carbon tetrachloride	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Benzene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
1,2-Dichloroethane	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Trichloroethene	18	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Methylcyclohexane	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
1,2-Dichloropropane	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Bromodichloromethane	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
cis-1,3-Dichloropropene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
4-Methyl-2-pentanone	BRL	7.7		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Toluene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
trans-1,3-Dichloropropene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
1,1,2-Trichloroethane	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
2-Hexanone	BRL	7.7		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Tetrachloroethene	BRL	200		ug/Kg-dry	245782	50	07/19/2017 22:52	AR
Dibromochloromethane	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
1,2-Dibromoethane	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Chlorobenzene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Ethylbenzene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
m,p-Xylene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
o-Xylene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-109(24-25')
Project Name:	Murata	**Collection Date:**	7/12/2017 11:39:00 AM
Lab ID:	1707D67-003	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Bromoform	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
1,1,2,2-Tetrachloroethane	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Isopropylbenzene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
1,3-Dichlorobenzene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
1,4-Dichlorobenzene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
1,2-Dichlorobenzene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
1,2-Dibromo-3-chloropropane	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
1,2,4-Trichlorobenzene	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
1,2-Dichloroethene, Total	15	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Xylenes, Total	BRL	3.9		ug/Kg-dry	245698	1	07/19/2017 14:30	MD
Surr: 4-Bromofluorobenzene	74.7	63-125		%REC	245782	50	07/19/2017 22:52	AR
Surr: 4-Bromofluorobenzene	86.9	63-125		%REC	245698	1	07/19/2017 14:30	MD
Surr: Dibromofluoromethane	98.2	69.9-123		%REC	245782	50	07/19/2017 22:52	AR
Surr: Dibromofluoromethane	91.5	69.9-123		%REC	245698	1	07/19/2017 14:30	MD
Surr: Toluene-d8	83.9	70-122		%REC	245782	50	07/19/2017 22:52	AR
Surr: Toluene-d8	96.8	70-122		%REC	245698	1	07/19/2017 14:30	MD
PERCENT MOISTURE D2216								
Percent Moisture	26.8	0		wt%	R347922	1	07/19/2017 14:00	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-110(11-12')
Project Name:	Murata	**Collection Date:**	7/12/2017 12:00:00 PM
Lab ID:	1707D67-004	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	110		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Dichlorodifluoromethane	BRL	7.1		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Chloromethane	BRL	7.1		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Vinyl chloride	BRL	7.1		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Bromomethane	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Chloroethane	BRL	7.1		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Trichlorofluoromethane	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
1,1-Dichloroethene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Acetone	BRL	71		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Freon-113	BRL	7.1		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Carbon disulfide	BRL	7.1		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Methyl acetate	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Methylene chloride	BRL	14		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Methyl tert-butyl ether	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
trans-1,2-Dichloroethene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
1,1-Dichloroethane	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
cis-1,2-Dichloroethene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
2-Butanone	BRL	35		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Chloroform	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
1,1,1-Trichloroethane	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Cyclohexane	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Carbon tetrachloride	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Benzene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
1,2-Dichloroethane	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Trichloroethene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Methylcyclohexane	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
1,2-Dichloropropane	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Bromodichloromethane	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
cis-1,3-Dichloropropene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
4-Methyl-2-pentanone	BRL	7.1		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Toluene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
trans-1,3-Dichloropropene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
1,1,2-Trichloroethane	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
2-Hexanone	BRL	7.1		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Tetrachloroethene	3.8	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Dibromochloromethane	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
1,2-Dibromoethane	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Chlorobenzene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Ethylbenzene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
m,p-Xylene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
o-Xylene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-110(11-12')
Project Name:	Murata	**Collection Date:**	7/12/2017 12:00:00 PM
Lab ID:	1707D67-004	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Bromoform	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
1,1,2,2-Tetrachloroethane	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Isopropylbenzene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
1,3-Dichlorobenzene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
1,4-Dichlorobenzene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
1,2-Dichlorobenzene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
1,2-Dibromo-3-chloropropane	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
1,2,4-Trichlorobenzene	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
1,2-Dichloroethene, Total	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Xylenes, Total	BRL	3.5		ug/Kg-dry	245698	1	07/19/2017 14:55	MD
Surr: 4-Bromofluorobenzene	85.7	63-125		%REC	245698	1	07/19/2017 14:55	MD
Surr: Dibromofluoromethane	92.3	69.9-123		%REC	245698	1	07/19/2017 14:55	MD
Surr: Toluene-d8	96.3	70-122		%REC	245698	1	07/19/2017 14:55	MD
PERCENT MOISTURE D2216								
Percent Moisture	21.5	0		wt%	R347922	1	07/19/2017 14:00	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-111(0-2')
Project Name:	Murata	**Collection Date:**	7/12/2017 12:30:00 PM
Lab ID:	1707D67-005	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	100		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Dichlorodifluoromethane	BRL	6.8		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Chloromethane	BRL	6.8		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Vinyl chloride	BRL	6.8		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Bromomethane	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Chloroethane	BRL	6.8		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Trichlorofluoromethane	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
1,1-Dichloroethene	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Acetone	BRL	68		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Freon-113	BRL	6.8		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Carbon disulfide	BRL	6.8		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Methyl acetate	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Methylene chloride	BRL	14		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Methyl tert-butyl ether	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
trans-1,2-Dichloroethene	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
1,1-Dichloroethane	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
cis-1,2-Dichloroethene	9.3	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
2-Butanone	BRL	34		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Chloroform	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
1,1,1-Trichloroethane	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Cyclohexane	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Carbon tetrachloride	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Benzene	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
1,2-Dichloroethane	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Trichloroethene	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Methylcyclohexane	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
1,2-Dichloropropane	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Bromodichloromethane	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
cis-1,3-Dichloropropene	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
4-Methyl-2-pentanone	BRL	6.8		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Toluene	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
trans-1,3-Dichloropropene	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
1,1,2-Trichloroethane	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
2-Hexanone	BRL	6.8		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Tetrachloroethene	5.1	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Dibromochloromethane	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
1,2-Dibromoethane	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Chlorobenzene	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Ethylbenzene	88	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
m,p-Xylene	200	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
o-Xylene	56	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-111(0-2')
Project Name:	Murata	**Collection Date:**	7/12/2017 12:30:00 PM
Lab ID:	1707D67-005	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Bromoform	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
1,1,2,2-Tetrachloroethane	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Isopropylbenzene	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
1,3-Dichlorobenzene	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
1,4-Dichlorobenzene	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
1,2-Dichlorobenzene	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
1,2-Dibromo-3-chloropropane	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
1,2,4-Trichlorobenzene	BRL	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
1,2-Dichloroethene, Total	9.3	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Xylenes, Total	250	3.4		ug/Kg-dry	245698	1	07/19/2017 15:19	MD
Surr: 4-Bromofluorobenzene	74.1	63-125		%REC	245698	1	07/19/2017 15:19	MD
Surr: Dibromofluoromethane	95.7	69.9-123		%REC	245698	1	07/19/2017 15:19	MD
Surr: Toluene-d8	92.1	70-122		%REC	245698	1	07/19/2017 15:19	MD
PERCENT MOISTURE D2216								
Percent Moisture	19.2	0		wt%	R347922	1	07/19/2017 14:00	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-111(19-20)
Project Name:	Murata	**Collection Date:**	7/12/2017 12:50:00 PM
Lab ID:	1707D67-006	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	94		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Dichlorodifluoromethane	BRL	6.3		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Chloromethane	BRL	6.3		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Vinyl chloride	BRL	6.3		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Bromomethane	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Chloroethane	BRL	6.3		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Trichlorofluoromethane	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
1,1-Dichloroethene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Acetone	BRL	63		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Freon-113	BRL	6.3		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Carbon disulfide	BRL	6.3		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Methyl acetate	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Methylene chloride	BRL	13		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Methyl tert-butyl ether	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
trans-1,2-Dichloroethene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
1,1-Dichloroethane	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
cis-1,2-Dichloroethene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
2-Butanone	BRL	31		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Chloroform	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
1,1,1-Trichloroethane	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Cyclohexane	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Carbon tetrachloride	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Benzene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
1,2-Dichloroethane	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Trichloroethene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Methylcyclohexane	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
1,2-Dichloropropane	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Bromodichloromethane	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
cis-1,3-Dichloropropene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
4-Methyl-2-pentanone	BRL	6.3		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Toluene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
trans-1,3-Dichloropropene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
1,1,2-Trichloroethane	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
2-Hexanone	BRL	6.3		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Tetrachloroethene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Dibromochloromethane	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
1,2-Dibromoethane	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Chlorobenzene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Ethylbenzene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
m,p-Xylene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
o-Xylene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-111(19-20)
Project Name:	Murata	**Collection Date:**	7/12/2017 12:50:00 PM
Lab ID:	1707D67-006	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Bromoform	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
1,1,2,2-Tetrachloroethane	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Isopropylbenzene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
1,3-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
1,4-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
1,2-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
1,2-Dibromo-3-chloropropane	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
1,2,4-Trichlorobenzene	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
1,2-Dichloroethene, Total	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Xylenes, Total	BRL	3.1		ug/Kg-dry	245698	1	07/19/2017 15:42	MD
Surr: 4-Bromofluorobenzene	91	63-125		%REC	245698	1	07/19/2017 15:42	MD
Surr: Dibromofluoromethane	95.3	69.9-123		%REC	245698	1	07/19/2017 15:42	MD
Surr: Toluene-d8	94.8	70-122		%REC	245698	1	07/19/2017 15:42	MD
PERCENT MOISTURE D2216								
Percent Moisture	24.8	0		wt%	R347922	1	07/19/2017 14:00	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-112(0-2')
Project Name:	Murata	**Collection Date:**	7/12/2017 1:07:00 PM
Lab ID:	1707D67-007	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	71		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Dichlorodifluoromethane	BRL	4.8		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Chloromethane	BRL	4.8		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Vinyl chloride	BRL	4.8		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Bromomethane	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Chloroethane	BRL	4.8		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Trichlorofluoromethane	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
1,1-Dichloroethene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Acetone	BRL	48		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Freon-113	BRL	4.8		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Carbon disulfide	BRL	4.8		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Methyl acetate	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Methylene chloride	BRL	9.5		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Methyl tert-butyl ether	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
trans-1,2-Dichloroethene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
1,1-Dichloroethane	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
cis-1,2-Dichloroethene	2.8	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
2-Butanone	BRL	24		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Chloroform	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
1,1,1-Trichloroethane	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Cyclohexane	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Carbon tetrachloride	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Benzene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
1,2-Dichloroethane	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Trichloroethene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Methylcyclohexane	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
1,2-Dichloropropane	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Bromodichloromethane	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
cis-1,3-Dichloropropene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
4-Methyl-2-pentanone	BRL	4.8		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Toluene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
trans-1,3-Dichloropropene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
1,1,2-Trichloroethane	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
2-Hexanone	BRL	4.8		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Tetrachloroethene	6.6	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Dibromochloromethane	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
1,2-Dibromoethane	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Chlorobenzene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Ethylbenzene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
m,p-Xylene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
o-Xylene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-112(0-2')
Project Name:	Murata	**Collection Date:**	7/12/2017 1:07:00 PM
Lab ID:	1707D67-007	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Bromoform	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
1,1,2,2-Tetrachloroethane	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Isopropylbenzene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
1,3-Dichlorobenzene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
1,4-Dichlorobenzene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
1,2-Dichlorobenzene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
1,2-Dibromo-3-chloropropane	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
1,2,4-Trichlorobenzene	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
1,2-Dichloroethene, Total	2.8	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Xylenes, Total	BRL	2.4		ug/Kg-dry	245698	1	07/19/2017 16:06	MD
Surr: 4-Bromofluorobenzene	85.9	63-125		%REC	245698	1	07/19/2017 16:06	MD
Surr: Dibromofluoromethane	90.3	69.9-123		%REC	245698	1	07/19/2017 16:06	MD
Surr: Toluene-d8	95.6	70-122		%REC	245698	1	07/19/2017 16:06	MD
PERCENT MOISTURE D2216								
Percent Moisture	14.1	0		wt%	R347922	1	07/19/2017 14:00	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-112(19-20')
Project Name:	Murata	**Collection Date:**	7/12/2017 1:40:00 PM
Lab ID:	1707D67-008	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	140		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Dichlorodifluoromethane	BRL	9.1		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Chloromethane	BRL	9.1		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Vinyl chloride	BRL	9.1		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Bromomethane	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Chloroethane	BRL	9.1		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Trichlorofluoromethane	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
1,1-Dichloroethene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Acetone	BRL	91		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Freon-113	BRL	9.1		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Carbon disulfide	BRL	9.1		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Methyl acetate	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Methylene chloride	BRL	18		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Methyl tert-butyl ether	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
trans-1,2-Dichloroethene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
1,1-Dichloroethane	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
cis-1,2-Dichloroethene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
2-Butanone	BRL	46		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Chloroform	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
1,1,1-Trichloroethane	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Cyclohexane	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Carbon tetrachloride	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Benzene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
1,2-Dichloroethane	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Trichloroethene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Methylcyclohexane	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
1,2-Dichloropropane	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Bromodichloromethane	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
cis-1,3-Dichloropropene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
4-Methyl-2-pentanone	BRL	9.1		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Toluene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
trans-1,3-Dichloropropene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
1,1,2-Trichloroethane	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
2-Hexanone	BRL	9.1		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Tetrachloroethene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Dibromochloromethane	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
1,2-Dibromoethane	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Chlorobenzene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Ethylbenzene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
m,p-Xylene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
o-Xylene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-112(19-20')
Project Name:	Murata	**Collection Date:**	7/12/2017 1:40:00 PM
Lab ID:	1707D67-008	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Bromoform	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
1,1,2,2-Tetrachloroethane	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Isopropylbenzene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
1,3-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
1,4-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
1,2-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
1,2-Dibromo-3-chloropropane	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
1,2,4-Trichlorobenzene	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
1,2-Dichloroethene, Total	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Xylenes, Total	BRL	4.6		ug/Kg-dry	245698	1	07/19/2017 16:30	MD
Surr: 4-Bromofluorobenzene	87.2	63-125		%REC	245698	1	07/19/2017 16:30	MD
Surr: Dibromofluoromethane	90.1	69.9-123		%REC	245698	1	07/19/2017 16:30	MD
Surr: Toluene-d8	97.1	70-122		%REC	245698	1	07/19/2017 16:30	MD
PERCENT MOISTURE D2216								
Percent Moisture	31.5	0		wt%	R347922	1	07/19/2017 14:00	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-108(0-2')
Project Name:	Murata	**Collection Date:**	7/12/2017 2:45:00 PM
Lab ID:	1707D67-009	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	95		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Dichlorodifluoromethane	BRL	6.3		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Chloromethane	BRL	6.3		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Vinyl chloride	BRL	6.3		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Bromomethane	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Chloroethane	BRL	6.3		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Trichlorofluoromethane	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
1,1-Dichloroethene	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Acetone	BRL	63		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Freon-113	BRL	6.3		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Carbon disulfide	BRL	6.3		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Methyl acetate	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Methylene chloride	BRL	13		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Methyl tert-butyl ether	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
trans-1,2-Dichloroethene	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
1,1-Dichloroethane	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
cis-1,2-Dichloroethene	94	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
2-Butanone	BRL	32		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Chloroform	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
1,1,1-Trichloroethane	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Cyclohexane	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Carbon tetrachloride	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Benzene	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
1,2-Dichloroethane	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Trichloroethene	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Methylcyclohexane	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
1,2-Dichloropropane	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Bromodichloromethane	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
cis-1,3-Dichloropropene	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
4-Methyl-2-pentanone	BRL	6.3		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Toluene	52	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
trans-1,3-Dichloropropene	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
1,1,2-Trichloroethane	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
2-Hexanone	BRL	6.3		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Tetrachloroethene	4.8	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Dibromochloromethane	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
1,2-Dibromoethane	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Chlorobenzene	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Ethylbenzene	430	150		ug/Kg-dry	245782	50	07/25/2017 02:16	MD
m,p-Xylene	1700	150		ug/Kg-dry	245782	50	07/25/2017 02:16	MD
o-Xylene	880	150		ug/Kg-dry	245782	50	07/25/2017 02:16	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-108(0-2')
Project Name:	Murata	**Collection Date:**	7/12/2017 2:45:00 PM
Lab ID:	1707D67-009	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Bromoform	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
1,1,2,2-Tetrachloroethane	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Isopropylbenzene	3.2	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
1,3-Dichlorobenzene	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
1,4-Dichlorobenzene	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
1,2-Dichlorobenzene	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
1,2-Dibromo-3-chloropropane	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
1,2,4-Trichlorobenzene	BRL	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
1,2-Dichloroethene, Total	96	3.2		ug/Kg-dry	245698	1	07/21/2017 11:34	MD
Xylenes, Total	2600	150		ug/Kg-dry	245782	50	07/25/2017 02:16	MD
Surr: 4-Bromofluorobenzene	92.7	63-125		%REC	245782	50	07/25/2017 02:16	MD
Surr: 4-Bromofluorobenzene	69.5	63-125		%REC	245698	1	07/21/2017 11:34	MD
Surr: Dibromofluoromethane	89.5	69.9-123		%REC	245782	50	07/25/2017 02:16	MD
Surr: Dibromofluoromethane	105	69.9-123		%REC	245698	1	07/21/2017 11:34	MD
Surr: Toluene-d8	94.6	70-122		%REC	245782	50	07/25/2017 02:16	MD
Surr: Toluene-d8	95.6	70-122		%REC	245698	1	07/21/2017 11:34	MD
PERCENT MOISTURE D2216								
Percent Moisture	13.3	0		wt%	R347922	1	07/19/2017 14:00	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-108(21-22')
Project Name:	Murata	**Collection Date:**	7/12/2017 3:20:00 PM
Lab ID:	1707D67-010	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	130		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Dichlorodifluoromethane	BRL	9.0		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Chloromethane	BRL	9.0		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Vinyl chloride	BRL	9.0		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Bromomethane	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Chloroethane	BRL	9.0		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Trichlorofluoromethane	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
1,1-Dichloroethene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Acetone	BRL	90		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Freon-113	BRL	9.0		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Carbon disulfide	BRL	9.0		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Methyl acetate	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Methylene chloride	BRL	18		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Methyl tert-butyl ether	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
trans-1,2-Dichloroethene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
1,1-Dichloroethane	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
cis-1,2-Dichloroethene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
2-Butanone	BRL	45		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Chloroform	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
1,1,1-Trichloroethane	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Cyclohexane	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Carbon tetrachloride	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Benzene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
1,2-Dichloroethane	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Trichloroethene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Methylcyclohexane	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
1,2-Dichloropropane	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Bromodichloromethane	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
cis-1,3-Dichloropropene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
4-Methyl-2-pentanone	BRL	9.0		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Toluene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
trans-1,3-Dichloropropene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
1,1,2-Trichloroethane	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
2-Hexanone	BRL	9.0		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Tetrachloroethene	11	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Dibromochloromethane	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
1,2-Dibromoethane	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Chlorobenzene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Ethylbenzene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
m,p-Xylene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
o-Xylene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-108(21-22')
Project Name:	Murata	**Collection Date:**	7/12/2017 3:20:00 PM
Lab ID:	1707D67-010	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Bromoform	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
1,1,2,2-Tetrachloroethane	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Isopropylbenzene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
1,3-Dichlorobenzene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
1,4-Dichlorobenzene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
1,2-Dichlorobenzene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
1,2-Dibromo-3-chloropropane	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
1,2,4-Trichlorobenzene	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
1,2-Dichloroethene, Total	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Xylenes, Total	BRL	4.5		ug/Kg-dry	245698	1	07/19/2017 19:57	MD
Surr: 4-Bromofluorobenzene	88.2	63-125		%REC	245698	1	07/19/2017 19:57	MD
Surr: Dibromofluoromethane	90.9	69.9-123		%REC	245698	1	07/19/2017 19:57	MD
Surr: Toluene-d8	96.8	70-122		%REC	245698	1	07/19/2017 19:57	MD
PERCENT MOISTURE D2216								
Percent Moisture	28.7	0		wt%	R347922	1	07/19/2017 14:00	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-107(0-2')
Project Name:	Murata	**Collection Date:**	7/12/2017 3:35:00 PM
Lab ID:	1707D67-011	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	52000		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Dichlorodifluoromethane	BRL	3500		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Chloromethane	BRL	3500		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Vinyl chloride	BRL	3500		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Bromomethane	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Chloroethane	BRL	3500		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Trichlorofluoromethane	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
1,1-Dichloroethene	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Acetone	BRL	35000		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Freon-113	BRL	3500		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Carbon disulfide	BRL	3500		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Methyl acetate	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Methylene chloride	BRL	7000		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Methyl tert-butyl ether	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
trans-1,2-Dichloroethene	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
1,1-Dichloroethane	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
cis-1,2-Dichloroethene	8100	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
2-Butanone	BRL	17000		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Chloroform	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
1,1,1-Trichloroethane	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Cyclohexane	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Carbon tetrachloride	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Benzene	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
1,2-Dichloroethane	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Trichloroethene	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Methylcyclohexane	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
1,2-Dichloropropane	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Bromodichloromethane	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
cis-1,3-Dichloropropene	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
4-Methyl-2-pentanone	BRL	3500		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Toluene	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
trans-1,3-Dichloropropene	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
1,1,2-Trichloroethane	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
2-Hexanone	BRL	3500		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Tetrachloroethene	25000	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Dibromochloromethane	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
1,2-Dibromoethane	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Chlorobenzene	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Ethylbenzene	5500	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
m,p-Xylene	34000	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
o-Xylene	3600	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-107(0-2')
Project Name:	Murata	**Collection Date:**	7/12/2017 3:35:00 PM
Lab ID:	1707D67-011	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Bromoform	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
1,1,2,2-Tetrachloroethane	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Isopropylbenzene	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
1,3-Dichlorobenzene	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
1,4-Dichlorobenzene	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
1,2-Dichlorobenzene	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
1,2-Dibromo-3-chloropropane	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
1,2,4-Trichlorobenzene	BRL	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
1,2-Dichloroethene, Total	8100	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Xylenes, Total	38000	1700		ug/Kg-dry	245782	500	07/21/2017 17:01	AR
Surr: 4-Bromofluorobenzene	92	63-125		%REC	245782	500	07/21/2017 17:01	AR
Surr: Dibromofluoromethane	97.9	69.9-123		%REC	245782	500	07/21/2017 17:01	AR
Surr: Toluene-d8	101	70-122		%REC	245782	500	07/21/2017 17:01	AR
PERCENT MOISTURE D2216								
Percent Moisture	15.3	0		wt%	R347922	1	07/19/2017 14:00	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-107(6-7')
Project Name:	Murata	**Collection Date:**	7/12/2017 4:00:00 PM
Lab ID:	1707D67-012	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	100		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Dichlorodifluoromethane	BRL	6.7		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Chloromethane	BRL	6.7		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Vinyl chloride	BRL	6.7		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Bromomethane	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Chloroethane	BRL	6.7		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Trichlorofluoromethane	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
1,1-Dichloroethene	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Acetone	BRL	67		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Freon-113	BRL	6.7		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Carbon disulfide	BRL	6.7		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Methyl acetate	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Methylene chloride	BRL	13		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Methyl tert-butyl ether	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
trans-1,2-Dichloroethene	56	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
1,1-Dichloroethane	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
cis-1,2-Dichloroethene	6100	380		ug/Kg-dry	245782	100	07/21/2017 03:28	NP
2-Butanone	BRL	33		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Chloroform	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
1,1,1-Trichloroethane	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Cyclohexane	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Carbon tetrachloride	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Benzene	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
1,2-Dichloroethane	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Trichloroethene	5.2	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Methylcyclohexane	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
1,2-Dichloropropane	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Bromodichloromethane	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
cis-1,3-Dichloropropene	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
4-Methyl-2-pentanone	BRL	6.7		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Toluene	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
trans-1,3-Dichloropropene	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
1,1,2-Trichloroethane	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
2-Hexanone	BRL	6.7		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Tetrachloroethene	980	380		ug/Kg-dry	245782	100	07/21/2017 03:28	NP
Dibromochloromethane	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
1,2-Dibromoethane	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Chlorobenzene	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Ethylbenzene	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
m,p-Xylene	13	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
o-Xylene	7.1	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-107(6-7')
Project Name:	Murata	**Collection Date:**	7/12/2017 4:00:00 PM
Lab ID:	1707D67-012	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Bromoform	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
1,1,2,2-Tetrachloroethane	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Isopropylbenzene	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
1,3-Dichlorobenzene	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
1,4-Dichlorobenzene	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
1,2-Dichlorobenzene	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
1,2-Dibromo-3-chloropropane	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
1,2,4-Trichlorobenzene	BRL	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
1,2-Dichloroethene, Total	6200	380		ug/Kg-dry	245782	100	07/21/2017 03:28	NP
Xylenes, Total	20	3.3		ug/Kg-dry	245698	1	07/24/2017 16:35	MD
Surr: 4-Bromofluorobenzene	76.9	63-125		%REC	245698	1	07/24/2017 16:35	MD
Surr: 4-Bromofluorobenzene	93.1	63-125		%REC	245782	100	07/21/2017 03:28	NP
Surr: Dibromofluoromethane	94.7	69.9-123		%REC	245782	100	07/21/2017 03:28	NP
Surr: Dibromofluoromethane	116	69.9-123		%REC	245698	1	07/24/2017 16:35	MD
Surr: Toluene-d8	89.9	70-122		%REC	245698	1	07/24/2017 16:35	MD
Surr: Toluene-d8	100	70-122		%REC	245782	100	07/21/2017 03:28	NP
PERCENT MOISTURE D2216								
Percent Moisture	22.9	0		wt%	R347922	1	07/19/2017 14:00	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-106(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 9:00:00 AM
Lab ID:	1707D67-013	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	85		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Dichlorodifluoromethane	BRL	5.7		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Chloromethane	BRL	5.7		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Vinyl chloride	BRL	5.7		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Bromomethane	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Chloroethane	BRL	5.7		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Trichlorofluoromethane	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
1,1-Dichloroethene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Acetone	BRL	57		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Freon-113	BRL	5.7		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Carbon disulfide	BRL	5.7		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Methyl acetate	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Methylene chloride	BRL	11		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Methyl tert-butyl ether	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
trans-1,2-Dichloroethene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
1,1-Dichloroethane	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
cis-1,2-Dichloroethene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
2-Butanone	BRL	28		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Chloroform	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
1,1,1-Trichloroethane	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Cyclohexane	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Carbon tetrachloride	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Benzene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
1,2-Dichloroethane	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Trichloroethene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Methylcyclohexane	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
1,2-Dichloropropane	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Bromodichloromethane	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
cis-1,3-Dichloropropene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
4-Methyl-2-pentanone	BRL	5.7		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Toluene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
trans-1,3-Dichloropropene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
1,1,2-Trichloroethane	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
2-Hexanone	BRL	5.7		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Tetrachloroethene	31	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Dibromochloromethane	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
1,2-Dibromoethane	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Chlorobenzene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Ethylbenzene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
m,p-Xylene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
o-Xylene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-106(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 9:00:00 AM
Lab ID:	1707D67-013	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Bromoform	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
1,1,2,2-Tetrachloroethane	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Isopropylbenzene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
1,3-Dichlorobenzene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
1,4-Dichlorobenzene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
1,2-Dichlorobenzene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
1,2-Dibromo-3-chloropropane	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
1,2,4-Trichlorobenzene	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
1,2-Dichloroethene, Total	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Xylenes, Total	BRL	2.8		ug/Kg-dry	245698	1	07/20/2017 13:17	MD
Surr: 4-Bromofluorobenzene	83.9	63-125		%REC	245698	1	07/20/2017 13:17	MD
Surr: Dibromofluoromethane	93.8	69.9-123		%REC	245698	1	07/20/2017 13:17	MD
Surr: Toluene-d8	97.5	70-122		%REC	245698	1	07/20/2017 13:17	MD
PERCENT MOISTURE D2216								
Percent Moisture	18.4	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-106(24-25')
Project Name:	Murata	**Collection Date:**	7/13/2017 9:20:00 AM
Lab ID:	1707D67-014	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	110		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Dichlorodifluoromethane	BRL	7.2		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Chloromethane	BRL	7.2		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Vinyl chloride	BRL	7.2		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Bromomethane	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Chloroethane	BRL	7.2		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Trichlorofluoromethane	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
1,1-Dichloroethene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Acetone	BRL	72		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Freon-113	BRL	7.2		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Carbon disulfide	BRL	7.2		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Methyl acetate	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Methylene chloride	BRL	14		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Methyl tert-butyl ether	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
trans-1,2-Dichloroethene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
1,1-Dichloroethane	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
cis-1,2-Dichloroethene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
2-Butanone	BRL	36		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Chloroform	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
1,1,1-Trichloroethane	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Cyclohexane	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Carbon tetrachloride	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Benzene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
1,2-Dichloroethane	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Trichloroethene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Methylcyclohexane	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
1,2-Dichloropropane	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Bromodichloromethane	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
cis-1,3-Dichloropropene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
4-Methyl-2-pentanone	BRL	7.2		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Toluene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
trans-1,3-Dichloropropene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
1,1,2-Trichloroethane	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
2-Hexanone	BRL	7.2		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Tetrachloroethene	6.0	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Dibromochloromethane	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
1,2-Dibromoethane	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Chlorobenzene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Ethylbenzene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
m,p-Xylene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
o-Xylene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-106(24-25')
Project Name:	Murata	**Collection Date:**	7/13/2017 9:20:00 AM
Lab ID:	1707D67-014	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Bromoform	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
1,1,2,2-Tetrachloroethane	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Isopropylbenzene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
1,3-Dichlorobenzene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
1,4-Dichlorobenzene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
1,2-Dichlorobenzene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
1,2-Dibromo-3-chloropropane	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
1,2,4-Trichlorobenzene	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
1,2-Dichloroethene, Total	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Xylenes, Total	BRL	3.6		ug/Kg-dry	245698	1	07/21/2017 11:59	MD
Surr: 4-Bromofluorobenzene	96.8	63-125		%REC	245698	1	07/21/2017 11:59	MD
Surr: Dibromofluoromethane	97.4	69.9-123		%REC	245698	1	07/21/2017 11:59	MD
Surr: Toluene-d8	99.9	70-122		%REC	245698	1	07/21/2017 11:59	MD
PERCENT MOISTURE D2216								
Percent Moisture	18.7	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-105(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 9:25:00 AM
Lab ID:	1707D67-015	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	83		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Dichlorodifluoromethane	BRL	5.5		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Chloromethane	BRL	5.5		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Vinyl chloride	BRL	5.5		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Bromomethane	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Chloroethane	BRL	5.5		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Trichlorofluoromethane	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
1,1-Dichloroethene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Acetone	BRL	55		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Freon-113	BRL	5.5		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Carbon disulfide	BRL	5.5		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Methyl acetate	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Methylene chloride	BRL	11		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Methyl tert-butyl ether	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
trans-1,2-Dichloroethene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
1,1-Dichloroethane	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
cis-1,2-Dichloroethene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
2-Butanone	BRL	28		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Chloroform	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
1,1,1-Trichloroethane	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Cyclohexane	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Carbon tetrachloride	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Benzene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
1,2-Dichloroethane	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Trichloroethene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Methylcyclohexane	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
1,2-Dichloropropane	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Bromodichloromethane	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
cis-1,3-Dichloropropene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
4-Methyl-2-pentanone	BRL	5.5		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Toluene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
trans-1,3-Dichloropropene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
1,1,2-Trichloroethane	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
2-Hexanone	BRL	5.5		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Tetrachloroethene	33	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Dibromochloromethane	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
1,2-Dibromoethane	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Chlorobenzene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Ethylbenzene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
m,p-Xylene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
o-Xylene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-105(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 9:25:00 AM
Lab ID:	1707D67-015	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Bromoform	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
1,1,2,2-Tetrachloroethane	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Isopropylbenzene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
1,3-Dichlorobenzene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
1,4-Dichlorobenzene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
1,2-Dichlorobenzene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
1,2-Dibromo-3-chloropropane	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
1,2,4-Trichlorobenzene	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
1,2-Dichloroethene, Total	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Xylenes, Total	BRL	2.8		ug/Kg-dry	245698	1	07/19/2017 21:56	MD
Surr: 4-Bromofluorobenzene	90.3	63-125		%REC	245698	1	07/19/2017 21:56	MD
Surr: Dibromofluoromethane	94.7	69.9-123		%REC	245698	1	07/19/2017 21:56	MD
Surr: Toluene-d8	92.9	70-122		%REC	245698	1	07/19/2017 21:56	MD
PERCENT MOISTURE D2216								
Percent Moisture	14.8	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-105(19-20')
Project Name:	Murata	**Collection Date:**	7/13/2017 9:40:00 AM
Lab ID:	1707D67-016	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	130		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Dichlorodifluoromethane	BRL	8.8		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Chloromethane	BRL	8.8		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Vinyl chloride	BRL	8.8		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Bromomethane	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Chloroethane	BRL	8.8		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Trichlorofluoromethane	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
1,1-Dichloroethene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Acetone	BRL	88		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Freon-113	BRL	8.8		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Carbon disulfide	BRL	8.8		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Methyl acetate	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Methylene chloride	BRL	18		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Methyl tert-butyl ether	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
trans-1,2-Dichloroethene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
1,1-Dichloroethane	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
cis-1,2-Dichloroethene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
2-Butanone	BRL	44		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Chloroform	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
1,1,1-Trichloroethane	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Cyclohexane	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Carbon tetrachloride	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Benzene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
1,2-Dichloroethane	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Trichloroethene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Methylcyclohexane	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
1,2-Dichloropropane	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Bromodichloromethane	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
cis-1,3-Dichloropropene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
4-Methyl-2-pentanone	BRL	8.8		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Toluene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
trans-1,3-Dichloropropene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
1,1,2-Trichloroethane	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
2-Hexanone	BRL	8.8		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Tetrachloroethene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Dibromochloromethane	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
1,2-Dibromoethane	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Chlorobenzene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Ethylbenzene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
m,p-Xylene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
o-Xylene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-105(19-20')
Project Name:	Murata	**Collection Date:**	7/13/2017 9:40:00 AM
Lab ID:	1707D67-016	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Bromoform	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
1,1,2,2-Tetrachloroethane	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Isopropylbenzene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
1,3-Dichlorobenzene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
1,4-Dichlorobenzene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
1,2-Dichlorobenzene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
1,2-Dibromo-3-chloropropane	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
1,2,4-Trichlorobenzene	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
1,2-Dichloroethene, Total	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Xylenes, Total	BRL	4.4		ug/Kg-dry	245698	1	07/19/2017 22:20	MD
Surr: 4-Bromofluorobenzene	88	63-125		%REC	245698	1	07/19/2017 22:20	MD
Surr: Dibromofluoromethane	90.8	69.9-123		%REC	245698	1	07/19/2017 22:20	MD
Surr: Toluene-d8	95.3	70-122		%REC	245698	1	07/19/2017 22:20	MD
PERCENT MOISTURE D2216								
Percent Moisture	21.7	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-101(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 9:50:00 AM
Lab ID:	1707D67-017	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	91		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Dichlorodifluoromethane	BRL	6.1		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Chloromethane	BRL	6.1		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Vinyl chloride	BRL	6.1		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Bromomethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Chloroethane	BRL	6.1		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Trichlorofluoromethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
1,1-Dichloroethene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Acetone	68	61		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Freon-113	BRL	6.1		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Carbon disulfide	BRL	6.1		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Methyl acetate	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Methylene chloride	BRL	12		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Methyl tert-butyl ether	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
trans-1,2-Dichloroethene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
1,1-Dichloroethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
cis-1,2-Dichloroethene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
2-Butanone	BRL	30		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Chloroform	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
1,1,1-Trichloroethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Cyclohexane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Carbon tetrachloride	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Benzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
1,2-Dichloroethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Trichloroethene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Methylcyclohexane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
1,2-Dichloropropane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Bromodichloromethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
cis-1,3-Dichloropropene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
4-Methyl-2-pentanone	BRL	6.1		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Toluene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
trans-1,3-Dichloropropene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
1,1,2-Trichloroethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
2-Hexanone	BRL	6.1		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Tetrachloroethene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Dibromochloromethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
1,2-Dibromoethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Chlorobenzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Ethylbenzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
m,p-Xylene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
o-Xylene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-101(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 9:50:00 AM
Lab ID:	1707D67-017	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Bromoform	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
1,1,2,2-Tetrachloroethane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Isopropylbenzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
1,3-Dichlorobenzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
1,4-Dichlorobenzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
1,2-Dichlorobenzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
1,2-Dibromo-3-chloropropane	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
1,2,4-Trichlorobenzene	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
1,2-Dichloroethene, Total	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Xylenes, Total	BRL	3.0		ug/Kg-dry	245698	1	07/19/2017 22:43	MD
Surr: 4-Bromofluorobenzene	88.9	63-125		%REC	245698	1	07/19/2017 22:43	MD
Surr: Dibromofluoromethane	96.2	69.9-123		%REC	245698	1	07/19/2017 22:43	MD
Surr: Toluene-d8	94.3	70-122		%REC	245698	1	07/19/2017 22:43	MD
PERCENT MOISTURE D2216								
Percent Moisture	13.2	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-102(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 10:20:00 AM
Lab ID:	1707D67-018	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	91		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Dichlorodifluoromethane	BRL	6.1		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Chloromethane	BRL	6.1		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Vinyl chloride	BRL	6.1		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Bromomethane	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Chloroethane	BRL	6.1		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Trichlorofluoromethane	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
1,1-Dichloroethene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Acetone	BRL	61		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Freon-113	BRL	6.1		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Carbon disulfide	BRL	6.1		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Methyl acetate	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Methylene chloride	BRL	12		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Methyl tert-butyl ether	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
trans-1,2-Dichloroethene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
1,1-Dichloroethane	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
cis-1,2-Dichloroethene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
2-Butanone	BRL	30		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Chloroform	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
1,1,1-Trichloroethane	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Cyclohexane	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Carbon tetrachloride	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Benzene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
1,2-Dichloroethane	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Trichloroethene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Methylcyclohexane	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
1,2-Dichloropropane	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Bromodichloromethane	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
cis-1,3-Dichloropropene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
4-Methyl-2-pentanone	BRL	6.1		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Toluene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
trans-1,3-Dichloropropene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
1,1,2-Trichloroethane	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
2-Hexanone	BRL	6.1		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Tetrachloroethene	4.7	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Dibromochloromethane	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
1,2-Dibromoethane	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Chlorobenzene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Ethylbenzene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
m,p-Xylene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
o-Xylene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-102(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 10:20:00 AM
Lab ID:	1707D67-018	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Bromoform	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
1,1,2,2-Tetrachloroethane	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Isopropylbenzene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
1,3-Dichlorobenzene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
1,4-Dichlorobenzene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
1,2-Dichlorobenzene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
1,2-Dibromo-3-chloropropane	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
1,2,4-Trichlorobenzene	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
1,2-Dichloroethene, Total	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Xylenes, Total	BRL	3.0		ug/Kg-dry	245768	1	07/19/2017 23:07	MD
Surr: 4-Bromofluorobenzene	87.7	63-125		%REC	245768	1	07/19/2017 23:07	MD
Surr: Dibromofluoromethane	93	69.9-123		%REC	245768	1	07/19/2017 23:07	MD
Surr: Toluene-d8	93.2	70-122		%REC	245768	1	07/19/2017 23:07	MD
PERCENT MOISTURE D2216								
Percent Moisture	23.1	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-103(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 10:45:00 AM
Lab ID:	1707D67-019	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	93		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Dichlorodifluoromethane	BRL	6.2		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Chloromethane	BRL	6.2		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Vinyl chloride	BRL	6.2		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Bromomethane	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Chloroethane	BRL	6.2		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Trichlorofluoromethane	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
1,1-Dichloroethene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Acetone	77	62		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Freon-113	BRL	6.2		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Carbon disulfide	BRL	6.2		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Methyl acetate	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Methylene chloride	BRL	12		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Methyl tert-butyl ether	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
trans-1,2-Dichloroethene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
1,1-Dichloroethane	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
cis-1,2-Dichloroethene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
2-Butanone	BRL	31		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Chloroform	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
1,1,1-Trichloroethane	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Cyclohexane	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Carbon tetrachloride	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Benzene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
1,2-Dichloroethane	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Trichloroethene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Methylcyclohexane	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
1,2-Dichloropropane	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Bromodichloromethane	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
cis-1,3-Dichloropropene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
4-Methyl-2-pentanone	BRL	6.2		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Toluene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
trans-1,3-Dichloropropene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
1,1,2-Trichloroethane	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
2-Hexanone	BRL	6.2		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Tetrachloroethene	5.5	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Dibromochloromethane	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
1,2-Dibromoethane	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Chlorobenzene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Ethylbenzene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
m,p-Xylene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
o-Xylene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-103(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 10:45:00 AM
Lab ID:	1707D67-019	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Bromoform	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
1,1,2,2-Tetrachloroethane	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Isopropylbenzene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
1,3-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
1,4-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
1,2-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
1,2-Dibromo-3-chloropropane	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
1,2,4-Trichlorobenzene	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
1,2-Dichloroethene, Total	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Xylenes, Total	BRL	3.1		ug/Kg-dry	245768	1	07/19/2017 23:31	MD
Surr: 4-Bromofluorobenzene	88.6	63-125		%REC	245768	1	07/19/2017 23:31	MD
Surr: Dibromofluoromethane	95.1	69.9-123		%REC	245768	1	07/19/2017 23:31	MD
Surr: Toluene-d8	94.9	70-122		%REC	245768	1	07/19/2017 23:31	MD
PERCENT MOISTURE D2216								
Percent Moisture	19.4	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-104(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 11:00:00 AM
Lab ID:	1707D67-020	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	88		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Dichlorodifluoromethane	BRL	5.8		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Chloromethane	BRL	5.8		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Vinyl chloride	BRL	5.8		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Bromomethane	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Chloroethane	BRL	5.8		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Trichlorofluoromethane	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
1,1-Dichloroethene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Acetone	63	58		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Freon-113	BRL	5.8		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Carbon disulfide	BRL	5.8		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Methyl acetate	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Methylene chloride	BRL	12		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Methyl tert-butyl ether	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
trans-1,2-Dichloroethene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
1,1-Dichloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
cis-1,2-Dichloroethene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
2-Butanone	BRL	29		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Chloroform	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
1,1,1-Trichloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Cyclohexane	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Carbon tetrachloride	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Benzene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
1,2-Dichloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Trichloroethene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Methylcyclohexane	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
1,2-Dichloropropane	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Bromodichloromethane	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
cis-1,3-Dichloropropene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
4-Methyl-2-pentanone	BRL	5.8		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Toluene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
trans-1,3-Dichloropropene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
1,1,2-Trichloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
2-Hexanone	BRL	5.8		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Tetrachloroethene	35	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Dibromochloromethane	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
1,2-Dibromoethane	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Chlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Ethylbenzene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
m,p-Xylene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
o-Xylene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-104(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 11:00:00 AM
Lab ID:	1707D67-020	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Bromoform	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
1,1,2,2-Tetrachloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Isopropylbenzene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
1,3-Dichlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
1,4-Dichlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
1,2-Dichlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
1,2-Dibromo-3-chloropropane	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
1,2,4-Trichlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
1,2-Dichloroethene, Total	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Xylenes, Total	BRL	2.9		ug/Kg-dry	245768	1	07/19/2017 23:55	MD
Surr: 4-Bromofluorobenzene	78.6	63-125		%REC	245768	1	07/19/2017 23:55	MD
Surr: Dibromofluoromethane	98.5	69.9-123		%REC	245768	1	07/19/2017 23:55	MD
Surr: Toluene-d8	91.4	70-122		%REC	245768	1	07/19/2017 23:55	MD
PERCENT MOISTURE D2216								
Percent Moisture	21.8	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-125(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 12:25:00 PM
Lab ID:	1707D67-021	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	130		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Dichlorodifluoromethane	BRL	8.5		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Chloromethane	BRL	8.5		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Vinyl chloride	BRL	8.5		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Bromomethane	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Chloroethane	BRL	8.5		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Trichlorofluoromethane	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
1,1-Dichloroethene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Acetone	BRL	85		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Freon-113	BRL	8.5		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Carbon disulfide	BRL	8.5		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Methyl acetate	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Methylene chloride	BRL	17		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Methyl tert-butyl ether	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
