Queens West Development
Parcel 9
QUEENS, NEW YORK

2013 Periodic Review Report and Annual Certification

NYSDEC BCP Number: C241049

ATC Project Number:

015.75420.0016

Prepared for:

AvalonBay Communities
275 Seventh Avenue, 25th Floor
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MAY 2014

TABLE OF CONTENTS

1.0 INTRODUCTION 1
2.0 BACKGROUND 2
2.1 SITE DESCRIPTION 2
2.2 REMEDIAL INVESTIGATION FINDINGS 2
2.2.1 Geology, Hydrogeology and Subsurface Characteristics 2
2.2.2 Nature and Extent of Contamination 2
2.3 SITE REMEDIATION 3
2.3.1 Soil Excavation 3
2.3.2 Engineering Controls 4
2.3.3 Institutional Controls 5
3.0 SITE COVER OPERATION AND MAINTENANCE 7
3.1 SITE COVER INSPECTION 7
4.0 VAPOR MITIGATION SYSTEM OPERATION & MAINTENANCE 8
4.1 ROUTINE SYSTEM CHECKS 8
4.2 PERIODIC INSPECTIONS 8
5.0 MONITORING 9
5.1 GROUNDWATER MONITORING 9
5.1.1 Monitoring Well Sampling 9
5.2 DISCUSSION 9
5.2.1 Groundwater Monitoring Results 9
6.0 CONCLUSIONS AND RECOMMENDATIONS 12
7.0 INSTITUTIONAL AND ENGINEERING CONTROL CERTIFICATION 13

FIGURES

Figure 1 - Site Location Map
Figure 2 - Queens West Development Parcels
Figure 3 - Site Plan and Engineering Controls
Figure 4 - BTEX and Naphthalene Concentrations in Groundwater

TABLES

Table 1 - Vapor Mitigation System Blower Runtimes
Table 2 - Vapor Mitigation System Operational Data
Table 3 – Soil Vapor Analytical Results – Volatile Organic Compounds
Table 4 - Groundwater Fluid Level Measurements
Table 5 - Groundwater Sampling Analytical Results - Volatile Organic Compounds
Table 6 - Groundwater Sampling Analytical Results – Semi-volatile Organic Compounds

APPENDICES

Appendix A - Site Cover Inspection Log and Photographs
Appendix B - Vapor Mitigation System Inspection Logs
Appendix C - Monitoring Well Sampling Logs
Appendix D - Groundwater Sampling Analytical Results
Appendix E - Site-wide Inspection Log
Appendix F - Institutional and Engineering Control Certification Form
Appendix G - NYSDEC Site Management Modification Approval Letters

1.0 INTRODUCTION

In January of 2013, AvalonBay Communities Inc., (AvalonBay), retained Cardno ATC to prepare the Periodic Review Report (PRR) for 2013 (formerly referred to as Site Management Report) and Annual Certification of Institutional and Engineering Controls for the site, which is identified as Queens West Development – Parcel 9. The following introductory and background discussions are according to the PRR prepared by AKRF Engineering, P.C. (AKRF) and dated February 2008.

The Queens West Development is a project of the Queens West Development Corporation (QWDC), a subsidiary of New York State's Empire State Development Corporation (NYSEDC), under the collective sponsorship of the Port Authority of New York and New Jersey, the New York City Economic Development Corporation (NYCEDC), and Empire State Development Corporation. The overall Queens West Development site comprises 74 acres along the East River in Hunters Point, Queens, extending from Anable Basin to the north to Newtown Creek to the south (Figure 1). Stage I of the development involved construction of residential buildings on the portion of the site between 47th Road and 50th Avenue. The development sites in this area were designated as Parcels 8, 9, 10, and 11, as shown on Figure 2.

In August 1998, a Voluntary Cleanup Agreement (VCA) was entered into between New York State Department of Environmental Conservation (NYSDEC) and QWDC. This agreement covered Parcels 8, 9, and 11 and the portion of Center Boulevard between Parcels 8 and 9. In July 2000, the VCA was amended to allow it to be divided into separate agreements for each parcel, which would be executed by the designated developer for the parcel. Accordingly, after AvalonBay was selected as the developer of Parcels 8, 9, and 11, AvalonBay executed separate agreements for each of the three parcels in September 2000. In March 2004, AvalonBay requested that NYSDEC transition Parcels 8 and 9 into the Brownfield Cleanup Program (BCP), with the BCP Agreements for both parcels being signed by the NYSDEC and becoming effective on June 28, 2005.

Subsurface contamination at Parcel 9 was remediated between August 2005 and May 2006 in accordance with the NYSDEC-approved Remedial Work Plan (revised August 2005). The site remediation was documented in a Final Engineering Report (FER) dated December 2006, and on-going site management requirements were specified in a Site Management Plan (SMP), which was included as an attachment to the FER. NYSDEC issued a Certificate of Completion for Parcel 9 on December 29, 2006. The purpose of this PRR and Annual Certification is to document on-going site management activities associated with Engineering and Institutional Controls for the site during the 2012 calendar year, and to certify those controls in accordance with the SMP.

2.0 BACKGROUND

2.1 SITE DESCRIPTION

Parcel 9 is located in the Hunters Point section of Queens, New York. The parcel is bound by 5th Street on the east, 48th Avenue on the south, Center Boulevard on the west, and 47th Road on the north. It has a total area of approximately 1.79 acres, and is defined as Lots 1, 5, and 19 of Tax Block 19 of Queens County. The site is currently occupied by an L-shaped high-rise apartment building located in the western and southwestern portions of the site, a multi-level parking garage located in the eastern portion of the site, with townhouses located south of the garage, along 48th Avenue. Approximately 2,300 square feet of retail space are located on the ground floor of the residential building, along Center Boulevard. A courtyard and driveway are located in the center of the site, providing access to the parking garage and loading dock from 47th Road. A Site Plan is provided as Figure 3.