trans-1,2-Dichloroethene	17	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
1,1-Dichloroethane	4.7	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
cis-1,2-Dichloroethene	210	160		ug/Kg-dry	245782	50	07/21/2017 04:49	NP
2-Butanone	BRL	42		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Chloroform	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
1,1,1-Trichloroethane	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Cyclohexane	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Carbon tetrachloride	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Benzene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
1,2-Dichloroethane	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Trichloroethene	120	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Methylcyclohexane	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
1,2-Dichloropropane	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Bromodichloromethane	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
cis-1,3-Dichloropropene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
4-Methyl-2-pentanone	BRL	8.5		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Toluene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
trans-1,3-Dichloropropene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
1,1,2-Trichloroethane	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
2-Hexanone	BRL	8.5		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Tetrachloroethene	18	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Dibromochloromethane	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
1,2-Dibromoethane	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Chlorobenzene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Ethylbenzene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
m,p-Xylene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
o-Xylene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-125(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 12:25:00 PM
Lab ID:	1707D67-021	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Bromoform	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
1,1,2,2-Tetrachloroethane	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Isopropylbenzene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
1,3-Dichlorobenzene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
1,4-Dichlorobenzene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
1,2-Dichlorobenzene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
1,2-Dibromo-3-chloropropane	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
1,2,4-Trichlorobenzene	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
1,2-Dichloroethene, Total	240	160		ug/Kg-dry	245782	50	07/21/2017 04:49	NP
Xylenes, Total	BRL	4.2		ug/Kg-dry	245768	1	07/20/2017 00:18	MD
Surr: 4-Bromofluorobenzene	91.2	63-125		%REC	245782	50	07/21/2017 04:49	NP
Surr: 4-Bromofluorobenzene	85.3	63-125		%REC	245768	1	07/20/2017 00:18	MD
Surr: Dibromofluoromethane	90.8	69.9-123		%REC	245782	50	07/21/2017 04:49	NP
Surr: Dibromofluoromethane	93.8	69.9-123		%REC	245768	1	07/20/2017 00:18	MD
Surr: Toluene-d8	97.6	70-122		%REC	245782	50	07/21/2017 04:49	NP
Surr: Toluene-d8	95	70-122		%REC	245768	1	07/20/2017 00:18	MD
PERCENT MOISTURE D2216								
Percent Moisture	20.6	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-126(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 12:50:00 PM
Lab ID:	1707D67-022	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	74		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Dichlorodifluoromethane	BRL	4.9		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Chloromethane	BRL	4.9		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Vinyl chloride	BRL	4.9		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Bromomethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Chloroethane	BRL	4.9		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Trichlorofluoromethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
1,1-Dichloroethene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Acetone	BRL	49		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Freon-113	BRL	4.9		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Carbon disulfide	BRL	4.9		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Methyl acetate	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Methylene chloride	BRL	9.9		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Methyl tert-butyl ether	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
trans-1,2-Dichloroethene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
1,1-Dichloroethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
cis-1,2-Dichloroethene	37	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
2-Butanone	BRL	25		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Chloroform	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
1,1,1-Trichloroethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Cyclohexane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Carbon tetrachloride	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Benzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
1,2-Dichloroethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Trichloroethene	290	120		ug/Kg-dry	245782	50	07/21/2017 05:16	NP
Methylcyclohexane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
1,2-Dichloropropane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Bromodichloromethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
cis-1,3-Dichloropropene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
4-Methyl-2-pentanone	BRL	4.9		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Toluene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
trans-1,3-Dichloropropene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
1,1,2-Trichloroethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
2-Hexanone	BRL	4.9		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Tetrachloroethene	900	120		ug/Kg-dry	245782	50	07/21/2017 05:16	NP
Dibromochloromethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
1,2-Dibromoethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Chlorobenzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Ethylbenzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
m,p-Xylene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
o-Xylene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-126(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 12:50:00 PM
Lab ID:	1707D67-022	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Bromoform	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
1,1,2,2-Tetrachloroethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Isopropylbenzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
1,3-Dichlorobenzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
1,4-Dichlorobenzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
1,2-Dichlorobenzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
1,2-Dibromo-3-chloropropane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
1,2,4-Trichlorobenzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
1,2-Dichloroethene, Total	37	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Xylenes, Total	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 00:42	MD
Surr: 4-Bromofluorobenzene	88.2	63-125		%REC	245782	50	07/21/2017 05:16	NP
Surr: 4-Bromofluorobenzene	87.6	63-125		%REC	245768	1	07/20/2017 00:42	MD
Surr: Dibromofluoromethane	89.5	69.9-123		%REC	245782	50	07/21/2017 05:16	NP
Surr: Dibromofluoromethane	91.7	69.9-123		%REC	245768	1	07/20/2017 00:42	MD
Surr: Toluene-d8	98	70-122		%REC	245782	50	07/21/2017 05:16	NP
Surr: Toluene-d8	97.2	70-122		%REC	245768	1	07/20/2017 00:42	MD
PERCENT MOISTURE D2216								
Percent Moisture	14.6	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-101(9-10')
Project Name:	Murata	**Collection Date:**	7/13/2017 1:05:00 PM
Lab ID:	1707D67-023	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	130		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Dichlorodifluoromethane	BRL	8.8		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Chloromethane	BRL	8.8		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Vinyl chloride	BRL	8.8		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Bromomethane	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Chloroethane	BRL	8.8		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Trichlorofluoromethane	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
1,1-Dichloroethene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Acetone	BRL	88		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Freon-113	BRL	8.8		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Carbon disulfide	BRL	8.8		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Methyl acetate	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Methylene chloride	BRL	18		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Methyl tert-butyl ether	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
trans-1,2-Dichloroethene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
1,1-Dichloroethane	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
cis-1,2-Dichloroethene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
2-Butanone	BRL	44		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Chloroform	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
1,1,1-Trichloroethane	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Cyclohexane	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Carbon tetrachloride	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Benzene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
1,2-Dichloroethane	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Trichloroethene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Methylcyclohexane	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
1,2-Dichloropropane	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Bromodichloromethane	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
cis-1,3-Dichloropropene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
4-Methyl-2-pentanone	BRL	8.8		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Toluene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
trans-1,3-Dichloropropene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
1,1,2-Trichloroethane	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
2-Hexanone	BRL	8.8		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Tetrachloroethene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Dibromochloromethane	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
1,2-Dibromoethane	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Chlorobenzene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Ethylbenzene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
m,p-Xylene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
o-Xylene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-101(9-10')
Project Name:	Murata	**Collection Date:**	7/13/2017 1:05:00 PM
Lab ID:	1707D67-023	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Bromoform	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
1,1,2,2-Tetrachloroethane	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Isopropylbenzene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
1,3-Dichlorobenzene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
1,4-Dichlorobenzene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
1,2-Dichlorobenzene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
1,2-Dibromo-3-chloropropane	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
1,2,4-Trichlorobenzene	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
1,2-Dichloroethene, Total	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Xylenes, Total	BRL	4.4		ug/Kg-dry	245768	1	07/20/2017 01:06	MD
Surr: 4-Bromofluorobenzene	87.2	63-125		%REC	245768	1	07/20/2017 01:06	MD
Surr: Dibromofluoromethane	89.4	69.9-123		%REC	245768	1	07/20/2017 01:06	MD
Surr: Toluene-d8	96.6	70-122		%REC	245768	1	07/20/2017 01:06	MD
PERCENT MOISTURE D2216								
Percent Moisture	23.5	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-102(12-13')
Project Name:	Murata	**Collection Date:**	7/13/2017 1:20:00 PM
Lab ID:	1707D67-024	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	140		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Dichlorodifluoromethane	BRL	9.4		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Chloromethane	BRL	9.4		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Vinyl chloride	BRL	9.4		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Bromomethane	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Chloroethane	BRL	9.4		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Trichlorofluoromethane	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
1,1-Dichloroethene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Acetone	BRL	94		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Freon-113	BRL	9.4		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Carbon disulfide	BRL	9.4		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Methyl acetate	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Methylene chloride	BRL	19		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Methyl tert-butyl ether	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
trans-1,2-Dichloroethene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
1,1-Dichloroethane	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
cis-1,2-Dichloroethene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
2-Butanone	BRL	47		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Chloroform	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
1,1,1-Trichloroethane	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Cyclohexane	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Carbon tetrachloride	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Benzene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
1,2-Dichloroethane	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Trichloroethene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Methylcyclohexane	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
1,2-Dichloropropane	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Bromodichloromethane	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
cis-1,3-Dichloropropene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
4-Methyl-2-pentanone	BRL	9.4		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Toluene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
trans-1,3-Dichloropropene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
1,1,2-Trichloroethane	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
2-Hexanone	BRL	9.4		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Tetrachloroethene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Dibromochloromethane	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
1,2-Dibromoethane	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Chlorobenzene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Ethylbenzene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
m,p-Xylene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
o-Xylene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-102(12-13')
Project Name:	Murata	**Collection Date:**	7/13/2017 1:20:00 PM
Lab ID:	1707D67-024	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Bromoform	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
1,1,2,2-Tetrachloroethane	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Isopropylbenzene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
1,3-Dichlorobenzene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
1,4-Dichlorobenzene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
1,2-Dichlorobenzene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
1,2-Dibromo-3-chloropropane	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
1,2,4-Trichlorobenzene	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
1,2-Dichloroethene, Total	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Xylenes, Total	BRL	4.7		ug/Kg-dry	245768	1	07/20/2017 01:30	MD
Surr: 4-Bromofluorobenzene	90.1	63-125		%REC	245768	1	07/20/2017 01:30	MD
Surr: Dibromofluoromethane	93.6	69.9-123		%REC	245768	1	07/20/2017 01:30	MD
Surr: Toluene-d8	95	70-122		%REC	245768	1	07/20/2017 01:30	MD
PERCENT MOISTURE D2216								
Percent Moisture	28.9	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-103(9-10')
Project Name:	Murata	**Collection Date:**	7/13/2017 1:30:00 PM
Lab ID:	1707D67-025	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	170		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Dichlorodifluoromethane	BRL	11		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Chloromethane	BRL	11		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Vinyl chloride	BRL	11		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Bromomethane	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Chloroethane	BRL	11		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Trichlorofluoromethane	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
1,1-Dichloroethene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Acetone	BRL	110		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Freon-113	BRL	11		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Carbon disulfide	BRL	11		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Methyl acetate	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Methylene chloride	BRL	22		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Methyl tert-butyl ether	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
trans-1,2-Dichloroethene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
1,1-Dichloroethane	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
cis-1,2-Dichloroethene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
2-Butanone	BRL	55		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Chloroform	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
1,1,1-Trichloroethane	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Cyclohexane	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Carbon tetrachloride	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Benzene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
1,2-Dichloroethane	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Trichloroethene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Methylcyclohexane	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
1,2-Dichloropropane	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Bromodichloromethane	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
cis-1,3-Dichloropropene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
4-Methyl-2-pentanone	BRL	11		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Toluene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
trans-1,3-Dichloropropene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
1,1,2-Trichloroethane	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
2-Hexanone	BRL	11		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Tetrachloroethene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Dibromochloromethane	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
1,2-Dibromoethane	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Chlorobenzene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Ethylbenzene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
m,p-Xylene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
o-Xylene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-103(9-10')
Project Name:	Murata	**Collection Date:**	7/13/2017 1:30:00 PM
Lab ID:	1707D67-025	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Bromoform	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
1,1,2,2-Tetrachloroethane	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Isopropylbenzene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
1,3-Dichlorobenzene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
1,4-Dichlorobenzene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
1,2-Dichlorobenzene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
1,2-Dibromo-3-chloropropane	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
1,2,4-Trichlorobenzene	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
1,2-Dichloroethene, Total	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Xylenes, Total	BRL	5.5		ug/Kg-dry	245768	1	07/20/2017 01:53	MD
Surr: 4-Bromofluorobenzene	86.8	63-125		%REC	245768	1	07/20/2017 01:53	MD
Surr: Dibromofluoromethane	90.3	69.9-123		%REC	245768	1	07/20/2017 01:53	MD
Surr: Toluene-d8	95.1	70-122		%REC	245768	1	07/20/2017 01:53	MD
PERCENT MOISTURE D2216								
Percent Moisture	23.9	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-104(19-20')
Project Name:	Murata	**Collection Date:**	7/13/2017 1:45:00 PM
Lab ID:	1707D67-026	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5035)**				
1,4-Dioxane	BRL	75		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Dichlorodifluoromethane	BRL	5.0		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Chloromethane	BRL	5.0		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Vinyl chloride	BRL	5.0		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Bromomethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Chloroethane	BRL	5.0		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Trichlorofluoromethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
1,1-Dichloroethene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Acetone	BRL	50		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Freon-113	BRL	5.0		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Carbon disulfide	BRL	5.0		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Methyl acetate	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Methylene chloride	BRL	10		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Methyl tert-butyl ether	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
trans-1,2-Dichloroethene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
1,1-Dichloroethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
cis-1,2-Dichloroethene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
2-Butanone	BRL	25		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Chloroform	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
1,1,1-Trichloroethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Cyclohexane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Carbon tetrachloride	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Benzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
1,2-Dichloroethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Trichloroethene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Methylcyclohexane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
1,2-Dichloropropane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Bromodichloromethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
cis-1,3-Dichloropropene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
4-Methyl-2-pentanone	BRL	5.0		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Toluene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
trans-1,3-Dichloropropene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
1,1,2-Trichloroethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
2-Hexanone	BRL	5.0		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Tetrachloroethene	2500	290		ug/Kg-dry	245782	100	07/21/2017 03:55	NP
Dibromochloromethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
1,2-Dibromoethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Chlorobenzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Ethylbenzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
m,p-Xylene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
o-Xylene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-104(19-20')
Project Name:	Murata	**Collection Date:**	7/13/2017 1:45:00 PM
Lab ID:	1707D67-026	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Bromoform	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
1,1,2,2-Tetrachloroethane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Isopropylbenzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
1,3-Dichlorobenzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
1,4-Dichlorobenzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
1,2-Dichlorobenzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
1,2-Dibromo-3-chloropropane	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
1,2,4-Trichlorobenzene	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
1,2-Dichloroethene, Total	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Xylenes, Total	BRL	2.5		ug/Kg-dry	245768	1	07/20/2017 02:17	MD
Surr: 4-Bromofluorobenzene	90.4	63-125		%REC	245768	1	07/20/2017 02:17	MD
Surr: 4-Bromofluorobenzene	94	63-125		%REC	245782	100	07/21/2017 03:55	NP
Surr: Dibromofluoromethane	91.6	69.9-123		%REC	245768	1	07/20/2017 02:17	MD
Surr: Dibromofluoromethane	94.3	69.9-123		%REC	245782	100	07/21/2017 03:55	NP
Surr: Toluene-d8	93.7	70-122		%REC	245768	1	07/20/2017 02:17	MD
Surr: Toluene-d8	98.6	70-122		%REC	245782	100	07/21/2017 03:55	NP
PERCENT MOISTURE D2216								
Percent Moisture	14.8	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-125(16-17')
Project Name:	Murata	**Collection Date:**	7/13/2017 2:00:00 PM
Lab ID:	1707D67-027	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	130		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Dichlorodifluoromethane	BRL	9.0		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Chloromethane	BRL	9.0		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Vinyl chloride	BRL	9.0		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Bromomethane	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Chloroethane	BRL	9.0		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Trichlorofluoromethane	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
1,1-Dichloroethene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Acetone	BRL	90		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Freon-113	BRL	9.0		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Carbon disulfide	BRL	9.0		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Methyl acetate	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Methylene chloride	BRL	18		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Methyl tert-butyl ether	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
trans-1,2-Dichloroethene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
1,1-Dichloroethane	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
cis-1,2-Dichloroethene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
2-Butanone	BRL	45		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Chloroform	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
1,1,1-Trichloroethane	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Cyclohexane	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Carbon tetrachloride	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Benzene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
1,2-Dichloroethane	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Trichloroethene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Methylcyclohexane	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
1,2-Dichloropropane	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Bromodichloromethane	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
cis-1,3-Dichloropropene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
4-Methyl-2-pentanone	BRL	9.0		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Toluene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
trans-1,3-Dichloropropene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
1,1,2-Trichloroethane	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
2-Hexanone	BRL	9.0		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Tetrachloroethene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Dibromochloromethane	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
1,2-Dibromoethane	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Chlorobenzene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Ethylbenzene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
m,p-Xylene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
o-Xylene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-125(16-17')
Project Name:	Murata	**Collection Date:**	7/13/2017 2:00:00 PM
Lab ID:	1707D67-027	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Bromoform	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
1,1,2,2-Tetrachloroethane	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Isopropylbenzene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
1,3-Dichlorobenzene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
1,4-Dichlorobenzene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
1,2-Dichlorobenzene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
1,2-Dibromo-3-chloropropane	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
1,2,4-Trichlorobenzene	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
1,2-Dichloroethene, Total	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Xylenes, Total	BRL	4.5		ug/Kg-dry	245768	1	07/20/2017 02:41	MD
Surr: 4-Bromofluorobenzene	87.5	63-125		%REC	245768	1	07/20/2017 02:41	MD
Surr: Dibromofluoromethane	92.5	69.9-123		%REC	245768	1	07/20/2017 02:41	MD
Surr: Toluene-d8	96.3	70-122		%REC	245768	1	07/20/2017 02:41	MD
PERCENT MOISTURE D2216								
Percent Moisture	18.9	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-126(8-9')
Project Name:	Murata	**Collection Date:**	7/13/2017 2:10:00 PM
Lab ID:	1707D67-028	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	100		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Dichlorodifluoromethane	BRL	6.9		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Chloromethane	BRL	6.9		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Vinyl chloride	BRL	6.9		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Bromomethane	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Chloroethane	BRL	6.9		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Trichlorofluoromethane	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
1,1-Dichloroethene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Acetone	BRL	69		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Freon-113	BRL	6.9		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Carbon disulfide	BRL	6.9		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Methyl acetate	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Methylene chloride	BRL	14		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Methyl tert-butyl ether	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
trans-1,2-Dichloroethene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
1,1-Dichloroethane	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
cis-1,2-Dichloroethene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
2-Butanone	BRL	34		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Chloroform	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
1,1,1-Trichloroethane	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Cyclohexane	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Carbon tetrachloride	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Benzene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
1,2-Dichloroethane	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Trichloroethene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Methylcyclohexane	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
1,2-Dichloropropane	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Bromodichloromethane	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
cis-1,3-Dichloropropene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
4-Methyl-2-pentanone	BRL	6.9		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Toluene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
trans-1,3-Dichloropropene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
1,1,2-Trichloroethane	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
2-Hexanone	BRL	6.9		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Tetrachloroethene	1100	150		ug/Kg-dry	245782	50	07/25/2017 02:41	MD
Dibromochloromethane	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
1,2-Dibromoethane	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Chlorobenzene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Ethylbenzene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
m,p-Xylene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
o-Xylene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-126(8-9')
Project Name:	Murata	**Collection Date:**	7/13/2017 2:10:00 PM
Lab ID:	1707D67-028	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Bromoform	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
1,1,2,2-Tetrachloroethane	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Isopropylbenzene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
1,3-Dichlorobenzene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
1,4-Dichlorobenzene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
1,2-Dichlorobenzene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
1,2-Dibromo-3-chloropropane	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
1,2,4-Trichlorobenzene	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
1,2-Dichloroethene, Total	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Xylenes, Total	BRL	3.4		ug/Kg-dry	245768	1	07/20/2017 13:41	MD
Surr: 4-Bromofluorobenzene	90.6	63-125		%REC	245782	50	07/25/2017 02:41	MD
Surr: 4-Bromofluorobenzene	86.1	63-125		%REC	245768	1	07/20/2017 13:41	MD
Surr: Dibromofluoromethane	87.9	69.9-123		%REC	245782	50	07/25/2017 02:41	MD
Surr: Dibromofluoromethane	91.9	69.9-123		%REC	245768	1	07/20/2017 13:41	MD
Surr: Toluene-d8	94.1	70-122		%REC	245782	50	07/25/2017 02:41	MD
Surr: Toluene-d8	96.1	70-122		%REC	245768	1	07/20/2017 13:41	MD
PERCENT MOISTURE D2216								
Percent Moisture	19.6	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-127(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 3:25:00 PM
Lab ID:	1707D67-029	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	86		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Dichlorodifluoromethane	BRL	5.7		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Chloromethane	BRL	5.7		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Vinyl chloride	BRL	5.7		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Bromomethane	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Chloroethane	BRL	5.7		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Trichlorofluoromethane	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
1,1-Dichloroethene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Acetone	BRL	57		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Freon-113	BRL	5.7		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Carbon disulfide	BRL	5.7		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Methyl acetate	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Methylene chloride	BRL	11		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Methyl tert-butyl ether	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
trans-1,2-Dichloroethene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
1,1-Dichloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
cis-1,2-Dichloroethene	17	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
2-Butanone	BRL	29		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Chloroform	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
1,1,1-Trichloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Cyclohexane	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Carbon tetrachloride	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Benzene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
1,2-Dichloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Trichloroethene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Methylcyclohexane	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
1,2-Dichloropropane	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Bromodichloromethane	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
cis-1,3-Dichloropropene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
4-Methyl-2-pentanone	BRL	5.7		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Toluene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
trans-1,3-Dichloropropene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
1,1,2-Trichloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
2-Hexanone	BRL	5.7		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Tetrachloroethene	12	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Dibromochloromethane	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
1,2-Dibromoethane	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Chlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Ethylbenzene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
m,p-Xylene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
o-Xylene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-127(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 3:25:00 PM
Lab ID:	1707D67-029	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Bromoform	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
1,1,2,2-Tetrachloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Isopropylbenzene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
1,3-Dichlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
1,4-Dichlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
1,2-Dichlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
1,2-Dibromo-3-chloropropane	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
1,2,4-Trichlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
1,2-Dichloroethene, Total	17	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Xylenes, Total	BRL	2.9		ug/Kg-dry	245768	1	07/20/2017 14:05	MD
Surr: 4-Bromofluorobenzene	84	63-125		%REC	245768	1	07/20/2017 14:05	MD
Surr: Dibromofluoromethane	92.1	69.9-123		%REC	245768	1	07/20/2017 14:05	MD
Surr: Toluene-d8	95.5	70-122		%REC	245768	1	07/20/2017 14:05	MD
PERCENT MOISTURE D2216								
Percent Moisture	17.7	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-127(14-15')
Project Name:	Murata	**Collection Date:**	7/13/2017 3:40:00 PM
Lab ID:	1707D67-030	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	100		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Dichlorodifluoromethane	BRL	6.6		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Chloromethane	BRL	6.6		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Vinyl chloride	BRL	6.6		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Bromomethane	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Chloroethane	BRL	6.6		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Trichlorofluoromethane	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
1,1-Dichloroethene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Acetone	BRL	66		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Freon-113	BRL	6.6		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Carbon disulfide	BRL	6.6		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Methyl acetate	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Methylene chloride	BRL	13		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Methyl tert-butyl ether	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
trans-1,2-Dichloroethene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
1,1-Dichloroethane	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
cis-1,2-Dichloroethene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
2-Butanone	BRL	33		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Chloroform	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
1,1,1-Trichloroethane	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Cyclohexane	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Carbon tetrachloride	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Benzene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
1,2-Dichloroethane	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Trichloroethene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Methylcyclohexane	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
1,2-Dichloropropane	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Bromodichloromethane	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
cis-1,3-Dichloropropene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
4-Methyl-2-pentanone	BRL	6.6		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Toluene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
trans-1,3-Dichloropropene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
1,1,2-Trichloroethane	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
2-Hexanone	BRL	6.6		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Tetrachloroethene	320	160		ug/Kg-dry	245782	50	07/25/2017 03:07	MD
Dibromochloromethane	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
1,2-Dibromoethane	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Chlorobenzene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Ethylbenzene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
m,p-Xylene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
o-Xylene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-127(14-15')
Project Name:	Murata	**Collection Date:**	7/13/2017 3:40:00 PM
Lab ID:	1707D67-030	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Bromoform	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
1,1,2,2-Tetrachloroethane	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Isopropylbenzene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
1,3-Dichlorobenzene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
1,4-Dichlorobenzene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
1,2-Dichlorobenzene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
1,2-Dibromo-3-chloropropane	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
1,2,4-Trichlorobenzene	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
1,2-Dichloroethene, Total	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Xylenes, Total	BRL	3.3		ug/Kg-dry	245768	1	07/21/2017 12:24	MD
Surr: 4-Bromofluorobenzene	90.6	63-125		%REC	245782	50	07/25/2017 03:07	MD
Surr: 4-Bromofluorobenzene	96.5	63-125		%REC	245768	1	07/21/2017 12:24	MD
Surr: Dibromofluoromethane	85.7	69.9-123		%REC	245782	50	07/25/2017 03:07	MD
Surr: Dibromofluoromethane	103	69.9-123		%REC	245768	1	07/21/2017 12:24	MD
Surr: Toluene-d8	93.5	70-122		%REC	245782	50	07/25/2017 03:07	MD
Surr: Toluene-d8	99.9	70-122		%REC	245768	1	07/21/2017 12:24	MD
PERCENT MOISTURE D2216								
Percent Moisture	20.7	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-128(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 4:00:00 PM
Lab ID:	1707D67-031	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	110		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Dichlorodifluoromethane	BRL	7.5		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Chloromethane	BRL	7.5		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Vinyl chloride	BRL	7.5		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Bromomethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Chloroethane	BRL	7.5		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Trichlorofluoromethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
1,1-Dichloroethene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Acetone	BRL	75		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Freon-113	BRL	7.5		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Carbon disulfide	BRL	7.5		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Methyl acetate	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Methylene chloride	BRL	15		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Methyl tert-butyl ether	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
trans-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
1,1-Dichloroethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
cis-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
2-Butanone	BRL	38		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Chloroform	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
1,1,1-Trichloroethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Cyclohexane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Carbon tetrachloride	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Benzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
1,2-Dichloroethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Trichloroethene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Methylcyclohexane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
1,2-Dichloropropane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Bromodichloromethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
cis-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
4-Methyl-2-pentanone	BRL	7.5		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Toluene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
trans-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
1,1,2-Trichloroethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
2-Hexanone	BRL	7.5		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Tetrachloroethene	9.1	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Dibromochloromethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
1,2-Dibromoethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Chlorobenzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Ethylbenzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
m,p-Xylene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
o-Xylene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-128(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 4:00:00 PM
Lab ID:	1707D67-031	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Bromoform	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
1,1,2,2-Tetrachloroethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Isopropylbenzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
1,3-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
1,4-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
1,2-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
1,2-Dibromo-3-chloropropane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
1,2,4-Trichlorobenzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
1,2-Dichloroethene, Total	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Xylenes, Total	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 12:49	MD
Surr: 4-Bromofluorobenzene	96.1	63-125		%REC	245768	1	07/21/2017 12:49	MD
Surr: Dibromofluoromethane	98.7	69.9-123		%REC	245768	1	07/21/2017 12:49	MD
Surr: Toluene-d8	94	70-122		%REC	245768	1	07/21/2017 12:49	MD
PERCENT MOISTURE D2216								
Percent Moisture	24.9	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-128(14-15')
Project Name:	Murata	**Collection Date:**	7/13/2017 4:25:00 PM
Lab ID:	1707D67-032	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	88		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Dichlorodifluoromethane	BRL	5.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Chloromethane	BRL	5.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Vinyl chloride	BRL	5.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Bromomethane	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Chloroethane	BRL	5.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Trichlorofluoromethane	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
1,1-Dichloroethene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Acetone	BRL	59		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Freon-113	BRL	5.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Carbon disulfide	BRL	5.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Methyl acetate	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Methylene chloride	BRL	12		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Methyl tert-butyl ether	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
trans-1,2-Dichloroethene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
1,1-Dichloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
cis-1,2-Dichloroethene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
2-Butanone	BRL	29		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Chloroform	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
1,1,1-Trichloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Cyclohexane	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Carbon tetrachloride	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Benzene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
1,2-Dichloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Trichloroethene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Methylcyclohexane	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
1,2-Dichloropropane	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Bromodichloromethane	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
cis-1,3-Dichloropropene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
4-Methyl-2-pentanone	BRL	5.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Toluene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
trans-1,3-Dichloropropene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
1,1,2-Trichloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
2-Hexanone	BRL	5.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Tetrachloroethene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Dibromochloromethane	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
1,2-Dibromoethane	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Chlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Ethylbenzene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
m,p-Xylene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
o-Xylene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-128(14-15')
Project Name:	Murata	**Collection Date:**	7/13/2017 4:25:00 PM
Lab ID:	1707D67-032	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Bromoform	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
1,1,2,2-Tetrachloroethane	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Isopropylbenzene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
1,3-Dichlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
1,4-Dichlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
1,2-Dichlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
1,2-Dibromo-3-chloropropane	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
1,2,4-Trichlorobenzene	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
1,2-Dichloroethene, Total	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Xylenes, Total	BRL	2.9		ug/Kg-dry	245768	1	07/21/2017 13:14	MD
Surr: 4-Bromofluorobenzene	96.9	63-125		%REC	245768	1	07/21/2017 13:14	MD
Surr: Dibromofluoromethane	99.1	69.9-123		%REC	245768	1	07/21/2017 13:14	MD
Surr: Toluene-d8	96.3	70-122		%REC	245768	1	07/21/2017 13:14	MD
PERCENT MOISTURE D2216								
Percent Moisture	16.2	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-129(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 4:40:00 PM
Lab ID:	1707D67-033	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	120		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Dichlorodifluoromethane	BRL	8.2		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Chloromethane	BRL	8.2		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Vinyl chloride	BRL	8.2		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Bromomethane	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Chloroethane	BRL	8.2		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Trichlorofluoromethane	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
1,1-Dichloroethene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Acetone	340	82	E	ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Freon-113	BRL	8.2		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Carbon disulfide	BRL	8.2		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Methyl acetate	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Methylene chloride	BRL	16		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Methyl tert-butyl ether	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
trans-1,2-Dichloroethene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
1,1-Dichloroethane	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
cis-1,2-Dichloroethene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
2-Butanone	BRL	41		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Chloroform	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
1,1,1-Trichloroethane	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Cyclohexane	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Carbon tetrachloride	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Benzene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
1,2-Dichloroethane	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Trichloroethene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Methylcyclohexane	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
1,2-Dichloropropane	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Bromodichloromethane	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
cis-1,3-Dichloropropene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
4-Methyl-2-pentanone	BRL	8.2		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Toluene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
trans-1,3-Dichloropropene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
1,1,2-Trichloroethane	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
2-Hexanone	BRL	8.2		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Tetrachloroethene	7.5	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Dibromochloromethane	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
1,2-Dibromoethane	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Chlorobenzene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Ethylbenzene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
m,p-Xylene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
o-Xylene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-129(0-2')
Project Name:	Murata	**Collection Date:**	7/13/2017 4:40:00 PM
Lab ID:	1707D67-033	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Bromoform	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
1,1,2,2-Tetrachloroethane	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Isopropylbenzene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
1,3-Dichlorobenzene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
1,4-Dichlorobenzene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
1,2-Dichlorobenzene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
1,2-Dibromo-3-chloropropane	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
1,2,4-Trichlorobenzene	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
1,2-Dichloroethene, Total	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Xylenes, Total	BRL	4.1		ug/Kg-dry	245768	1	07/21/2017 13:39	MD
Surr: 4-Bromofluorobenzene	92.7	63-125		%REC	245768	1	07/21/2017 13:39	MD
Surr: Dibromofluoromethane	102	69.9-123		%REC	245768	1	07/21/2017 13:39	MD
Surr: Toluene-d8	94.3	70-122		%REC	245768	1	07/21/2017 13:39	MD
PERCENT MOISTURE D2216								
Percent Moisture	12.2	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-129(9-10')
Project Name:	Murata	**Collection Date:**	7/13/2017 4:50:00 PM
Lab ID:	1707D67-034	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	110		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Dichlorodifluoromethane	BRL	7.1		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Chloromethane	BRL	7.1		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Vinyl chloride	BRL	7.1		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Bromomethane	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Chloroethane	BRL	7.1		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Trichlorofluoromethane	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
1,1-Dichloroethene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Acetone	85	71		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Freon-113	BRL	7.1		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Carbon disulfide	BRL	7.1		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Methyl acetate	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Methylene chloride	BRL	14		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Methyl tert-butyl ether	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
trans-1,2-Dichloroethene	16	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
1,1-Dichloroethane	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
cis-1,2-Dichloroethene	1100	180		ug/Kg-dry	245782	50	07/25/2017 03:59	MD
2-Butanone	BRL	35		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Chloroform	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
1,1,1-Trichloroethane	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Cyclohexane	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Carbon tetrachloride	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Benzene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
1,2-Dichloroethane	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Trichloroethene	40	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Methylcyclohexane	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
1,2-Dichloropropane	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Bromodichloromethane	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
cis-1,3-Dichloropropene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
4-Methyl-2-pentanone	BRL	7.1		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Toluene	4.5	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
trans-1,3-Dichloropropene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
1,1,2-Trichloroethane	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
2-Hexanone	BRL	7.1		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Tetrachloroethene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Dibromochloromethane	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
1,2-Dibromoethane	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Chlorobenzene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Ethylbenzene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
m,p-Xylene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
o-Xylene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-129(9-10')
Project Name:	Murata	**Collection Date:**	7/13/2017 4:50:00 PM
Lab ID:	1707D67-034	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Bromoform	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
1,1,2,2-Tetrachloroethane	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Isopropylbenzene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
1,3-Dichlorobenzene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
1,4-Dichlorobenzene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
1,2-Dichlorobenzene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
1,2-Dibromo-3-chloropropane	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
1,2,4-Trichlorobenzene	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
1,2-Dichloroethene, Total	1200	180		ug/Kg-dry	245782	50	07/25/2017 03:59	MD
Xylenes, Total	BRL	3.5		ug/Kg-dry	245768	1	07/21/2017 14:04	MD
Surr: 4-Bromofluorobenzene	89.4	63-125		%REC	245782	50	07/25/2017 03:59	MD
Surr: 4-Bromofluorobenzene	93.3	63-125		%REC	245768	1	07/21/2017 14:04	MD
Surr: Dibromofluoromethane	84.3	69.9-123		%REC	245782	50	07/25/2017 03:59	MD
Surr: Dibromofluoromethane	101	69.9-123		%REC	245768	1	07/21/2017 14:04	MD
Surr: Toluene-d8	94.4	70-122		%REC	245782	50	07/25/2017 03:59	MD
Surr: Toluene-d8	95	70-122		%REC	245768	1	07/21/2017 14:04	MD
PERCENT MOISTURE D2216								
Percent Moisture	24.4	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-118(0-2')
Project Name:	Murata	**Collection Date:**	7/14/2017 9:10:00 AM
Lab ID:	1707D67-035	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5035)**				
1,4-Dioxane	BRL	120		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Dichlorodifluoromethane	BRL	7.9		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Chloromethane	BRL	7.9		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Vinyl chloride	BRL	7.9		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Bromomethane	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Chloroethane	BRL	7.9		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Trichlorofluoromethane	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
1,1-Dichloroethene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Acetone	95	79		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Freon-113	BRL	7.9		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Carbon disulfide	BRL	7.9		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Methyl acetate	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Methylene chloride	BRL	16		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Methyl tert-butyl ether	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
trans-1,2-Dichloroethene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
1,1-Dichloroethane	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
cis-1,2-Dichloroethene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
2-Butanone	BRL	40		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Chloroform	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
1,1,1-Trichloroethane	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Cyclohexane	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Carbon tetrachloride	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Benzene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
1,2-Dichloroethane	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Trichloroethene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Methylcyclohexane	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
1,2-Dichloropropane	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Bromodichloromethane	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
cis-1,3-Dichloropropene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
4-Methyl-2-pentanone	BRL	7.9		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Toluene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
trans-1,3-Dichloropropene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
1,1,2-Trichloroethane	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
2-Hexanone	BRL	7.9		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Tetrachloroethene	11	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Dibromochloromethane	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
1,2-Dibromoethane	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Chlorobenzene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Ethylbenzene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
m,p-Xylene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
o-Xylene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-118(0-2')
Project Name:	Murata	**Collection Date:**	7/14/2017 9:10:00 AM
Lab ID:	1707D67-035	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Bromoform	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
1,1,2,2-Tetrachloroethane	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Isopropylbenzene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
1,3-Dichlorobenzene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
1,4-Dichlorobenzene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
1,2-Dichlorobenzene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
1,2-Dibromo-3-chloropropane	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
1,2,4-Trichlorobenzene	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
1,2-Dichloroethene, Total	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Xylenes, Total	BRL	4.0		ug/Kg-dry	245768	1	07/21/2017 14:29	MD
Surr: 4-Bromofluorobenzene	93.2	63-125		%REC	245768	1	07/21/2017 14:29	MD
Surr: Dibromofluoromethane	98.8	69.9-123		%REC	245768	1	07/21/2017 14:29	MD
Surr: Toluene-d8	95.2	70-122		%REC	245768	1	07/21/2017 14:29	MD
PERCENT MOISTURE D2216								
Percent Moisture	31.5	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-118(12-13')
Project Name:	Murata	**Collection Date:**	7/14/2017 9:25:00 AM
Lab ID:	1707D67-036	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	120		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Dichlorodifluoromethane	BRL	7.7		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Chloromethane	BRL	7.7		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Vinyl chloride	BRL	7.7		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Bromomethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Chloroethane	BRL	7.7		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Trichlorofluoromethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
1,1-Dichloroethene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Acetone	BRL	77		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Freon-113	BRL	7.7		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Carbon disulfide	BRL	7.7		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Methyl acetate	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Methylene chloride	BRL	15		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Methyl tert-butyl ether	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
trans-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
1,1-Dichloroethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
cis-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
2-Butanone	BRL	38		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Chloroform	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
1,1,1-Trichloroethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Cyclohexane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Carbon tetrachloride	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Benzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
1,2-Dichloroethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Trichloroethene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Methylcyclohexane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
1,2-Dichloropropane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Bromodichloromethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
cis-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
4-Methyl-2-pentanone	BRL	7.7		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Toluene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
trans-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
1,1,2-Trichloroethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
2-Hexanone	BRL	7.7		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Tetrachloroethene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Dibromochloromethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
1,2-Dibromoethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Chlorobenzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Ethylbenzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
m,p-Xylene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
o-Xylene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-118(12-13')
Project Name:	Murata	**Collection Date:**	7/14/2017 9:25:00 AM
Lab ID:	1707D67-036	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Bromoform	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
1,1,2,2-Tetrachloroethane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Isopropylbenzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
1,3-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
1,4-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
1,2-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
1,2-Dibromo-3-chloropropane	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
1,2,4-Trichlorobenzene	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
1,2-Dichloroethene, Total	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Xylenes, Total	BRL	3.8		ug/Kg-dry	245768	1	07/21/2017 14:54	MD
Surr: 4-Bromofluorobenzene	95.6	63-125		%REC	245768	1	07/21/2017 14:54	MD
Surr: Dibromofluoromethane	101	69.9-123		%REC	245768	1	07/21/2017 14:54	MD
Surr: Toluene-d8	96.8	70-122		%REC	245768	1	07/21/2017 14:54	MD
PERCENT MOISTURE D2216								
Percent Moisture	26.4	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-124(0-2')
Project Name:	Murata	**Collection Date:**	7/14/2017 9:35:00 AM
Lab ID:	1707D67-037	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	82		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Dichlorodifluoromethane	BRL	5.5		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Chloromethane	BRL	5.5		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Vinyl chloride	BRL	5.5		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Bromomethane	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Chloroethane	BRL	5.5		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Trichlorofluoromethane	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
1,1-Dichloroethene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Acetone	100	55		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Freon-113	BRL	5.5		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Carbon disulfide	BRL	5.5		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Methyl acetate	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Methylene chloride	BRL	11		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Methyl tert-butyl ether	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
trans-1,2-Dichloroethene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
1,1-Dichloroethane	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
cis-1,2-Dichloroethene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
2-Butanone	BRL	27		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Chloroform	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
1,1,1-Trichloroethane	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Cyclohexane	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Carbon tetrachloride	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Benzene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
1,2-Dichloroethane	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Trichloroethene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Methylcyclohexane	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
1,2-Dichloropropane	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Bromodichloromethane	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
cis-1,3-Dichloropropene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
4-Methyl-2-pentanone	BRL	5.5		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Toluene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
trans-1,3-Dichloropropene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
1,1,2-Trichloroethane	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
2-Hexanone	BRL	5.5		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Tetrachloroethene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Dibromochloromethane	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
1,2-Dibromoethane	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Chlorobenzene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Ethylbenzene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
m,p-Xylene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
o-Xylene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-124(0-2')
Project Name:	Murata	**Collection Date:**	7/14/2017 9:35:00 AM
Lab ID:	1707D67-037	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Bromoform	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
1,1,2,2-Tetrachloroethane	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Isopropylbenzene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
1,3-Dichlorobenzene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
1,4-Dichlorobenzene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
1,2-Dichlorobenzene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
1,2-Dibromo-3-chloropropane	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
1,2,4-Trichlorobenzene	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
1,2-Dichloroethene, Total	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Xylenes, Total	BRL	2.7		ug/Kg-dry	245768	1	07/21/2017 15:20	MD
Surr: 4-Bromofluorobenzene	93.1	63-125		%REC	245768	1	07/21/2017 15:20	MD
Surr: Dibromofluoromethane	101	69.9-123		%REC	245768	1	07/21/2017 15:20	MD
Surr: Toluene-d8	95.9	70-122		%REC	245768	1	07/21/2017 15:20	MD
PERCENT MOISTURE D2216								
Percent Moisture	12.5	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-124(12-13')
Project Name:	Murata	**Collection Date:**	7/14/2017 9:50:00 AM
Lab ID:	1707D67-038	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	94		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Dichlorodifluoromethane	BRL	6.2		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Chloromethane	BRL	6.2		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Vinyl chloride	BRL	6.2		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Bromomethane	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Chloroethane	BRL	6.2		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Trichlorofluoromethane	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
1,1-Dichloroethene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Acetone	BRL	62		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Freon-113	BRL	6.2		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Carbon disulfide	BRL	6.2		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Methyl acetate	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Methylene chloride	BRL	12		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Methyl tert-butyl ether	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
trans-1,2-Dichloroethene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
1,1-Dichloroethane	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
cis-1,2-Dichloroethene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
2-Butanone	BRL	31		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Chloroform	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
1,1,1-Trichloroethane	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Cyclohexane	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Carbon tetrachloride	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Benzene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
1,2-Dichloroethane	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Trichloroethene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Methylcyclohexane	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
1,2-Dichloropropane	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Bromodichloromethane	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
cis-1,3-Dichloropropene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
4-Methyl-2-pentanone	BRL	6.2		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Toluene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
trans-1,3-Dichloropropene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
1,1,2-Trichloroethane	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
2-Hexanone	BRL	6.2		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Tetrachloroethene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Dibromochloromethane	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
1,2-Dibromoethane	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Chlorobenzene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Ethylbenzene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
m,p-Xylene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
o-Xylene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-124(12-13')
Project Name:	Murata	**Collection Date:**	7/14/2017 9:50:00 AM
Lab ID:	1707D67-038	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Bromoform	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
1,1,2,2-Tetrachloroethane	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Isopropylbenzene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
1,3-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
1,4-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
1,2-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
1,2-Dibromo-3-chloropropane	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
1,2,4-Trichlorobenzene	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
1,2-Dichloroethene, Total	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Xylenes, Total	BRL	3.1		ug/Kg-dry	245860	1	07/21/2017 15:44	MD
Surr: 4-Bromofluorobenzene	96.5	63-125		%REC	245860	1	07/21/2017 15:44	MD
Surr: Dibromofluoromethane	101	69.9-123		%REC	245860	1	07/21/2017 15:44	MD
Surr: Toluene-d8	98.5	70-122		%REC	245860	1	07/21/2017 15:44	MD
PERCENT MOISTURE D2216								
Percent Moisture	16.6	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-134(11-12')
Project Name:	Murata	**Collection Date:**	7/14/2017 10:20:00 AM
Lab ID:	1707D67-039	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	120		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Dichlorodifluoromethane	BRL	7.9		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Chloromethane	BRL	7.9		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Vinyl chloride	BRL	7.9		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Bromomethane	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Chloroethane	BRL	7.9		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Trichlorofluoromethane	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
1,1-Dichloroethene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Acetone	BRL	79		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Freon-113	BRL	7.9		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Carbon disulfide	BRL	7.9		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Methyl acetate	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Methylene chloride	BRL	16		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Methyl tert-butyl ether	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