2.2 REMEDIAL INVESTIGATION FINDINGS

2.2.1 Geology, Hydrogeology and Subsurface Characteristics

The geotechnical studies conducted prior to site redevelopment indicated that the top 10 to 12 feet of soil on the parcel consisted of historic urban fill material. This was underlain in most borings by a layer of alluvial sand up to 17 feet thick. A stratum of soft gray organic silty clay, generally less than 10 feet thick and representing old marsh deposits, was present inter-layered in the sand at many locations. Below the sand and organic deposits was a layer of glacial till up to 30 feet thick. This consisted of compact fine to coarse sand with some gravel, silt, clay, clay pockets, and boulders. The surface of the till was found at an elevation of -10 to -12 feet (Queens Borough Datum) over most of the parcel, dipping sharply to a depth of -30 feet in the southwest corner of the parcel. Bedrock was encountered at elevation -20 to -30 feet over most of the parcel, dipping in the southwest corner, to a minimum elevation of -55 feet.

Groundwater studies performed at the site and in surrounding areas indicated a general groundwater flow direction towards the west or southwest, with some tidal influence at locations close to the river. A localized groundwater depression in 47th Road, approximately 150 feet west of 5th Street, was noted in some studies. It is speculated that this depression was due to a leak in the storm sewer piping that runs under 47th Road.

2.2.2 Nature and Extent of Contamination

Soil Contamination

Cumulative results from the previous studies on Parcel 9 indicated the presence of two separate types of soil contamination on the site. Petroleum contamination, including the presence of light non-aqueous phase liquid (LNAPL) was centered in the north-central portion of the site. Coal tar contamination, including the presence of dense non-aqueous phase liquid (DNAPL), was found in the southwestern portion of the site, and along the western boundary of the site adjacent to Center Boulevard.

The petroleum-contaminated soil was characterized by high levels of benzene, toluene, ethylbenzene, and xylenes (BTEX), as well as other relatively light, monocyclic hydrocarbons, including cyclohexane and methylcyclohexane. Naphthalene was present in the petroleum-contaminated soil, but at lower levels than the monocyclic compounds. The heavier polycyclic aromatic hydrocarbons (PAHs) were present at relatively low concentrations (except for samples from the historic fill layer).

An area of deep contamination was identified in the southwestern portion of the site where DNAPL was found. This area corresponded to a low point in the lower confining layer (till or clay) where it is not unexpected that DNAPL would tend to accumulate. A second area of coal tar contamination was identified further north along the western boundary of the site. The coal tar-contaminated soil was characterized by high levels of naphthalene and 2-methylnaphthalene, with BTEX present, but at lower levels than naphthalene.

The surface soils on the site were characterized as historic fill material incorporating ash as well as brick, concrete, and other demolition debris. The fill contained higher and more variable concentrations of metals and heavy PAHs than the underlying native soils. Metals were detected generally at concentrations typical of soil background levels. Above-background concentrations of mercury were detected in a few soil samples. However, these appeared to be randomly distributed in the fill.

Groundwater Contamination

Petroleum and coal tar-related volatile organic compounds (VOCs) and semi volatile organic compounds (SVOCs) were present at elevated levels in groundwater samples from wells in the northwest quadrant of Parcel 9, and in the area of coal tar contamination at the southwestern corner and along the western edge of the parcel. The most common compounds detected were BTEX, naphthalene, and 2-methylnaphthalene. In general, the higher levels of naphthalene were associated with the coal tar contamination along the western edge of the site, and the higher levels of benzene were associated with the petroleum contamination in the north-central portion of the site. Metals were generally either not detected or detected at concentrations well below the Class GA groundwater standards. Polychlorinated biphenyls (PCBs) and pesticides were not detected in any of the groundwater samples analyzed.

2.3 SITE REMEDIATION

2.3.1 Soil Excavation

Remediation of the petroleum and coal tar contamination identified on Parcel 9 commenced in August 2005. The remediation was conducted in accordance with the approved Remedial Work Plan (RWP), dated May 2005 (Revised August 2005). The selected remedy consisted of excavating soil containing contaminant concentrations exceeding the Site-Specific Soil Action Levels (SSSALs), with soil excavation conducted under a temporary containment structure equipped with an air handling system to control fugitive odors and dust. The remedy also included installation of a permanent subsurface containment wall, constructed of steel sheet piles driven into the low permeability till layer, to facilitate soil removal and isolate the site from off-site contamination. The remediation program also included pumping out and removing several underground storage tanks that were discovered during soil excavation activities.

Excavation and off-site disposal of all contaminated soil from within the containment wall was completed on March 30, 2006. During remediation activities, soil excavation was terminated generally at the till layer based on field screening indicating the end of gross contamination and technical limitations of excavating the till, which consisted of densely packed clay, silt, and gravel, and contained numerous cobbles and boulders. Contaminated soil was removed from the southwestern portion of the excavation to the top of a dense clay layer at approximately 27 to 34 feet below grade, on top of the till layer. DNAPL was observed in an approximately six-inch interval in sandy material just above the clay layer, indicating that the clay was acting as a confining layer preventing downward migration of DNAPL in this portion of the site. These observations were consistent with findings from previous investigations, which identified

DNAPL in monitoring wells in the southwestern corner of the parcel.

Between March 30 and May 25, 2006, additional soil remediation was conducted outside of the sheeting line in an area of historic fill containing elevated naphthalene concentrations and three areas where underground storage tanks were discovered during excavation for foundations in the proposed parking garage area.