trans-1,2-Dichloroethene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
1,1-Dichloroethane	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
cis-1,2-Dichloroethene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
2-Butanone	BRL	40		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Chloroform	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
1,1,1-Trichloroethane	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Cyclohexane	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Carbon tetrachloride	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Benzene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
1,2-Dichloroethane	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Trichloroethene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Methylcyclohexane	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
1,2-Dichloropropane	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Bromodichloromethane	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
cis-1,3-Dichloropropene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
4-Methyl-2-pentanone	BRL	7.9		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Toluene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
trans-1,3-Dichloropropene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
1,1,2-Trichloroethane	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
2-Hexanone	BRL	7.9		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Tetrachloroethene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Dibromochloromethane	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
1,2-Dibromoethane	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Chlorobenzene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Ethylbenzene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
m,p-Xylene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
o-Xylene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-134(11-12')
Project Name:	Murata	**Collection Date:**	7/14/2017 10:20:00 AM
Lab ID:	1707D67-039	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Bromoform	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
1,1,2,2-Tetrachloroethane	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Isopropylbenzene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
1,3-Dichlorobenzene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
1,4-Dichlorobenzene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
1,2-Dichlorobenzene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
1,2-Dibromo-3-chloropropane	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
1,2,4-Trichlorobenzene	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
1,2-Dichloroethene, Total	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Xylenes, Total	BRL	4.0		ug/Kg-dry	245860	1	07/21/2017 16:10	MD
Surr: 4-Bromofluorobenzene	96.4	63-125		%REC	245860	1	07/21/2017 16:10	MD
Surr: Dibromofluoromethane	98.1	69.9-123		%REC	245860	1	07/21/2017 16:10	MD
Surr: Toluene-d8	97.8	70-122		%REC	245860	1	07/21/2017 16:10	MD
PERCENT MOISTURE D2216								
Percent Moisture	24.5	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-134(0-2')
Project Name:	Murata	**Collection Date:**	7/14/2017 10:05:00 AM
Lab ID:	1707D67-040	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	120		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Dichlorodifluoromethane	BRL	8.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Chloromethane	BRL	8.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Vinyl chloride	BRL	8.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Bromomethane	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Chloroethane	BRL	8.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Trichlorofluoromethane	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
1,1-Dichloroethene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Acetone	160	81		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Freon-113	BRL	8.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Carbon disulfide	BRL	8.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Methyl acetate	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Methylene chloride	BRL	16		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Methyl tert-butyl ether	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
trans-1,2-Dichloroethene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
1,1-Dichloroethane	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
cis-1,2-Dichloroethene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
2-Butanone	BRL	41		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Chloroform	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
1,1,1-Trichloroethane	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Cyclohexane	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Carbon tetrachloride	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Benzene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
1,2-Dichloroethane	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Trichloroethene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Methylcyclohexane	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
1,2-Dichloropropane	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Bromodichloromethane	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
cis-1,3-Dichloropropene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
4-Methyl-2-pentanone	BRL	8.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Toluene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
trans-1,3-Dichloropropene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
1,1,2-Trichloroethane	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
2-Hexanone	BRL	8.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Tetrachloroethene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Dibromochloromethane	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
1,2-Dibromoethane	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Chlorobenzene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Ethylbenzene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
m,p-Xylene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
o-Xylene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-134(0-2')
Project Name:	Murata	**Collection Date:**	7/14/2017 10:05:00 AM
Lab ID:	1707D67-040	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Bromoform	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
1,1,2,2-Tetrachloroethane	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Isopropylbenzene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
1,3-Dichlorobenzene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
1,4-Dichlorobenzene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
1,2-Dichlorobenzene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
1,2-Dibromo-3-chloropropane	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
1,2,4-Trichlorobenzene	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
1,2-Dichloroethene, Total	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Xylenes, Total	BRL	4.1		ug/Kg-dry	245860	1	07/25/2017 21:07	MD
Surr: 4-Bromofluorobenzene	90.5	63-125		%REC	245860	1	07/25/2017 21:07	MD
Surr: Dibromofluoromethane	115	69.9-123		%REC	245860	1	07/25/2017 21:07	MD
Surr: Toluene-d8	100	70-122		%REC	245860	1	07/25/2017 21:07	MD
PERCENT MOISTURE D2216								
Percent Moisture	15.0	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-121(0-2')
Project Name:	Murata	**Collection Date:**	7/15/2017 9:10:00 AM
Lab ID:	1707D67-041	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	140		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Dichlorodifluoromethane	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Chloromethane	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Vinyl chloride	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Bromomethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Chloroethane	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Trichlorofluoromethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
1,1-Dichloroethene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Acetone	130	90		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Freon-113	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Carbon disulfide	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Methyl acetate	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Methylene chloride	BRL	18		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Methyl tert-butyl ether	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
trans-1,2-Dichloroethene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
1,1-Dichloroethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
cis-1,2-Dichloroethene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
2-Butanone	BRL	45		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Chloroform	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
1,1,1-Trichloroethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Cyclohexane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Carbon tetrachloride	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Benzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
1,2-Dichloroethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Trichloroethene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Methylcyclohexane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
1,2-Dichloropropane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Bromodichloromethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
cis-1,3-Dichloropropene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
4-Methyl-2-pentanone	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Toluene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
trans-1,3-Dichloropropene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
1,1,2-Trichloroethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
2-Hexanone	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Tetrachloroethene	20	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Dibromochloromethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
1,2-Dibromoethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Chlorobenzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Ethylbenzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
m,p-Xylene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
o-Xylene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-121(0-2')
Project Name:	Murata	**Collection Date:**	7/15/2017 9:10:00 AM
Lab ID:	1707D67-041	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Bromoform	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
1,1,2,2-Tetrachloroethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Isopropylbenzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
1,3-Dichlorobenzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
1,4-Dichlorobenzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
1,2-Dichlorobenzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
1,2-Dibromo-3-chloropropane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
1,2,4-Trichlorobenzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
1,2-Dichloroethene, Total	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Xylenes, Total	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 19:56	MD
Surr: 4-Bromofluorobenzene	96.3	63-125		%REC	245867	1	07/22/2017 19:56	MD
Surr: Dibromofluoromethane	110	69.9-123		%REC	245867	1	07/22/2017 19:56	MD
Surr: Toluene-d8	99.6	70-122		%REC	245867	1	07/22/2017 19:56	MD
PERCENT MOISTURE D2216								
Percent Moisture	30.8	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-120(0-2')
Project Name:	Murata	**Collection Date:**	7/15/2017 12:00:00 PM
Lab ID:	1707D67-042	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	150		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Dichlorodifluoromethane	BRL	10.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Chloromethane	BRL	10.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Vinyl chloride	BRL	10.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Bromomethane	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Chloroethane	BRL	10.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Trichlorofluoromethane	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
1,1-Dichloroethene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Acetone	BRL	100		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Freon-113	BRL	10.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Carbon disulfide	BRL	10.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Methyl acetate	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Methylene chloride	BRL	20		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Methyl tert-butyl ether	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
trans-1,2-Dichloroethene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
1,1-Dichloroethane	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
cis-1,2-Dichloroethene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
2-Butanone	BRL	50		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Chloroform	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
1,1,1-Trichloroethane	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Cyclohexane	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Carbon tetrachloride	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Benzene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
1,2-Dichloroethane	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Trichloroethene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Methylcyclohexane	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
1,2-Dichloropropane	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Bromodichloromethane	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
cis-1,3-Dichloropropene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
4-Methyl-2-pentanone	BRL	10.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Toluene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
trans-1,3-Dichloropropene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
1,1,2-Trichloroethane	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
2-Hexanone	BRL	10.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Tetrachloroethene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Dibromochloromethane	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
1,2-Dibromoethane	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Chlorobenzene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Ethylbenzene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
m,p-Xylene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
o-Xylene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-120(0-2')
Project Name:	Murata	**Collection Date:**	7/15/2017 12:00:00 PM
Lab ID:	1707D67-042	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Bromoform	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Isopropylbenzene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
1,3-Dichlorobenzene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
1,4-Dichlorobenzene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
1,2-Dichlorobenzene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
1,2,4-Trichlorobenzene	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
1,2-Dichloroethene, Total	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Xylenes, Total	BRL	5.0		ug/Kg-dry	245867	1	07/22/2017 20:21	MD
Surr: 4-Bromofluorobenzene	93.2	63-125		%REC	245867	1	07/22/2017 20:21	MD
Surr: Dibromofluoromethane	112	69.9-123		%REC	245867	1	07/22/2017 20:21	MD
Surr: Toluene-d8	100	70-122		%REC	245867	1	07/22/2017 20:21	MD
PERCENT MOISTURE D2216								
Percent Moisture	28.3	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-120(18-19')
Project Name:	Murata	**Collection Date:**	7/15/2017 12:25:00 PM
Lab ID:	1707D67-043	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	130		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Dichlorodifluoromethane	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Chloromethane	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Vinyl chloride	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Bromomethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Chloroethane	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Trichlorofluoromethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
1,1-Dichloroethene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Acetone	BRL	90		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Freon-113	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Carbon disulfide	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Methyl acetate	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Methylene chloride	BRL	18		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Methyl tert-butyl ether	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
trans-1,2-Dichloroethene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
1,1-Dichloroethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
cis-1,2-Dichloroethene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
2-Butanone	BRL	45		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Chloroform	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
1,1,1-Trichloroethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Cyclohexane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Carbon tetrachloride	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Benzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
1,2-Dichloroethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Trichloroethene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Methylcyclohexane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
1,2-Dichloropropane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Bromodichloromethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
cis-1,3-Dichloropropene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
4-Methyl-2-pentanone	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Toluene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
trans-1,3-Dichloropropene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
1,1,2-Trichloroethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
2-Hexanone	BRL	9.0		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Tetrachloroethene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Dibromochloromethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
1,2-Dibromoethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Chlorobenzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Ethylbenzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
m,p-Xylene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
o-Xylene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-120(18-19')
Project Name:	Murata	**Collection Date:**	7/15/2017 12:25:00 PM
Lab ID:	1707D67-043	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Bromoform	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
1,1,2,2-Tetrachloroethane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Isopropylbenzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
1,3-Dichlorobenzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
1,4-Dichlorobenzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
1,2-Dichlorobenzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
1,2-Dibromo-3-chloropropane	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
1,2,4-Trichlorobenzene	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
1,2-Dichloroethene, Total	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Xylenes, Total	BRL	4.5		ug/Kg-dry	245867	1	07/22/2017 20:47	MD
Surr: 4-Bromofluorobenzene	93.8	63-125		%REC	245867	1	07/22/2017 20:47	MD
Surr: Dibromofluoromethane	109	69.9-123		%REC	245867	1	07/22/2017 20:47	MD
Surr: Toluene-d8	100	70-122		%REC	245867	1	07/22/2017 20:47	MD
PERCENT MOISTURE D2216								
Percent Moisture	30.8	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-122(0-2')
Project Name:	Murata	**Collection Date:**	7/15/2017 1:00:00 PM
Lab ID:	1707D67-044	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	120		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Dichlorodifluoromethane	BRL	7.8		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Chloromethane	BRL	7.8		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Vinyl chloride	BRL	7.8		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Bromomethane	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Chloroethane	BRL	7.8		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Trichlorofluoromethane	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
1,1-Dichloroethene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Acetone	BRL	78		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Freon-113	BRL	7.8		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Carbon disulfide	BRL	7.8		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Methyl acetate	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Methylene chloride	BRL	16		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Methyl tert-butyl ether	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
trans-1,2-Dichloroethene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
1,1-Dichloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
cis-1,2-Dichloroethene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
2-Butanone	BRL	39		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Chloroform	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
1,1,1-Trichloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Cyclohexane	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Carbon tetrachloride	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Benzene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
1,2-Dichloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Trichloroethene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Methylcyclohexane	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
1,2-Dichloropropane	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Bromodichloromethane	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
cis-1,3-Dichloropropene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
4-Methyl-2-pentanone	BRL	7.8		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Toluene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
trans-1,3-Dichloropropene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
1,1,2-Trichloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
2-Hexanone	BRL	7.8		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Tetrachloroethene	4.0	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Dibromochloromethane	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
1,2-Dibromoethane	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Chlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Ethylbenzene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
m,p-Xylene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
o-Xylene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-122(0-2')
Project Name:	Murata	**Collection Date:**	7/15/2017 1:00:00 PM
Lab ID:	1707D67-044	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Bromoform	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
1,1,2,2-Tetrachloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Isopropylbenzene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
1,3-Dichlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
1,4-Dichlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
1,2-Dichlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
1,2-Dibromo-3-chloropropane	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
1,2,4-Trichlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
1,2-Dichloroethene, Total	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Xylenes, Total	BRL	3.9		ug/Kg-dry	245867	1	07/22/2017 21:12	MD
Surr: 4-Bromofluorobenzene	89.8	63-125		%REC	245867	1	07/22/2017 21:12	MD
Surr: Dibromofluoromethane	107	69.9-123		%REC	245867	1	07/22/2017 21:12	MD
Surr: Toluene-d8	98.6	70-122		%REC	245867	1	07/22/2017 21:12	MD
PERCENT MOISTURE D2216								
Percent Moisture	20.3	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-116(0-2')
Project Name:	Murata	**Collection Date:**	7/15/2017 3:40:00 PM
Lab ID:	1707D67-045	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	140		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Dichlorodifluoromethane	BRL	9.2		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Chloromethane	BRL	9.2		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Vinyl chloride	BRL	9.2		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Bromomethane	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Chloroethane	BRL	9.2		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Trichlorofluoromethane	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
1,1-Dichloroethene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Acetone	BRL	92		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Freon-113	BRL	9.2		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Carbon disulfide	BRL	9.2		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Methyl acetate	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Methylene chloride	BRL	18		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Methyl tert-butyl ether	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
trans-1,2-Dichloroethene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
1,1-Dichloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
cis-1,2-Dichloroethene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
2-Butanone	BRL	46		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Chloroform	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
1,1,1-Trichloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Cyclohexane	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Carbon tetrachloride	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Benzene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
1,2-Dichloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Trichloroethene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Methylcyclohexane	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
1,2-Dichloropropane	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Bromodichloromethane	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
cis-1,3-Dichloropropene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
4-Methyl-2-pentanone	BRL	9.2		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Toluene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
trans-1,3-Dichloropropene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
1,1,2-Trichloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
2-Hexanone	BRL	9.2		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Tetrachloroethene	9.1	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Dibromochloromethane	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
1,2-Dibromoethane	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Chlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Ethylbenzene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
m,p-Xylene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
o-Xylene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-116(0-2')
Project Name:	Murata	**Collection Date:**	7/15/2017 3:40:00 PM
Lab ID:	1707D67-045	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Bromoform	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
1,1,2,2-Tetrachloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Isopropylbenzene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
1,3-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
1,4-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
1,2-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
1,2-Dibromo-3-chloropropane	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
1,2,4-Trichlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
1,2-Dichloroethene, Total	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Xylenes, Total	BRL	4.6		ug/Kg-dry	245867	1	07/22/2017 21:38	MD
Surr: 4-Bromofluorobenzene	91.2	63-125		%REC	245867	1	07/22/2017 21:38	MD
Surr: Dibromofluoromethane	108	69.9-123		%REC	245867	1	07/22/2017 21:38	MD
Surr: Toluene-d8	98.3	70-122		%REC	245867	1	07/22/2017 21:38	MD
PERCENT MOISTURE D2216								
Percent Moisture	27.7	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-117(0-2')
Project Name:	Murata	**Collection Date:**	7/15/2017 4:00:00 PM
Lab ID:	1707D67-046	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	110		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Dichlorodifluoromethane	BRL	7.3		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Chloromethane	BRL	7.3		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Vinyl chloride	BRL	7.3		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Bromomethane	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Chloroethane	BRL	7.3		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Trichlorofluoromethane	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
1,1-Dichloroethene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Acetone	BRL	73		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Freon-113	BRL	7.3		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Carbon disulfide	BRL	7.3		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Methyl acetate	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Methylene chloride	BRL	15		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Methyl tert-butyl ether	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
trans-1,2-Dichloroethene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
1,1-Dichloroethane	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
cis-1,2-Dichloroethene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
2-Butanone	BRL	37		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Chloroform	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
1,1,1-Trichloroethane	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Cyclohexane	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Carbon tetrachloride	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Benzene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
1,2-Dichloroethane	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Trichloroethene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Methylcyclohexane	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
1,2-Dichloropropane	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Bromodichloromethane	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
cis-1,3-Dichloropropene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
4-Methyl-2-pentanone	BRL	7.3		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Toluene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
trans-1,3-Dichloropropene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
1,1,2-Trichloroethane	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
2-Hexanone	BRL	7.3		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Tetrachloroethene	76	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Dibromochloromethane	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
1,2-Dibromoethane	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Chlorobenzene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Ethylbenzene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
m,p-Xylene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
o-Xylene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-117(0-2')
Project Name:	Murata	**Collection Date:**	7/15/2017 4:00:00 PM
Lab ID:	1707D67-046	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Bromoform	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
1,1,2,2-Tetrachloroethane	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Isopropylbenzene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
1,3-Dichlorobenzene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
1,4-Dichlorobenzene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
1,2-Dichlorobenzene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
1,2-Dibromo-3-chloropropane	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
1,2,4-Trichlorobenzene	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
1,2-Dichloroethene, Total	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Xylenes, Total	BRL	3.7		ug/Kg-dry	245867	1	07/22/2017 22:03	MD
Surr: 4-Bromofluorobenzene	92.5	63-125		%REC	245867	1	07/22/2017 22:03	MD
Surr: Dibromofluoromethane	112	69.9-123		%REC	245867	1	07/22/2017 22:03	MD
Surr: Toluene-d8	98.6	70-122		%REC	245867	1	07/22/2017 22:03	MD
PERCENT MOISTURE D2216								
Percent Moisture	18.2	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-123(0-2')
Project Name:	Murata	**Collection Date:**	7/15/2017 4:10:00 PM
Lab ID:	1707D67-047	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	150		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Dichlorodifluoromethane	BRL	9.8		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Chloromethane	BRL	9.8		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Vinyl chloride	BRL	9.8		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Bromomethane	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Chloroethane	BRL	9.8		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Trichlorofluoromethane	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
1,1-Dichloroethene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Acetone	BRL	98		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Freon-113	BRL	9.8		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Carbon disulfide	BRL	9.8		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Methyl acetate	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Methylene chloride	BRL	20		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Methyl tert-butyl ether	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
trans-1,2-Dichloroethene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
1,1-Dichloroethane	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
cis-1,2-Dichloroethene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
2-Butanone	BRL	49		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Chloroform	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
1,1,1-Trichloroethane	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Cyclohexane	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Carbon tetrachloride	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Benzene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
1,2-Dichloroethane	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Trichloroethene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Methylcyclohexane	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
1,2-Dichloropropane	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Bromodichloromethane	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
cis-1,3-Dichloropropene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
4-Methyl-2-pentanone	BRL	9.8		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Toluene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
trans-1,3-Dichloropropene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
1,1,2-Trichloroethane	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
2-Hexanone	BRL	9.8		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Tetrachloroethene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Dibromochloromethane	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
1,2-Dibromoethane	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Chlorobenzene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Ethylbenzene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
m,p-Xylene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
o-Xylene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-123(0-2')
Project Name:	Murata	**Collection Date:**	7/15/2017 4:10:00 PM
Lab ID:	1707D67-047	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Bromoform	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
1,1,2,2-Tetrachloroethane	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Isopropylbenzene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
1,3-Dichlorobenzene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
1,4-Dichlorobenzene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
1,2-Dichlorobenzene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
1,2-Dibromo-3-chloropropane	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
1,2,4-Trichlorobenzene	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
1,2-Dichloroethene, Total	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Xylenes, Total	BRL	4.9		ug/Kg-dry	245867	1	07/23/2017 11:19	MD
Surr: 4-Bromofluorobenzene	94.5	63-125		%REC	245867	1	07/23/2017 11:19	MD
Surr: Dibromofluoromethane	110	69.9-123		%REC	245867	1	07/23/2017 11:19	MD
Surr: Toluene-d8	99.4	70-122		%REC	245867	1	07/23/2017 11:19	MD
PERCENT MOISTURE D2216								
Percent Moisture	31.2	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-122(26-27')
Project Name:	Murata	**Collection Date:**	7/15/2017 5:35:00 PM
Lab ID:	1707D67-048	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	120		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Dichlorodifluoromethane	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Chloromethane	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Vinyl chloride	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Bromomethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Chloroethane	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Trichlorofluoromethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
1,1-Dichloroethene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Acetone	BRL	78		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Freon-113	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Carbon disulfide	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Methyl acetate	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Methylene chloride	BRL	16		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Methyl tert-butyl ether	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
trans-1,2-Dichloroethene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
1,1-Dichloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
cis-1,2-Dichloroethene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
2-Butanone	BRL	39		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Chloroform	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
1,1,1-Trichloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Cyclohexane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Carbon tetrachloride	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Benzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
1,2-Dichloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Trichloroethene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Methylcyclohexane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
1,2-Dichloropropane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Bromodichloromethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
cis-1,3-Dichloropropene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
4-Methyl-2-pentanone	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Toluene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
trans-1,3-Dichloropropene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
1,1,2-Trichloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
2-Hexanone	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Tetrachloroethene	4.2	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Dibromochloromethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
1,2-Dibromoethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Chlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Ethylbenzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
m,p-Xylene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
o-Xylene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-122(26-27')
Project Name:	Murata	**Collection Date:**	7/15/2017 5:35:00 PM
Lab ID:	1707D67-048	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Bromoform	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
1,1,2,2-Tetrachloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Isopropylbenzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
1,3-Dichlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
1,4-Dichlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
1,2-Dichlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
1,2-Dibromo-3-chloropropane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
1,2,4-Trichlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
1,2-Dichloroethene, Total	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Xylenes, Total	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 11:44	MD
Surr: 4-Bromofluorobenzene	93.6	63-125		%REC	245867	1	07/23/2017 11:44	MD
Surr: Dibromofluoromethane	104	69.9-123		%REC	245867	1	07/23/2017 11:44	MD
Surr: Toluene-d8	101	70-122		%REC	245867	1	07/23/2017 11:44	MD
PERCENT MOISTURE D2216								
Percent Moisture	23.5	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-123(18-19')
Project Name:	Murata	**Collection Date:**	7/16/2017 8:10:00 AM
Lab ID:	1707D67-049	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	140		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Dichlorodifluoromethane	BRL	9.3		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Chloromethane	BRL	9.3		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Vinyl chloride	BRL	9.3		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Bromomethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Chloroethane	BRL	9.3		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Trichlorofluoromethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
1,1-Dichloroethene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Acetone	BRL	93		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Freon-113	BRL	9.3		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Carbon disulfide	BRL	9.3		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Methyl acetate	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Methylene chloride	BRL	19		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Methyl tert-butyl ether	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
trans-1,2-Dichloroethene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
1,1-Dichloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
cis-1,2-Dichloroethene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
2-Butanone	BRL	46		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Chloroform	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
1,1,1-Trichloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Cyclohexane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Carbon tetrachloride	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Benzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
1,2-Dichloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Trichloroethene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Methylcyclohexane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
1,2-Dichloropropane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Bromodichloromethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
cis-1,3-Dichloropropene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
4-Methyl-2-pentanone	BRL	9.3		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Toluene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
trans-1,3-Dichloropropene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
1,1,2-Trichloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
2-Hexanone	BRL	9.3		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Tetrachloroethene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Dibromochloromethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
1,2-Dibromoethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Chlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Ethylbenzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
m,p-Xylene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
o-Xylene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-123(18-19')
Project Name:	Murata	**Collection Date:**	7/16/2017 8:10:00 AM
Lab ID:	1707D67-049	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Bromoform	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
1,1,2,2-Tetrachloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Isopropylbenzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
1,3-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
1,4-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
1,2-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
1,2-Dibromo-3-chloropropane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
1,2,4-Trichlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
1,2-Dichloroethene, Total	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Xylenes, Total	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:09	MD
Surr: 4-Bromofluorobenzene	92.5	63-125		%REC	245867	1	07/23/2017 12:09	MD
Surr: Dibromofluoromethane	114	69.9-123		%REC	245867	1	07/23/2017 12:09	MD
Surr: Toluene-d8	99.6	70-122		%REC	245867	1	07/23/2017 12:09	MD
PERCENT MOISTURE D2216								
Percent Moisture	28.4	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-121(14-15')
Project Name:	Murata	**Collection Date:**	7/16/2017 8:50:00 AM
Lab ID:	1707D67-050	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	140		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Dichlorodifluoromethane	BRL	9.2		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Chloromethane	BRL	9.2		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Vinyl chloride	BRL	9.2		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Bromomethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Chloroethane	BRL	9.2		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Trichlorofluoromethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
1,1-Dichloroethene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Acetone	BRL	92		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Freon-113	BRL	9.2		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Carbon disulfide	BRL	9.2		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Methyl acetate	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Methylene chloride	BRL	18		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Methyl tert-butyl ether	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
trans-1,2-Dichloroethene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
1,1-Dichloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
cis-1,2-Dichloroethene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
2-Butanone	BRL	46		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Chloroform	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
1,1,1-Trichloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Cyclohexane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Carbon tetrachloride	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Benzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
1,2-Dichloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Trichloroethene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Methylcyclohexane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
1,2-Dichloropropane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Bromodichloromethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
cis-1,3-Dichloropropene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
4-Methyl-2-pentanone	BRL	9.2		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Toluene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
trans-1,3-Dichloropropene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
1,1,2-Trichloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
2-Hexanone	BRL	9.2		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Tetrachloroethene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Dibromochloromethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
1,2-Dibromoethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Chlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Ethylbenzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
m,p-Xylene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
o-Xylene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-121(14-15')
Project Name:	Murata	**Collection Date:**	7/16/2017 8:50:00 AM
Lab ID:	1707D67-050	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Bromoform	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
1,1,2,2-Tetrachloroethane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Isopropylbenzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
1,3-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
1,4-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
1,2-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
1,2-Dibromo-3-chloropropane	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
1,2,4-Trichlorobenzene	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
1,2-Dichloroethene, Total	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Xylenes, Total	BRL	4.6		ug/Kg-dry	245867	1	07/23/2017 12:34	MD
Surr: 4-Bromofluorobenzene	93.4	63-125		%REC	245867	1	07/23/2017 12:34	MD
Surr: Dibromofluoromethane	109	69.9-123		%REC	245867	1	07/23/2017 12:34	MD
Surr: Toluene-d8	99.1	70-122		%REC	245867	1	07/23/2017 12:34	MD
PERCENT MOISTURE D2216								
Percent Moisture	28.8	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-119(9-10')
Project Name:	Murata	**Collection Date:**	7/16/2017 9:45:00 AM
Lab ID:	1707D67-051	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	110		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Dichlorodifluoromethane	BRL	7.5		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Chloromethane	BRL	7.5		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Vinyl chloride	BRL	7.5		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Bromomethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Chloroethane	BRL	7.5		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Trichlorofluoromethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
1,1-Dichloroethene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Acetone	BRL	75		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Freon-113	BRL	7.5		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Carbon disulfide	BRL	7.5		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Methyl acetate	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Methylene chloride	BRL	15		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Methyl tert-butyl ether	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
trans-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
1,1-Dichloroethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
cis-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
2-Butanone	BRL	38		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Chloroform	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
1,1,1-Trichloroethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Cyclohexane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Carbon tetrachloride	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Benzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
1,2-Dichloroethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Trichloroethene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Methylcyclohexane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
1,2-Dichloropropane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Bromodichloromethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
cis-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
4-Methyl-2-pentanone	BRL	7.5		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Toluene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
trans-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
1,1,2-Trichloroethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
2-Hexanone	BRL	7.5		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Tetrachloroethene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Dibromochloromethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
1,2-Dibromoethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Chlorobenzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Ethylbenzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
m,p-Xylene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
o-Xylene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-119(9-10')
Project Name:	Murata	**Collection Date:**	7/16/2017 9:45:00 AM
Lab ID:	1707D67-051	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Bromoform	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
1,1,2,2-Tetrachloroethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Isopropylbenzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
1,3-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
1,4-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
1,2-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
1,2-Dibromo-3-chloropropane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
1,2,4-Trichlorobenzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
1,2-Dichloroethene, Total	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Xylenes, Total	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 12:59	MD
Surr: 4-Bromofluorobenzene	93	63-125		%REC	245867	1	07/23/2017 12:59	MD
Surr: Dibromofluoromethane	110	69.9-123		%REC	245867	1	07/23/2017 12:59	MD
Surr: Toluene-d8	99.1	70-122		%REC	245867	1	07/23/2017 12:59	MD
PERCENT MOISTURE D2216								
Percent Moisture	25.7	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-113(0-2')
Project Name:	Murata	**Collection Date:**	7/16/2017 10:25:00 AM
Lab ID:	1707D67-052	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	94		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Dichlorodifluoromethane	BRL	6.3		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Chloromethane	BRL	6.3		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Vinyl chloride	BRL	6.3		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Bromomethane	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Chloroethane	BRL	6.3		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Trichlorofluoromethane	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
1,1-Dichloroethene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Acetone	BRL	63		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Freon-113	BRL	6.3		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Carbon disulfide	BRL	6.3		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Methyl acetate	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Methylene chloride	BRL	13		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Methyl tert-butyl ether	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
trans-1,2-Dichloroethene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
1,1-Dichloroethane	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
cis-1,2-Dichloroethene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
2-Butanone	BRL	31		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Chloroform	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
1,1,1-Trichloroethane	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Cyclohexane	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Carbon tetrachloride	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Benzene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
1,2-Dichloroethane	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Trichloroethene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Methylcyclohexane	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
1,2-Dichloropropane	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Bromodichloromethane	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
cis-1,3-Dichloropropene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
4-Methyl-2-pentanone	BRL	6.3		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Toluene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
trans-1,3-Dichloropropene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
1,1,2-Trichloroethane	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
2-Hexanone	BRL	6.3		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Tetrachloroethene	10	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Dibromochloromethane	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
1,2-Dibromoethane	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Chlorobenzene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Ethylbenzene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
m,p-Xylene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
o-Xylene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-113(0-2')
Project Name:	Murata	**Collection Date:**	7/16/2017 10:25:00 AM
Lab ID:	1707D67-052	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Bromoform	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
1,1,2,2-Tetrachloroethane	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Isopropylbenzene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
1,3-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
1,4-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
1,2-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
1,2-Dibromo-3-chloropropane	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
1,2,4-Trichlorobenzene	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
1,2-Dichloroethene, Total	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Xylenes, Total	BRL	3.1		ug/Kg-dry	245867	1	07/23/2017 13:24	MD
Surr: 4-Bromofluorobenzene	90.5	63-125		%REC	245867	1	07/23/2017 13:24	MD
Surr: Dibromofluoromethane	122	69.9-123		%REC	245867	1	07/23/2017 13:24	MD
Surr: Toluene-d8	98.9	70-122		%REC	245867	1	07/23/2017 13:24	MD
PERCENT MOISTURE D2216								
Percent Moisture	15.8	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-113(13-14')
Project Name:	Murata	**Collection Date:**	7/16/2017 10:35:00 AM
Lab ID:	1707D67-053	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	130		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Dichlorodifluoromethane	BRL	8.8		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Chloromethane	BRL	8.8		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Vinyl chloride	BRL	8.8		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Bromomethane	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Chloroethane	BRL	8.8		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Trichlorofluoromethane	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
1,1-Dichloroethene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Acetone	BRL	88		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Freon-113	BRL	8.8		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Carbon disulfide	BRL	8.8		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Methyl acetate	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Methylene chloride	BRL	18		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Methyl tert-butyl ether	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
trans-1,2-Dichloroethene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
1,1-Dichloroethane	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
cis-1,2-Dichloroethene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
2-Butanone	BRL	44		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Chloroform	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
1,1,1-Trichloroethane	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Cyclohexane	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Carbon tetrachloride	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Benzene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
1,2-Dichloroethane	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Trichloroethene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Methylcyclohexane	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
1,2-Dichloropropane	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Bromodichloromethane	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
cis-1,3-Dichloropropene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
4-Methyl-2-pentanone	BRL	8.8		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Toluene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
trans-1,3-Dichloropropene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
1,1,2-Trichloroethane	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
2-Hexanone	BRL	8.8		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Tetrachloroethene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Dibromochloromethane	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
1,2-Dibromoethane	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Chlorobenzene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Ethylbenzene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
m,p-Xylene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
o-Xylene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-113(13-14')
Project Name:	Murata	**Collection Date:**	7/16/2017 10:35:00 AM
Lab ID:	1707D67-053	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Bromoform	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
1,1,2,2-Tetrachloroethane	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Isopropylbenzene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
1,3-Dichlorobenzene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
1,4-Dichlorobenzene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
1,2-Dichlorobenzene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
1,2-Dibromo-3-chloropropane	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
1,2,4-Trichlorobenzene	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
1,2-Dichloroethene, Total	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Xylenes, Total	BRL	4.4		ug/Kg-dry	245867	1	07/23/2017 13:50	MD
Surr: 4-Bromofluorobenzene	94.7	63-125		%REC	245867	1	07/23/2017 13:50	MD
Surr: Dibromofluoromethane	110	69.9-123		%REC	245867	1	07/23/2017 13:50	MD
Surr: Toluene-d8	100	70-122		%REC	245867	1	07/23/2017 13:50	MD
PERCENT MOISTURE D2216								
Percent Moisture	19.6	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-114(0-2')
Project Name:	Murata	**Collection Date:**	7/16/2017 11:15:00 AM
Lab ID:	1707D67-054	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	110		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Dichlorodifluoromethane	BRL	7.5		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Chloromethane	BRL	7.5		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Vinyl chloride	BRL	7.5		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Bromomethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Chloroethane	BRL	7.5		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Trichlorofluoromethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
1,1-Dichloroethene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Acetone	180	75		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Freon-113	BRL	7.5		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Carbon disulfide	BRL	7.5		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Methyl acetate	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Methylene chloride	BRL	15		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Methyl tert-butyl ether	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
trans-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
1,1-Dichloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
cis-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
2-Butanone	BRL	38		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Chloroform	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
1,1,1-Trichloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Cyclohexane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Carbon tetrachloride	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Benzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
1,2-Dichloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Trichloroethene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Methylcyclohexane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
1,2-Dichloropropane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Bromodichloromethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
cis-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
4-Methyl-2-pentanone	BRL	7.5		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Toluene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
trans-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
1,1,2-Trichloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
2-Hexanone	BRL	7.5		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Tetrachloroethene	2100	170		ug/Kg-dry	245782	50	07/25/2017 11:42	MD
Dibromochloromethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
1,2-Dibromoethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Chlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Ethylbenzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
m,p-Xylene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
o-Xylene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-114(0-2')
Project Name:	Murata	**Collection Date:**	7/16/2017 11:15:00 AM
Lab ID:	1707D67-054	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Bromoform	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
1,1,2,2-Tetrachloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Isopropylbenzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
1,3-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
1,4-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
1,2-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
1,2-Dibromo-3-chloropropane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
1,2,4-Trichlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
1,2-Dichloroethene, Total	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Xylenes, Total	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 14:15	MD
Surr: 4-Bromofluorobenzene	90.7	63-125		%REC	245782	50	07/25/2017 11:42	MD
Surr: 4-Bromofluorobenzene	88.6	63-125		%REC	245902	1	07/23/2017 14:15	MD
Surr: Dibromofluoromethane	95.8	69.9-123		%REC	245782	50	07/25/2017 11:42	MD
Surr: Dibromofluoromethane	112	69.9-123		%REC	245902	1	07/23/2017 14:15	MD
Surr: Toluene-d8	97.9	70-122		%REC	245782	50	07/25/2017 11:42	MD
Surr: Toluene-d8	97	70-122		%REC	245902	1	07/23/2017 14:15	MD
PERCENT MOISTURE D2216								
Percent Moisture	20.5	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-115(0-2')
Project Name:	Murata	**Collection Date:**	7/16/2017 12:45:00 PM
Lab ID:	1707D67-055	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	100		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Dichlorodifluoromethane	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Chloromethane	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Vinyl chloride	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Bromomethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Chloroethane	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Trichlorofluoromethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
1,1-Dichloroethene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Acetone	420	68	E	ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Freon-113	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Carbon disulfide	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Methyl acetate	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Methylene chloride	BRL	14		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Methyl tert-butyl ether	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
trans-1,2-Dichloroethene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
1,1-Dichloroethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
cis-1,2-Dichloroethene	3.9	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
2-Butanone	BRL	34		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Chloroform	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
1,1,1-Trichloroethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Cyclohexane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Carbon tetrachloride	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Benzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
1,2-Dichloroethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Trichloroethene	7.5	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Methylcyclohexane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
1,2-Dichloropropane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Bromodichloromethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
cis-1,3-Dichloropropene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
4-Methyl-2-pentanone	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Toluene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
trans-1,3-Dichloropropene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
1,1,2-Trichloroethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
2-Hexanone	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Tetrachloroethene	2700	200		ug/Kg-dry	245782	50	07/25/2017 12:08	MD
Dibromochloromethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
1,2-Dibromoethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Chlorobenzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Ethylbenzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
m,p-Xylene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
o-Xylene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-115(0-2')
Project Name:	Murata	**Collection Date:**	7/16/2017 12:45:00 PM
Lab ID:	1707D67-055	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Bromoform	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
1,1,2,2-Tetrachloroethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Isopropylbenzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
1,3-Dichlorobenzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
1,4-Dichlorobenzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
1,2-Dichlorobenzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
1,2-Dibromo-3-chloropropane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
1,2,4-Trichlorobenzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
1,2-Dichloroethene, Total	3.9	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Xylenes, Total	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 14:40	MD
Surr: 4-Bromofluorobenzene	90.4	63-125		%REC	245782	50	07/25/2017 12:08	MD
Surr: 4-Bromofluorobenzene	85.5	63-125		%REC	245902	1	07/23/2017 14:40	MD
Surr: Dibromofluoromethane	92.5	69.9-123		%REC	245782	50	07/25/2017 12:08	MD
Surr: Dibromofluoromethane	111	69.9-123		%REC	245902	1	07/23/2017 14:40	MD
Surr: Toluene-d8	97.1	70-122		%REC	245782	50	07/25/2017 12:08	MD
Surr: Toluene-d8	95.2	70-122		%REC	245902	1	07/23/2017 14:40	MD
PERCENT MOISTURE D2216								
Percent Moisture	9.67	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-115(6-7')
Project Name:	Murata	**Collection Date:**	7/16/2017 1:00:00 PM
Lab ID:	1707D67-056	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	210		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Dichlorodifluoromethane	BRL	14		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Chloromethane	BRL	14		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Vinyl chloride	BRL	14		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Bromomethane	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Chloroethane	BRL	14		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Trichlorofluoromethane	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
1,1-Dichloroethene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Acetone	BRL	140		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Freon-113	BRL	14		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Carbon disulfide	BRL	14		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Methyl acetate	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Methylene chloride	BRL	27		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Methyl tert-butyl ether	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
trans-1,2-Dichloroethene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
1,1-Dichloroethane	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
cis-1,2-Dichloroethene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
2-Butanone	BRL	69		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Chloroform	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
1,1,1-Trichloroethane	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Cyclohexane	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Carbon tetrachloride	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Benzene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
1,2-Dichloroethane	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Trichloroethene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Methylcyclohexane	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
1,2-Dichloropropane	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Bromodichloromethane	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
cis-1,3-Dichloropropene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
4-Methyl-2-pentanone	BRL	14		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Toluene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
trans-1,3-Dichloropropene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
1,1,2-Trichloroethane	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
2-Hexanone	BRL	14		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Tetrachloroethene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Dibromochloromethane	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
1,2-Dibromoethane	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Chlorobenzene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Ethylbenzene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
m,p-Xylene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
o-Xylene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-115(6-7')
Project Name:	Murata	**Collection Date:**	7/16/2017 1:00:00 PM
Lab ID:	1707D67-056	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Bromoform	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
1,1,2,2-Tetrachloroethane	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Isopropylbenzene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
1,3-Dichlorobenzene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
1,4-Dichlorobenzene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
1,2-Dichlorobenzene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
1,2-Dibromo-3-chloropropane	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
1,2,4-Trichlorobenzene	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
1,2-Dichloroethene, Total	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Xylenes, Total	BRL	6.9		ug/Kg-dry	245902	1	07/25/2017 21:32	MD
Surr: 4-Bromofluorobenzene	94.9	63-125		%REC	245902	1	07/25/2017 21:32	MD
Surr: Dibromofluoromethane	111	69.9-123		%REC	245902	1	07/25/2017 21:32	MD
Surr: Toluene-d8	101	70-122		%REC	245902	1	07/25/2017 21:32	MD
PERCENT MOISTURE D2216								
Percent Moisture	19.3	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-116(5-6')
Project Name:	Murata	**Collection Date:**	7/16/2017 1:10:00 PM
Lab ID:	1707D67-057	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	110		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Dichlorodifluoromethane	BRL	7.4		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Chloromethane	BRL	7.4		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Vinyl chloride	BRL	7.4		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Bromomethane	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Chloroethane	BRL	7.4		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Trichlorofluoromethane	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
1,1-Dichloroethene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Acetone	BRL	74		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Freon-113	BRL	7.4		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Carbon disulfide	BRL	7.4		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Methyl acetate	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Methylene chloride	BRL	15		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Methyl tert-butyl ether	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
trans-1,2-Dichloroethene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
1,1-Dichloroethane	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
cis-1,2-Dichloroethene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
2-Butanone	BRL	37		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Chloroform	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
1,1,1-Trichloroethane	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Cyclohexane	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Carbon tetrachloride	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Benzene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
1,2-Dichloroethane	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Trichloroethene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Methylcyclohexane	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
1,2-Dichloropropane	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Bromodichloromethane	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
cis-1,3-Dichloropropene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
4-Methyl-2-pentanone	BRL	7.4		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Toluene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
trans-1,3-Dichloropropene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
1,1,2-Trichloroethane	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