2.3.2 Engineering Controls

In addition to soil excavation and disposal, the RWP included the installation of engineering controls to prevent exposure to residual subsurface contamination at the site. The engineering controls, which consist of a site cover, hydraulic barrier, and sub-slab vapor mitigation system, are described in more detail below.

Site Cover

At the time that the FER was submitted, the site cover consisted of: concrete building foundations in the area of the high-rise residential building, townhouses, and portions of the garage; and a temporary cover of at least two feet of clean fill meeting NYSDEC TAGM 4046 RSCOs in the future courtyard area and the remaining portion of the garage not paved with concrete. Following completion of the building construction in the second half of 2007, a permanent site cover was installed in all areas not already covered by building foundations, and included: concrete over the entire garage area; paving in portions of the courtyard area; and two feet of top soil in the remainder of the courtyard and all perimeter landscaped areas.

Hydraulic Barrier

As described in Section 2.3.1., permanent interlocking steel sheeting was installed around the entire soil remediation area to facilitate excavation for soil remediation. The sheeting was installed such that it will also serve as a hydraulic barrier to isolate the site from off-site contamination. This was accomplished by driving the sheeting into the low-permeability till or clay layer, and sealing the seams in the sheeting with hydrocarbon-resistant Adeka gaskets to prevent infiltration of contaminants back onto the site. The hydraulic barrier was installed below grade, and does not require maintenance; however, routine groundwater monitoring is conducted as specified in the SMP to gauge the effectiveness of the barrier.

Vapor Mitigation System

Site remediation included the installation of a vapor mitigation system under the residential tower and townhouses. The system consists of a vapor barrier, a sub-slab gas collection network, steel pipe risers, and aboveground blowers/instrumentation. The vapor barrier consists of a 60-mil thick, spray-applied, LiquidBoot® gas vapor membrane. The subsurface gas collection pipe network consists of Schedule 40, 4-inch diameter PVC piping with 0.02-inch slots installed in a 12-inch thick layer of gas-permeable aggregate. The slotted piping is installed in four separate zones under the on-site residential buildings, as follows:

- Zone 1 - Northern wing of high-rise building (facing Center Boulevard)
- Zone 2 - Central tower portion of high-rise building
- Zone 3 - Southern wing of high-rise building (facing 48th Avenue)
- Zone 4 - Townhouses

In each zone, a length of solid 4-inch diameter Schedule 40 PVC piping leads from the slotted piping network to an interior riser. Temporary blower assemblies were connected to the risers and activated on December 22, 2006. Following completion of the building mechanical rooms, the temporary blowers were taken out of service and the permanent blowers were installed at their designated locations and activated on December 4, 2007.

2.3.3 Institutional Controls

Institutional controls incorporated into the site remedy include an environmental easement to prohibit certain on-site uses, and implementation of a SMP specifying soil management, operation, maintenance, monitoring, and reporting procedures during future site use. These Institutional Controls are described in more detail below.

Site Management Plan

An SMP was prepared to describe procedures and protocols for post-remediation management of the site. This SMP includes four plans: an Institutional and Engineering Control Plan for implementation and management of institutional and engineering controls; a Monitoring Plan for implementation of site monitoring; an Operation and Maintenance Plan for operation of the sub-slab vapor mitigation system; and a Site Management Reporting Plan for submittal of data, information, recommendations and certifications to NYSDEC The Institutional and Engineering Control Plan portion of the SMP includes detailed procedures for handling residual on-site contamination during future soil disturbance activities.

At the end of the 2012 reporting year, Cardno ATC requested that the groundwater sampling be reduced from quarterly to semi-annual and that the quarterly vapor sampling be discontinued along with the use of the GAC adsorbers (which are located at Zone 4). A letter dated June 3, 2013 received from NYSDEC indicating the request to change the frequency of groundwater monitoring from quarterly to semi-annually was approved. Subsequently, a letter was received from NYSDEC dated December 20, 2013 indicating that the quarterly sampling at the four SSDS zones may be discontinued.

Environmental Easement

An environmental easement has been recorded for the site and includes the following site use restrictions:

- Use of the site for "Restricted Residential Use".
- All engineering controls (including the site cover and sub slab vapor depressurization and active venting system) must be operated and maintained as specified in the NYSDEC-approved Site Management Plan. No Engineering and Institutional Controls may be discontinued without a NYSDEC- approved amendment or extinguishment of the Environmental Easement and/or Site Management Plan.
- Annual inspections, certifications of Institutional & Engineering controls, Site usage, and Site Management Reporting to NYSDEC must be conducted in accordance with the NYSDEC-approved Site Management Plan.
- All future soil disturbance activities on the site that will impact residual contaminated material, including, but not limited to, building construction or expansion, sub-grade utility line construction or repair, must be conducted in accordance with the Soil Management provisions in the NYSDEC-approved Site Management Plan.

- Operation Monitoring and Maintenance (OM&M) of the sub-slab depressurization system must be performed in a manner specified in the NYSDEC-approved Site Management Plan.

- Groundwater and other environmental or public health monitoring required by the NYSDEC-approved Site Management Plan, and reporting of information thus obtained, must be performed in a manner specified in that Plan.

- On-site environmental monitoring devices, including but not limited to, groundwater monitor wells and soil vapor probes, must be protected and replaced as necessary to ensure continued functioning in the manner specified in the NYSDEC-approved Site Management Plan.

- The use of the groundwater underlying the site is prohibited without treatment rendering it safe for intended purpose.

- Vegetable gardens are prohibited.

- The site may not be used for a higher level of use such as unrestricted residential, without proper notification of NYSDEC of the change of use, approval of that use by the NYSDEC, and an amendment of the Site Management Plan approved by NYSDEC.