2-Hexanone	BRL	7.4		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Tetrachloroethene	7.5	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Dibromochloromethane	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
1,2-Dibromoethane	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Chlorobenzene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Ethylbenzene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
m,p-Xylene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
o-Xylene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-116(5-6')
Project Name:	Murata	**Collection Date:**	7/16/2017 1:10:00 PM
Lab ID:	1707D67-057	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Bromoform	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
1,1,2,2-Tetrachloroethane	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Isopropylbenzene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
1,3-Dichlorobenzene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
1,4-Dichlorobenzene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
1,2-Dichlorobenzene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
1,2-Dibromo-3-chloropropane	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
1,2,4-Trichlorobenzene	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
1,2-Dichloroethene, Total	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Xylenes, Total	BRL	3.7		ug/Kg-dry	245902	1	07/23/2017 15:30	MD
Surr: 4-Bromofluorobenzene	92.1	63-125		%REC	245902	1	07/23/2017 15:30	MD
Surr: Dibromofluoromethane	109	69.9-123		%REC	245902	1	07/23/2017 15:30	MD
Surr: Toluene-d8	99.2	70-122		%REC	245902	1	07/23/2017 15:30	MD
PERCENT MOISTURE D2216								
Percent Moisture	19.8	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-117(10-11')
Project Name:	Murata	**Collection Date:**	7/16/2017 1:25:00 PM
Lab ID:	1707D67-058	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	110		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Dichlorodifluoromethane	BRL	7.2		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Chloromethane	BRL	7.2		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Vinyl chloride	BRL	7.2		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Bromomethane	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Chloroethane	BRL	7.2		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Trichlorofluoromethane	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
1,1-Dichloroethene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Acetone	BRL	72		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Freon-113	BRL	7.2		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Carbon disulfide	BRL	7.2		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Methyl acetate	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Methylene chloride	BRL	14		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Methyl tert-butyl ether	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
trans-1,2-Dichloroethene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
1,1-Dichloroethane	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
cis-1,2-Dichloroethene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
2-Butanone	BRL	36		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Chloroform	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
1,1,1-Trichloroethane	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Cyclohexane	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Carbon tetrachloride	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Benzene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
1,2-Dichloroethane	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Trichloroethene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Methylcyclohexane	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
1,2-Dichloropropane	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Bromodichloromethane	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
cis-1,3-Dichloropropene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
4-Methyl-2-pentanone	BRL	7.2		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Toluene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
trans-1,3-Dichloropropene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
1,1,2-Trichloroethane	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
2-Hexanone	BRL	7.2		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Tetrachloroethene	4.0	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Dibromochloromethane	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
1,2-Dibromoethane	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Chlorobenzene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Ethylbenzene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
m,p-Xylene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
o-Xylene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-117(10-11')
Project Name:	Murata	**Collection Date:**	7/16/2017 1:25:00 PM
Lab ID:	1707D67-058	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Bromoform	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
1,1,2,2-Tetrachloroethane	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Isopropylbenzene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
1,3-Dichlorobenzene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
1,4-Dichlorobenzene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
1,2-Dichlorobenzene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
1,2-Dibromo-3-chloropropane	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
1,2,4-Trichlorobenzene	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
1,2-Dichloroethene, Total	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Xylenes, Total	BRL	3.6		ug/Kg-dry	245867	1	07/23/2017 15:56	MD
Surr: 4-Bromofluorobenzene	95.3	63-125		%REC	245867	1	07/23/2017 15:56	MD
Surr: Dibromofluoromethane	111	69.9-123		%REC	245867	1	07/23/2017 15:56	MD
Surr: Toluene-d8	100	70-122		%REC	245867	1	07/23/2017 15:56	MD
PERCENT MOISTURE D2216								
Percent Moisture	30.1	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	DUP1
Project Name:	Murata	**Collection Date:**	7/14/2017
Lab ID:	1707D67-059	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	120		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Dichlorodifluoromethane	BRL	8.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Chloromethane	BRL	8.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Vinyl chloride	BRL	8.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Bromomethane	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Chloroethane	BRL	8.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Trichlorofluoromethane	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
1,1-Dichloroethene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Acetone	BRL	80		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Freon-113	BRL	8.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Carbon disulfide	BRL	8.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Methyl acetate	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Methylene chloride	BRL	16		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Methyl tert-butyl ether	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
trans-1,2-Dichloroethene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
1,1-Dichloroethane	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
cis-1,2-Dichloroethene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
2-Butanone	BRL	40		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Chloroform	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
1,1,1-Trichloroethane	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Cyclohexane	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Carbon tetrachloride	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Benzene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
1,2-Dichloroethane	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Trichloroethene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Methylcyclohexane	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
1,2-Dichloropropane	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Bromodichloromethane	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
cis-1,3-Dichloropropene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
4-Methyl-2-pentanone	BRL	8.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Toluene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
trans-1,3-Dichloropropene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
1,1,2-Trichloroethane	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
2-Hexanone	BRL	8.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Tetrachloroethene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Dibromochloromethane	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
1,2-Dibromoethane	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Chlorobenzene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Ethylbenzene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
m,p-Xylene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
o-Xylene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	DUP1
Project Name:	Murata	**Collection Date:**	7/14/2017
Lab ID:	1707D67-059	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Bromoform	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
1,1,2,2-Tetrachloroethane	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Isopropylbenzene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
1,3-Dichlorobenzene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
1,4-Dichlorobenzene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
1,2-Dichlorobenzene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
1,2-Dibromo-3-chloropropane	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
1,2,4-Trichlorobenzene	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
1,2-Dichloroethene, Total	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Xylenes, Total	BRL	4.0		ug/Kg-dry	245867	1	07/23/2017 16:21	MD
Surr: 4-Bromofluorobenzene	90.1	63-125		%REC	245867	1	07/23/2017 16:21	MD
Surr: Dibromofluoromethane	106	69.9-123		%REC	245867	1	07/23/2017 16:21	MD
Surr: Toluene-d8	97.5	70-122		%REC	245867	1	07/23/2017 16:21	MD
PERCENT MOISTURE D2216								
Percent Moisture	22.1	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	DUP2
Project Name:	Murata	**Collection Date:**	7/14/2017
Lab ID:	1707D67-060	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	120		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Dichlorodifluoromethane	BRL	7.7		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Chloromethane	BRL	7.7		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Vinyl chloride	BRL	7.7		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Bromomethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Chloroethane	BRL	7.7		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Trichlorofluoromethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
1,1-Dichloroethene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Acetone	BRL	77		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Freon-113	BRL	7.7		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Carbon disulfide	BRL	7.7		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Methyl acetate	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Methylene chloride	BRL	15		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Methyl tert-butyl ether	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
trans-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
1,1-Dichloroethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
cis-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
2-Butanone	BRL	38		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Chloroform	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
1,1,1-Trichloroethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Cyclohexane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Carbon tetrachloride	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Benzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
1,2-Dichloroethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Trichloroethene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Methylcyclohexane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
1,2-Dichloropropane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Bromodichloromethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
cis-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
4-Methyl-2-pentanone	BRL	7.7		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Toluene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
trans-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
1,1,2-Trichloroethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
2-Hexanone	BRL	7.7		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Tetrachloroethene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Dibromochloromethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
1,2-Dibromoethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Chlorobenzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Ethylbenzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
m,p-Xylene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
o-Xylene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	DUP2
Project Name:	Murata	**Collection Date:**	7/14/2017
Lab ID:	1707D67-060	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Bromoform	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
1,1,2,2-Tetrachloroethane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Isopropylbenzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
1,3-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
1,4-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
1,2-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
1,2-Dibromo-3-chloropropane	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
1,2,4-Trichlorobenzene	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
1,2-Dichloroethene, Total	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Xylenes, Total	BRL	3.8		ug/Kg-dry	245867	1	07/23/2017 16:46	MD
Surr: 4-Bromofluorobenzene	99.5	63-125		%REC	245867	1	07/23/2017 16:46	MD
Surr: Dibromofluoromethane	106	69.9-123		%REC	245867	1	07/23/2017 16:46	MD
Surr: Toluene-d8	97.8	70-122		%REC	245867	1	07/23/2017 16:46	MD
PERCENT MOISTURE D2216								
Percent Moisture	26.7	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	DUP3
Project Name:	Murata	**Collection Date:**	7/15/2017
Lab ID:	1707D67-061	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	110		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Dichlorodifluoromethane	BRL	7.1		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Chloromethane	BRL	7.1		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Vinyl chloride	BRL	7.1		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Bromomethane	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Chloroethane	BRL	7.1		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Trichlorofluoromethane	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
1,1-Dichloroethene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Acetone	BRL	71		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Freon-113	BRL	7.1		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Carbon disulfide	BRL	7.1		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Methyl acetate	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Methylene chloride	BRL	14		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Methyl tert-butyl ether	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
trans-1,2-Dichloroethene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
1,1-Dichloroethane	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
cis-1,2-Dichloroethene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
2-Butanone	BRL	35		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Chloroform	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
1,1,1-Trichloroethane	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Cyclohexane	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Carbon tetrachloride	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Benzene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
1,2-Dichloroethane	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Trichloroethene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Methylcyclohexane	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
1,2-Dichloropropane	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Bromodichloromethane	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
cis-1,3-Dichloropropene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
4-Methyl-2-pentanone	BRL	7.1		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Toluene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
trans-1,3-Dichloropropene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
1,1,2-Trichloroethane	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
2-Hexanone	BRL	7.1		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Tetrachloroethene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Dibromochloromethane	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
1,2-Dibromoethane	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Chlorobenzene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Ethylbenzene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
m,p-Xylene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
o-Xylene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	DUP3
Project Name:	Murata	**Collection Date:**	7/15/2017
Lab ID:	1707D67-061	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Bromoform	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
1,1,2,2-Tetrachloroethane	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Isopropylbenzene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
1,3-Dichlorobenzene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
1,4-Dichlorobenzene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
1,2-Dichlorobenzene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
1,2-Dibromo-3-chloropropane	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
1,2,4-Trichlorobenzene	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
1,2-Dichloroethene, Total	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Xylenes, Total	BRL	3.5		ug/Kg-dry	245867	1	07/23/2017 17:11	MD
Surr: 4-Bromofluorobenzene	98.1	63-125		%REC	245867	1	07/23/2017 17:11	MD
Surr: Dibromofluoromethane	113	69.9-123		%REC	245867	1	07/23/2017 17:11	MD
Surr: Toluene-d8	100	70-122		%REC	245867	1	07/23/2017 17:11	MD
PERCENT MOISTURE D2216								
Percent Moisture	23.8	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	DUP4
Project Name:	Murata	**Collection Date:**	7/15/2017
Lab ID:	1707D67-062	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	120		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Dichlorodifluoromethane	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Chloromethane	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Vinyl chloride	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Bromomethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Chloroethane	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Trichlorofluoromethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
1,1-Dichloroethene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Acetone	BRL	78		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Freon-113	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Carbon disulfide	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Methyl acetate	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Methylene chloride	BRL	16		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Methyl tert-butyl ether	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
trans-1,2-Dichloroethene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
1,1-Dichloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
cis-1,2-Dichloroethene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
2-Butanone	BRL	39		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Chloroform	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
1,1,1-Trichloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Cyclohexane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Carbon tetrachloride	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Benzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
1,2-Dichloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Trichloroethene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Methylcyclohexane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
1,2-Dichloropropane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Bromodichloromethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
cis-1,3-Dichloropropene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
4-Methyl-2-pentanone	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Toluene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
trans-1,3-Dichloropropene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
1,1,2-Trichloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
2-Hexanone	BRL	7.8		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Tetrachloroethene	5.9	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Dibromochloromethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
1,2-Dibromoethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Chlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Ethylbenzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
m,p-Xylene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
o-Xylene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	DUP4
Project Name:	Murata	**Collection Date:**	7/15/2017
Lab ID:	1707D67-062	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Bromoform	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
1,1,2,2-Tetrachloroethane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Isopropylbenzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
1,3-Dichlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
1,4-Dichlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
1,2-Dichlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
1,2-Dibromo-3-chloropropane	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
1,2,4-Trichlorobenzene	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
1,2-Dichloroethene, Total	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Xylenes, Total	BRL	3.9		ug/Kg-dry	245867	1	07/23/2017 17:36	MD
Surr: 4-Bromofluorobenzene	94.9	63-125		%REC	245867	1	07/23/2017 17:36	MD
Surr: Dibromofluoromethane	108	69.9-123		%REC	245867	1	07/23/2017 17:36	MD
Surr: Toluene-d8	97.5	70-122		%REC	245867	1	07/23/2017 17:36	MD
PERCENT MOISTURE D2216								
Percent Moisture	31.5	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-133(0-2')
Project Name:	Murata	**Collection Date:**	7/14/2017 10:35:00 AM
Lab ID:	1707D67-063	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	81		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Dichlorodifluoromethane	BRL	5.4		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Chloromethane	BRL	5.4		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Vinyl chloride	BRL	5.4		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Bromomethane	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Chloroethane	BRL	5.4		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Trichlorofluoromethane	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
1,1-Dichloroethene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Acetone	BRL	54		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Freon-113	BRL	5.4		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Carbon disulfide	BRL	5.4		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Methyl acetate	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Methylene chloride	BRL	11		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Methyl tert-butyl ether	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
trans-1,2-Dichloroethene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
1,1-Dichloroethane	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
cis-1,2-Dichloroethene	48	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
2-Butanone	BRL	27		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Chloroform	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
1,1,1-Trichloroethane	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Cyclohexane	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Carbon tetrachloride	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Benzene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
1,2-Dichloroethane	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Trichloroethene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Methylcyclohexane	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
1,2-Dichloropropane	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Bromodichloromethane	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
cis-1,3-Dichloropropene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
4-Methyl-2-pentanone	BRL	5.4		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Toluene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
trans-1,3-Dichloropropene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
1,1,2-Trichloroethane	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
2-Hexanone	BRL	5.4		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Tetrachloroethene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Dibromochloromethane	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
1,2-Dibromoethane	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Chlorobenzene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Ethylbenzene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
m,p-Xylene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
o-Xylene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-133(0-2')
Project Name:	Murata	**Collection Date:**	7/14/2017 10:35:00 AM
Lab ID:	1707D67-063	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Bromoform	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
1,1,2,2-Tetrachloroethane	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Isopropylbenzene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
1,3-Dichlorobenzene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
1,4-Dichlorobenzene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
1,2-Dichlorobenzene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
1,2-Dibromo-3-chloropropane	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
1,2,4-Trichlorobenzene	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
1,2-Dichloroethene, Total	48	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Xylenes, Total	BRL	2.7		ug/Kg-dry	245902	1	07/23/2017 18:01	MD
Surr: 4-Bromofluorobenzene	89.9	63-125		%REC	245902	1	07/23/2017 18:01	MD
Surr: Dibromofluoromethane	118	69.9-123		%REC	245902	1	07/23/2017 18:01	MD
Surr: Toluene-d8	95.4	70-122		%REC	245902	1	07/23/2017 18:01	MD
PERCENT MOISTURE D2216								
Percent Moisture	16.6	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-133(8-9')
Project Name:	Murata	**Collection Date:**	7/14/2017 10:50:00 AM
Lab ID:	1707D67-064	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	140		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Dichlorodifluoromethane	BRL	9.2		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Chloromethane	BRL	9.2		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Vinyl chloride	BRL	9.2		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Bromomethane	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Chloroethane	BRL	9.2		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Trichlorofluoromethane	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
1,1-Dichloroethene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Acetone	BRL	92		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Freon-113	BRL	9.2		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Carbon disulfide	BRL	9.2		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Methyl acetate	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Methylene chloride	BRL	18		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Methyl tert-butyl ether	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
trans-1,2-Dichloroethene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
1,1-Dichloroethane	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
cis-1,2-Dichloroethene	34	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
2-Butanone	BRL	46		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Chloroform	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
1,1,1-Trichloroethane	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Cyclohexane	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Carbon tetrachloride	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Benzene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
1,2-Dichloroethane	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Trichloroethene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Methylcyclohexane	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
1,2-Dichloropropane	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Bromodichloromethane	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
cis-1,3-Dichloropropene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
4-Methyl-2-pentanone	BRL	9.2		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Toluene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
trans-1,3-Dichloropropene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
1,1,2-Trichloroethane	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
2-Hexanone	BRL	9.2		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Tetrachloroethene	32	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Dibromochloromethane	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
1,2-Dibromoethane	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Chlorobenzene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Ethylbenzene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
m,p-Xylene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
o-Xylene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-133(8-9')
Project Name:	Murata	**Collection Date:**	7/14/2017 10:50:00 AM
Lab ID:	1707D67-064	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Bromoform	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
1,1,2,2-Tetrachloroethane	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Isopropylbenzene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
1,3-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
1,4-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
1,2-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
1,2-Dibromo-3-chloropropane	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
1,2,4-Trichlorobenzene	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
1,2-Dichloroethene, Total	34	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Xylenes, Total	BRL	4.6		ug/Kg-dry	245902	1	07/23/2017 18:26	MD
Surr: 4-Bromofluorobenzene	89.7	63-125		%REC	245902	1	07/23/2017 18:26	MD
Surr: Dibromofluoromethane	110	69.9-123		%REC	245902	1	07/23/2017 18:26	MD
Surr: Toluene-d8	96.1	70-122		%REC	245902	1	07/23/2017 18:26	MD
PERCENT MOISTURE D2216								
Percent Moisture	31.1	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-132(0-2')
Project Name:	Murata	**Collection Date:**	7/14/2017 11:00:00 AM
Lab ID:	1707D67-065	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	94		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Dichlorodifluoromethane	BRL	6.3		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Chloromethane	BRL	6.3		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Vinyl chloride	BRL	6.3		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Bromomethane	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Chloroethane	BRL	6.3		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Trichlorofluoromethane	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
1,1-Dichloroethene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Acetone	BRL	63		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Freon-113	BRL	6.3		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Carbon disulfide	BRL	6.3		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Methyl acetate	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Methylene chloride	BRL	13		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Methyl tert-butyl ether	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
trans-1,2-Dichloroethene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
1,1-Dichloroethane	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
cis-1,2-Dichloroethene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
2-Butanone	BRL	31		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Chloroform	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
1,1,1-Trichloroethane	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Cyclohexane	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Carbon tetrachloride	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Benzene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
1,2-Dichloroethane	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Trichloroethene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Methylcyclohexane	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
1,2-Dichloropropane	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Bromodichloromethane	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
cis-1,3-Dichloropropene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
4-Methyl-2-pentanone	BRL	6.3		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Toluene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
trans-1,3-Dichloropropene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
1,1,2-Trichloroethane	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
2-Hexanone	BRL	6.3		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Tetrachloroethene	5.6	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Dibromochloromethane	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
1,2-Dibromoethane	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Chlorobenzene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Ethylbenzene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
m,p-Xylene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
o-Xylene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-132(0-2')
Project Name:	Murata	**Collection Date:**	7/14/2017 11:00:00 AM
Lab ID:	1707D67-065	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Bromoform	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
1,1,2,2-Tetrachloroethane	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Isopropylbenzene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
1,3-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
1,4-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
1,2-Dichlorobenzene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
1,2-Dibromo-3-chloropropane	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
1,2,4-Trichlorobenzene	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
1,2-Dichloroethene, Total	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Xylenes, Total	BRL	3.1		ug/Kg-dry	245902	1	07/23/2017 18:51	MD
Surr: 4-Bromofluorobenzene	90.4	63-125		%REC	245902	1	07/23/2017 18:51	MD
Surr: Dibromofluoromethane	108	69.9-123		%REC	245902	1	07/23/2017 18:51	MD
Surr: Toluene-d8	94.7	70-122		%REC	245902	1	07/23/2017 18:51	MD
PERCENT MOISTURE D2216								
Percent Moisture	23.5	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-132(13-14')
Project Name:	Murata	**Collection Date:**	7/14/2017 11:35:00 AM
Lab ID:	1707D67-066	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	120		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Dichlorodifluoromethane	BRL	7.7		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Chloromethane	BRL	7.7		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Vinyl chloride	BRL	7.7		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Bromomethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Chloroethane	BRL	7.7		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Trichlorofluoromethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
1,1-Dichloroethene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Acetone	BRL	77		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Freon-113	BRL	7.7		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Carbon disulfide	BRL	7.7		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Methyl acetate	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Methylene chloride	BRL	15		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Methyl tert-butyl ether	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
trans-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
1,1-Dichloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
cis-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
2-Butanone	BRL	38		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Chloroform	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
1,1,1-Trichloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Cyclohexane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Carbon tetrachloride	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Benzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
1,2-Dichloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Trichloroethene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Methylcyclohexane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
1,2-Dichloropropane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Bromodichloromethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
cis-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
4-Methyl-2-pentanone	BRL	7.7		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Toluene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
trans-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
1,1,2-Trichloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
2-Hexanone	BRL	7.7		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Tetrachloroethene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Dibromochloromethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
1,2-Dibromoethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Chlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Ethylbenzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
m,p-Xylene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
o-Xylene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-132(13-14')
Project Name:	Murata	**Collection Date:**	7/14/2017 11:35:00 AM
Lab ID:	1707D67-066	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Bromoform	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
1,1,2,2-Tetrachloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Isopropylbenzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
1,3-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
1,4-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
1,2-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
1,2-Dibromo-3-chloropropane	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
1,2,4-Trichlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
1,2-Dichloroethene, Total	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Xylenes, Total	BRL	3.8		ug/Kg-dry	245902	1	07/23/2017 19:16	MD
Surr: 4-Bromofluorobenzene	92.5	63-125		%REC	245902	1	07/23/2017 19:16	MD
Surr: Dibromofluoromethane	110	69.9-123		%REC	245902	1	07/23/2017 19:16	MD
Surr: Toluene-d8	102	70-122		%REC	245902	1	07/23/2017 19:16	MD
PERCENT MOISTURE D2216								
Percent Moisture	20.9	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-131(0-2')
Project Name:	Murata	**Collection Date:**	7/14/2017 11:50:00 AM
Lab ID:	1707D67-067	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	110		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Dichlorodifluoromethane	BRL	7.2		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Chloromethane	BRL	7.2		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Vinyl chloride	BRL	7.2		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Bromomethane	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Chloroethane	BRL	7.2		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Trichlorofluoromethane	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
1,1-Dichloroethene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Acetone	BRL	72		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Freon-113	BRL	7.2		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Carbon disulfide	BRL	7.2		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Methyl acetate	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Methylene chloride	BRL	14		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Methyl tert-butyl ether	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
trans-1,2-Dichloroethene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
1,1-Dichloroethane	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
cis-1,2-Dichloroethene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
2-Butanone	BRL	36		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Chloroform	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
1,1,1-Trichloroethane	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Cyclohexane	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Carbon tetrachloride	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Benzene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
1,2-Dichloroethane	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Trichloroethene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Methylcyclohexane	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
1,2-Dichloropropane	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Bromodichloromethane	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
cis-1,3-Dichloropropene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
4-Methyl-2-pentanone	BRL	7.2		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Toluene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
trans-1,3-Dichloropropene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
1,1,2-Trichloroethane	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
2-Hexanone	BRL	7.2		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Tetrachloroethene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Dibromochloromethane	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
1,2-Dibromoethane	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Chlorobenzene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Ethylbenzene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
m,p-Xylene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
o-Xylene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-131(0-2')
Project Name:	Murata	**Collection Date:**	7/14/2017 11:50:00 AM
Lab ID:	1707D67-067	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Bromoform	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
1,1,2,2-Tetrachloroethane	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Isopropylbenzene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
1,3-Dichlorobenzene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
1,4-Dichlorobenzene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
1,2-Dichlorobenzene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
1,2-Dibromo-3-chloropropane	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
1,2,4-Trichlorobenzene	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
1,2-Dichloroethene, Total	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Xylenes, Total	BRL	3.6		ug/Kg-dry	245902	1	07/23/2017 23:24	MD
Surr: 4-Bromofluorobenzene	92.3	63-125		%REC	245902	1	07/23/2017 23:24	MD
Surr: Dibromofluoromethane	112	69.9-123		%REC	245902	1	07/23/2017 23:24	MD
Surr: Toluene-d8	99.7	70-122		%REC	245902	1	07/23/2017 23:24	MD
PERCENT MOISTURE D2216								
Percent Moisture	20.2	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-131(14-15')
Project Name:	Murata	**Collection Date:**	7/14/2017 12:25:00 PM
Lab ID:	1707D67-068	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	100		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Dichlorodifluoromethane	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Chloromethane	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Vinyl chloride	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Bromomethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Chloroethane	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Trichlorofluoromethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
1,1-Dichloroethene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Acetone	BRL	68		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Freon-113	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Carbon disulfide	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Methyl acetate	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Methylene chloride	BRL	14		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Methyl tert-butyl ether	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
trans-1,2-Dichloroethene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
1,1-Dichloroethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
cis-1,2-Dichloroethene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
2-Butanone	BRL	34		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Chloroform	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
1,1,1-Trichloroethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Cyclohexane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Carbon tetrachloride	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Benzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
1,2-Dichloroethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Trichloroethene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Methylcyclohexane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
1,2-Dichloropropane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Bromodichloromethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
cis-1,3-Dichloropropene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
4-Methyl-2-pentanone	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Toluene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
trans-1,3-Dichloropropene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
1,1,2-Trichloroethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
2-Hexanone	BRL	6.8		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Tetrachloroethene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Dibromochloromethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
1,2-Dibromoethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Chlorobenzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Ethylbenzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
m,p-Xylene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
o-Xylene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-131(14-15')
Project Name:	Murata	**Collection Date:**	7/14/2017 12:25:00 PM
Lab ID:	1707D67-068	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Bromoform	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
1,1,2,2-Tetrachloroethane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Isopropylbenzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
1,3-Dichlorobenzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
1,4-Dichlorobenzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
1,2-Dichlorobenzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
1,2-Dibromo-3-chloropropane	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
1,2,4-Trichlorobenzene	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
1,2-Dichloroethene, Total	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Xylenes, Total	BRL	3.4		ug/Kg-dry	245902	1	07/23/2017 23:49	MD
Surr: 4-Bromofluorobenzene	89.8	63-125		%REC	245902	1	07/23/2017 23:49	MD
Surr: Dibromofluoromethane	108	69.9-123		%REC	245902	1	07/23/2017 23:49	MD
Surr: Toluene-d8	97.5	70-122		%REC	245902	1	07/23/2017 23:49	MD
PERCENT MOISTURE D2216								
Percent Moisture	28.3	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-130(0-2')
Project Name:	Murata	**Collection Date:**	7/14/2017 12:40:00 PM
Lab ID:	1707D67-069	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	140		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Dichlorodifluoromethane	BRL	9.2		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Chloromethane	BRL	9.2		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Vinyl chloride	BRL	9.2		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Bromomethane	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Chloroethane	BRL	9.2		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Trichlorofluoromethane	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
1,1-Dichloroethene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Acetone	BRL	92		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Freon-113	BRL	9.2		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Carbon disulfide	BRL	9.2		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Methyl acetate	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Methylene chloride	BRL	18		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Methyl tert-butyl ether	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
trans-1,2-Dichloroethene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
1,1-Dichloroethane	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
cis-1,2-Dichloroethene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
2-Butanone	BRL	46		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Chloroform	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
1,1,1-Trichloroethane	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Cyclohexane	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Carbon tetrachloride	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Benzene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
1,2-Dichloroethane	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Trichloroethene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Methylcyclohexane	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
1,2-Dichloropropane	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Bromodichloromethane	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
cis-1,3-Dichloropropene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
4-Methyl-2-pentanone	BRL	9.2		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Toluene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
trans-1,3-Dichloropropene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
1,1,2-Trichloroethane	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
2-Hexanone	BRL	9.2		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Tetrachloroethene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Dibromochloromethane	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
1,2-Dibromoethane	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Chlorobenzene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Ethylbenzene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
m,p-Xylene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
o-Xylene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-130(0-2')
Project Name:	Murata	**Collection Date:**	7/14/2017 12:40:00 PM
Lab ID:	1707D67-069	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Bromoform	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
1,1,2,2-Tetrachloroethane	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Isopropylbenzene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
1,3-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
1,4-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
1,2-Dichlorobenzene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
1,2-Dibromo-3-chloropropane	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
1,2,4-Trichlorobenzene	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
1,2-Dichloroethene, Total	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Xylenes, Total	BRL	4.6		ug/Kg-dry	245902	1	07/24/2017 01:05	MD
Surr: 4-Bromofluorobenzene	88.6	63-125		%REC	245902	1	07/24/2017 01:05	MD
Surr: Dibromofluoromethane	111	69.9-123		%REC	245902	1	07/24/2017 01:05	MD
Surr: Toluene-d8	101	70-122		%REC	245902	1	07/24/2017 01:05	MD
PERCENT MOISTURE D2216								
Percent Moisture	27.8	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-119(0-2')
Project Name:	Murata	**Collection Date:**	7/15/2017 12:40:00 PM
Lab ID:	1707D67-070	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	110		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Dichlorodifluoromethane	BRL	7.6		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Chloromethane	BRL	7.6		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Vinyl chloride	BRL	7.6		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Bromomethane	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Chloroethane	BRL	7.6		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Trichlorofluoromethane	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
1,1-Dichloroethene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Acetone	81	76		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Freon-113	BRL	7.6		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Carbon disulfide	BRL	7.6		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Methyl acetate	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Methylene chloride	BRL	15		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Methyl tert-butyl ether	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
trans-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
1,1-Dichloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
cis-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
2-Butanone	BRL	38		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Chloroform	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
1,1,1-Trichloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Cyclohexane	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Carbon tetrachloride	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Benzene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
1,2-Dichloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Trichloroethene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Methylcyclohexane	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
1,2-Dichloropropane	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Bromodichloromethane	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
cis-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
4-Methyl-2-pentanone	BRL	7.6		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Toluene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
trans-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
1,1,2-Trichloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
2-Hexanone	BRL	7.6		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Tetrachloroethene	110	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Dibromochloromethane	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
1,2-Dibromoethane	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Chlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Ethylbenzene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
m,p-Xylene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
o-Xylene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-119(0-2')
Project Name:	Murata	**Collection Date:**	7/15/2017 12:40:00 PM
Lab ID:	1707D67-070	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Bromoform	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
1,1,2,2-Tetrachloroethane	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Isopropylbenzene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
1,3-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
1,4-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
1,2-Dichlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
1,2-Dibromo-3-chloropropane	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
1,2,4-Trichlorobenzene	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
1,2-Dichloroethene, Total	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Xylenes, Total	BRL	3.8		ug/Kg-dry	245902	1	07/24/2017 15:44	MD
Surr: 4-Bromofluorobenzene	93.8	63-125		%REC	245902	1	07/24/2017 15:44	MD
Surr: Dibromofluoromethane	98.7	69.9-123		%REC	245902	1	07/24/2017 15:44	MD
Surr: Toluene-d8	95.2	70-122		%REC	245902	1	07/24/2017 15:44	MD
PERCENT MOISTURE D2216								
Percent Moisture	23.1	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-114(13-14')
Project Name:	Murata	**Collection Date:**	7/16/2017 12:00:00 PM
Lab ID:	1707D67-071	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	110		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Dichlorodifluoromethane	BRL	7.4		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Chloromethane	BRL	7.4		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Vinyl chloride	BRL	7.4		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Bromomethane	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Chloroethane	BRL	7.4		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Trichlorofluoromethane	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
1,1-Dichloroethene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Acetone	BRL	74		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Freon-113	BRL	7.4		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Carbon disulfide	BRL	7.4		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Methyl acetate	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Methylene chloride	BRL	15		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Methyl tert-butyl ether	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
trans-1,2-Dichloroethene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
1,1-Dichloroethane	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
cis-1,2-Dichloroethene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
2-Butanone	BRL	37		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Chloroform	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
1,1,1-Trichloroethane	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Cyclohexane	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Carbon tetrachloride	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Benzene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
1,2-Dichloroethane	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Trichloroethene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Methylcyclohexane	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
1,2-Dichloropropane	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Bromodichloromethane	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
cis-1,3-Dichloropropene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
4-Methyl-2-pentanone	BRL	7.4		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Toluene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
trans-1,3-Dichloropropene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
1,1,2-Trichloroethane	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
2-Hexanone	BRL	7.4		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Tetrachloroethene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Dibromochloromethane	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
1,2-Dibromoethane	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Chlorobenzene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Ethylbenzene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
m,p-Xylene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
o-Xylene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-114(13-14')
Project Name:	Murata	**Collection Date:**	7/16/2017 12:00:00 PM
Lab ID:	1707D67-071	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Bromoform	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
1,1,2,2-Tetrachloroethane	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Isopropylbenzene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
1,3-Dichlorobenzene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
1,4-Dichlorobenzene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
1,2-Dichlorobenzene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
1,2-Dibromo-3-chloropropane	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
1,2,4-Trichlorobenzene	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
1,2-Dichloroethene, Total	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Xylenes, Total	BRL	3.7		ug/Kg-dry	245902	1	07/24/2017 00:14	MD
Surr: 4-Bromofluorobenzene	94.4	63-125		%REC	245902	1	07/24/2017 00:14	MD
Surr: Dibromofluoromethane	115	69.9-123		%REC	245902	1	07/24/2017 00:14	MD
Surr: Toluene-d8	98.6	70-122		%REC	245902	1	07/24/2017 00:14	MD
PERCENT MOISTURE D2216								
Percent Moisture	22.1	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-130(14-15')
Project Name:	Murata	**Collection Date:**	7/14/2017 1:00:00 PM
Lab ID:	1707D67-072	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
1,4-Dioxane	BRL	120		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Dichlorodifluoromethane	BRL	8.1		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Chloromethane	BRL	8.1		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Vinyl chloride	BRL	8.1		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Bromomethane	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Chloroethane	BRL	8.1		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Trichlorofluoromethane	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
1,1-Dichloroethene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Acetone	BRL	81		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Freon-113	BRL	8.1		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Carbon disulfide	BRL	8.1		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Methyl acetate	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Methylene chloride	BRL	16		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Methyl tert-butyl ether	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
trans-1,2-Dichloroethene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
1,1-Dichloroethane	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
cis-1,2-Dichloroethene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
2-Butanone	BRL	40		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Chloroform	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
1,1,1-Trichloroethane	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Cyclohexane	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Carbon tetrachloride	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Benzene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
1,2-Dichloroethane	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Trichloroethene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Methylcyclohexane	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
1,2-Dichloropropane	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Bromodichloromethane	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
cis-1,3-Dichloropropene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
4-Methyl-2-pentanone	BRL	8.1		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Toluene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
trans-1,3-Dichloropropene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
1,1,2-Trichloroethane	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
2-Hexanone	BRL	8.1		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Tetrachloroethene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Dibromochloromethane	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
1,2-Dibromoethane	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Chlorobenzene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Ethylbenzene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
m,p-Xylene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
o-Xylene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	SB-130(14-15')
Project Name:	Murata	**Collection Date:**	7/14/2017 1:00:00 PM
Lab ID:	1707D67-072	**Matrix:**	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)								
Styrene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Bromoform	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
1,1,2,2-Tetrachloroethane	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Isopropylbenzene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
1,3-Dichlorobenzene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
1,4-Dichlorobenzene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
1,2-Dichlorobenzene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
1,2-Dibromo-3-chloropropane	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
1,2,4-Trichlorobenzene	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
1,2-Dichloroethene, Total	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Xylenes, Total	BRL	4.0		ug/Kg-dry	245902	1	07/24/2017 00:39	MD
Surr: 4-Bromofluorobenzene	91.7	63-125		%REC	245902	1	07/24/2017 00:39	MD
Surr: Dibromofluoromethane	97.9	69.9-123		%REC	245902	1	07/24/2017 00:39	MD
Surr: Toluene-d8	99.8	70-122		%REC	245902	1	07/24/2017 00:39	MD
PERCENT MOISTURE D2216								
Percent Moisture	28.5	0		wt%	R348053	1	07/21/2017 14:30	VH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	TRIP BLANK 1
Project Name:	Murata	**Collection Date:**	7/17/2017
Lab ID:	1707D67-073	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
1,1-Dichloroethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
1,1-Dichloroethene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
1,2-Dibromoethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
1,2-Dichloroethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
1,2-Dichloropropane	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
1,4-Dioxane	BRL	150		ug/L	245743	1	07/20/2017 13:05	NP
2-Butanone	BRL	50		ug/L	245743	1	07/20/2017 13:05	NP
2-Hexanone	BRL	10		ug/L	245743	1	07/20/2017 13:05	NP
4-Methyl-2-pentanone	BRL	10		ug/L	245743	1	07/20/2017 13:05	NP
Acetone	BRL	50		ug/L	245743	1	07/20/2017 13:05	NP
Benzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Bromodichloromethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Bromoform	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Bromomethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Carbon disulfide	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Carbon tetrachloride	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Chlorobenzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Chloroethane	BRL	10		ug/L	245743	1	07/20/2017 13:05	NP
Chloroform	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Chloromethane	BRL	10		ug/L	245743	1	07/20/2017 13:05	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Cyclohexane	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Dibromochloromethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Dichlorodifluoromethane	BRL	10		ug/L	245743	1	07/20/2017 13:05	NP
Ethylbenzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Freon-113	BRL	10		ug/L	245743	1	07/20/2017 13:05	NP
Isopropylbenzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
m,p-Xylene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Methyl acetate	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Methylcyclohexane	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Methylene chloride	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	TRIP BLANK 1
Project Name:	Murata	**Collection Date:**	7/17/2017
Lab ID:	1707D67-073	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
o-Xylene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Styrene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Tetrachloroethene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Toluene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Trichloroethene	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Trichlorofluoromethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Vinyl chloride	BRL	2.0		ug/L	245743	1	07/20/2017 13:05	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Xylenes, Total	BRL	5.0		ug/L	245743	1	07/20/2017 13:05	NP
Surr: 4-Bromofluorobenzene	84	66.1-129		%REC	245743	1	07/20/2017 13:05	NP
Surr: Dibromofluoromethane	117	83.6-123		%REC	245743	1	07/20/2017 13:05	NP
Surr: Toluene-d8	103	81.8-118		%REC	245743	1	07/20/2017 13:05	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	TRIP BLANK 2
Project Name:	Murata	**Collection Date:**	7/17/2017
Lab ID:	1707D67-074	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
1,1-Dichloroethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
1,1-Dichloroethene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
1,2-Dibromoethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
1,2-Dichloroethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
1,2-Dichloropropane	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
1,4-Dioxane	BRL	150		ug/L	245743	1	07/20/2017 13:29	NP
2-Butanone	BRL	50		ug/L	245743	1	07/20/2017 13:29	NP
2-Hexanone	BRL	10		ug/L	245743	1	07/20/2017 13:29	NP
4-Methyl-2-pentanone	BRL	10		ug/L	245743	1	07/20/2017 13:29	NP
Acetone	BRL	50		ug/L	245743	1	07/20/2017 13:29	NP
Benzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Bromodichloromethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Bromoform	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Bromomethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Carbon disulfide	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Carbon tetrachloride	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Chlorobenzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Chloroethane	BRL	10		ug/L	245743	1	07/20/2017 13:29	NP
Chloroform	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Chloromethane	BRL	10		ug/L	245743	1	07/20/2017 13:29	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Cyclohexane	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Dibromochloromethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Dichlorodifluoromethane	BRL	10		ug/L	245743	1	07/20/2017 13:29	NP
Ethylbenzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Freon-113	BRL	10		ug/L	245743	1	07/20/2017 13:29	NP
Isopropylbenzene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
m,p-Xylene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Methyl acetate	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Methylcyclohexane	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Methylene chloride	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	TRIP BLANK 2
Project Name:	Murata	**Collection Date:**	7/17/2017
Lab ID:	1707D67-074	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
o-Xylene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Styrene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Tetrachloroethene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Toluene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Trichloroethene	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Trichlorofluoromethane	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Vinyl chloride	BRL	2.0		ug/L	245743	1	07/20/2017 13:29	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Xylenes, Total	BRL	5.0		ug/L	245743	1	07/20/2017 13:29	NP
Surr: 4-Bromofluorobenzene	84.6	66.1-129		%REC	245743	1	07/20/2017 13:29	NP
Surr: Dibromofluoromethane	114	83.6-123		%REC	245743	1	07/20/2017 13:29	NP
Surr: Toluene-d8	99.7	81.8-118		%REC	245743	1	07/20/2017 13:29	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	TRIP BLANK 3
Project Name:	Murata	**Collection Date:**	7/17/2017
Lab ID:	1707D67-075	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
1,1-Dichloroethane	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
1,1-Dichloroethene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
1,2-Dibromoethane	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
1,2-Dichloroethane	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
1,2-Dichloropropane	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
1,4-Dioxane	BRL	150		ug/L	245743	1	07/22/2017 00:43	NP
2-Butanone	BRL	50		ug/L	245743	1	07/22/2017 00:43	NP
2-Hexanone	BRL	10		ug/L	245743	1	07/22/2017 00:43	NP
4-Methyl-2-pentanone	BRL	10		ug/L	245743	1	07/22/2017 00:43	NP
Acetone	BRL	50		ug/L	245743	1	07/22/2017 00:43	NP
Benzene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Bromodichloromethane	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Bromoform	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Bromomethane	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Carbon disulfide	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Carbon tetrachloride	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Chlorobenzene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Chloroethane	BRL	10		ug/L	245743	1	07/22/2017 00:43	NP
Chloroform	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Chloromethane	BRL	10		ug/L	245743	1	07/22/2017 00:43	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Cyclohexane	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Dibromochloromethane	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Dichlorodifluoromethane	BRL	10		ug/L	245743	1	07/22/2017 00:43	NP
Ethylbenzene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Freon-113	BRL	10		ug/L	245743	1	07/22/2017 00:43	NP
Isopropylbenzene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
m,p-Xylene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Methyl acetate	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Methylcyclohexane	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Methylene chloride	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	TRIP BLANK 3
Project Name:	Murata	**Collection Date:**	7/17/2017
Lab ID:	1707D67-075	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
o-Xylene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Styrene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Tetrachloroethene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Toluene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Trichloroethene	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Trichlorofluoromethane	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Vinyl chloride	BRL	2.0		ug/L	245743	1	07/22/2017 00:43	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Xylenes, Total	BRL	5.0		ug/L	245743	1	07/22/2017 00:43	NP
Surr: 4-Bromofluorobenzene	86.1	66.1-129		%REC	245743	1	07/22/2017 00:43	NP
Surr: Dibromofluoromethane	112	83.6-123		%REC	245743	1	07/22/2017 00:43	NP
Surr: Toluene-d8	101	81.8-118		%REC	245743	1	07/22/2017 00:43	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	TRIP BLANK 4
Project Name:	Murata	**Collection Date:**	7/17/2017
Lab ID:	1707D67-076	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
1,1-Dichloroethane	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
1,1-Dichloroethene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
1,2-Dibromoethane	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
1,2-Dichloroethane	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
1,2-Dichloropropane	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
1,4-Dioxane	BRL	150		ug/L	245743	1	07/22/2017 01:07	NP
2-Butanone	BRL	50		ug/L	245743	1	07/22/2017 01:07	NP
2-Hexanone	BRL	10		ug/L	245743	1	07/22/2017 01:07	NP
4-Methyl-2-pentanone	BRL	10		ug/L	245743	1	07/22/2017 01:07	NP
Acetone	BRL	50		ug/L	245743	1	07/22/2017 01:07	NP
Benzene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Bromodichloromethane	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Bromoform	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Bromomethane	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Carbon disulfide	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Carbon tetrachloride	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Chlorobenzene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Chloroethane	BRL	10		ug/L	245743	1	07/22/2017 01:07	NP
Chloroform	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Chloromethane	BRL	10		ug/L	245743	1	07/22/2017 01:07	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Cyclohexane	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Dibromochloromethane	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Dichlorodifluoromethane	BRL	10		ug/L	245743	1	07/22/2017 01:07	NP
Ethylbenzene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Freon-113	BRL	10		ug/L	245743	1	07/22/2017 01:07	NP
Isopropylbenzene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
m,p-Xylene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Methyl acetate	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Methylcyclohexane	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Methylene chloride	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client:	ERM-Southeast	**Client Sample ID:**	TRIP BLANK 4
Project Name:	Murata	**Collection Date:**	7/17/2017
Lab ID:	1707D67-076	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Naphthalene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
o-Xylene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Styrene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Tetrachloroethene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Toluene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Trichloroethene	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Trichlorofluoromethane	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Vinyl chloride	BRL	2.0		ug/L	245743	1	07/22/2017 01:07	NP
1,2-Dichloroethene, Total	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Xylenes, Total	BRL	5.0		ug/L	245743	1	07/22/2017 01:07	NP
Surr: 4-Bromofluorobenzene	85.1	66.1-129		%REC	245743	1	07/22/2017 01:07	NP
Surr: Dibromofluoromethane	111	83.6-123		%REC	245743	1	07/22/2017 01:07	NP
Surr: Toluene-d8	98.8	81.8-118		%REC	245743	1	07/22/2017 01:07	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Clear | Save as