The environmental easement includes: a description of the use restrictions; a map showing the area of the restrictions; and a copy of the NYSDEC-approved SMP. The property deed and all subsequent instruments of conveyance will contain language indicating that the site is subject to the environmental easement. A copy of the environmental easement is included as an appendix to the SMP.

3.0 SITE COVER OPERATION AND MAINTENANCE

3.1 SITE COVER INSPECTION

Cardno ATC conducted an inspection of the entire site cover on December 31, 2013 to check the asphalt/concrete paving for cracking and/or signs of wear, and check for erosion of the soil cover in unpaved areas. All paving was found to be intact, with no signs of cracking or damage. No erosion was noted in the landscaped areas. Photographs documenting the December 31, 2013 inspection and a copy of the site cover inspection log are provided in Appendix A.

4.0 VAPOR MITIGATION SYSTEM OPERATION & MAINTENANCE

4.1 ROUTINE SYSTEM CHECKS

On-site representatives from AvalonBay conducted routine checks of the vapor mitigation system throughout the year to: ensure that the blowers were operational; record the blower runtimes as indicated on the control panels; and note any unusual conditions, such as leaks or odors. Routine checks were conducted on an approximately daily to weekly basis during the 2013 calendar year. Blower runtime data is summarized in Table 1. Copies of the routine system check log sheets are provided in Appendix B.

The zone 3 meter display was replaced on December 13, 2008, at which time the AKRF technician was able to decipher a final reading of 7415.4 hours from the broken meter. This value will be added to all subsequent readings from the new meter to calculate a total runtime for the Zone 3 blower.

Blower downtime for each zone was calculated by subtracting the blower runtimes logged during the routine system checks (converted to days), from the number of calendar days elapsed during the reporting period, as summarized in Table 1. No blower downtime was calculated for Zones 1, 2 3, and 4.

4.2 PERIODIC INSPECTIONS

Periodic system inspections were conducted by Cardno ATC personnel on a monthly basis. Copies of the inspection log sheets are provided in Appendix B. Activities conducted during the inspections included recording vacuum gauge and flow meter readings and adjusting system components to optimize system efficiency. All readings are summarized in Table 2. Vacuum readings generally ranged from 7.0 to 14.0 inches of water ("H2O) and total flow readings ranged from 195 to 420 cubic feet per minute (CFM), which are within the normal operating range of the blower. Lower vacuum readings of 4 to 5 "H2O were noted at the Zone 4 blower resulting from losses caused by the granulated activated carbon (GAC) adsorbers; however, these readings were within the operational range for the blower. The differential between pre-filter and post-filter vacuum readings was less than 1"H2O for all blowers. Vapor discharge sampling was discontinued and the GAC adsorbers were removed during the 2013 reporting period.

5.0 MONITORING

5.1 DISCHARGE MONITORING

Vapor effluent samples were collected at each blower on June 27, 2013 and September 24, 2013 to assess whether emissions met the standards in the NYSDEC publication "Air Guide-1: Guidelines for the Control of Toxic Air Contaminants (DAR-1, NYSDEC, 1991)". The vapor samples were collected directly from inline sample ports in the discharge piping at each blower using 6-liter Summa canisters equipped with flow regulators to allow sample collection over a 30-minute period. Upwind and downwind Summa canister air samples were also collected to record background concentrations in the vicinity of the site. System discharge monitoring results are discussed in Section 5.3.1.

5.2 GROUNDWATER MONITORING

5.2.1 Monitoring Well Sampling

Groundwater samples were collected on a semi-annual basis during the 2013 reporting period, as summarized in the following table:

Sampling Dates	Wells Sampled
March 28, 2013	MW-2; MW-8; MW-11R; MW-12R; MW-14; MW-15; MW-16
September 24, 2013	MW-2; MW-8; MW-11R; MW-12R; MW-14; MW-15; MW-16

All samples were collected using low-flow sampling procedures in accordance with the project standard operating procedures (SOPs). The samples were submitted to CHEMTECH Consulting Group in Mountainside, New Jersey, a NYSDOH-approved laboratory and were analyzed for VOCs by EPA Method 8260 and SVOCs by EPA Method 8270. In addition, the depth to water was measured in all monitoring wells to determine groundwater elevation and flow patterns, and potential LNAPL was gauged at each well using an oil-water interface probe and/or weighted tape. Groundwater sampling logs are provided in Appendix C. Groundwater monitoring analytical results are discussed in Section 5.2.1.

5.3 DISCUSSION

5.3.1 Vapor Discharge Monitoring Results

Analytical results for the vapor discharge samples are provided in Appendix D and summarized in Table 3. Table 3 also lists Short-term and Annual Guideline Concentrations (SGCs and AGCs, respectively) provided in NYSDEC Air Guide 1. Several compounds, including, benzene, carbon tetrachloride, chloroform, methylene chloride, tetrachloroethene (PCE) and/or trichloroethene (TCE), were detected at concentrations exceeding their respective AGCs at one or more of the vapor mitigation system discharge points (i.e., stacks) for all of the sampling events. However, the detected concentrations did not exceed their respective SGCs. In addition, the detected concentrations for the 2013 reporting period (with the exception of methylene chloride and PCE) were lower than the detected concentrations for the 2011 and 2012 reporting periods. The following table summarizes the 2011, 2012 and 2013 detected concentrations.