AES ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **ERM-Southeast** AES Work Order Number: **1707D67**

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ■ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	●	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 1.3 °C Cooler 2 Temperature 1.0 °C Cooler 3 Temperature 1.1 °C Cooler 4 Temperature 0.7 °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). MJ 7/17/17

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	○	●	○	incomplete info ■ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	●	○	○		
26.	Were trip blanks submitted?	●	○	○	listed on COC ☐ not listed on COC ■	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). TD 7/18/17

This section only applies to samples where pH can be checked at Sample Receipt.

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	○	○	●		
29.	Containers meet preservation guidelines?	○	○	●		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). TD 7/18/17

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245698

Sample ID: **MB-245698** Client ID: Units: **ug/Kg** Prep Date: **07/19/2017** Run No: **347865**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245698** Analysis Date: **07/19/2017** Seq No: **7640634**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloroethene, Total	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
1,4-Dioxane	BRL	150									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	100									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245698

Sample ID: **MB-245698** Client ID: Units: **ug/Kg** Prep Date: **07/19/2017** Run No: **347865**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245698** Analysis Date: **07/19/2017** Seq No: **7640634**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	44.80	0	50.00		89.6	63	125				
Surr: Dibromofluoromethane	47.25	0	50.00		94.5	69.9	123				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: **245698**

Sample ID: **MB-245698** Client ID: Units: **ug/Kg** Prep Date: **07/19/2017** Run No: **347865**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245698** Analysis Date: **07/19/2017** Seq No: **7640634**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Toluene-d8	48.82	0	50.00		97.6	70	122				

Sample ID: **LCS-245698** Client ID: Units: **ug/Kg** Prep Date: **07/19/2017** Run No: **347865**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245698** Analysis Date: **07/19/2017** Seq No: **7640635**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	45.94	5.0	50.00		91.9	62	142				
Benzene	44.24	5.0	50.00		88.5	70.2	131				
Chlorobenzene	44.74	5.0	50.00		89.5	72.9	129				
Toluene	42.83	5.0	50.00		85.7	70.6	131				
Trichloroethene	45.85	5.0	50.00		91.7	70.1	136				
Surr: 4-Bromofluorobenzene	46.18	0	50.00		92.4	63	125				
Surr: Dibromofluoromethane	46.85	0	50.00		93.7	69.9	123				
Surr: Toluene-d8	48.24	0	50.00		96.5	70	122				

Sample ID: **1707E43-002AMS** Client ID: Units: **ug/Kg-dry** Prep Date: **07/19/2017** Run No: **347865**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245698** Analysis Date: **07/19/2017** Seq No: **7640641**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	49.73	5.9	59.33		83.8	55	143				
Benzene	47.91	5.9	59.33		80.7	68.5	128				
Chlorobenzene	47.80	5.9	59.33		80.6	67.7	126				
Toluene	46.38	5.9	59.33		78.2	66.9	128				
Trichloroethene	48.17	5.9	59.33		81.2	60.7	133				
Surr: 4-Bromofluorobenzene	53.01	0	59.33		89.3	63	125				
Surr: Dibromofluoromethane	54.85	0	59.33		92.4	69.9	123				
Surr: Toluene-d8	57.10	0	59.33		96.2	70	122				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 27-Jul-17

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245698

Sample ID: **1707E43-002AMSD** Client ID: Units: **ug/Kg-dry** Prep Date: **07/19/2017** Run No: **347865**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245698** Analysis Date: **07/19/2017** Seq No: **7640642**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	49.83	5.9	59.33		84.0	55	143	49.73	0.191	19.3	
Benzene	47.75	5.9	59.33		80.5	68.5	128	47.91	0.323	20	
Chlorobenzene	48.05	5.9	59.33		81.0	67.7	126	47.80	0.520	20	
Toluene	45.73	5.9	59.33		77.1	66.9	128	46.38	1.39	20	
Trichloroethene	47.18	5.9	59.33		79.5	60.7	133	48.17	2.07	20	
Surr: 4-Bromofluorobenzene	53.58	0	59.33		90.3	63	125	53.01	0	0	
Surr: Dibromofluoromethane	54.29	0	59.33		91.5	69.9	123	54.85	0	0	
Surr: Toluene-d8	57.44	0	59.33		96.8	70	122	57.10	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: **245743**

Sample ID: **MB-245743** Client ID: Units: **ug/L** Prep Date: **07/19/2017** Run No: **347857**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245743** Analysis Date: **07/19/2017** Seq No: **7641713**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloroethene, Total	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
1,4-Dioxane	BRL	150									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245743

Sample ID: **MB-245743** Client ID: Units: **ug/L** Prep Date: **07/19/2017** Run No: **347857**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245743** Analysis Date: **07/19/2017** Seq No: **7641713**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
Naphthalene	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	39.60	0	50.00		79.2	66.1	129				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: **245743**

Sample ID: **MB-245743** Client ID: Units: **ug/L** Prep Date: **07/19/2017** Run No: **347857**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245743** Analysis Date: **07/19/2017** Seq No: **7641713**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Dibromofluoromethane	52.23	0	50.00		104	83.6	123				
Surr: Toluene-d8	50.96	0	50.00		102	81.8	118				

Sample ID: **LCS-245743** Client ID: Units: **ug/L** Prep Date: **07/19/2017** Run No: **347857**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245743** Analysis Date: **07/19/2017** Seq No: **7641712**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	59.45	5.0	50.00		119	68	139				
Benzene	50.37	5.0	50.00		101	74	125				
Chlorobenzene	51.32	5.0	50.00		103	75.7	123				
Toluene	51.61	5.0	50.00		103	75.9	126				
Trichloroethene	50.78	5.0	50.00		102	70.6	129				
Surr: 4-Bromofluorobenzene	39.97	0	50.00		79.9	66.1	129				
Surr: Dibromofluoromethane	51.38	0	50.00		103	83.6	123				
Surr: Toluene-d8	50.45	0	50.00		101	81.8	118				

Sample ID: **1707B14-007AMS** Client ID: Units: **ug/L** Prep Date: **07/19/2017** Run No: **347857**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245743** Analysis Date: **07/19/2017** Seq No: **7641716**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	33550	2500	25000		134	64.3	149				
Benzene	27590	2500	25000		110	71.6	132				
Chlorobenzene	28720	2500	25000		115	73.1	126				
Toluene	28940	2500	25000		116	72.5	135				
Trichloroethene	27430	2500	25000		110	70.2	132				
Surr: 4-Bromofluorobenzene	20830	0	25000		83.3	66.1	129				
Surr: Dibromofluoromethane	24790	0	25000		99.1	83.6	123				
Surr: Toluene-d8	25190	0	25000		101	81.8	118				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: **245743**

Sample ID: **1707B14-007AMSD** Client ID: Units: **ug/L** Prep Date: **07/19/2017** Run No: **347857**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245743** Analysis Date: **07/19/2017** Seq No: **7641719**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	30270	2500	25000		121	64.3	149	33550	10.3	30.8	
Benzene	26190	2500	25000		105	71.6	132	27590	5.23	20.7	
Chlorobenzene	27310	2500	25000		109	73.1	126	28720	5.03	26.6	
Toluene	26640	2500	25000		107	72.5	135	28940	8.26	23.2	
Trichloroethene	25580	2500	25000		102	70.2	132	27430	6.98	27.7	
Surr: 4-Bromofluorobenzene	20920	0	25000		83.7	66.1	129	20830	0	0	
Surr: Dibromofluoromethane	25070	0	25000		100	83.6	123	24790	0	0	
Surr: Toluene-d8	24820	0	25000		99.3	81.8	118	25190	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245768

Sample ID: **MB-245768** Client ID: Units: **ug/Kg** Prep Date: **07/19/2017** Run No: **347957**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245768** Analysis Date: **07/19/2017** Seq No: **7642628**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloroethene, Total	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
1,4-Dioxane	BRL	150									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	100									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245768

Sample ID: **MB-245768** Client ID: Units: **ug/Kg** Prep Date: **07/19/2017** Run No: **347957**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245768** Analysis Date: **07/19/2017** Seq No: **7642628**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	43.41	0	50.00		86.8	63	125				
Surr: Dibromofluoromethane	46.38	0	50.00		92.8	69.9	123				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: **245768**

Sample ID: **MB-245768** Client ID: Units: **ug/Kg** Prep Date: **07/19/2017** Run No: **347957**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245768** Analysis Date: **07/19/2017** Seq No: **7642628**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Toluene-d8	48.39	0	50.00		96.8	70	122				

Sample ID: **LCS-245768** Client ID: Units: **ug/Kg** Prep Date: **07/19/2017** Run No: **347957**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245768** Analysis Date: **07/19/2017** Seq No: **7642629**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	43.07	5.0	50.00		86.1	62	142				
Benzene	38.48	5.0	50.00		77.0	70.2	131				
Chlorobenzene	38.26	5.0	50.00		76.5	72.9	129				
Toluene	37.05	5.0	50.00		74.1	70.6	131				
Trichloroethene	39.60	5.0	50.00		79.2	70.1	136				
Surr: 4-Bromofluorobenzene	46.00	0	50.00		92.0	63	125				
Surr: Dibromofluoromethane	48.20	0	50.00		96.4	69.9	123				
Surr: Toluene-d8	47.37	0	50.00		94.7	70	122				

Sample ID: **1707D67-023AMS** Client ID: **SB-101(9-10')** Units: **ug/Kg-dry** Prep Date: **07/19/2017** Run No: **347957**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245768** Analysis Date: **07/19/2017** Seq No: **7642631**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	57.55	6.5	65.36		88.1	55	143				
Benzene	54.31	6.5	65.36		83.1	68.5	128				
Chlorobenzene	55.29	6.5	65.36		84.6	67.7	126				
Toluene	53.61	6.5	65.36		82.0	66.9	128				
Trichloroethene	55.71	6.5	65.36		85.2	60.7	133				
Surr: 4-Bromofluorobenzene	57.59	0	65.36		88.1	63	125				
Surr: Dibromofluoromethane	60.31	0	65.36		92.3	69.9	123				
Surr: Toluene-d8	63.52	0	65.36		97.2	70	122				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: **245768**

Sample ID: **1707D67-023AMSD** Client ID: **SB-101(9-10')** Units: **ug/Kg-dry** Prep Date: **07/19/2017** Run No: **347957**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245768** Analysis Date: **07/19/2017** Seq No: **7642632**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	67.63	6.5	65.36		103	55	143	57.55	16.1	19.3	
Benzene	60.36	6.5	65.36		92.4	68.5	128	54.31	10.6	20	
Chlorobenzene	61.02	6.5	65.36		93.4	67.7	126	55.29	9.84	20	
Toluene	59.25	6.5	65.36		90.7	66.9	128	53.61	10.0	20	
Trichloroethene	62.03	6.5	65.36		94.9	60.7	133	55.71	10.7	20	
Surr: 4-Bromofluorobenzene	58.51	0	65.36		89.5	63	125	57.59	0	0	
Surr: Dibromofluoromethane	61.27	0	65.36		93.7	69.9	123	60.31	0	0	
Surr: Toluene-d8	62.40	0	65.36		95.5	70	122	63.52	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: **245782**

Sample ID: **MB-245782** Client ID: Units: **ug/Kg** Prep Date: **07/19/2017** Run No: **347907**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245782** Analysis Date: **07/19/2017** Seq No: **7642894**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	250									
1,1,2,2-Tetrachloroethane	BRL	250									
1,1,2-Trichloroethane	BRL	250									
1,1-Dichloroethane	BRL	250									
1,1-Dichloroethene	BRL	250									
1,2,4-Trichlorobenzene	BRL	250									
1,2-Dibromo-3-chloropropane	BRL	250									
1,2-Dibromoethane	BRL	250									
1,2-Dichlorobenzene	BRL	250									
1,2-Dichloroethane	BRL	250									
1,2-Dichloroethene, Total	BRL	250									
1,2-Dichloropropane	BRL	250									
1,3-Dichlorobenzene	BRL	250									
1,4-Dichlorobenzene	BRL	250									
2-Butanone	BRL	2500									
2-Hexanone	BRL	500									
4-Methyl-2-pentanone	BRL	500									
Acetone	BRL	5000									
Benzene	BRL	250									
Bromodichloromethane	BRL	250									
Bromoform	BRL	250									
Bromomethane	BRL	250									
Carbon disulfide	BRL	500									
Carbon tetrachloride	BRL	250									
Chlorobenzene	BRL	250									
Chloroethane	BRL	500									
Chloroform	BRL	250									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245782

Sample ID: **MB-245782** Client ID: Units: **ug/Kg** Prep Date: **07/19/2017** Run No: **347907**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245782** Analysis Date: **07/19/2017** Seq No: **7642894**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloromethane	BRL	500									
cis-1,2-Dichloroethene	BRL	250									
cis-1,3-Dichloropropene	BRL	250									
Cyclohexane	BRL	250									
Dibromochloromethane	BRL	250									
Dichlorodifluoromethane	BRL	500									
Ethylbenzene	BRL	250									
Freon-113	BRL	500									
Isopropylbenzene	BRL	250									
m,p-Xylene	BRL	250									
Methyl acetate	BRL	250									
Methyl tert-butyl ether	BRL	250									
Methylcyclohexane	BRL	250									
Methylene chloride	BRL	1000									
o-Xylene	BRL	250									
Styrene	BRL	250									
Tetrachloroethene	BRL	250									
Toluene	BRL	250									
trans-1,2-Dichloroethene	BRL	250									
trans-1,3-Dichloropropene	BRL	250									
Trichloroethene	BRL	250									
Trichlorofluoromethane	BRL	250									
Vinyl chloride	BRL	500									
Xylenes, Total	BRL	250									
Surr: 4-Bromofluorobenzene	2037	0	2500		81.5	63	125				
Surr: Dibromofluoromethane	2538	0	2500		102	69.9	123				
Surr: Toluene-d8	2219	0	2500		88.8	70	122				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245782

Sample ID: **LCS-245782** Client ID: Units: **ug/Kg** Prep Date: **07/19/2017** Run No: **347907**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245782** Analysis Date: **07/19/2017** Seq No: **7642893**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	2227	250	2500		89.1	62	142				
Benzene	2094	250	2500		83.7	70.2	131				
Chlorobenzene	2562	250	2500		102	72.9	129				
Toluene	2118	250	2500		84.7	70.6	131				
Trichloroethene	2136	250	2500		85.4	70.1	136				
Surr: 4-Bromofluorobenzene	2071	0	2500		82.8	63	125				
Surr: Dibromofluoromethane	2317	0	2500		92.7	69.9	123				
Surr: Toluene-d8	2070	0	2500		82.8	70	122				

Sample ID: **1707D67-003AMS** Client ID: **SB-109(24-25')** Units: **ug/Kg-dry** Prep Date: **07/19/2017** Run No: **347907**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245782** Analysis Date: **07/19/2017** Seq No: **7642898**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1846	200	1973		93.6	55	143				
Benzene	1893	200	1973		96.0	68.5	128				
Chlorobenzene	2179	200	1973		110	67.7	126				
Toluene	1836	200	1973		93.1	66.9	128				
Trichloroethene	1892	200	1973		95.9	60.7	133				
Surr: 4-Bromofluorobenzene	1599	0	1973		81.1	63	125				
Surr: Dibromofluoromethane	1941	0	1973		98.4	69.9	123				
Surr: Toluene-d8	1700	0	1973		86.2	70	122				

Sample ID: **1707D67-003AMSD** Client ID: **SB-109(24-25')** Units: **ug/Kg-dry** Prep Date: **07/19/2017** Run No: **347907**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245782** Analysis Date: **07/19/2017** Seq No: **7642899**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1822	200	1973		92.4	55	143	1846	1.31	19.3	
Benzene	1775	200	1973		90.0	68.5	128	1893	6.45	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245782

Sample ID: **1707D67-003AMSD** Client ID: **SB-109(24-25')** Units: **ug/Kg-dry** Prep Date: **07/19/2017** Run No: **347907**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245782** Analysis Date: **07/19/2017** Seq No: **7642899**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	2037	200	1973		103	67.7	126	2179	6.74	20	
Toluene	1743	200	1973		88.3	66.9	128	1836	5.20	20	
Trichloroethene	1794	200	1973		90.9	60.7	133	1892	5.33	20	
Surr: 4-Bromofluorobenzene	1590	0	1973		80.6	63	125	1599	0	0	
Surr: Dibromofluoromethane	1882	0	1973		95.4	69.9	123	1941	0	0	
Surr: Toluene-d8	1589	0	1973		80.5	70	122	1700	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245860

Sample ID: **MB-245860** Client ID: Units: **ug/Kg** Prep Date: **07/21/2017** Run No: **348088**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245860** Analysis Date: **07/21/2017** Seq No: **7646204**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
1,4-Dioxane	BRL	150									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	100									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245860

Sample ID: **MB-245860** Client ID: Units: **ug/Kg** Prep Date: **07/21/2017** Run No: **348088**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245860** Analysis Date: **07/21/2017** Seq No: **7646204**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Surr: 4-Bromofluorobenzene	48.87	0	50.00		97.7	63	125				
Surr: Dibromofluoromethane	49.80	0	50.00		99.6	69.9	123				
Surr: Toluene-d8	48.50	0	50.00		97.0	70	122				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245860

Sample ID: **LCS-245860** Client ID: Units: **ug/Kg** Prep Date: **07/21/2017** Run No: **348088**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245860** Analysis Date: **07/21/2017** Seq No: **7646202**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	48.97	5.0	50.00		97.9	62	142				
Benzene	49.24	5.0	50.00		98.5	70.2	131				
Chlorobenzene	48.56	5.0	50.00		97.1	72.9	129				
Toluene	50.08	5.0	50.00		100	70.6	131				
Trichloroethene	48.91	5.0	50.00		97.8	70.1	136				
Surr: 4-Bromofluorobenzene	49.52	0	50.00		99.0	63	125				
Surr: Dibromofluoromethane	51.03	0	50.00		102	69.9	123				
Surr: Toluene-d8	47.83	0	50.00		95.7	70	122				

Sample ID: **1707D67-039AMS** Client ID: **SB-134(11-12')** Units: **ug/Kg-dry** Prep Date: **07/21/2017** Run No: **348098**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245860** Analysis Date: **07/21/2017** Seq No: **7646364**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	56.22	6.6	66.22		84.9	55	143				
Benzene	56.17	6.6	66.22		84.8	68.5	128				
Chlorobenzene	52.81	6.6	66.22		79.7	67.7	126				
Toluene	54.12	6.6	66.22		81.7	66.9	128				
Trichloroethene	51.27	6.6	66.22		77.4	60.7	133				
Surr: 4-Bromofluorobenzene	63.73	0	66.22		96.2	63	125				
Surr: Dibromofluoromethane	65.41	0	66.22		98.8	69.9	123				
Surr: Toluene-d8	65.84	0	66.22		99.4	70	122				

Sample ID: **1707D67-039AMSD** Client ID: **SB-134(11-12')** Units: **ug/Kg-dry** Prep Date: **07/21/2017** Run No: **348098**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245860** Analysis Date: **07/21/2017** Seq No: **7646368**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	64.98	6.6	66.22		98.1	55	143	56.22	14.4	19.3	
Benzene	58.98	6.6	66.22		89.1	68.5	128	56.17	4.88	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245860

Sample ID: **1707D67-039AMSD** Client ID: **SB-134(11-12')** Units: **ug/Kg-dry** Prep Date: **07/21/2017** Run No: **348098**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245860** Analysis Date: **07/21/2017** Seq No: **7646368**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	56.55	6.6	66.22		85.4	67.7	126	52.81	6.85	20	
Toluene	56.75	6.6	66.22		85.7	66.9	128	54.12	4.75	20	
Trichloroethene	53.27	6.6	66.22		80.4	60.7	133	51.27	3.83	20	
Surr: 4-Bromofluorobenzene	62.37	0	66.22		94.2	63	125	63.73	0	0	
Surr: Dibromofluoromethane	63.48	0	66.22		95.9	69.9	123	65.41	0	0	
Surr: Toluene-d8	63.64	0	66.22		96.1	70	122	65.84	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: **245867**

Sample ID: **MB-245867** Client ID: Units: **ug/Kg** Prep Date: **07/22/2017** Run No: **348099**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245867** Analysis Date: **07/22/2017** Seq No: **7646621**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloroethene, Total	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
1,4-Dioxane	BRL	150									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	100									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245867

Sample ID: **MB-245867** Client ID: Units: **ug/Kg** Prep Date: **07/22/2017** Run No: **348099**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245867** Analysis Date: **07/22/2017** Seq No: **7646621**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	46.93	0	50.00		93.9	63	125				
Surr: Dibromofluoromethane	50.35	0	50.00		101	69.9	123				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245867

Sample ID: **MB-245867** Client ID: Units: **ug/Kg** Prep Date: **07/22/2017** Run No: **348099**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245867** Analysis Date: **07/22/2017** Seq No: **7646621**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Toluene-d8	49.85	0	50.00		99.7	70	122				

Sample ID: **LCS-245867** Client ID: Units: **ug/Kg** Prep Date: **07/22/2017** Run No: **348099**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245867** Analysis Date: **07/22/2017** Seq No: **7646622**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	62.84	5.0	50.00		126	62	142				
Benzene	55.07	5.0	50.00		110	70.2	131				
Chlorobenzene	51.45	5.0	50.00		103	72.9	129				
Toluene	52.29	5.0	50.00		105	70.6	131				
Trichloroethene	52.30	5.0	50.00		105	70.1	136				
Surr: 4-Bromofluorobenzene	47.29	0	50.00		94.6	63	125				
Surr: Dibromofluoromethane	51.22	0	50.00		102	69.9	123				
Surr: Toluene-d8	48.63	0	50.00		97.3	70	122				

Sample ID: **1707D67-044AMS** Client ID: **SB-122(0-2')** Units: **ug/Kg-dry** Prep Date: **07/22/2017** Run No: **348099**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245867** Analysis Date: **07/22/2017** Seq No: **7646629**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	69.14	6.3	62.76		110	55	143				
Benzene	61.39	6.3	62.76		97.8	68.5	128				
Chlorobenzene	56.77	6.3	62.76		90.5	67.7	126				
Toluene	60.63	6.3	62.76		96.6	66.9	128				
Trichloroethene	57.44	6.3	62.76		91.5	60.7	133				
Surr: 4-Bromofluorobenzene	58.63	0	62.76		93.4	63	125				
Surr: Dibromofluoromethane	64.49	0	62.76		103	69.9	123				
Surr: Toluene-d8	60.68	0	62.76		96.7	70	122				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245867

Sample ID: **1707D67-044AMSD** Client ID: **SB-122(0-2')** Units: **ug/Kg-dry** Prep Date: **07/22/2017** Run No: **348099**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245867** Analysis Date: **07/22/2017** Seq No: **7646630**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	77.13	6.3	62.76		123	55	143	69.14	10.9	19.3	
Benzene	62.22	6.3	62.76		99.1	68.5	128	61.39	1.34	20	
Chlorobenzene	59.80	6.3	62.76		95.3	67.7	126	56.77	5.19	20	
Toluene	59.99	6.3	62.76		95.6	66.9	128	60.63	1.06	20	
Trichloroethene	57.51	6.3	62.76		91.6	60.7	133	57.44	0.131	20	
Surr: 4-Bromofluorobenzene	57.25	0	62.76		91.2	63	125	58.63	0	0	
Surr: Dibromofluoromethane	61.83	0	62.76		98.5	69.9	123	64.49	0	0	
Surr: Toluene-d8	60.48	0	62.76		96.4	70	122	60.68	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: **245902**

Sample ID: **MB-245902** Client ID: Units: **ug/Kg** Prep Date: **07/23/2017** Run No: **348105**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245902** Analysis Date: **07/23/2017** Seq No: **7651444**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloroethene, Total	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
1,4-Dioxane	BRL	150									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	100									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: **245902**

Sample ID: **MB-245902** Client ID: Units: **ug/Kg** Prep Date: **07/23/2017** Run No: **348105**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245902** Analysis Date: **07/23/2017** Seq No: **7651444**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	47.53	0	50.00		95.1	63	125				
Surr: Dibromofluoromethane	57.42	0	50.00		115	69.9	123				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: 245902

Sample ID: **MB-245902** Client ID: Units: **ug/Kg** Prep Date: **07/23/2017** Run No: **348105**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245902** Analysis Date: **07/23/2017** Seq No: **7651444**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Toluene-d8	50.81	0	50.00		102	70	122				

Sample ID: **LCS-245902** Client ID: Units: **ug/Kg** Prep Date: **07/23/2017** Run No: **348105**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245902** Analysis Date: **07/23/2017** Seq No: **7647276**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	58.65	5.0	50.00		117	62	142				
Benzene	50.97	5.0	50.00		102	70.2	131				
Chlorobenzene	52.71	5.0	50.00		105	72.9	129				
Toluene	49.70	5.0	50.00		99.4	70.6	131				
Trichloroethene	47.25	5.0	50.00		94.5	70.1	136				
Surr: 4-Bromofluorobenzene	45.06	0	50.00		90.1	63	125				
Surr: Dibromofluoromethane	51.31	0	50.00		103	69.9	123				
Surr: Toluene-d8	48.06	0	50.00		96.1	70	122				

Sample ID: **1707D67-066AMS** Client ID: **SB-132(13-14')** Units: **ug/Kg-dry** Prep Date: **07/23/2017** Run No: **348105**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245902** Analysis Date: **07/23/2017** Seq No: **7651445**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	65.35	6.3	63.20		103	55	143				
Benzene	60.08	6.3	63.20		95.1	68.5	128				
Chlorobenzene	62.68	6.3	63.20		99.2	67.7	126				
Toluene	57.41	6.3	63.20		90.8	66.9	128				
Trichloroethene	56.41	6.3	63.20		89.3	60.7	133				
Surr: 4-Bromofluorobenzene	59.27	0	63.20		93.8	63	125				
Surr: Dibromofluoromethane	65.85	0	63.20		104	69.9	123				
Surr: Toluene-d8	60.44	0	63.20		95.6	70	122				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ERM-Southeast
Project Name: Murata
Workorder: 1707D67

ANALYTICAL QC SUMMARY REPORT

BatchID: **245902**

Sample ID: **1707D67-066AMSD** Client ID: **SB-132(13-14')** Units: **ug/Kg-dry** Prep Date: **07/23/2017** Run No: **348105**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **245902** Analysis Date: **07/23/2017** Seq No: **7651446**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	72.77	6.3	63.20		115	55	143	65.35	10.7	19.3	
Benzene	60.60	6.3	63.20		95.9	68.5	128	60.08	0.859	20	
Chlorobenzene	58.42	6.3	63.20		92.4	67.7	126	62.68	7.03	20	
Toluene	56.65	6.3	63.20		89.6	66.9	128	57.41	1.33	20	
Trichloroethene	53.93	6.3	63.20		85.3	60.7	133	56.41	4.49	20	
Surr: 4-Bromofluorobenzene	59.48	0	63.20		94.1	63	125	59.27	0	0	
Surr: Dibromofluoromethane	71.53	0	63.20		113	69.9	123	65.85	0	0	
Surr: Toluene-d8	64.31	0	63.20		102	70	122	60.44	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Soil Boring Logs

Appendix G

Project No. 0190949
Murata Electronics North America

Environmental Resources Management
3200 Windy Hill Road SE, Suite 1500W
Atlanta, Georgia 30339
(678) 486-2700

SOIL BORING SB-101

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/13/17	**TOTAL DEPTH** 10	**LOGGED BY** Markevious Thomas
START / END TIME 09:45/09:50	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-101 (0-2)	0.7	CL		SO		D	Medium brown	CLAY: Medium-plastic with medium sub-angular sand.
6, 8, 10	4.0	SB-101 (9-10)	10.0	CL		SO		D	Dark Gray	CLAY: Non-plastic with layer of angular sand and gravel
12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Refusal Depth at:10 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-102