Compound	NYSDEC SGC	NYSDEC AGC	2011 Range	2012 Range	2013 Range	2011 Mean	2012 Mean	2013 Mean
Benzene	1,300	0.13	ND – 9.3	ND– 5.3	ND –7.67	2.9	1.66	1.45
Chloroform	150	0.043	ND – 16	ND–8.99	ND–17.60	4.1	1.86	1.29
Methylene Chloride	14,000	2.1	ND – 8.9	ND–15.6	ND–21.90	1.8	3.39	3.60
Tetrachloroethene (PCE)	1,000	1	ND – 68	ND-49	ND–39.30	10.4	6.49	11.09
Trichloroethene (TCE)	14,000	0.5	ND – 3.5	ND–2.96	ND – 3.28	1.16	0.83	0.77

ND=Not detected

Based on the results of the 2008 vapor concentrations, a modeling analysis was performed by AKRF to determine whether the compounds that exceeded their respective AGCs would exceed the guideline concentrations at nearby receptors. The AKRF analysis was performed using the SCREEN3 model (United States Environmental Protection Agency, 1995), which simulates the atmospheric processes that disperse pollutants from an emissions source to predict concentrations at selected downwind receptor locations. The SCREEN3 model is USEPA-approved for evaluating maximum concentrations from point sources, such as the exhaust vents at the Parcel 9 site. The model is conservative because it uses worst-case meteorological conditions and incorporates the effects of building downwash and cavity regions. The modeling results indicated that maximum impacts occurred within 5 to 10 feet of each of the discharge points, with concentrations decreasing steadily away from the stack locations.

Modeled concentrations based on results from the December 29, 2008 sampling event indicated that hourly and annual impacts from all four zones were below the SGCs and AGCs, respectively. The detected concentrations for the 2013 reporting period (with the exception of methylene chloride and PCE) were lower than prior years and therefore a modeling analysis was not necessary and not peformed as part of the 2013 PRR. Additionally, as noted in the table above, the concentrations continue to show a decreasing trend.

5.3.2 Groundwater Monitoring Results

Fluid Level Measurements

Fluid level measurements collected in the monitoring wells are summarized in Table 3. No measurable LNAPL or DNAPL was detected in any of the wells during the 2013 reporting period. Table 3 summarizes the water table elevations during the two sampling events. These elevations were calculated by subtracting the measured depths to water from the surveyed top of casing elevations for each well. The elevations ranged from 1.42 feet to -1.09 feet, relative to the Queens Borough Datum. Due to the large differences in water table elevations between adjacent monitoring wells, meaningful contours could not be developed from the data. The variability in elevations throughout the site can likely be attributed to subsurface obstructions and heterogeneities caused by utility conduits and vaults, variable backfill, and the sheet pile containment wall. These large-scale trends are consistent with the regional southwesterly groundwater flow direction documented in previous studies of the Queens West Development area.

Groundwater Analytical Results

Groundwater sampling analytical results for VOCs and SVOCs are provided in Appendix D and summarized in Tables 4 and 5, respectively. These tables also list the NYSDEC Ambient Water Quality Standards and Guidance Values (AWQVs) for Class GA Groundwater. Figure 4 illustrates the benzene, toluene, ethylbenzene and xylene (BTEX) and naphthalene concentrations detected in the monitoring wells during the two 2013 sampling events. Figure 4 also shows BTEX and naphthalene concentrations detected in the post-remediation monitoring wells during the previous reporting period (in December

2012). Benzene, toluene, ethylbenzene, xylene, and naphthalene concentrations within the containment wall (i.e., in wells MW-11R and MW-12R) were all either non-detected or below applicable groundwater standards during the 2013 reporting period. The results indicate that the groundwater containment wall is effectively isolating the Parcel 9 site from contamination on surrounding properties, allowing natural attenuation of residual groundwater contamination within the barrier.

MW-8, located downgradient of the northwestern corner of the containment wall, exhibited maximum total BTEX and naphthalene concentrations of 167 µg/l and 1,300 µg/l, respectively; and MW-2, located downgradient from the southwestern corner of the containment wall, exhibited maximum total BTEX and naphthalene concentrations of 333.9 µg/l and 9 µg/l, respectively. These concentrations can be attributed to known coal tar and petroleum contamination in off-site areas not addressed by the Parcel 9 remediation.

BTEX and naphthalene concentrations in well MW-16, located in the eastern portion of the site, upgradient of the containment wall were all non-detected for each of the sampling events in 2013. BTEX and naphthalene concentrations for MW-14 were all below or only slightly exceeded their respective AWQVs. These results are consistent with the findings from previous investigations, which did not identify significant soil or groundwater contamination in the eastern portion of the site. MW-15, located in the 48th Street sidewalk, just outside of the southeastern corner of the containment wall, contained a maximum benzene concentration of 49.7 µg/l, during the September 2013 sampling event.

6.0 CONCLUSIONS AND RECOMMENDATIONS

A site wide inspection was conducted on December 31, 2013, as specified in the SMP to ensure that all aspects of the remedy were in-place and effective. A copy of the Site-Wide Inspection log is included in Appendix E. The inspection included a review of the site cover/vapor mitigation system monitoring logs and groundwater data. Based on this review and the data evaluation summarized in this report, the following conclusions and recommendations were developed:

- The permanent site cover is present and in good condition throughout all portions of the site.

- The active sub-slab vapor mitigation system was operated on a nearly continuous basis in for all four (4) zones (Zones 1, 2, 3, and 4) throughout the 2013 reporting period.

- Analytical results for the vapor discharge samples identified several compounds, including benzene, chloroform, methylene chloride, tetrachloroethene (PCE) and/or trichloroethene (TCE), at concentrations exceeding their respective AGCs at one or more of the vapor mitigation system discharge points (i.e., stacks) for all of the sampling events. However, no detected concentrations exceeded their respective SGCs. Additionally, the detected concentrations for the 2013 reporting period were generally lower than the detected concentrations for the 2011 and 2012 reporting periods.

- All vacuum and flow rate measurements collected from the vapor mitigation system during the 2013 reporting period were within the operational ranges for the system blowers.