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/13/17	**TOTAL DEPTH** 13	**LOGGED BY** Markevious Thomas
START / END TIME 10:24/10:30	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-102 (0-2)	0.3	CL		SO		W	Medium brown	SILTY CLAY: Medium-plastic
6, 8, 10	5.0		0.0	CL				D	Orange	CLAY: Slightly plastic
12	3.0	SB-102 (12-13)	2.9			SO				
14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Refusal at 13 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-103

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/13/17	**TOTAL DEPTH** 10	**LOGGED BY** Markevious Thomas
START / END TIME 10:46/10:49	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2	5.0	SB-103 (0-2)	0.3	CL		SO		M	Medium brown	SILTY CLAY: Medium-plastic
4										
6	5.0		10.5	CL				D	Orange	CLAY: Slightly plastic with layers of sand and gravel
8										
10		SB-103 (9-10)				SO				
12										Refusal at 10 ft bgs
14										
16										
18										
20										
22										
24										
26										
28										
30										
32										
34										
36										
38										

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-104

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/13/17	**TOTAL DEPTH** 20	**LOGGED BY** Markevious Thomas
START / END TIME 11:02/11:10	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-104 (0-2)	0.3	CL		SO		M	Medium brown	SILTY CLAY: Medium-plastic with sub-angular sand
6, 8	5.0		0.0	CL				D	Red - Orange	CLAY: Stiff medium plastic
10, 12			0.0	CL						CLAY: Stiff slightly plastic
14								W	Tan	CLAY: Soft Medium plastic
16, 18			44.6	CL				D	Red - Orange	CLAY: Stiff slightly plastic
20		SB-104 (19-20)				SO				
22, 24, 26, 28, 30, 32, 34, 36, 38										Refusal at 20 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-105

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/13/17	**TOTAL DEPTH** 20	**LOGGED BY** Markevious Thomas
START / END TIME 09:22/09:31	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** 20 ft bgs	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
	5.0	SB-105 (0-2)	0.0	CL		SO		M	Medium Brown	CLAY: Slightly plastic with sub-angular sand.
2										
4										
	5.0		0.0	CL				D	Gray	CLAY: Non-plastic with sub-angular pebbles
6										
8										
10	5.0		0.0							
12										
				CL					Orange	CLAY: Non-plastic with angular pebbles
14										
	5.0		0.0	CL				M	Whitish Orange	CLAY: Slightly plastic with sub-angular sand
16										
18										
20		SB-105 (19-20)				SO	▽	W		
										Termination Depth at: 20 ft bgs
22										
24										
26										
28										
30										
32										
34										
36										
38										

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-106

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/13/17	**TOTAL DEPTH** 25	**LOGGED BY** Markevious Thomas
START / END TIME 08:59/09:07	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** 25 ft bgs	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
	5.0	SB-106 (0-2)	0.0	CL		SO		D	Medium Brown	CLAY: Slightly plastic with sub-angular sand.
2										
4										
6	5.0		0.0							
8				CL					Medium Brown	SILTY CLAY: Non-plastic with sub-angular sand
10	5.0		0.0	ML					Gray	SILT: Non-plastic with angular sand
12										
14				CL					Orange	CLAY: Medium plastic
16	5.0		0.0							
18										
20	5.0		0.0	CL					Whitish Orange	CLAY: Slightly plastic with sub-angular sand
22										
24		SB-106 (24-25)				SO	▽	W		
26										Termination Depth at: 25 ft bgs
28										
30										
32										
34										
36										
38										

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-107

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/12/17	**TOTAL DEPTH** 8.8	**LOGGED BY** Markevious Thomas
START / END TIME 15:15/15:20	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-107 (0-2)	8540	ML		SO		D	Medium brown	SILT: Non-plastic with medium sub-angular sand.
6, 8	3.8	SB-107 (6-7)	27.4	CL		SO		D	Dark Gray	CLAY: Medium-plastic with angular sand
10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Refusal at 8.8 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-108

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/12/17	**TOTAL DEPTH** 30	**LOGGED BY** Markevious Thomas
START / END TIME 14:47/15:10	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** 24 ft bgs	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-108 (0-2)	20.0	ML		SO		D	Medium brown	SILT: Non-plastic with medium sub-angular sand.
6, 8	5.0		0.0	CL				D	Red - Orange	CLAY: Low-plastic with angular sand
10, 12, 14	5.0		0.0	CL						
16, 18	5.0		0.0							
20, 22	5.0	SB-108 (21-22)	2.2			SO				
24							∇	W		
26, 28	5.0		0.0	CL					Orange	CLAY: Medium plastic
30, 32, 34, 36, 38										Termination Depth at: 30 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-109

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/12/17	**TOTAL DEPTH** 40	**LOGGED BY** Markevious Thomas
START / END TIME 10:09/11:02	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** 31 ft bgs	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
	5.0	SB-109 (0-2)	0.6	CL		SO		D	Medium brown	SANDY CLAY: Slightly plastic clay with medium sub-angular sand.
2										
4										
6	5.0		0.0							
8				ML					Whitish	CLAYEY SILT: Non-plastic silt with angular sand
				CL					Brownish Orange	SANDY CLAY: Slightly plastic clay with medium sub-angular sand.
10	5.0		0.0							
12										
14				CL					Orange	SANDY CLAY: Slightly plastic clay with medium sub-angular sand.
16	5.0		0.0							
18										
20	5.0		5.5							
22										
24		SB-109 (24-25)				SO				
26	5.0		2.3							
28										
30	5.0		1.0				∇	W		
32										
34										
36	5.0		NR	N/A						Not recorded
38										
40										Termination Depth at: 40 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-110

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/12/17	**TOTAL DEPTH** 13	**LOGGED BY** Markevious Thomas
START / END TIME 11:07/11:48	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-110 (0-2)	1.2	ML		SO		M	Medium brown	SILT: Non-plastic silt with angular sand
6, 8	5.0		0.0	CL					Dark Gray	CLAY: Slightly plastic clay with medium sub-angular sand.
10									White	ROCK: White Chert
12	3.0	SB-110 (11-12)	0.1			SO			Dark Gray	CLAY: Slightly plastic clay with medium sub-angular sand.
14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Refusal at 13 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-111

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/12/17	**TOTAL DEPTH** 21	**LOGGED BY** Markevious Thomas
START / END TIME 12:07/12:47	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL**	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-111 (0-2)	7.3	ML		SO		M	Medium brown	SILT: Moist Non-plastic silt with angular sand
6	5.0		0.0	CL				W	Dark Gray	CLAY: Medium plastic clay with angular sand.
8				CL				D	Orange Brown	CLAY: Low plastic clay with angular pebbles
10, 12, 14	5.0		0.0	CL					Orange	CLAY: Medium plastic clay with sub-angular sand.
16, 18	5.0		0.0							
20		SB-111 (19-20)				SO				
	1.0		NR							
22, 24, 26, 28, 30, 32, 34, 36, 38										Refusal at 21 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-112

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/12/17	**TOTAL DEPTH** 20	**LOGGED BY** Markevious Thomas
START / END TIME 12:57/13:05	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-112 (0-2)	0.0	ML		SO		M	Medium brown	SILT: Non-plastic silt with angular sand
6, 8	5.0		0.0	CL				D	Dark Reddish Brown	CLAY: Low plastic clay with angular sand.
10, 12, 14	5.0		0.0	CL				D	Orange	CLAY: Medium plastic clay with sub-angular sand.
16, 18	5.0		0.0	CL						
20		SB-112 (19-20)				SO				
22, 24, 26, 28, 30, 32, 34, 36, 38										Refusal at 20ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-113

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/16/17	**TOTAL DEPTH** 14	**LOGGED BY** Markevious Thomas
START / END TIME 10:25/10:35	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
	5.0	SB-113 (0-2)	4.8	ML		SO		D	Medium Brown	SILT: Firm, non-plastic
2				ML					Tan	SILT: Firm, non-plastic
4				CL					Orange	CLAY: Stiff, slightly plastic
6	5.0		0.0	CL					Red Orange	CLAY: Stiff, slightly plastic
8										
10	4.0		3.8							
12										
14		SB-113 (13-14)				SO				Refusal at 14 ft bgs
16										
18										
20										
22										
24										
26										
28										
30										
32										
34										
36										
38										

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-114

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/16/17	**TOTAL DEPTH** 14	**LOGGED BY** Markevious Thomas
START / END TIME 10:45/11:00	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
	5.0	SB-114 (0-2)	9.3	ML		SO		D	Medium Brown	SILT: Firm, non-plastic
2				ML					Tan	SILT: Firm, non-plastic
4				CL					Orange	CLAY: Stiff, slightly plastic
6	5.0		0.0	CL					Red Orange	CLAY: Stiff, slightly plastic
8										
10	4.0		3.8							
12										
14		SB-114 (13-14)				SO				
										Refusal at 14 ft bgs
16										
18										
20										
22										
24										
26										
28										
30										
32										
34										
36										
38										

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-115

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/16/17	**TOTAL DEPTH** 7	**LOGGED BY** Markevious Thomas
START / END TIME	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
	5.0	SB-115 (0-2)	10.6	ML		SO		D	Medium Brown	SILT: Firm, non-plastic
2										
4				CL					Orange	CLAY: Stiff, slightly plastic
	2.0		6.4						Red Orange	CLAY: Stiff, slightly plastic grading to rock
6		SB-115 (6-7)		R		SO			White	
8										Refusal at 7 ft bgs
10										
12										
14										
16										
18										
20										
22										
24										
26										
28										
30										
32										
34										
36										
38										

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-116

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/15/17	**TOTAL DEPTH** 6	**LOGGED BY** Markevious Thomas
START / END TIME	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
	5.0	SB-116 (0-2)	0.0	CL		SO		D	Red Orange	CLAY: Stiff, Slightly plastic with sub-angular sand.
2										
4										
6	1.0	SB-116 (5-6)	0.0			SO				
										Refusal at 6 ft bgs
8										
10										
12										
14										
16										
18										
20										
22										
24										
26										
28										
30										
32										
34										
36										
38										

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-117

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/15/17-7/16/17	**TOTAL DEPTH** 11	**LOGGED BY** Markevious Thomas
START / END TIME	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETIONTemporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
	5.0	SB-117 (0-2)	NR	CL		SO		D	Dark Gray	CLAY: Firm, Slightly plastic
2										
4				CL					Medium Brown	CLAY: Firm, Slightly plastic
	5.0		0.0	CL					Red Orange	CLAY: Stiff, Slightly plastic with sub-angular sand.
6										
8										
10	1.0	SB-117 (10-11)	7.4			SO				
12										Refusal at 11 ft bgs
14										
16										
18										
20										
22										
24										
26										
28										
30										
32										
34										
36										
38										

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-118

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/14/17	**TOTAL DEPTH** 20	**LOGGED BY** Markevious Thomas
START / END TIME 08:50/09:18	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** 14	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-118 (0-2)	2.1	CL		SO		M	Orange - Brown	CLAYEY SILT: Firm slightly plastic with sub-angular pebbles
6	4.0		0.0	CL					Medium Brown	CLAY: Firm slightly plastic with sub-angular sand
8				CL				D	Red-Orange	CLAY: Stiff slightly plastic with sub-angular sand
10	4.0		5.1	CL						CLAY: Stiff slightly plastic with sub-angular sand
12		SB-118 (12-13)				SO				
14							∇	W		
16	4.0		NR							
18										
20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Termination Depth at: 20 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-119

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/15/17-7/16/17	**TOTAL DEPTH** 10	**LOGGED BY** Markevious Thomas
START / END TIME	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
	5.0	SB-119 (0-2)	1.8	CL		SO		D	Red Orange	CLAY: Stiff, non-plastic
2										
4										
6	5.0		4.9							
8										
10		SB-119 (9-10)				SO				
12										Refusal at 10 ft bgs
14										
16										
18										
20										
22										
24										
26										
28										
30										
32										
34										
36										
38										

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-120

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/15/17	**TOTAL DEPTH** 19	**LOGGED BY** Markevious Thomas
START / END TIME 08:23/08:39	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL**	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-120 (0-2)	1.8	ML		SO		D	Orange Brown	SILT: Firm, non-plastic
6, 8	5.0		0.0	CL					Orange	CLAY: Firm, slightly-plastic with sub-angular pebbles
10, 12, 14	5.0		0.0							
16, 18	4.0	SB-120 (18-19)	0.2			SO			Red Orange	
20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Refusal at 19 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-121

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/15/17	**TOTAL DEPTH** 15	**LOGGED BY** Markevious Thomas
START / END TIME 08:23/08:39	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** 15	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-121 (0-2)	0.0	ML		SO		D	Orange Brown	SILT: Firm, non-plastic
6, 8	5.0		0.0						Tan	SILT: Soft, non-plastic
10, 12	5.0		4.2							
14				CL				M	Red Orange	
		SB-121 (14-15)				SO	▽	W		CLAY: Stiff, slightly plastic
16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Termination Depth at: 15 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-122

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/15/17	**TOTAL DEPTH** 30	**LOGGED BY** Markevious Thomas
START / END TIME	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** 28 ft bgs	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-122 (0-2)	2.0	ML		SO		D	Orange	SILT: Non-plastic with medium sub-angular sand.
6, 8, 10, 12, 14, 16, 18, 20, 22, 24	5.0		0.0	CL					Red Orange	CLAY: Firm, Slightly plastic, grading to tan clayey silt and back to red-orange clay
	5.0		0.0							
	5.0		0.0							
	5.0		0.0							
26, 28	5.0	SB-122 (26-27)	6.1	CL		SO	∇	W	Tan Orange	SILTY CLAY: Firm, slightly plastic
30, 32, 34, 36, 38										Termination Depth at: 30 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-123

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/15/17	**TOTAL DEPTH** 19	**LOGGED BY** Markevious Thomas
START / END TIME 07:50/08:06	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-123 (0-2)	0.3	CL		SO		M	Brownis Orange	CLAYEY SILT: Medium-plastic with sub-angular sand
6	5.0		0.0	CL				D	Dark Gray	CLAY: Firm, slightly plastic
8				CL					Orange	CLAY: Firm, Slightly plastic
10, 12, 14	4.0		0.0	CL					Red Orange	CLAY: Stiff, Slightly plastic with sub-angular sand
16	4.0		3.0							
18		SB-123 (18-19)		CL		SO			Orange	SILT: Firm, Non-plastic with sub-angular sand and pebbles
20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Refusal at 19 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-124

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/14/17	**TOTAL DEPTH** 15	**LOGGED BY** Markevious Thomas
START / END TIME 09:30/09:40	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** 14	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-124 (0-2)	5.1	ML		SO		M	Dark Brown	CLAYEY SILT: Soft non-plastic
6	5.0		0.0	ML					Medium Brown	CLAYEY SILT: Soft non-plastic
8				CL				D	Red Orange	CLAY: Stiff slightly plastic with sub-angular sand
10, 12, 14	5.0	SB-124 (12-13)	6.2	CL		SO	∇	W		CLAY: Stiff slightly plastic with sub-angular sand
16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Termination Depth at: 15 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-125

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/13/17	**TOTAL DEPTH** 17	**LOGGED BY** Markevious Thomas
START / END TIME 12:16/12:26	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-125 (0-2)	4.0	ML		SO		M	Brownish Orange	CLAYEY SILT: Medium-plastic with sub-angular sand
6, 8	5.0		3.6	CL				D	Red-Orange	CLAY: Very Stiff slightly plastic with sub-angular sand
10, 12, 14	4.0		5.1	CL						
16	2.0	SB-125 (16-17)	5.1	CL		SO				
18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Refusal at 17 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-126

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/16/17	**TOTAL DEPTH** 6	**LOGGED BY** Markevious Thomas
START / END TIME	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
	5.0	SB-126 (0-2)	0.0	CL		SO		D	Red Orange	CLAY: Stiff, Slightly plastic
2										
4										
				CL					Orange	CLAY: Firm, Slightly plastic
	1.0	SB-126 (5-6)	0.0			SO				
6				SM					White	SILTY SAND: medium compact, sub-angular sand and gravel.
										Refusal at 6 ft bgs
8										
10										
12										
14										
16										
18										
20										
22										
24										
26										
28										
30										
32										
34										
36										
38										

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-127

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/13/17	**TOTAL DEPTH** 20	**LOGGED BY** Markevious Thomas
START / END TIME 15:00/15:37	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** 16	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-127 (0-2)	7.8	CL		SO		M	Medium Brown	CLAY: Medium-plastic with sub-angular sand
6, 8	5.0		0.0	CL				D	Orange	CLAY: Stiff slightly plastic with sub-angular sand
10, 12	5.0		14.2	CL						
14		SB-127 (14-15)				SO				
16, 18	5.0		NR	CL			▽	W		
20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Termination Depth at: 20 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-128

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/13/17	**TOTAL DEPTH** 15	**LOGGED BY** Markevious Thomas
START / END TIME 15:47/16:00	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-128 (0-2)	0.0	CL		SO		M	Orange	CLAY: Medium-plastic
6, 8	5.0		0.0	CL				D	Light Brown	CLAY: Slightly plastic
									Orange	CLAY: Stiff slightly plastic with sub-angular sand
10, 12, 14	5.0		8.0	CL					Red-Orange	CLAY: Stiff slightly plastic
		SB-128 (14-15)				SO				
16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Refusal at 15 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-129

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/13/17	**TOTAL DEPTH** 15	**LOGGED BY** Markevious Thomas
START / END TIME 16:15/16:30	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** 10	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-129 (0-2)	9.0	ML		SO		M	Medium Brown	CLAYEY SILT: Non-plastic
6, 8	5.0		14.0	CL				D	Red-Orange	CLAY: Firm slightly plastic
		SB-129 (9-10)				SO	∇		Dark Gray	CLAY: Firm slightly plastic with sub-angular sand
10, 12, 14	5.0		NR	CL				W	Light Brown	CLAY: Firm slightly plastic with sub-angular sand
									Red-Orange	CLAY: Firm slightly plastic with sub-angular sand
16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Termination Depth at: 15 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-130

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/14/17	**TOTAL DEPTH** 15	**LOGGED BY** Markevious Thomas
START / END TIME 12:3513:00	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETIONTemporary	**GROUNDWATER LEVEL** 15	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
	5.0	SB-130 (0-2)	3.2	CL		SO		D	Red Orange	CLAY: Firm non-plastic with sub-angular sand
2										
4										
	5.0		0.2					D		CLAY: Stiff slightly plastic with sub-angular sand and pebbles
6										
8										
10	5.0		7.6							
12								M		
14		SB-130 (14-15)		ML		SO	▽	W	Tan	SANDY SILT: medium compact medium grained
16										Termination Depth at: 15 ft bgs
18										
20										
22										
24										
26										
28										
30										
32										
34										
36										
38										

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-131

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/14/17	**TOTAL DEPTH** 15	**LOGGED BY** Markevious Thomas
START / END TIME 11:50/12:20	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-131 (0-2)	7.3	CL		SO		M	Orange	CLAY: Firm slightly-plastic with sub-angular sand
6, 8, 10, 12, 14	5.0		0.0	CL				D	Red Orange	CLAY: Stiff slightly plastic with sub-angular sand
	5.0		4.8							
		SB-131 (14-15)				SO				
16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Refusal at: 15 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-132

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/14/17	**TOTAL DEPTH** 14	**LOGGED BY** Markevious Thomas
START / END TIME 10:50/11:30	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
	5.0	SB-132 (0-2)	4.4	CL		SO		D	Red Orange	CLAY: Firm slightly-plastic with sub-angular sand
2										
4										
	5.0		0.0	CL						CLAY: Stiff slightly plastic with sub-angular sand
6										
8										
10	4.0		7.5	SM					Gray	SILTY SAND: Medium compact course sand
				CL					Red Orange	CLAY: Stiff slightly plastic with sub-angular sand
12										
14		SB-132 (13-14)				SO				
										Refusal at 14 ft bgs
16										
18										
20										
22										
24										
26										
28										
30										
32										
34										
36										
38										

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-133

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/14/17	**TOTAL DEPTH** 10	**LOGGED BY** Markevious Thomas
START / END TIME 10:20/10:45	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** 9	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-133 (0-2)	5.1	CL		SO		M	Medium Brown	CLAYEY SILT: Firm non-plastic
6, 8, 10	5.0	SB-133 (8-9)	15.2	CL		SO	∇	D, W	Red Orange	CLAY: Stiff slightly plastic with sub-angular pebbles
12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Termination Depth at: 10 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

SOIL BORING SB-134

PROJECT NUMBER 0190949	**DRILLING COMPANY** EM Services	**COORDINATES**
PROJECT NAME Soil Confimation Sampling	**DRILLER** Jason Smith	**COORD SYS** GA-West
CLIENT Murata	**DRILL RIG** Geoprobe	**SURFACE ELEVATION**
ADDRESS 308 Prospect Rd, Rockmart GA	**DRILLING METHOD** Direct Push	**WELL TOC**
DRILLING DATE 7/14/17	**TOTAL DEPTH** 12	**LOGGED BY** Markevious Thomas
START / END TIME 09:45/10:13	**DIAMETER** 2	**CHECKED BY** Nic Vrey
COMPLETION Temporary	**GROUNDWATER LEVEL** --	**FIELD SCREENING EQUIPMENT** PID

COMMENTS

Depth (ft)	Recovery (feet)	Samples	PID	USCS	Graphic Log	Sample Type	Water	Moisture	Color	Material Description
2, 4	5.0	SB-134 (0-2)	7.8	ML		SO		M	Medium Brown	CLAYEY SILT: Soft non-plastic
6, 8, 10	5.0		0.0	CL				D	Red Orange	CLAY: Stiff slightly plastic with sub-angular sand
12	2.0	SB-134 (11-12)	7.6			SO				
14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38										Refusal at 12 ft bgs

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 20 Aug 2018

Vapor Intrusion Assessment Photo-Log

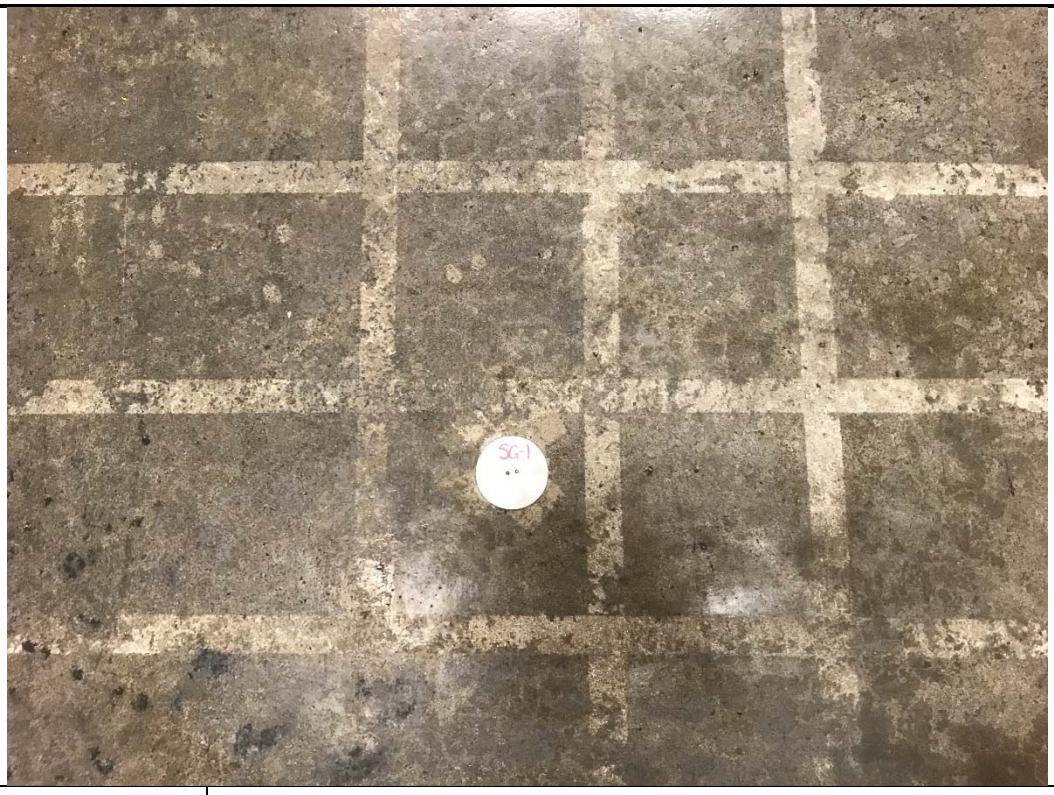
Appendix H

Project No. 0190949
Murata Electronics North America

Environmental Resources Management
3200 Windy Hill Road SE, Suite 1500W
Atlanta, Georgia 30339
(678) 486-2700

Photograph: *1*	**SG-1 –** ***Sub Surface Clearance***

Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*



Photograph: *2*	***SG-1 – Pin Installation***

Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

Photograph: *3*	***SG-2 – Sub Surface Clearance***	
Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

Photograph: *4*	***SG-2 – Pin Installation***	
Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

Photograph: *5*	***SG-2 – Sub-slab Soil Vapor Sample***	
Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

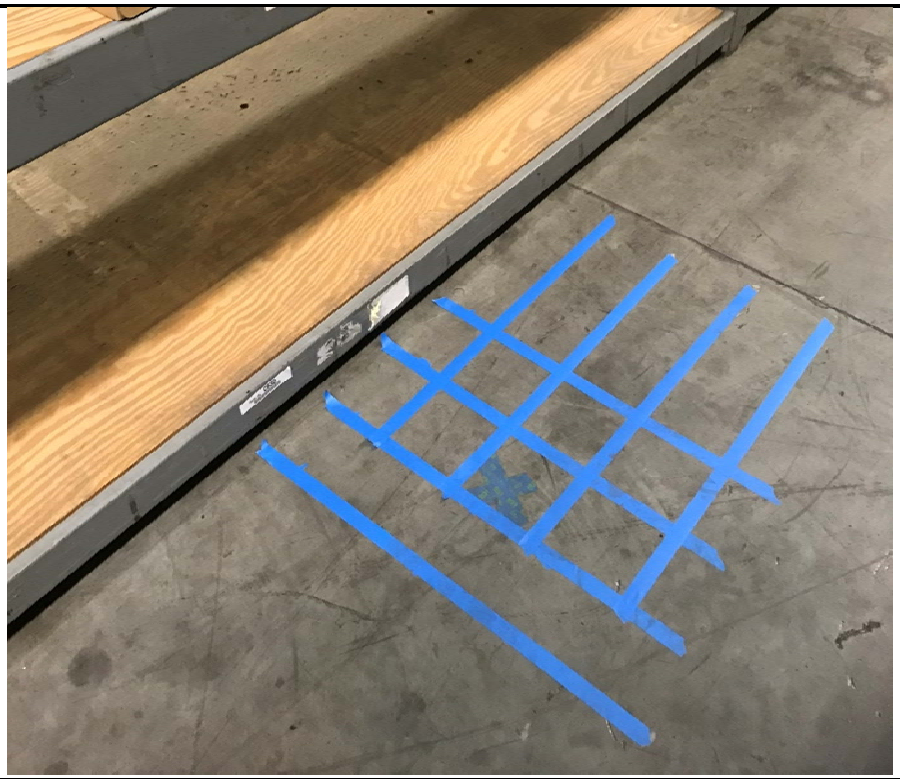
Photograph: *6*	***SG-3 – Sub Surface Clearance***	
Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

Photograph: *7*	**SG-3 –** ***Pin Installation***

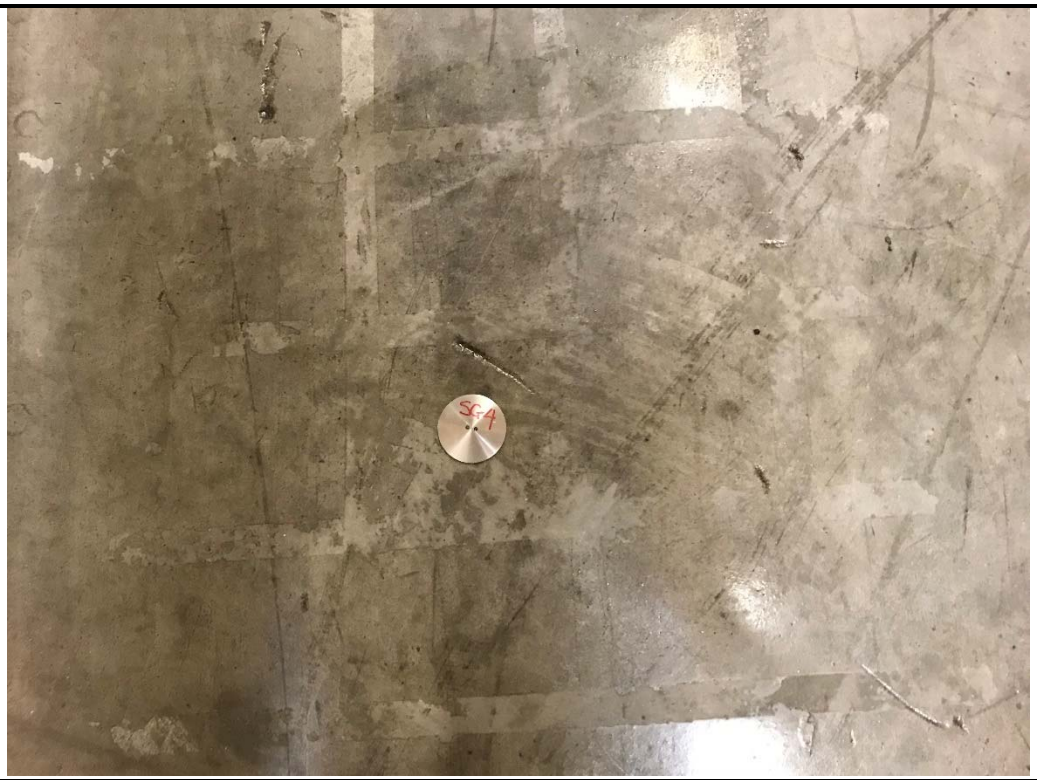
Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

Photograph: *8*	***SG-3 – Sub-slab Soil Vapor Sample***

Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

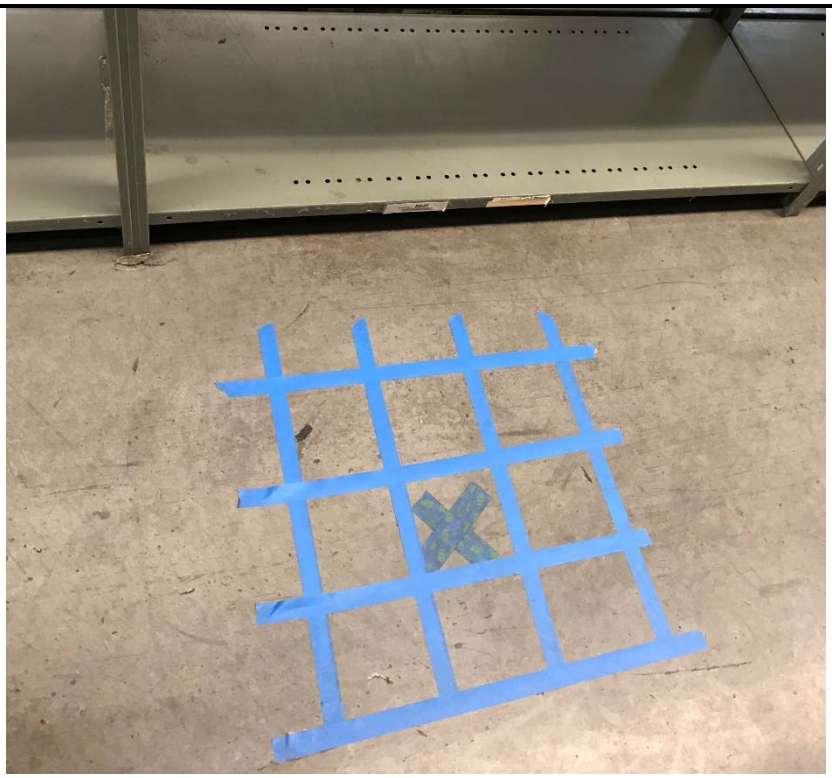


Photograph: *9*	***SG-4 – Sub Surface Clearance***	
Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*



Photograph: *10*	***SG-4 – Pin Installation***	
Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

Photograph: *11*	***SG-4 – Sub-slab Soil Vapor Sample***	
Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*



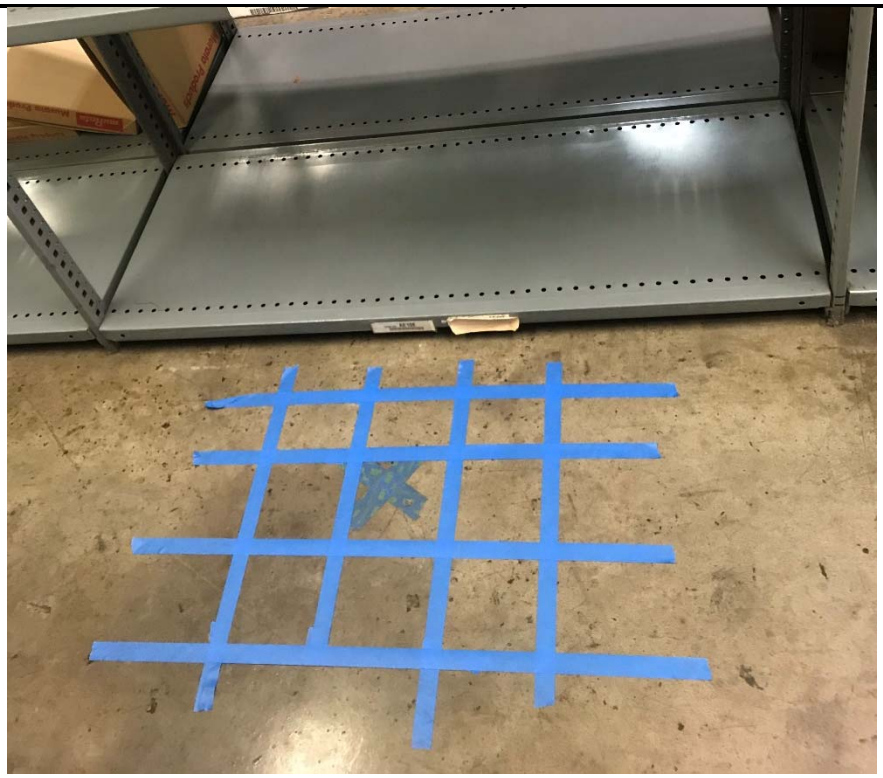
Photograph: *12*	***SG-5 – Sub Surface Clearance***	
Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

Photograph: *13*	***SG-5 – Pin Installation***

Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

Photograph: *14*	***SG-5 – Sub-slab Soil Vapor Sample***

Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*



Photograph: *15*	***SG-6 – Sub Surface Clearance***

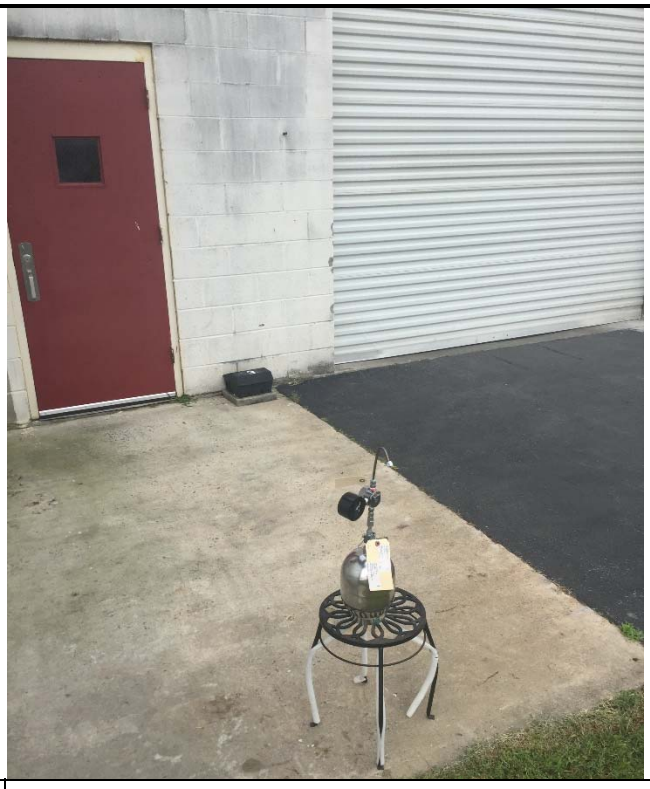
Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

Photograph: *16*	***SG-6 – Pin Installation***

Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

Photograph: *17*	***SG-6 – Sub-slab Soil Vapor Sample***

Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

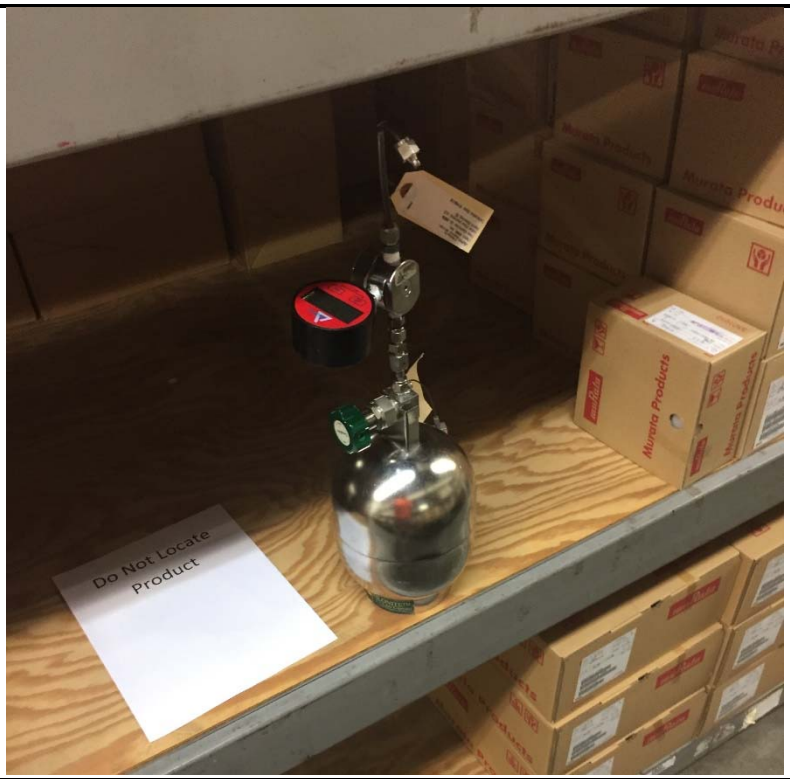


Photograph: *18*	***OA-1***

Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

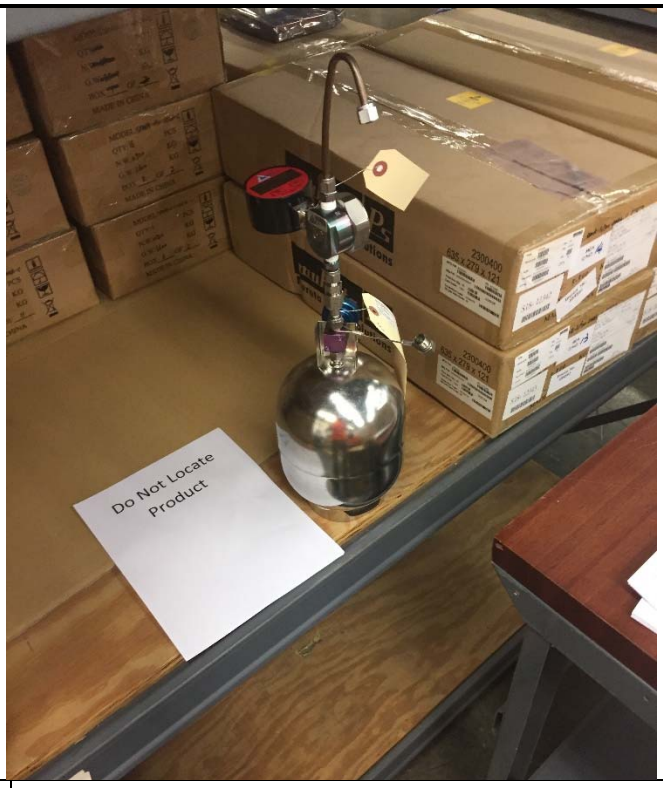
Photograph: *19*	***IA-01***	
Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

Photograph: *20*	***IA-2 and Dup-01-IA***	
Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*



Photograph: *21*	***IA-3***

Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*



Photograph: *22*	***IA-4***

Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

Photograph: *23*	***IA-5***	
Murata, *Rockmart, GA*	ERM	*Vapor Intrusion Assessment*

Photograph: *24*	***IA-6***	
Murata, *Rockmart, GA*		*Vapor Intrusion Assessment*

Vapor Intrusion Assessment Field Sheets

Appendix I

Project No. 0190949
Murata Electronics North America

Environmental Resources Management
3200 Windy Hill Road SE, Suite 1500W
Atlanta, Georgia 30339
(678) 486-2700

Environmental Resources Management
The Towers at Wildwood Plaza
3200 Windy Hill Road, SE
Atlanta, Geogia 30339
Phone: (678) 486-2700

Project #:	0190949
Project Name:	Murata
Location:	308 Prospect Rd
	Rockmart, GA
Project Manager:	Nic Vrey

Sample Location:	Murata Warehouse	**Collector(s):**	Taylor Payne
Address:	308 Prospect Rd, Rockmart, GA		
PID Meter Used: (Model, Serial #)	MiniRae 3000	**Date:**	13-Jul-18

Sample ID: IA-01

Duplicate Sample? (Y/N) N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SOIL GAS

Photograph description: PHOTO #2

Summa® Information

Canister Serial Number:	560	Flow Controller Number:	969
Start Date/Time:	7/13/2018 9:10	Stop Date/Time:	7/13/2018 16:20
Start Pressure: (inches Hg) [1]	-28.96	Stop Pressure: (inches Hg) [2]	-6.72

Other Sampling Information:

Story/Level	Ground	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (if applicable)	NA
Room	Warehouse	Slab thickness (if applicable)	NA	Distance from Building (if applicable)	NA
Indoor Air Temp (ºF)		Potential Vapor Pathways Observed?	None	Distance to nearest Roadway (ft.)	NA
Intake Height Above Ground Level (ft.)	~4'	Noticeable Odor?	No	Weather	Sunny, high of 90°
Barometric Pressure Initial ("Hg or mb)	28.8	Barometric Pressure Final ("Hg or mb)		Wind Speed (mph)	5 mph from the East

Interim Monitoring

Initial Sample Purge (soil gas only):	PID Reading (ppm):	0.0		Noticeable Odor? (Y/N)	N
Reading #1:	Time:	10:00	Summa Vacuum ("Hg):	-25.7	Noticeable Odor? (Y/N) N
Reading #2:	Time:	12:15	Summa Vacuum ("Hg):	-20.12	Noticeable Odor? (Y/N) N
Reading #3:	Time:	13:40	Summa Vacuum ("Hg):	-15.18	Noticeable Odor? (Y/N) N
Reading #4:	Time:	14:55	Summa Vacuum ("Hg):	-11.23	Noticeable Odor? (Y/N) N
Reading #5:	Time:		Summa Vacuum ("Hg):		Noticeable Odor? (Y/N)

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2 - If final pressure does not change much from initial pressure, send the sample to the laboratory and indicate "HOLD" on the chain-of-custody. Also request that the laboratory determine the final pressure and contact the ERM coordinator for further instruction.

Environmental Resources Management
The Towers at Wildwood Plaza
3200 Windy Hill Road, SE
Atlanta, Geogia 30339
Phone: (678) 486-2700

Project #:	0190949
Project Name:	Murata
Location:	308 Prospect Rd
	Rockmart, GA
Project Manager:	Nic Vrey

Sample Location:	Murata Warehouse	**Collector(s):**	Taylor Payne
Address:	308 Prospect Rd, Rockmart, GA		
PID Meter Used: (Model, Serial #)	MiniRae 3000	**Date:**	13-Jul-18

Sample ID: IA-02

Duplicate Sample? (Y/N) Y **Duplicate Sample ID: DUP-01-IA**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SOIL GAS

Photograph description: PHOTO #3

Summa® Information

Canister Serial Number:	2517 / 1745	Flow Controller Number:	0304 / 0486
Start Date/Time:	7/13/2018 9:12	Stop Date/Time:	7/13/2018 16:10
Start Pressure: (inches Hg) [1]	-29.54 / -29.58	Stop Pressure: (inches Hg) [2]	-6.77 / -7.25

Other Sampling Information:

Story/Level	Ground	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (if applicable)	NA
Room	Warehouse	Slab thickness (if applicable)	NA	Distance from Building (if applicable)	NA
Indoor Air Temp (ºF)		Potential Vapor Pathways Observed?	None	Distance to nearest Roadway (ft.)	NA
Intake Height Above Ground Level (ft.)	~4'	Noticeable Odor?	No	Weather	Sunny, high of 90°
Barometric Pressure Initial ("Hg or mb)	28.8	Barometric Pressure Final ("Hg or mb)		Wind Speed (mph)	5 mph from the East

Interim Monitoring

Initial Sample Purge (soil gas only):	PID Reading (ppm):	0.0		Noticeable Odor? (Y/N)	N
Reading #1:	Time: 10:45	Summa Vacuum ("Hg):	-24.98	Noticeable Odor? (Y/N)	N
Reading #2:	Time: 11:40	Summa Vacuum ("Hg):	-19.2	Noticeable Odor? (Y/N)	N
Reading #3:	Time: 13:45	Summa Vacuum ("Hg):	-13.37	Noticeable Odor? (Y/N)	N
Reading #4:	Time: 14:55	Summa Vacuum ("Hg):	-9.56	Noticeable Odor? (Y/N)	N
Reading #5:	Time:	Summa Vacuum ("Hg):		Noticeable Odor? (Y/N)	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2 - If final pressure does not change much from initial pressure, send the sample to the laboratory and indicate "HOLD" on the chain-of-custody. Also request that the laboratory determine the final pressure and contact the ERM coordinator for further instruction.

Environmental Resources Management
The Towers at Wildwood Plaza
3200 Windy Hill Road, SE
Atlanta, Geogia 30339
Phone: (678) 486-2700

Project #:	0190949
Project Name:	Murata
Location:	308 Prospect Rd
	Rockmart, GA
Project Manager:	Nic Vrey

Sample Location:	Murata Warehouse	**Collector(s):**	Taylor Payne
Address:	308 Prospect Rd, Rockmart, GA		
PID Meter Used: (Model, Serial #)	MiniRae 3000	**Date:**	13-Jul-18

Sample ID: IA-03

Duplicate Sample? (Y/N) N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SOIL GAS

Photograph description: PHOTO #4

Summa® Information

Canister Serial Number:	205		Flow Controller Number:	1061	
Start Date/Time:	7/13/2018	9:17	Stop Date/Time:	7/13/2018	14:20
Start Pressure: (inches Hg) [1]		-28.86	Stop Pressure: (inches Hg) [2]		-5.84

Other Sampling Information:

Story/Level	Ground	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (if applicable)	NA
Room	Warehouse	Slab thickness (if applicable)	NA	Distance from Building (if applicable)	NA
Indoor Air Temp (ºF)		Potential Vapor Pathways Observed?	None	Distance to nearest Roadway (ft.)	NA
Intake Height Above Ground Level (ft.)	~4'	Noticeable Odor?	No	Weather	Sunny, high of 90°
Barometric Pressure Initial ("Hg or mb)	28.8	Barometric Pressure Final ("Hg or mb)		Wind Speed (mph)	5 mph from the East

Interim Monitoring

Initial Sample Purge (soil gas only):	PID Reading (ppm):	0.0	Noticeable Odor? (Y/N)	N	
Reading #1:	Time: 11:15	Summa Vacuum ("Hg): -20.14	Noticeable Odor? (Y/N)	N	
Reading #2:	Time: 12:30	Summa Vacuum ("Hg): -14.7	Noticeable Odor? (Y/N)	N	
Reading #3:	Time: 13:40	Summa Vacuum ("Hg): -8.31	Noticeable Odor? (Y/N)	N	
Reading #4:	Time: 14:00	Summa Vacuum ("Hg): -6.88	Noticeable Odor? (Y/N)	N	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)		

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2 - If final pressure does not change much from initial pressure, send the sample to the laboratory and indicate "HOLD" on the chain-of-custody. Also request that the laboratory determine the final pressure and contact the ERM coordinator for further instruction.

Environmental Resources Management
The Towers at Wildwood Plaza
3200 Windy Hill Road, SE
Atlanta, Geogia 30339
Phone: (678) 486-2700

Project #:	0190949
Project Name:	Murata
Location:	308 Prospect Rd
	Rockmart, GA
Project Manager:	Nic Vrey

Sample Location:	Murata Warehouse	**Collector(s):**	Taylor Payne
Address:	308 Prospect Rd, Rockmart, GA		
PID Meter Used: (Model, Serial #)	MiniRae 3000	**Date:**	13-Jul-18

Sample ID: IA-04

Duplicate Sample? (Y/N) N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SOIL GAS

Photograph description: PHOTO #5

Summa® Information

Canister Serial Number:	205		Flow Controller Number:	59	
Start Date/Time:	7/13/2018	9:15	Stop Date/Time:	7/13/2018	16:30
Start Pressure: (inches Hg) [1]		-29.59	Stop Pressure: (inches Hg) [2]		-6.97

Other Sampling Information:

Story/Level	Ground	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (if applicable)	NA
Room	Warehouse	Slab thickness (if applicable)	NA	Distance from Building (if applicable)	NA
Indoor Air Temp (ºF)		Potential Vapor Pathways Observed?	None	Distance to nearest Roadway (ft.)	NA
Intake Height Above Ground Level (ft.)	~4'	Noticeable Odor?	No	Weather	Sunny, high of 90°
Barometric Pressure Initial ("Hg or mb)	28.8	Barometric Pressure Final ("Hg or mb)		Wind Speed (mph)	5 mph from the East

Interim Monitoring

Initial Sample Purge (soil gas only):	PID Reading (ppm):	0.0		Noticeable Odor? (Y/N)	N	
Reading #1:	Time:	10:00	Summa Vacuum ("Hg):	-26.2	Noticeable Odor? (Y/N) N	
Reading #2:	Time:	10:50	Summa Vacuum ("Hg):	-24.5	Noticeable Odor? (Y/N) N	
Reading #3:	Time:	13:43	Summa Vacuum ("Hg):	-14.7	Noticeable Odor? (Y/N) N	
Reading #4:	Time:	14:53	Summa Vacuum ("Hg):	-11.7	Noticeable Odor? (Y/N) N	
Reading #5:	Time:		Summa Vacuum ("Hg):		Noticeable Odor? (Y/N)	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2 - If final pressure does not change much from initial pressure, send the sample to the laboratory and indicate "HOLD" on the chain-of-custody. Also request that the laboratory determine the final pressure and contact the ERM coordinator for further instruction.

Environmental Resources Management
The Towers at Wildwood Plaza
3200 Windy Hill Road, SE
Atlanta, Geogia 30339
Phone: (678) 486-2700

Project #:	0190949
Project Name:	Murata
Location:	308 Prospect Rd
	Rockmart, GA
Project Manager:	Nic Vrey

Sample Location:	Murata Warehouse	**Collector(s):**	Taylor Payne
Address:	308 Prospect Rd, Rockmart, GA		
PID Meter Used: (Model, Serial #)	MiniRae 3000	**Date:**	13-Jul-18

Sample ID: IA-05

Duplicate Sample? (Y/N) N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SOIL GAS

Photograph description: PHOTO #6

Summa® Information

Canister Serial Number:	391		Flow Controller Number:	250	
Start Date/Time:	7/13/2018	9:18	Stop Date/Time:	7/13/2018	16:25
Start Pressure: (inches Hg) [1]		-28.17	Stop Pressure: (inches Hg) [2]		-6.71

Other Sampling Information:

Story/Level	Ground	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (if applicable)	NA
Room	Warehouse	Slab thickness (if applicable)	NA	Distance from Building (if applicable)	NA
Indoor Air Temp (ºF)		Potential Vapor Pathways Observed?	None	Distance to nearest Roadway (ft.)	NA
Intake Height Above Ground Level (ft.)	~4'	Noticeable Odor?	No	Weather	Sunny, high of 90°
Barometric Pressure Initial ("Hg or mb)	28.8	Barometric Pressure Final ("Hg or mb)		Wind Speed (mph)	5 mph from the East

Interim Monitoring

Initial Sample Purge (soil gas only):	PID Reading (ppm):	0.0		Noticeable Odor? (Y/N)	N	
Reading #1:	Time:	10:30	Summa Vacuum ("Hg):	-26.75	Noticeable Odor? (Y/N) N	
Reading #2:	Time:	12:50	Summa Vacuum ("Hg):	-18.4	Noticeable Odor? (Y/N) N	
Reading #3:	Time:	13:42	Summa Vacuum ("Hg):	-15.04	Noticeable Odor? (Y/N) N	
Reading #4:	Time:	14:55	Summa Vacuum ("Hg):	-11.09	Noticeable Odor? (Y/N) N	
Reading #5:	Time:	13:45	Summa Vacuum ("Hg):	-8.62	Noticeable Odor? (Y/N)	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2 - If final pressure does not change much from initial pressure, send the sample to the laboratory and indicate "HOLD" on the chain-of-custody. Also request that the laboratory determine the final pressure and contact the ERM coordinator for further instruction.

Environmental Resources Management
The Towers at Wildwood Plaza
3200 Windy Hill Road, SE
Atlanta, Geogia 30339
Phone: (678) 486-2700

Project #:	0190949
Project Name:	Murata
Location:	308 Prospect Rd
	Rockmart, GA
Project Manager:	Nic Vrey

Sample Location:	Murata Warehouse	**Collector(s):**	Taylor Payne
Address:	308 Prospect Rd, Rockmart, GA		
PID Meter Used: (Model, Serial #)	MiniRae 3000	**Date:**	13-Jul-18

Sample ID: IA-06

Duplicate Sample? (Y/N) N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SOIL GAS

Photograph description: PHOTO #7

Summa® Information

Canister Serial Number:	478		Flow Controller Number:	300	
Start Date/Time:	7/13/2018	9:20	Stop Date/Time:	7/13/2018	16:35
Start Pressure: (inches Hg) [1]		-29.96	Stop Pressure: (inches Hg) [2]		-7.24

Other Sampling Information:

Story/Level	Ground	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (if applicable)	NA
Room	Warehouse	Slab thickness (if applicable)	NA	Distance from Building (if applicable)	NA
Indoor Air Temp (ºF)		Potential Vapor Pathways Observed?	None	Distance to nearest Roadway (ft.)	NA
Intake Height Above Ground Level (ft.)	~4'	Noticeable Odor?	No	Weather	Sunny, high of 90°
Barometric Pressure Initial ("Hg or mb)	28.8	Barometric Pressure Final ("Hg or mb)		Wind Speed (mph)	5 mph from the East

Interim Monitoring

Initial Sample Purge (soil gas only):	PID Reading (ppm):	0.0		Noticeable Odor? (Y/N)	N	
Reading #1:	Time:	10:05	Summa Vacuum ("Hg):	-26.55	Noticeable Odor? (Y/N) N	
Reading #2:	Time:	11:00	Summa Vacuum ("Hg):	-21.2	Noticeable Odor? (Y/N) N	
Reading #3:	Time:	13:40	Summa Vacuum ("Hg):	-16.15	Noticeable Odor? (Y/N) N	
Reading #4:	Time:	14:55	Summa Vacuum ("Hg):	-11.05	Noticeable Odor? (Y/N) N	
Reading #5:	Time:	15:45	Summa Vacuum ("Hg):	-9.46	Noticeable Odor? (Y/N) N	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2 - If final pressure does not change much from initial pressure, send the sample to the laboratory and indicate "HOLD" on the chain-of-custody. Also request that the laboratory determine the final pressure and contact the ERM coordinator for further instruction.

Environmental Resources Management
The Towers at Wildwood Plaza
3200 Windy Hill Road, SE
Atlanta, Geogia 30339
Phone: (678) 486-2700

Project #:	0190949
Project Name:	Murata
Location:	308 Prospect Rd
	Rockmart, GA
Project Manager:	Nic Vrey

Sample Location:	Murata Warehouse	**Collector(s):**	Taylor Payne
Address:	308 Prospect Rd, Rockmart, GA		
PID Meter Used: (Model, Serial #)	MiniRae 3000	**Date:**	13-Jul-18

Sample ID: 0A-01

Duplicate Sample? (Y/N) N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR | AMBIENT AIR | SOIL GAS

Photograph description: PHOTO #1

Summa® Information

Canister Serial Number:	223		Flow Controller Number:	541	
Start Date/Time:	7/13/2018	8:40	Stop Date/Time:	7/13/2018	15:45
Start Pressure: (inches Hg) [1]		-29.07	Stop Pressure: (inches Hg) [2]		-6.74

Other Sampling Information:

Story/Level	outside	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (if applicable)	NA
Room	NA	Slab thickness (if applicable)	NA	Distance from Building (if applicable)	6'
Indoor Air Temp (ºF)	NA	Potential Vapor Pathways Observed?	None	Distance to nearest Roadway (ft.)	~470
Intake Height Above Ground Level (ft.)	3	Noticeable Odor?	No	Weather	Sunny, high of 90°
Barometric Pressure Initial ("Hg or mb)	28.8	Barometric Pressure Final ("Hg or mb)		Wind Speed (mph)	5 mph from the East

Interim Monitoring

Initial Sample Purge (soil gas only):	PID Reading (ppm):	0.0		Noticeable Odor? (Y/N)	N
Reading #1:	Time: 9:55	Summa Vacuum ("Hg):	-25.75	Noticeable Odor? (Y/N)	N
Reading #2:	Time: 13:45	Summa Vacuum ("Hg):	-12.97	Noticeable Odor? (Y/N)	N
Reading #3:	Time: 14:40	Summa Vacuum ("Hg):	-9.69	Noticeable Odor? (Y/N)	N
Reading #4:	Time: 15:15	Summa Vacuum ("Hg):	-8.01	Noticeable Odor? (Y/N)	N
Reading #5:	Time:	Summa Vacuum ("Hg):		Noticeable Odor? (Y/N)	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2 - If final pressure does not change much from initial pressure, send the sample to the laboratory and indicate "HOLD" on the chain-of-custody. Also request that the laboratory determine the final pressure and contact the ERM coordinator for further instruction.

Environmental Resources Management
The Towers at Wildwood Plaza
3200 Windy Hill Road, SE
Atlanta, Geogia 30339
Phone: (678) 486-2700

Project #:	0190949
Project Name:	Murata
Location:	308 Prospect Rd
	Rockmart, GA
Project Manager:	Nic Vrey

Sample Location:	Murata Warehouse	**Collector(s):**	Taylor Payne
Address:	308 Prospect Rd, Rockmart, GA		
PID Meter Used: (Model, Serial #)	MiniRae 3000	**Date:**	13-Jul-18

Sample ID: SSV-01 (SG-1)

Duplicate Sample? (Y/N) N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SOIL GAS

Photograph description: PHOTO #8

Summa® Information

Canister Serial Number:	214	Flow Controller Number:	664
Start Date/Time:	7/13/2018 12:20	Stop Date/Time:	7/13/2018 12:35
Start Pressure: (inches Hg) [1]	-29..06	Stop Pressure: (inches Hg) [2]	-0.86

Other Sampling Information:

Story/Level	Ground	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (if applicable)	sub-slab
Room	Warehouse	Slab thickness (if applicable)	~6"	Distance from Building (if applicable)	NA
Indoor Air Temp (ºF)		Potential Vapor Pathways Observed?	None	Distance to nearest Roadway (ft.)	NA
Intake Height Above Ground Level (ft.)	NA	Noticeable Odor?	No	Weather	Sunny, high of 90°
Barometric Pressure Initial ("Hg or mb)	28.8	Barometric Pressure Final ("Hg or mb)		Wind Speed (mph)	5 mph from the East

Interim Monitoring

Initial Sample Purge (soil gas only):	PID Reading (ppm):	162.2	Noticeable Odor? (Y/N) N	
Reading #1:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2 - If final pressure does not change much from initial pressure, send the sample to the laboratory and indicate "HOLD" on the chain-of-custody. Also request that the laboratory determine the final pressure and contact the ERM coordinator for further instruction.

Environmental Resources Management
The Towers at Wildwood Plaza
3200 Windy Hill Road, SE
Atlanta, Geogia 30339
Phone: (678) 486-2700

Project #:	0190949
Project Name:	Murata
Location:	308 Prospect Rd
	Rockmart, GA
Project Manager:	Nic Vrey

Sample Location:	Murata Warehouse	**Collector(s):**	Taylor Payne
Address:	308 Prospect Rd, Rockmart, GA		
PID Meter Used: (Model, Serial #)	MiniRae 3000	**Date:**	13-Jul-18

Sample ID: SSV-02 (SG-2)

Duplicate Sample? (Y/N) Y **Duplicate Sample ID: DUP-01-SSV**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SOIL GAS

Photograph description:

Summa® Information

Canister Serial Number:	1718 / 1155		Flow Controller Number:	664	
Start Date/Time:	7/13/2018	11:40 / 11:55	Stop Date/Time:	7/13/2018	11:55 / 12:10
Start Pressure: (inches Hg) [1]		-29.73 / -29.39	Stop Pressure: (inches Hg) [2]		-1.58 / -1.56

Other Sampling Information:

Story/Level	Ground	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (if applicable)	sub-slab
Room	Warehouse	Slab thickness (if applicable)	~6"	Distance from Building (if applicable)	NA
Indoor Air Temp (ºF)		Potential Vapor Pathways Observed?	None	Distance to nearest Roadway (ft.)	NA
Intake Height Above Ground Level (ft.)	NA	Noticeable Odor?	No	Weather	Sunny, high of 90°
Barometric Pressure Initial ("Hg or mb)	28.8	Barometric Pressure Final ("Hg or mb)		Wind Speed (mph)	5 mph from the East

Interim Monitoring

Initial Sample Purge (soil gas only):	PID Reading (ppm):	205.1	Noticeable Odor? (Y/N) N	
Reading #1:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2 - If final pressure does not change much from initial pressure, send the sample to the laboratory and indicate "HOLD" on the chain-of-custody. Also request that the laboratory determine the final pressure and contact the ERM coordinator for further instruction.

Environmental Resources Management
The Towers at Wildwood Plaza
3200 Windy Hill Road, SE
Atlanta, Geogia 30339
Phone: (678) 486-2700

Project #:	0190949
Project Name:	Murata
Location:	308 Prospect Rd
	Rockmart, GA
Project Manager:	Nic Vrey

Sample Location:	Murata Warehouse	**Collector(s):**	Taylor Payne
Address:	308 Prospect Rd, Rockmart, GA		
PID Meter Used: (Model, Serial #)	MiniRae 3000	**Date:**	13-Jul-18

Sample ID: SSV-03 (SG-3)

Duplicate Sample? (Y/N) N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SOIL GAS

Photograph description: PHOTO #11

Summa® Information

Canister Serial Number:	259	Flow Controller Number:	670
Start Date/Time:	7/13/2018 11:25	Stop Date/Time:	7/13/2018 11:30
Start Pressure: (inches Hg) [1]	-28.43	Stop Pressure: (inches Hg) [2]	-1.71

Other Sampling Information:

Story/Level	Ground	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (if applicable)	sub-slab
Room	Warehouse	Slab thickness (if applicable)	~6"	Distance from Building (if applicable)	NA
Indoor Air Temp (ºF)		Potential Vapor Pathways Observed?	None	Distance to nearest Roadway (ft.)	NA
Intake Height Above Ground Level (ft.)	NA	Noticeable Odor?	No	Weather	Sunny, high of 90°
Barometric Pressure Initial ("Hg or mb)	28.8	Barometric Pressure Final ("Hg or mb)		Wind Speed (mph)	5 mph from the East

Interim Monitoring

Initial Sample Purge (soil gas only):	PID Reading (ppm):	43.8	Noticeable Odor? (Y/N) N	
Reading #1:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2 - If final pressure does not change much from initial pressure, send the sample to the laboratory and indicate "HOLD" on the chain-of-custody. Also request that the laboratory determine the final pressure and contact the ERM coordinator for further instruction.

Environmental Resources Management
The Towers at Wildwood Plaza
3200 Windy Hill Road, SE
Atlanta, Geogia 30339
Phone: (678) 486-2700

Project #:	0190949
Project Name:	Murata
Location:	308 Prospect Rd
	Rockmart, GA
Project Manager:	Nic Vrey

Sample Location:	Murata Warehouse	**Collector(s):**	Taylor Payne
Address:	308 Prospect Rd, Rockmart, GA		
PID Meter Used: (Model, Serial #)	MiniRae 3000	**Date:**	13-Jul-18

Sample ID: SSV-04 (SG-4)

Duplicate Sample? (Y/N) N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SOIL GAS

Photograph description: PHOTO #10

Summa® Information

Canister Serial Number:	2346	Flow Controller Number:	902
Start Date/Time:	7/13/2018 10:52	Stop Date/Time:	7/13/2018 11:05
Start Pressure: (inches Hg) [1]	-28.63	Stop Pressure: (inches Hg) [2]	-1.35

Other Sampling Information:

Story/Level	Ground	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (if applicable)	sub-slab
Room	Warehouse	Slab thickness (if applicable)	~6"	Distance from Building (if applicable)	NA
Indoor Air Temp (ºF)		Potential Vapor Pathways Observed?	None	Distance to nearest Roadway (ft.)	NA
Intake Height Above Ground Level (ft.)	NA	Noticeable Odor?	No	Weather	Sunny, high of 90°
Barometric Pressure Initial ("Hg or mb)	28.8	Barometric Pressure Final ("Hg or mb)		Wind Speed (mph)	5 mph from the East

Interim Monitoring

Initial Sample Purge (soil gas only):	PID Reading (ppm):	10.1	Noticeable Odor? (Y/N) N	
Reading #1:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2 - If final pressure does not change much from initial pressure, send the sample to the laboratory and indicate "HOLD" on the chain-of-custody. Also request that the laboratory determine the final pressure and contact the ERM coordinator for further instruction.

Environmental Resources Management
The Towers at Wildwood Plaza
3200 Windy Hill Road, SE
Atlanta, Geogia 30339
Phone: (678) 486-2700

Project #:	0190949
Project Name:	Murata
Location:	308 Prospect Rd
	Rockmart, GA
Project Manager:	Nic Vrey

Sample Location:	Murata Warehouse	**Collector(s):**	Taylor Payne
Address:	308 Prospect Rd, Rockmart, GA		
PID Meter Used: (Model, Serial #)	MiniRae 3000	**Date:**	13-Jul-18

Sample ID: SSV-05

Duplicate Sample? (Y/N) N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SOIL GAS

Photograph description: PHOTO #9

Summa® Information

Canister Serial Number:	336		Flow Controller Number:	902	
Start Date/Time:	7/13/2018	10:30	Stop Date/Time:	7/13/2018	10:45
Start Pressure: (inches Hg) [1]		-29.21	Stop Pressure: (inches Hg) [2]		-1.31

Other Sampling Information:

Story/Level	Ground	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (if applicable)	Sub-Slab
Room	Warehouse	Slab thickness (if applicable)	~6"	Distance from Building (if applicable)	NA
Indoor Air Temp (ºF)		Potential Vapor Pathways Observed?	None	Distance to nearest Roadway (ft.)	NA
Intake Height Above Ground Level (ft.)	NA	Noticeable Odor?	No	Weather	Sunny, high of 90°
Barometric Pressure Initial ("Hg or mb)	28.8	Barometric Pressure Final ("Hg or mb)		Wind Speed (mph)	5 mph from the East

Interim Monitoring

Initial Sample Purge (soil gas only):	PID Reading (ppm):	4.3	Noticeable Odor? (Y/N) N	
Reading #1:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2 - If final pressure does not change much from initial pressure, send the sample to the laboratory and indicate "HOLD" on the chain-of-custody. Also request that the laboratory determine the final pressure and contact the ERM coordinator for further instruction.

Environmental Resources Management
The Towers at Wildwood Plaza
3200 Windy Hill Road, SE
Atlanta, Geogia 30339
Phone: (678) 486-2700

Project #:	0190949
Project Name:	Murata
Location:	308 Prospect Rd
	Rockmart, GA
Project Manager:	Nic Vrey

Sample Location:	Murata Warehouse	**Collector(s):**	Taylor Payne
Address:	308 Prospect Rd, Rockmart, GA		
PID Meter Used: (Model, Serial #)	MiniRae 3000	**Date:**	13-Jul-18

Sample ID: SSV-05

Duplicate Sample? (Y/N) N **Duplicate Sample ID:**

Type of sample (circle one): INDOOR AIR AMBIENT AIR SOIL GAS

Photograph description: PHOTO #8

Summa® Information

Canister Serial Number:	494	Flow Controller Number:	218
Start Date/Time:	7/13/2018 10:05	Stop Date/Time:	7/13/2018 10:15
Start Pressure: (inches Hg) [1]	-29.43	Stop Pressure: (inches Hg) [2]	-1.21

Other Sampling Information:

Story/Level	Ground	Ground Surface (pavement, flooring)	Concrete	Depth of Vapor Probe (if applicable)	sub-slab
Room	Warehouse	Slab thickness (if applicable)	~6"	Distance from Building (if applicable)	NA
Indoor Air Temp (ºF)		Potential Vapor Pathways Observed?	None	Distance to nearest Roadway (ft.)	NA
Intake Height Above Ground Level (ft.)	NA	Noticeable Odor?	No	Weather	Sunny, high of 90°
Barometric Pressure Initial ("Hg or mb)	28.8	Barometric Pressure Final ("Hg or mb)		Wind Speed (mph)	5 mph from the East

Interim Monitoring

Initial Sample Purge (soil gas only):	PID Reading (ppm):	3.7	Noticeable Odor? (Y/N) N	
Reading #1:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #2:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #3:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #4:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	
Reading #5:	Time:	Summa Vacuum ("Hg):	Noticeable Odor? (Y/N)	

Sketch of Sample Location:

Comments:

1 - Verify pressure did not decrease noticeably from laboratory reported value.

2 - If final pressure does not change much from initial pressure, send the sample to the laboratory and indicate "HOLD" on the chain-of-custody. Also request that the laboratory determine the final pressure and contact the ERM coordinator for further instruction.

US EPA VISL Calculator Output

Appendix J

Project No. 0190949
Murata Electronics North America

Environmental Resources Management
3200 Windy Hill Road SE, Suite 1500W
Atlanta, Georgia 30339
(678) 486-2700

Default VISL Results
Commercial Equation Inputs

Output generated 02JUL2018:14:51:29

Variable	Value
Exposure Scenario	Commercial
Temperature for Groundwater Vapor Concentration C	25
THQ (target hazard quotient) unitless	1
TR (target risk) unitless	1E-05
AT_w (averaging time - composite worker)	365
EF_w (exposure frequency - composite worker) day/yr	250
ED_w (exposure duration - composite worker) yr	25
ET_w (exposure time - composite worker) hr	8
LT (lifetime) yr	70
AF_{gw} (Attenuation Factor Groundwater) unitless	0.001
AF_{ss} (Attenuation Factor Sub-Slab) unitless	0.03

Output generated 02JUL2018:14:51:29

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? (C_{vp} > $C_{i,a}$,Target?)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? (C_{hc} > $C_{i,a}$,Target?)	Target Indoor Air Concentration (TCR=1E-05 or THQ=1) MIN($C_{ia,c}$,$C_{ia,nc}$) (µg/m³)	Toxicity Basis	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-05 or THQ=1) C_{sg},Target (µg/m³)	Target Groundwater Concentration (TCR=1E-05 or THQ=1) C_{gw},Target (µg/L)	Is Target Groundwater Concentration < MCL? (C_{gw} < MCL?)
Tetrachloroethylene	127-18-4	Yes	Yes	Yes	Yes	1.75E+02	NC	5.84E+03	2.42E+02	No (5)
Trichloroethylene	79-01-6	Yes	Yes	Yes	Yes	8.76E+00	NC	2.92E+02	2.18E+01	No (5)

Chemical	Pure Phase Vapor Concentration C_{vp}\ (25 ℃)\ (µg/m³)	Maximum Groundwater Vapor Concentration C_{hc}\ (µg/m³)	Temperature for Maximum Groundwater Vapor Concentration (℃)	Lower Explosive Limit LEL (% by volume)	LEL Ref	Inhalation Unit Risk (ug/m³)$^{-1}$	IUR Ref	RfC (mg/m³)	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-05 $C_{ia,c}$ (µg/m³)	Noncarcinogenic VISL THQ=1 $C_{ia,nc}$ (µg/m³)
Tetrachloroethylene	1.65E+08	1.49E+08	25	-		2.60E-07	I	4.00E-02	I	No	4.72E+02	1.75E+02
Trichloroethylene	4.88E+08	5.15E+08	25	8.00	CRC89	4.10E-06	I	2.00E-03	I	Mut	2.99E+01	8.76E+00

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	MW	MW Ref	Vapor Pressure VP (mm Hg)	VP Ref	S (mg/L)	S Ref	MCL (ug/L)	HLC (atm-m^3/mole)	Henry's Law Constant (unitless)	H` and HLC Ref	Henry's Law Constant Used in Calcs (unitless)
Tetrachloroethylene	127-18-4	Yes	Yes	165.83	PHYSPROP	1.85E+01	PHYSPROP	2.06E+02	PHYSPROP	5	1.77E-02	7.24E-01	PHYSPROP	7.24E-01
Trichloroethylene	79-01-6	Yes	Yes	131.39	PHYSPROP	6.90E+01	PHYSPROP	1.28E+03	PHYSPROP	5	9.85E-03	4.03E-01	PHYSPROP	4.03E-01

Chemical	D_{ia} \ (cm^2/s)	D_{ia} \ Ref	D_{iw} \ (cm^2/s)	D_{iw} \ Ref	Normal Boiling Point T_{boil} \ (K)	BP Ref	Critical Temperature T_{crit} \ (K)	T_{crit} \ Ref	Enthalpy of vaporization at the normal boiling point $\Delta H_{v,b}$ \ (cal/mol)	$\Delta H_{v,b}$ \ Ref	K_{oc} \ (cm^3/g)	K_{oc} \ Ref	Lower Explosive Limit LEL (% by volume)	LEL Ref
Tetrachloroethylene	5.05E-02	WATER9 (U.S. EPA, 2001)	9.46E-06	WATER9 (U.S. EPA, 2001)	394.45	PHYSPROP	6.20E+02	YAWS	8.29E+03	Weast	94.94	EPI	-	
Trichloroethylene	6.87E-02	WATER9 (U.S. EPA, 2001)	1.02E-05	WATER9 (U.S. EPA, 2001)	360.35	PHYSPROP	5.71E+02	YAWS	7.51E+03	Weast	60.7	EPI	8	CRC89

Vapor Intrusion Assessment Analytical Reports

Appendix K

Project No. 0190949
Murata Electronics North America

Environmental Resources Management
3200 Windy Hill Road SE, Suite 1500W
Atlanta, Georgia 30339
(678) 486-2700

ANALYTICAL REPORT

Lab Number:	L1822276
Client:	ERM, Inc. 3200 Windy Hill Road, SE Suite 1500W Atlanta, GA 30339
ATTN:	Nicolas Vrey
Phone:	(678) 486-2762
Project Name:	MURATA
Project Number:	0190949
Report Date:	06/21/18

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1822276-01	SG-1	SOIL_VAPOR	ROCKMART, GA	06/11/18 10:53	06/14/18
L1822276-02	SG-2	SOIL_VAPOR	ROCKMART, GA	06/11/18 11:30	06/14/18
L1822276-03	SG-3	SOIL_VAPOR	ROCKMART, GA	06/11/18 12:01	06/14/18
L1822276-04	SG-4	SOIL_VAPOR	ROCKMART, GA	06/11/18 13:31	06/14/18
L1822276-05	SG-5	SOIL_VAPOR	ROCKMART, GA	06/11/18 13:56	06/14/18
L1822276-06	SG-6	SOIL_VAPOR	ROCKMART, GA	06/11/18 14:30	06/14/18
L1822276-07	DUP-1	SOIL_VAPOR	ROCKMART, GA	06/11/18 00:00	06/14/18
L1822276-08	UNUSED CAN #347	SOIL_VAPOR	ROCKMART, GA		06/14/18

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on June 7, 2018. The canister certification results are provided as an addendum.