- During the 2013 reporting period, contaminant levels in groundwater within the containment wall for MW-11R and MW-12R were all non-detected, with the exception of benzene, which was detected in MW-12R during the March 28, 2013 sampling event at a concentration of 0.98 µg/l, which is below the standard of 1 µg/l. The results indicate that the groundwater containment wall is effectively isolating the Parcel 9 site from contamination on surrounding properties, allowing natural attenuation of residual groundwater contamination within the barrier.

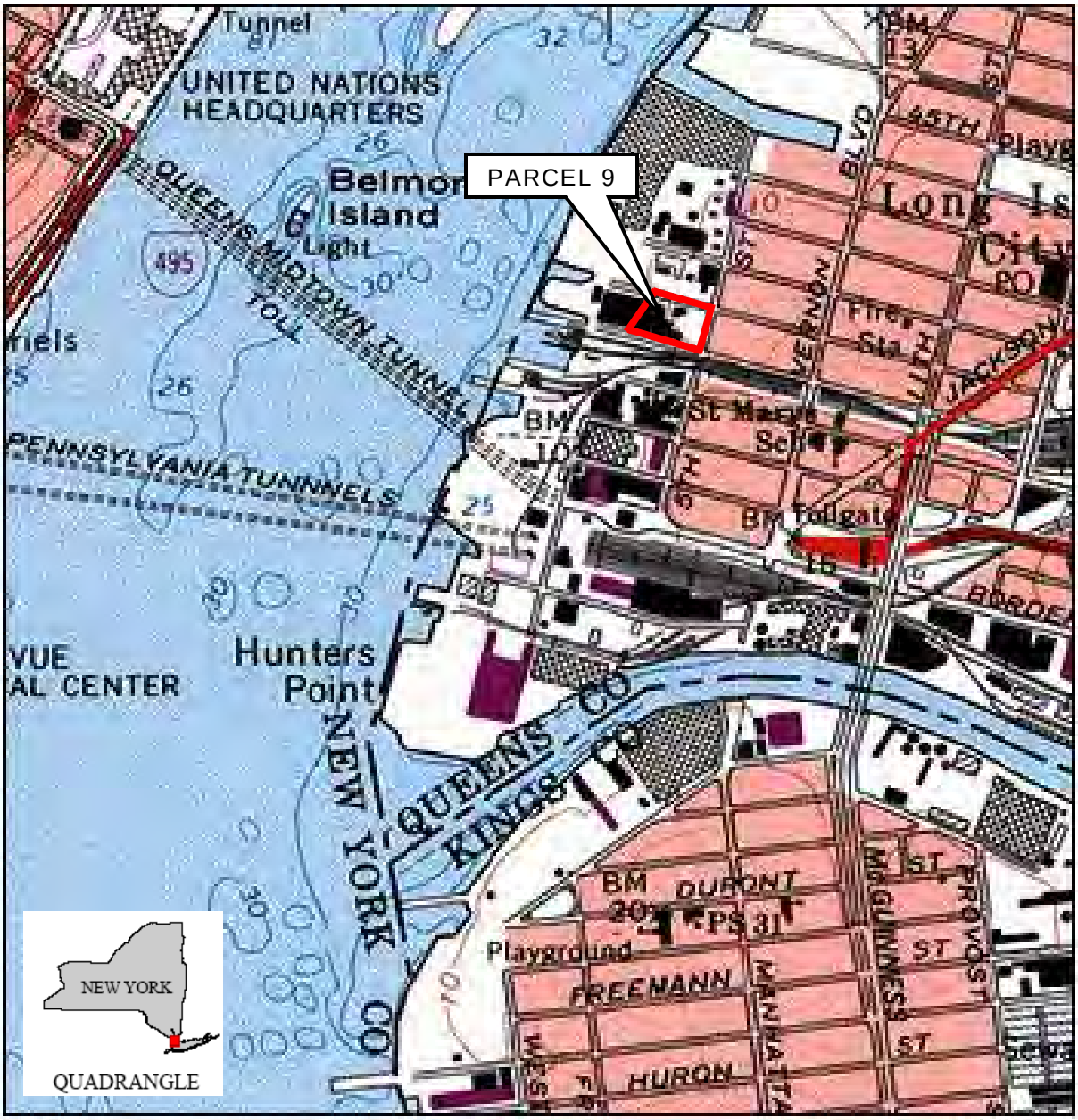
Based on review of the analytical and filed data for the 2013 reporting year, Cardno ATC has the following recommendations:

- Continue the monitoring and reporting for the 2014 reporting period as identified in the modified SMP, dated February, 2014.

7.0 INSTITUTIONAL AND ENGINEERING CONTROL CERTIFICATION

The IC/EC Certification Form for the site was completed based on results from the site monitoring and inspections described in the report. A copy of the form is provided as Appendix F. The Certification Form indicates that all ICs/ECs at the site remain in place and effective.

FIGURES



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FIGURE 1 – SITE LOCATION MAP

Client:	Avalon Bay Communities
Site:	Queens West Parcel 9
Project No.:	015.75420.0016
Year:	1995
Scale:	As shown

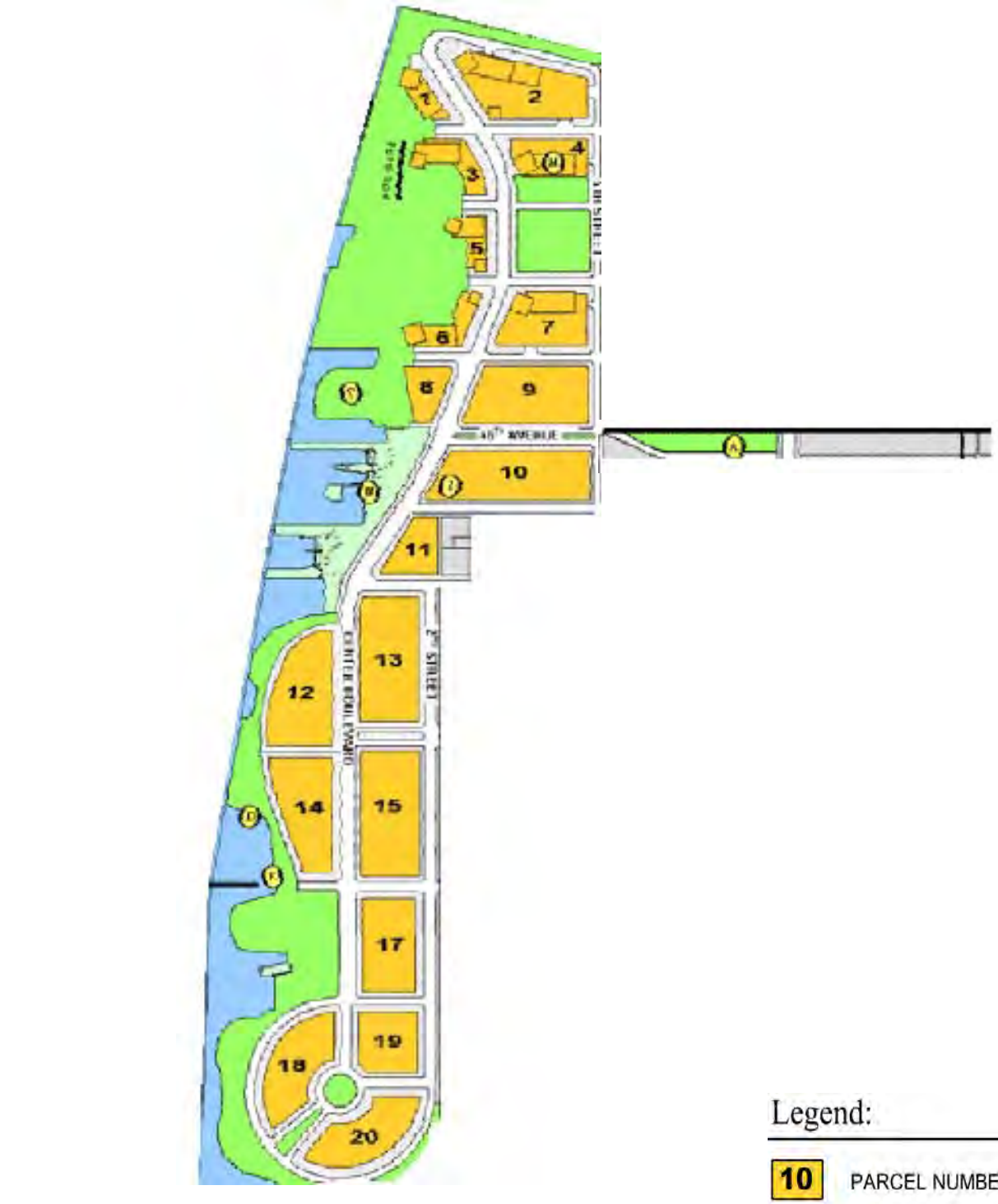


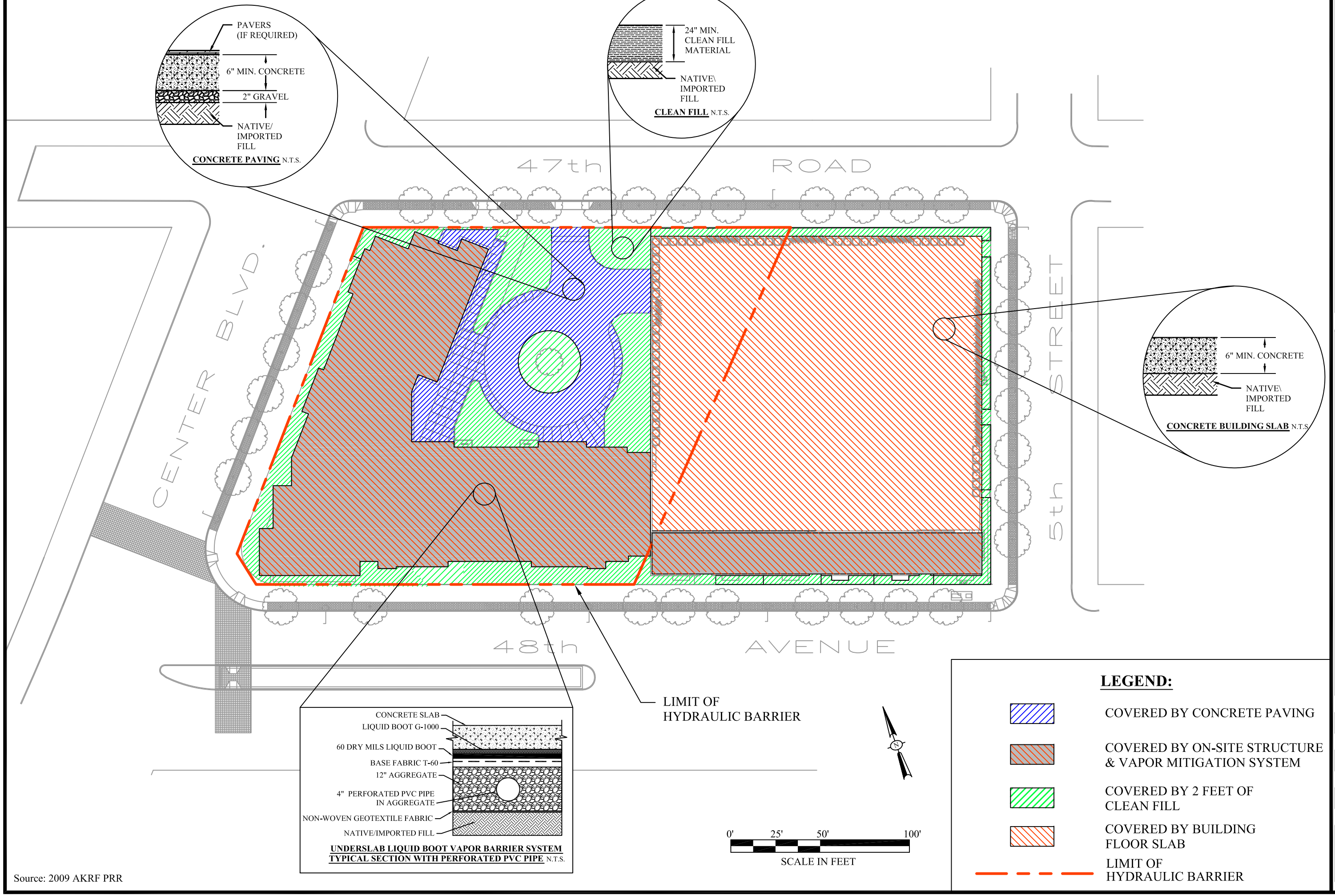
FIGURE 2 – QUEENS WEST DEVELOPMENT PARCELS