L1822276-01 through -07: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative

Date: 06/21/18

AIR

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

SAMPLE RESULTS

Lab ID: L1822276-01 D
Client ID: SG-1
Sample Location: ROCKMART, GA

Date Collected: 06/11/18 10:53
Date Received: 06/14/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 06/21/18 08:03
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	911	294	--	4900	1580	--		1471
Tetrachloroethene	106000	294	--	719000	1990	--		1471

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	95		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	99		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

SAMPLE RESULTS

Lab ID: L1822276-02 D
Client ID: SG-2
Sample Location: ROCKMART, GA

Date Collected: 06/11/18 11:30
Date Received: 06/14/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 06/21/18 08:41
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	294.	--	ND	1580	--		1471
Tetrachloroethene	60400	294	--	410000	1990	--		1471

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	98		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	100		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

SAMPLE RESULTS

Lab ID: L1822276-03 D
Client ID: SG-3
Sample Location: ROCKMART, GA

Date Collected: 06/11/18 12:01
Date Received: 06/14/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 06/21/18 09:17
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	2.86	--	ND	15.4	--		14.29
Tetrachloroethene	646	2.86	--	4380	19.4	--		14.29

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	91		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	92		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

SAMPLE RESULTS

Lab ID: L1822276-04 D
Client ID: SG-4
Sample Location: ROCKMART, GA

Date Collected: 06/11/18 13:31
Date Received: 06/14/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 06/21/18 10:29
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	23.7	--	ND	127	--		118.5
Tetrachloroethene	6120	23.7	--	41500	161	--		118.5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	94		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	96		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

SAMPLE RESULTS

Lab ID: L1822276-05 D
Client ID: SG-5
Sample Location: ROCKMART, GA

Date Collected: 06/11/18 13:56
Date Received: 06/14/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 06/21/18 11:07
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	5.85	--	ND	31.4	--		29.24
Tetrachloroethene	1670	5.85	--	11300	39.7	--		29.24

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	98		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	99		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

SAMPLE RESULTS

Lab ID: L1822276-06 D
Client ID: SG-6
Sample Location: ROCKMART, GA

Date Collected: 06/11/18 14:30
Date Received: 06/14/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 06/21/18 11:43
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	11.7	--	ND	62.9	--		58.55
Tetrachloroethene	3070	11.7	--	20800	79.3	--		58.55

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	97		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	100		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

SAMPLE RESULTS

Lab ID: L1822276-07 D
Client ID: DUP-1
Sample Location: ROCKMART, GA

Date Collected: 06/11/18 00:00
Date Received: 06/14/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 06/21/18 12:19
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	23.4	--	ND	126	--		116.8
Tetrachloroethene	6160	23.4	--	41800	159	--		116.8

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	101		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	101		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 06/20/18 16:19

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-07 Batch: WG1127991-4								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1127991-3								
Chlorodifluoromethane	83		-		70-130	-		
Propylene	104		-		70-130	-		
Propane	74		-		70-130	-		
Dichlorodifluoromethane	95		-		70-130	-		
Chloromethane	85		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	98		-		70-130	-		
Methanol	78		-		70-130	-		
Vinyl chloride	96		-		70-130	-		
1,3-Butadiene	95		-		70-130	-		
Butane	82		-		70-130	-		
Bromomethane	98		-		70-130	-		
Chloroethane	92		-		70-130	-		
Ethyl Alcohol	89		-		70-130	-		
Dichlorofluoromethane	104		-		70-130	-		
Vinyl bromide	99		-		70-130	-		
Acrolein	84		-		70-130	-		
Acetone	75		-		70-130	-		
Acetonitrile	82		-		70-130	-		
Trichlorofluoromethane	102		-		70-130	-		
Acrylonitrile	85		-		70-130	-		
Pentane	79		-		70-130	-		
Ethyl ether	93		-		70-130	-		
1,1-Dichloroethene	95		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1127991-3								
tert-Butyl Alcohol	80		-		70-130	-		
Methylene chloride	88		-		70-130	-		
3-Chloropropene	94		-		70-130	-		
Carbon disulfide	92		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	101		-		70-130	-		
trans-1,2-Dichloroethene	94		-		70-130	-		
1,1-Dichloroethane	90		-		70-130	-		
Methyl tert butyl ether	85		-		70-130	-		
Vinyl acetate	77		-		70-130	-		
2-Butanone	86		-		70-130	-		
cis-1,2-Dichloroethene	89		-		70-130	-		
Ethyl Acetate	102		-		70-130	-		
Chloroform	101		-		70-130	-		
Tetrahydrofuran	90		-		70-130	-		
2,2-Dichloropropane	90		-		70-130	-		
1,2-Dichloroethane	96		-		70-130	-		
n-Hexane	91		-		70-130	-		
Isopropyl Ether	81		-		70-130	-		
Ethyl-Tert-Butyl-Ether	75		-		70-130	-		
1,1,1-Trichloroethane	92		-		70-130	-		
1,1-Dichloropropene	85		-		70-130	-		
Benzene	84		-		70-130	-		
Carbon tetrachloride	99		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1127991-3								
Cyclohexane	89		-		70-130	-		
Tertiary-Amyl Methyl Ether	74		-		70-130	-		
Dibromomethane	82		-		70-130	-		
1,2-Dichloropropane	84		-		70-130	-		
Bromodichloromethane	96		-		70-130	-		
1,4-Dioxane	95		-		70-130	-		
Trichloroethene	92		-		70-130	-		
2,2,4-Trimethylpentane	93		-		70-130	-		
Heptane	85		-		70-130	-		
cis-1,3-Dichloropropene	91		-		70-130	-		
4-Methyl-2-pentanone	82		-		70-130	-		
trans-1,3-Dichloropropene	79		-		70-130	-		
1,1,2-Trichloroethane	88		-		70-130	-		
Toluene	96		-		70-130	-		
1,3-Dichloropropane	87		-		70-130	-		
2-Hexanone	86		-		70-130	-		
Dibromochloromethane	111		-		70-130	-		
1,2-Dibromoethane	97		-		70-130	-		
Butyl Acetate	86		-		70-130	-		
Octane	92		-		70-130	-		
Tetrachloroethene	96		-		70-130	-		
1,1,1,2-Tetrachloroethane	97		-		70-130	-		
Chlorobenzene	97		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1127991-3								
Ethylbenzene	100		-		70-130	-		
p/m-Xylene	99		-		70-130	-		
Bromoform	113		-		70-130	-		
Styrene	99		-		70-130	-		
1,1,2,2-Tetrachloroethane	101		-		70-130	-		
o-Xylene	102		-		70-130	-		
1,2,3-Trichloropropane	89		-		70-130	-		
Nonane (C9)	83		-		70-130	-		
Isopropylbenzene	98		-		70-130	-		
Bromobenzene	90		-		70-130	-		
o-Chlorotoluene	96		-		70-130	-		
n-Propylbenzene	98		-		70-130	-		
p-Chlorotoluene	94		-		70-130	-		
4-Ethyltoluene	108		-		70-130	-		
1,3,5-Trimethylbenzene	108		-		70-130	-		
tert-Butylbenzene	104		-		70-130	-		
1,2,4-Trimethylbenzene	109		-		70-130	-		
Decane (C10)	98		-		70-130	-		
Benzyl chloride	117		-		70-130	-		
1,3-Dichlorobenzene	106		-		70-130	-		
1,4-Dichlorobenzene	106		-		70-130	-		
sec-Butylbenzene	100		-		70-130	-		
p-Isopropyltoluene	97		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1127991-3								
1,2-Dichlorobenzene	106		-		70-130	-		
n-Butylbenzene	105		-		70-130	-		
1,2-Dibromo-3-chloropropane	97		-		70-130	-		
Undecane	97		-		70-130	-		
Dodecane (C12)	97		-		70-130	-		
1,2,4-Trichlorobenzene	107		-		70-130	-		
Naphthalene	100		-		70-130	-		
1,2,3-Trichlorobenzene	97		-		70-130	-		
Hexachlorobutadiene	110		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1127991-5 QC Sample: L1822276-03 Client ID: SG-3						
Trichloroethene	ND	ND	ppbV	NC		25
Tetrachloroethene	646	719	ppbV	11		25

Project Name: MURATA

Project Number: 0190949

Lab Number: L1822276

Report Date: 06/21/18

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1822276-01	SG-1	0538	SV200	06/07/18	266640		-	-	-	Pass	216	209	3
L1822276-01	SG-1	2305	2.7L Can	06/07/18	266640	L1820564-01	Pass	-29.8	-1.4	-	-	-	-
L1822276-02	SG-2	0655	SV200	06/07/18	266640		-	-	-	Pass	206	200	3
L1822276-02	SG-2	143	2.7L Can	06/07/18	266640	L1820564-01	Pass	-29.8	-1.2	-	-	-	-
L1822276-03	SG-3	0683	SV200	06/07/18	266640		-	-	-	Pass	215	212	1
L1822276-03	SG-3	185	2.7L Can	06/07/18	266640	L1820564-01	Pass	-30.0	-0.9	-	-	-	-
L1822276-04	SG-4	0509	SV200	06/07/18	266640		-	-	-	Pass	216	206	5
L1822276-04	SG-4	413	2.7L Can	06/07/18	266640	L1820564-01	Pass	-30.0	-1.9	-	-	-	-
L1822276-05	SG-5	01049	SV200	06/07/18	266640		-	-	-	Pass	218	208	5
L1822276-05	SG-5	359	2.7L Can	06/07/18	266640	L1820564-01	Pass	-29.8	-1.6	-	-	-	-
L1822276-06	SG-6	0999	SV200	06/07/18	266640		-	-	-	Pass	214	214	0
L1822276-06	SG-6	522	2.7L Can	06/07/18	266640	L1819345-01	Pass	-30.0	-1.5	-	-	-	-
L1822276-07	DUP-1	0572	SV200	06/07/18	266640		-	-	-	Pass	217	211	3
L1822276-07	DUP-1	448	2.7L Can	06/07/18	266640	L1820564-01	Pass	-30.0	-1.5	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1819345
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1819345-01
Client ID: CAN 522 SHELF 8
Sample Location:

Date Collected: 05/24/18 16:00
Date Received: 05/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 05/25/18 19:29
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1819345
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1819345-01
Client ID: CAN 522 SHELF 8
Sample Location:

Date Collected: 05/24/18 16:00
Date Received: 05/25/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1819345
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1819345-01
Client ID: CAN 522 SHELF 8
Sample Location:

Date Collected: 05/24/18 16:00
Date Received: 05/25/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1819345
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1819345-01
Client ID: CAN 522 SHELF 8
Sample Location:

Date Collected: 05/24/18 16:00
Date Received: 05/25/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1819345
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1819345-01
Client ID: CAN 522 SHELF 8
Sample Location:

Date Collected: 05/24/18 16:00
Date Received: 05/25/18
Field Prep: Not Specified

Sample Depth:

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	81		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	79		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1819345
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1819345-01
Client ID: CAN 522 SHELF 8
Sample Location:

Date Collected: 05/24/18 16:00
Date Received: 05/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/25/18 19:29
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1819345
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1819345-01
Client ID: CAN 522 SHELF 8
Sample Location:

Date Collected: 05/24/18 16:00
Date Received: 05/25/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1819345
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1819345-01
Client ID: CAN 522 SHELF 8
Sample Location:

Date Collected: 05/24/18 16:00
Date Received: 05/25/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	80		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	80		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1820564
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1820564-01
Client ID: CAN 106 SHELF 1
Sample Location:

Date Collected: 06/04/18 16:00
Date Received: 06/05/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 06/05/18 18:29
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1820564
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1820564-01
Client ID: CAN 106 SHELF 1
Sample Location:

Date Collected: 06/04/18 16:00
Date Received: 06/05/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1820564
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1820564-01
Client ID: CAN 106 SHELF 1
Sample Location:

Date Collected: 06/04/18 16:00
Date Received: 06/05/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1820564
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1820564-01
Client ID: CAN 106 SHELF 1
Sample Location:

Date Collected: 06/04/18 16:00
Date Received: 06/05/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1820564
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1820564-01
Client ID: CAN 106 SHELF 1
Sample Location:

Date Collected: 06/04/18 16:00
Date Received: 06/05/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.8	J	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1820564
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1820564-01
Client ID: CAN 106 SHELF 1
Sample Location:

Date Collected: 06/04/18 16:00
Date Received: 06/05/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/05/18 18:29
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1820564
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1820564-01
Client ID: CAN 106 SHELF 1
Sample Location:

Date Collected: 06/04/18 16:00
Date Received: 06/05/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1820564
Report Date: 06/21/18

Air Canister Certification Results

Lab ID: L1820564-01
Client ID: CAN 106 SHELF 1
Sample Location:

Date Collected: 06/04/18 16:00
Date Received: 06/05/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1822276
Report Date: 06/21/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
N/A	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1822276-01A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-LL(30)
L1822276-02A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-LL(30)
L1822276-03A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-LL(30)
L1822276-04A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-LL(30)
L1822276-05A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-LL(30)
L1822276-06A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-LL(30)
L1822276-07A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-LL(30)
L1822276-08A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	MURATA	**Lab Number:**	L1822276
Project Number:	0190949	**Report Date:**	06/21/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Project Name: MURATA **Lab Number:** L1822276

Project Number: 0190949 **Report Date:** 06/21/18

Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: MURATA **Lab Number:** L1822276
Project Number: 0190949 **Report Date:** 06/21/18

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 1

ALPHA ANALYTICAL

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 6/14/18

ALPHA Job #: L1822276

Client Information

Client: ERM
Address: 3200 Windy Hill Rd.
Atlanta, GA 30339
Phone: 678-486-1400
Fax:
Email: nic.vrey@erm.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Mulata
Project Location: Rockmart, GA
Project #: 090949
Project Manager: Nic Vrey
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☑ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15		Sample Comments (i.e. PID)
22276.01	SG-1	6/11/18	1039	1053	-29.03	-1.05	SV	TP HB	2.7	2305	0538	X						TCE, PCE [1655]
.02	SG-2	6/11/18	1116	1130	-30.08	-1.55	SV	TP HB	2.7	143	0655	X						TCE, PCE [1078]
.03	SG-3	6/11/18	1144	1201	-30.25	-1.15	SV	TP HB	2.7	185	0683	X						TCE, PCE
.04	SG-4	6/11/18	1315	1331	-29.14	-0.82	SV	TP HB	2.7	413	0509	X						TCE, PCE
.05	SG-5	6/11/18	1345	1354	-28.49	-0.71	SV	TP HB	2.7	354	01044	X						TCE, PCE
.06	SG-6	6/11/18	1414	1430	-28.97	-0.35	SV	TP HB	2.7	322	0299	X						TCE, PCE
.07	DUP-1	6/11/18	—	—	-28.92	-0.48	SV	TP HB	2.7	448	0572	X						TCE, PCE

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
FedEx	6/13/18 1600	FedEx [illegible] ALPHA	6/14/18 10:50

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Form No: 101-02 Rev: (25-Sep-15)

ANALYTICAL REPORT

Lab Number:	L1827466
Client:	ERM, Inc. 3200 Windy Hill Road, SE Suite 1500W Atlanta, GA 30339
ATTN:	Nicolas Vrey
Phone:	(678) 486-2762
Project Name:	MURATA
Project Number:	0190949
Report Date:	07/24/18

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1827466-01	IA-01-20180713	AIR	ROCKMART, GA	07/13/18 16:20	07/18/18
L1827466-02	IA-02-20180713	AIR	ROCKMART, GA	07/13/18 16:10	07/18/18
L1827466-03	IA-03-20180713	AIR	ROCKMART, GA	07/13/18 14:20	07/18/18
L1827466-04	IA-04-20180713	AIR	ROCKMART, GA	07/13/18 16:30	07/18/18
L1827466-05	IA-05-20180713	AIR	ROCKMART, GA	07/13/18 16:25	07/18/18
L1827466-06	DUP-01-IA-20180713	AIR	ROCKMART, GA	07/13/18 00:00	07/18/18
L1827466-07	IA-06-20180713	AIR	ROCKMART, GA	07/13/18 16:35	07/18/18
L1827466-08	OA-01-20180713	AIR	ROCKMART, GA	07/13/18 15:45	07/18/18
L1827466-09	SSV-01-20180713	SOIL_VAPOR	ROCKMART, GA	07/13/18 12:35	07/18/18
L1827466-10	SSV-02-20180713	SOIL_VAPOR	ROCKMART, GA	07/13/18 11:55	07/18/18
L1827466-11	SSV-03-20180713	SOIL_VAPOR	ROCKMART, GA	07/13/18 11:30	07/18/18
L1827466-12	DUP-01-SSV-20180713	SOIL_VAPOR	ROCKMART, GA	07/13/18 00:00	07/18/18
L1827466-13	SSV-04-20180713	SOIL_VAPOR	ROCKMART, GA	07/13/18 11:05	07/18/18
L1827466-14	SSV-05-20180713	SOIL_VAPOR	ROCKMART, GA	07/13/18 10:45	07/18/18
L1827466-15	SSV-06-20180713	SOIL_VAPOR	ROCKMART, GA	07/13/18 10:15	07/18/18
L1827466-16	UNUSED CAN #386	SOIL_VAPOR	ROCKMART, GA		07/18/18
L1827466-17	UNUSED CAN #383	SOIL_VAPOR	ROCKMART, GA		07/18/18

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: MURATA
Project Number: 0190949
Lab Number: L1827466
Report Date: 07/24/18

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on July 6 and 12, 2018. The canister certification results are provided as an addendum.

L1827466-11, -13 and -14: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in these samples.

Sample Receipt

The flow controller ID number for the sample designated SSV-02-20180713 (L1827466-10) is listed on the CoC as 211 but should be 0673.

The flow controller ID number for the sample designated SSV-05-20180713 (L1827466-14) is listed on the CoC as 696 but should be 0692.

The flow controller ID number for the sample designated SSV-06-20180713 (L1827466-15) is listed on the CoC as 218 but should be 0598.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative

Date: 07/24/18

AIR

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-01
Client ID: IA-01-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 16:20
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/23/18 18:30
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Trichloroethene	0.039	0.020	--	0.210	0.107	--		1
Tetrachloroethene	1.21	0.020	--	8.21	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	85		60-140
bromochloromethane	82		60-140
chlorobenzene-d5	86		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-02
Client ID: IA-02-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 16:10
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/23/18 19:50
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Trichloroethene	0.035	0.020	--	0.188	0.107	--		1
Tetrachloroethene	1.97	0.020	--	13.4	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	83		60-140
bromochloromethane	82		60-140
chlorobenzene-d5	83		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-03
Client ID: IA-03-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 14:20
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/23/18 20:29
Analyst: GJ

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.197	0.020	--	1.34	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	88		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-04
Client ID: IA-04-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 16:30
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/23/18 21:09
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.343	0.020	--	2.33	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	82		60-140
bromochloromethane	80		60-140
chlorobenzene-d5	82		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-05
Client ID: IA-05-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 16:25
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/23/18 21:49
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Trichloroethene	0.033	0.020	--	0.177	0.107	--		1
Tetrachloroethene	0.924	0.020	--	6.27	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	81		60-140
bromochloromethane	79		60-140
chlorobenzene-d5	79		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-06
Client ID: DUP-01-IA-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 00:00
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/23/18 22:28
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Trichloroethene	0.040	0.020	--	0.215	0.107	--		1
Tetrachloroethene	2.11	0.020	--	14.3	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	84		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-07
Client ID: IA-06-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 16:35
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/23/18 23:08
Analyst: GJ

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Trichloroethene	0.031	0.020	--	0.167	0.107	--		1
Tetrachloroethene	1.01	0.020	--	6.85	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	90		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-08
Client ID: OA-01-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 15:45
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/23/18 17:50
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.051	0.020	--	0.346	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	96		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	97		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-09
Client ID: SSV-01-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 12:35
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 07/23/18 23:47
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	0.603	0.200	--	3.24	1.07	--		1
Tetrachloroethene	46.3	0.200	--	314	1.36	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	87		60-140
Bromochloromethane	83		60-140
chlorobenzene-d5	85		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-10
Client ID: SSV-02-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 11:55
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 07/24/18 01:06
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
Tetrachloroethene	3.11	0.200	--	21.1	1.36	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	95		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	92		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-11 D
Client ID: SSV-03-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 11:30
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 07/24/18 01:44
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	1.00	--	ND	5.37	--		5
Tetrachloroethene	208	1.00	--	1410	6.78	--		5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	94		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	93		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-12
Client ID: DUP-01-SSV-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 00:00
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 07/24/18 02:23
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
Tetrachloroethene	80.0	0.200	--	542	1.36	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	98		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-13 D
Client ID: SSV-04-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 11:05
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 07/24/18 03:01
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	20.0	--	ND	107	--		100
Tetrachloroethene	6480	20.0	--	43900	136	--		100

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	98		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	94		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-14 D
Client ID: SSV-05-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 10:45
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 07/24/18 03:38
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	20.2	--	ND	109	--		100.8
Tetrachloroethene	4510	20.2	--	30600	137	--		100.8

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	96		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	95		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

SAMPLE RESULTS

Lab ID: L1827466-15
Client ID: SSV-06-20180713
Sample Location: ROCKMART, GA

Date Collected: 07/13/18 10:15
Date Received: 07/18/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 07/24/18 04:17
Analyst: GJ

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
Tetrachloroethene	0.933	0.200	--	6.33	1.36	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	98		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 07/23/18 15:58

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 09-15 Batch: WG1138591-4								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 07/23/18 15:58

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-08 Batch: WG1138592-4								
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 09-15 Batch: WG1138591-3								
Chlorodifluoromethane	86		-		70-130	-		
Propylene	100		-		70-130	-		
Propane	81		-		70-130	-		
Dichlorodifluoromethane	92		-		70-130	-		
Chloromethane	96		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	93		-		70-130	-		
Methanol	81		-		70-130	-		
Vinyl chloride	90		-		70-130	-		
1,3-Butadiene	101		-		70-130	-		
Butane	85		-		70-130	-		
Bromomethane	92		-		70-130	-		
Chloroethane	88		-		70-130	-		
Ethyl Alcohol	87		-		70-130	-		
Dichlorofluoromethane	97		-		70-130	-		
Vinyl bromide	101		-		70-130	-		
Acrolein	86		-		70-130	-		
Acetone	75		-		70-130	-		
Acetonitrile	80		-		70-130	-		
Trichlorofluoromethane	94		-		70-130	-		
iso-Propyl Alcohol	80		-		70-130	-		
Acrylonitrile	93		-		70-130	-		
Pentane	92		-		70-130	-		
Ethyl ether	84		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 09-15 Batch: WG1138591-3								
1,1-Dichloroethene	94		-		70-130	-		
tert-Butyl Alcohol	83		-		70-130	-		
Methylene chloride	102		-		70-130	-		
3-Chloropropene	108		-		70-130	-		
Carbon disulfide	102		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	104		-		70-130	-		
trans-1,2-Dichloroethene	101		-		70-130	-		
1,1-Dichloroethane	101		-		70-130	-		
Methyl tert butyl ether	102		-		70-130	-		
Vinyl acetate	118		-		70-130	-		
2-Butanone	107		-		70-130	-		
cis-1,2-Dichloroethene	100		-		70-130	-		
Ethyl Acetate	103		-		70-130	-		
Chloroform	98		-		70-130	-		
Tetrahydrofuran	106		-		70-130	-		
2,2-Dichloropropane	88		-		70-130	-		
1,2-Dichloroethane	91		-		70-130	-		
n-Hexane	102		-		70-130	-		
Isopropyl Ether	94		-		70-130	-		
Ethyl-Tert-Butyl-Ether	82		-		70-130	-		
1,1,1-Trichloroethane	96		-		70-130	-		
1,1-Dichloropropene	99		-		70-130	-		
Benzene	100		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 09-15 Batch: WG1138591-3								
Carbon tetrachloride	101		-		70-130	-		
Cyclohexane	102		-		70-130	-		
Tertiary-Amyl Methyl Ether	91		-		70-130	-		
Dibromomethane	96		-		70-130	-		
1,2-Dichloropropane	102		-		70-130	-		
Bromodichloromethane	106		-		70-130	-		
1,4-Dioxane	110		-		70-130	-		
Trichloroethene	106		-		70-130	-		
2,2,4-Trimethylpentane	103		-		70-130	-		
Methyl Methacrylate	79		-		70-130	-		
Heptane	109		-		70-130	-		
cis-1,3-Dichloropropene	108		-		70-130	-		
4-Methyl-2-pentanone	111		-		70-130	-		
trans-1,3-Dichloropropene	93		-		70-130	-		
1,1,2-Trichloroethane	109		-		70-130	-		
Toluene	114		-		70-130	-		
1,3-Dichloropropane	105		-		70-130	-		
2-Hexanone	120		-		70-130	-		
Dibromochloromethane	127		-		70-130	-		
1,2-Dibromoethane	116		-		70-130	-		
Butyl Acetate	118		-		70-130	-		
Octane	104		-		70-130	-		
Tetrachloroethene	115		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 09-15 Batch: WG1138591-3								
1,1,1,2-Tetrachloroethane	106		-		70-130	-		
Chlorobenzene	115		-		70-130	-		
Ethylbenzene	116		-		70-130	-		
p/m-Xylene	114		-		70-130	-		
Bromoform	130		-		70-130	-		
Styrene	118		-		70-130	-		
1,1,2,2-Tetrachloroethane	112		-		70-130	-		
o-Xylene	115		-		70-130	-		
1,2,3-Trichloropropane	105		-		70-130	-		
Nonane (C9)	108		-		70-130	-		
Isopropylbenzene	113		-		70-130	-		
Bromobenzene	106		-		70-130	-		
o-Chlorotoluene	113		-		70-130	-		
n-Propylbenzene	110		-		70-130	-		
p-Chlorotoluene	109		-		70-130	-		
4-Ethyltoluene	121		-		70-130	-		
1,3,5-Trimethylbenzene	127		-		70-130	-		
tert-Butylbenzene	107		-		70-130	-		
1,2,4-Trimethylbenzene	119		-		70-130	-		
Decane (C10)	104		-		70-130	-		
Benzyl chloride	129		-		70-130	-		
1,3-Dichlorobenzene	116		-		70-130	-		
1,4-Dichlorobenzene	117		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 09-15 Batch: WG1138591-3								
sec-Butylbenzene	109		-		70-130	-		
p-Isopropyltoluene	99		-		70-130	-		
1,2-Dichlorobenzene	118		-		70-130	-		
n-Butylbenzene	118		-		70-130	-		
1,2-Dibromo-3-chloropropane	117		-		70-130	-		
Undecane	113		-		70-130	-		
Dodecane (C12)	122		-		70-130	-		
1,2,4-Trichlorobenzene	126		-		70-130	-		
Naphthalene	120		-		70-130	-		
1,2,3-Trichlorobenzene	122		-		70-130	-		
Hexachlorobutadiene	115		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-08 Batch: WG1138592-3								
Vinyl chloride	88		-		70-130	-		25
Chloroethane	85		-		70-130	-		25
1,1-Dichloroethene	89		-		70-130	-		25
trans-1,2-Dichloroethene	98		-		70-130	-		25
1,1-Dichloroethane	96		-		70-130	-		25
cis-1,2-Dichloroethene	99		-		70-130	-		25
1,2-Dichloroethane	84		-		70-130	-		25
1,1,1-Trichloroethane	93		-		70-130	-		25
Carbon tetrachloride	96		-		70-130	-		25
Trichloroethene	103		-		70-130	-		25
1,1,2-Trichloroethane	102		-		70-130	-		25
Tetrachloroethene	107		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 09-15 QC Batch ID: WG1138591-5 QC Sample: L1827466-09 Client ID: SSV-01-20180713						
Trichloroethene	0.603	0.616	ppbV	2		25
Tetrachloroethene	46.3	44.8	ppbV	3		25
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1138592-5 QC Sample: L1827466-01 Client ID: IA-01-20180713						
Trichloroethene	0.039	0.032	ppbV	20		25
Tetrachloroethene	1.21	1.27	ppbV	5		25

Project Name: MURATA

Project Number: 0190949

Lab Number: L1827466

Report Date: 07/24/18

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1827466-01	IA-01-20180713	0969	Flow 5	07/06/18	268826		-	-	-	Pass	4.5	4.7	4
L1827466-01	IA-01-20180713	560	2.7L Can	07/06/18	268826	L1824647-01	Pass	-30.0	-7.6	-	-	-	-
L1827466-02	IA-02-20180713	0304	Flow 5	07/06/18	268826		-	-	-	Pass	4.5	5.0	11
L1827466-02	IA-02-20180713	2517	2.7L Can	07/06/18	268826	L1825051-01	Pass	-30.0	-7.2	-	-	-	-
L1827466-03	IA-03-20180713	01061	Flow 5	07/06/18	268826		-	-	-	Pass	4.5	6.3	33
L1827466-03	IA-03-20180713	205	2.7L Can	07/06/18	268826	L1824647-01	Pass	-29.6	-6.5	-	-	-	-
L1827466-04	IA-04-20180713	0059	Flow 5	07/06/18	268826		-	-	-	Pass	4.5	4.9	9
L1827466-04	IA-04-20180713	512	2.7L Can	07/06/18	268826	L1824647-01	Pass	-30.0	-7.6	-	-	-	-
L1827466-05	IA-05-20180713	0250	Flow 5	07/12/18	269823		-	-	-	Pass	4.5	4.8	6
L1827466-05	IA-05-20180713	391	2.7L Can	07/06/18	268826	L1825051-01	Pass	-28.5	-7.3	-	-	-	-
L1827466-06	DUP-01-IA-20180713	0486	Flow 5	07/06/18	268826		-	-	-	Pass	4.5	5.1	13
L1827466-06	DUP-01-IA-20180713	1745	2.7L Can	07/06/18	268826	L1825051-01	Pass	-30.0	-7.8	-	-	-	-
L1827466-07	IA-06-20180713	0300	Flow 5	07/06/18	268826		-	-	-	Pass	4.5	4.7	4
L1827466-07	IA-06-20180713	478	2.7L Can	07/06/18	268826	L1825051-01	Pass	-30.0	-7.7	-	-	-	-
L1827466-08	OA-01-20180713	0541	Flow 5	07/06/18	268826		-	-	-	Pass	4.4	5.2	17

Project Name: MURATA

Project Number: 0190949

Lab Number: L1827466

Report Date: 07/24/18

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1827466-08	OA-01-20180713	223	2.7L Can	07/06/18	268826	L1825051-01	Pass	-29.6	-8.7	-	-	-	-
L1827466-09	SSV-01-20180713	0664	SV200	07/12/18	269823		-	-	-	Pass	217	208	4
L1827466-09	SSV-01-20180713	214	2.7L Can	07/12/18	269823	L1825594-02	Pass	-29.5	-1.9	-	-	-	-
L1827466-10	SSV-02-20180713	0673	SV200	07/12/18	269823		-	-	-	Pass	211	213	1
L1827466-10	SSV-02-20180713	1718	2.7L Can	07/12/18	269823	L1825594-02	Pass	-29.4	-2.3	-	-	-	-
L1827466-11	SSV-03-20180713	0670	SV200	07/12/18	269823		-	-	-	Pass	221	209	6
L1827466-11	SSV-03-20180713	259	2.7L Can	07/12/18	269823	L1825341-01	Pass	-29.0	-2.6	-	-	-	-
L1827466-12	DUP-01-SSV-20180713	0567	SV200	07/12/18	269823		-	-	-	Pass	221	213	4
L1827466-12	DUP-01-SSV-20180713	502	2.7L Can	07/12/18	269823	L1825594-02	Pass	-29.4	-2.5	-	-	-	-
L1827466-13	SSV-04-20180713	0902	SV200	07/12/18	269823		-	-	-	Pass	221	208	6
L1827466-13	SSV-04-20180713	2346	2.7L Can	07/12/18	269823	L1825594-01	Pass	-29.0	-2.2	-	-	-	-
L1827466-14	SSV-05-20180713	0692	SV200	07/12/18	269823		-	-	-	Pass	218	212	3
L1827466-14	SSV-05-20180713	336	2.7L Can	07/12/18	269823	L1825594-01	Pass	-29.7	-2.0	-	-	-	-
L1827466-15	SSV-06-20180713	0598	SV200	07/12/18	269823		-	-	-	Pass	218	213	2
L1827466-15	SSV-06-20180713	494	2.7L Can	07/12/18	269823	L1825594-01	Pass	-29.7	-1.9	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1824647
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1824647-01
Client ID: CAN 526 SHELF 9
Sample Location:

Date Collected: 06/27/18 16:00
Date Received: 06/28/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 06/28/18 19:35
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1824647
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1824647-01
Client ID: CAN 526 SHELF 9
Sample Location:

Date Collected: 06/27/18 16:00
Date Received: 06/28/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1824647
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1824647-01
Client ID: CAN 526 SHELF 9
Sample Location:

Date Collected: 06/27/18 16:00
Date Received: 06/28/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1824647
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1824647-01
Client ID: CAN 526 SHELF 9
Sample Location:

Date Collected: 06/27/18 16:00
Date Received: 06/28/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1824647
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1824647-01
Client ID: CAN 526 SHELF 9
Sample Location:

Date Collected: 06/27/18 16:00
Date Received: 06/28/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	78		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1824647
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1824647-01
Client ID: CAN 526 SHELF 9
Sample Location:

Date Collected: 06/27/18 16:00
Date Received: 06/28/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/28/18 19:35
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1824647
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1824647-01
Client ID: CAN 526 SHELF 9
Sample Location:

Date Collected: 06/27/18 16:00
Date Received: 06/28/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1824647
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1824647-01
Client ID: CAN 526 SHELF 9
Sample Location:

Date Collected: 06/27/18 16:00
Date Received: 06/28/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	81		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825051
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825051-01
Client ID: CAN 550 SHELF 10
Sample Location:

Date Collected: 06/29/18 16:00
Date Received: 06/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 06/30/18 21:51
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825051
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825051-01
Client ID: CAN 550 SHELF 10
Sample Location:

Date Collected: 06/29/18 16:00
Date Received: 06/30/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825051
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825051-01
Client ID: CAN 550 SHELF 10
Sample Location:

Date Collected: 06/29/18 16:00
Date Received: 06/30/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825051
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825051-01
Client ID: CAN 550 SHELF 10
Sample Location:

Date Collected: 06/29/18 16:00
Date Received: 06/30/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825051
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825051-01
Client ID: CAN 550 SHELF 10
Sample Location:

Date Collected: 06/29/18 16:00
Date Received: 06/30/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	81		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	78		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825051
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825051-01
Client ID: CAN 550 SHELF 10
Sample Location:

Date Collected: 06/29/18 16:00
Date Received: 06/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/30/18 21:51
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825051
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825051-01
Client ID: CAN 550 SHELF 10
Sample Location:

Date Collected: 06/29/18 16:00
Date Received: 06/30/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825051
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825051-01
Client ID: CAN 550 SHELF 10
Sample Location:

Date Collected: 06/29/18 16:00
Date Received: 06/30/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	79		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825341
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825341-01
Client ID: CAN 252 SHELF 1
Sample Location:

Date Collected: 07/02/18 16:00
Date Received: 07/03/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/04/18 00:18
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825341
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825341-01
Client ID: CAN 252 SHELF 1
Sample Location:

Date Collected: 07/02/18 16:00
Date Received: 07/03/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825341
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825341-01
Client ID: CAN 252 SHELF 1
Sample Location:

Date Collected: 07/02/18 16:00
Date Received: 07/03/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825341
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825341-01
Client ID: CAN 252 SHELF 1
Sample Location:

Date Collected: 07/02/18 16:00
Date Received: 07/03/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825341
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825341-01
Client ID: CAN 252 SHELF 1
Sample Location:

Date Collected: 07/02/18 16:00
Date Received: 07/03/18
Field Prep: Not Specified

Sample Depth:

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825341
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825341-01
Client ID: CAN 252 SHELF 1
Sample Location:

Date Collected: 07/02/18 16:00
Date Received: 07/03/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/03/18 17:08
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825341
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825341-01
Client ID: CAN 252 SHELF 1
Sample Location:

Date Collected: 07/02/18 16:00
Date Received: 07/03/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825341
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825341-01
Client ID: CAN 252 SHELF 1
Sample Location:

Date Collected: 07/02/18 16:00
Date Received: 07/03/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	94		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-01
Client ID: CAN 260 SHELF 2
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/06/18 21:13
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-01
Client ID: CAN 260 SHELF 2
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-01
Client ID: CAN 260 SHELF 2
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-01
Client ID: CAN 260 SHELF 2
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-01
Client ID: CAN 260 SHELF 2
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								

	Results	**Qualifier**	**Units**	**RDL**	**Dilution Factor**
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	97		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	93		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-01
Client ID: CAN 260 SHELF 2
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/07/18 18:28
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-01
Client ID: CAN 260 SHELF 2
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-01
Client ID: CAN 260 SHELF 2
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	82		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-02
Client ID: CAN 1739 SHELF 3
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/06/18 21:51
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-02
Client ID: CAN 1739 SHELF 3
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-02
Client ID: CAN 1739 SHELF 3
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-02
Client ID: CAN 1739 SHELF 3
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-02
Client ID: CAN 1739 SHELF 3
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	89		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-02
Client ID: CAN 1739 SHELF 3
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/07/18 19:03
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-02
Client ID: CAN 1739 SHELF 3
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1825594
Report Date: 07/24/18

Air Canister Certification Results

Lab ID: L1825594-02
Client ID: CAN 1739 SHELF 3
Sample Location:

Date Collected: 07/05/18 16:00
Date Received: 07/06/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	80		60-140

Project Name: MURATA
Project Number: 0190949

Lab Number: L1827466
Report Date: 07/24/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
N/A	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1827466-01A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-SIM(30)
L1827466-02A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-SIM(30)
L1827466-03A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-SIM(30)
L1827466-04A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-SIM(30)
L1827466-05A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-SIM(30)
L1827466-06A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-SIM(30)
L1827466-07A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-SIM(30)
L1827466-08A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-SIM(30)
L1827466-09A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-LL(30)
L1827466-10A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-LL(30)
L1827466-11A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-LL(30)
L1827466-12A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-LL(30)
L1827466-13A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-LL(30)
L1827466-14A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-LL(30)
L1827466-15A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		TO15-LL(30)
L1827466-16A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		CLEAN-FEE()
L1827466-17A	Canister - 2.7 Liter	N/A	NA			Y	Present/Intact		CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	MURATA	**Lab Number:**	L1827466
Project Number:	0190949	**Report Date:**	07/24/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample¿s toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: Data Usability Report

Project Name: MURATA **Lab Number:** L1827466

Project Number: 0190949 **Report Date:** 07/24/18

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 7/18/18

ALPHA Job #: L1827466

Client Information

Client: ERM
Address: 3200 Windy Hill Rd. SE Suite 1500
Atlanta, GA 30339
Phone: (678)486-2700
Fax:
Email: nic.vrey@erm.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: Murata
Project Location: Rockmart, GA
Project #: 0190949
Project Manager: Nic Vrey
ALPHA Quote #:

Turn-Around-Time

☒ Standard ☐ Rush (only confirmed if pre-approved)

Date Due: Time:

Report/Data Deliverables Information

☐ FAX ☒ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Residential/Commercial

Other Project Specific Requirements/Comments:

☒ Project-Specific Target Compound List

TCE and PCE

Analysis

All Columns Below Must Be Filled Out

Alpha Lab Use Only	Sample ID	Collection End Date	Start Time	End Time	Initial Vac	Final Vac	Sample Matrix*	Sampler Initials	Can Size	ID Can	ID Flow Controller	TO-15	TO-15 SIM	APH Subtract non-petroleum HCs	FIXED GASES	Sulfides & Mercaptans by TO-15			Sample Specific Comments (i.e. PID)
7466-01	IA-01-20180713	7/13/18	9:10	16:20	-28.96	-6.72	AA	TP	2.7	560	969	☐	☒	☐	☐	☐	☐	☐	
-02	IA-02-20180713	7/13/18	9:12	16:10	-29.54	-6.77	AA	TP	2.7	2517	304	☐	☒	☐	☐	☐	☐	☐	
-03	IA-03-20180713	7/13/18	9:17	14:20	-28.86	-5.84	AA	TP	2.7	205	1061	☐	☒	☐	☐	☐	☐	☐	
-04	IA-04-20180713	7/13/18	9:15	16:30	-29.59	-6.97	AA	TP	2.7	512	059	☐	☒	☐	☐	☐	☐	☐	
-05	IA-05-20180713	7/13/18	9:18	16:25	-28.17	-6.71	AA	TP	2.7	391	250	☐	☒	☐	☐	☐	☐	☐	
-06	DUP-01-IA-20180713	7/13/18			-29.58	-7.25	AA	TP	2.7	1745	0486	☐	☒	☐	☐	☐	☐	☐	
											Container Type	-	C	-	-	-	-	-	

*SAMPLE MATRIX CODES:

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Relinquished By	Date/Time	Received By:	Date/Time
[illegible]	[illegible]	Fedex	
Fedex	[illegible]	[illegible] AAL	7-18-18 1007

Please print clearly & legibly and completely. Samples cannot be logged in and turn around time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

Form 101-02 (I) Rev. 25-Sept-15

AIR ANALYSIS

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 7/18/18

ALPHA Job #: L1827466

Client Information

Client: ERM
Address: 3200 Windy Hill Rd. SE Suite 1500
Atlanta, GA 30339
Phone: (678)486-2700
Fax:
Email: nic.vrey@erm.com

Project Information

Project Name: Murata
Project Location: Rockmart, GA
Project #: 0190949
Project Manager: Nic Vrey
ALPHA Quote #:

Turn-Around-Time

☒ Standard ☐ Rush (only confirmed if pre-approved)

Date Due: Time:

Report/Data Deliverables Information

☐ FAX ☒ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Residential/Commercial

☐ These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments:
☒ Project-Specific Target Compound List
TCE and PCE

Analysis

All Columns Below Must Be Filled Out

Alpha Lab Use Only	Sample ID	Collection End Date	Collection Start Time	Collection End Time	Collection Initial Vac	Collection Final Vac	Sample Matrix*	Sampler Initials	Can Size	ID Can	ID Flow Controller	TO-15	TO-15 SIM	APH Subtract non-petroleum HCs	FIXED GASES	Sulfides & Mercaptans by TO-15			Sample Specific Comments (i.e. PID)
-07	IA-06-20180713	7/13/18	9:20	16:35	-29.96	-7.24	AA	TP	2.7	478	300	☐	☒	☐	☐	☐	☐	☐	
-08	OA-01-20180713	7/13/18	8:40	15:45	-29.07	-6.74	AA	TP	2.7	223	541	☐	☒	☐	☐	☐	☐	☐	
-09	SSV-01-20180713	7/13/18	12:20	12:35	-29.06	-0.86	SV	TP	2.7	214	664	☒	☐	☐	☐	☐	☐	☐	
-10	SSV-02-20180713	7/13/18	11:40	11:55	-29.73	-1.58	SV	TP	2.7	1718	211	☒	☐	☐	☐	☐	☐	☐	
-11	SSV-03-20180713	7/13/18	11:15	11:30	-28.43	-1.71	SV	TP	2.7	259	670	☒	☐	☐	☐	☐	☐	☐	
-12	DUP-01-SSV-20180713	7/13/18			-29.39	-1.56	SV	TP	2.7	502	567	☒	☐	☐	☐	☐	☐	☐	
											Container Type	C	C	-	-	-	-	-	

*SAMPLE MATRIX CODES:

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Relinquished By	Date/Time	Received By:	Date/Time
[signature]	7/16/18 1408	FedEx	
FedEx		[signature] AAL	7-18-18 1007

Please print clearly & legibly and completely. Samples cannot be logged in and turn around time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

Form 101-02 (I) Rev: 25-Sept-15

AIR ANALYSIS

PAGE 3 OF 3

CHAIN OF CUSTODY

ALPHA ANALYTICAL

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 7/18/18

ALPHA Job #: L1827466

Project Information

Project Name: Murata

Project Location: Rockmart, GA

Project #: 0190949

Project Manager: Nic Vrey

ALPHA Quote #:

Report/Data Deliverables Information

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Client Information

Client: ERM

Address: 3200 Windy Hill Rd. SE Suite 1500

Atlanta, GA 30339

Phone: (678)486-2700

Fax:

Email: nic.vrey@erm.com

Turn-Around-Time

☒ Standard ☐ Rush (only confirmed if pre-approved)

Date Due: Time:

Regulatory Requirements/Report Limits

State/Fed	Program	Residential/Commercial

☐ These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments:

☒ Project-Specific Target Compound List

TCE and PCE

Analysis

All Columns Below Must Be Filled Out

Alpha Lab Use Only	Sample ID	Collection: End Date	Start Time	End Time	Initial Vac	Final Vac	Sample Matrix*	Sampler Initials	Can Size	ID Can	ID Flow Controller	TO-15	TO-15 SIM	APH Subtract non-petroleum HCs ☐	FIXED GASES	Sulfides & Mercaptans by TO-15			Sample Specific Comments (i.e. PID)
-13	SSV-04-20180713	7/13/18	10:52	11:05	-28.63	-1.35	SV	TP	2.7	2346	902	☒	☐	☐	☐	☐	☐	☐	
-14	SSV-05-20180713	7/13/18	10:30	10:45	-29.21	-1.31	SV	TP	2.7	336	696	☒	☐	☐	☐	☐	☐	☐	
-15	SSV-06-20180713	7/13/18	10:05	10:15	-29.43	-1.21	SV	TP	2.7	494	218	☒	☐	☐	☐	☐	☐	☐	
												☐	☐	☐	☐	☐	☐	☐	
												☐	☐	☐	☐	☐	☐	☐	
												☐	☐	☒	☐	☐	☐	☐	
											Container Type	C	-	-	-	-	-	-	

***SAMPLE MATRIX CODES:**

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Relinquished By	Date/Time	Received By:	Date/Time
[signature]	7/18/18 7:40	FeDeX	
FeDeX		[signature] AAL	7-18-18 1:09

Please print clearly & legibly and completely. Samples cannot be logged in and turn around time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

Form 101-02 (I) Rev. 25-Sept-15