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N

Client: Avalon Bay Communities
Site: Queens West Parcel 9
Project No.: 015.75420.0016



Source: 2009 AKRF PRR

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QUEENS WEST PARCEL 9
QUEENS, NEW YORK

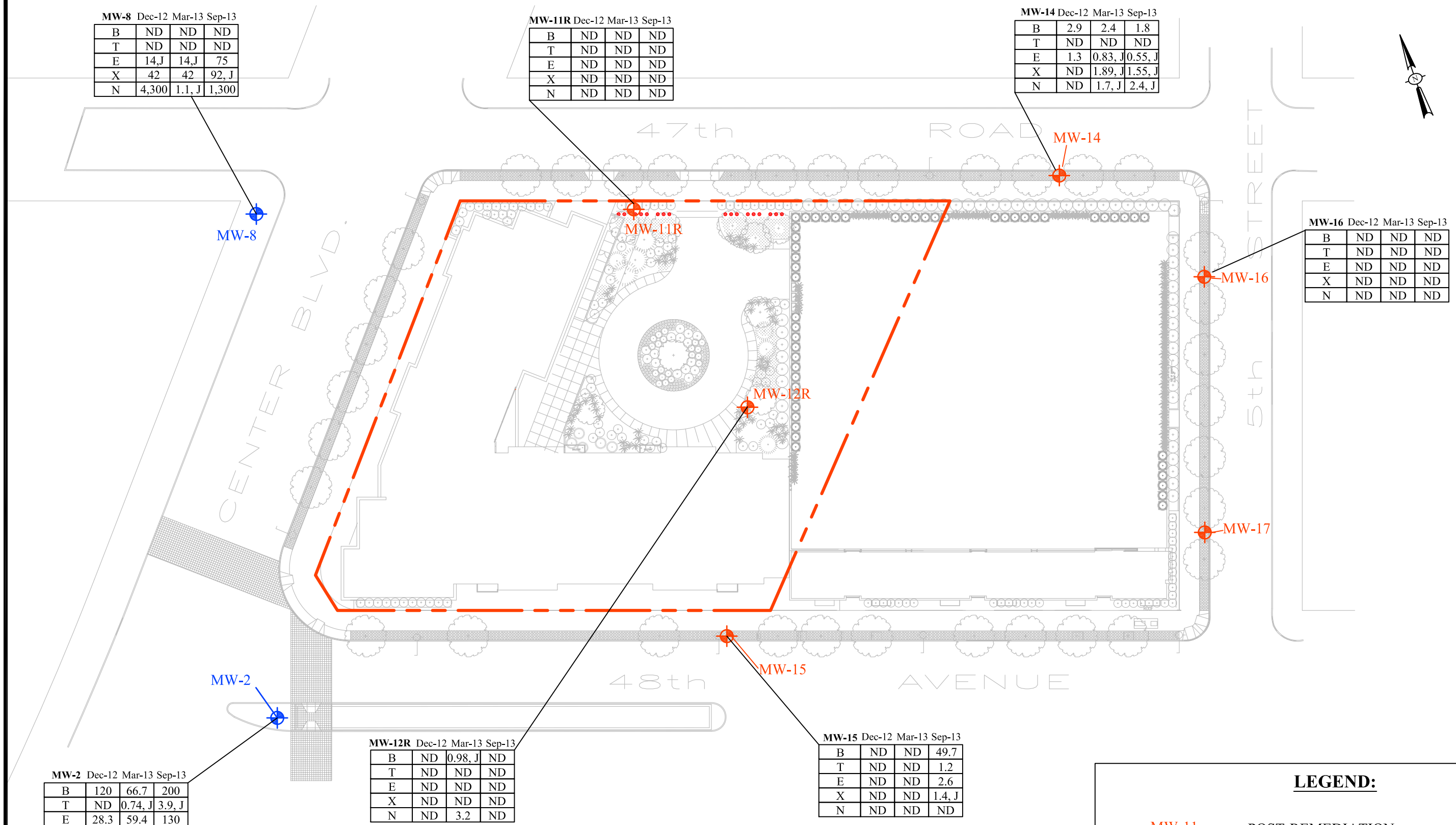
SITE PLAN & ENGINEERING CONTROLS

DATE
APRIL 2014

SCALE
As shown

PROJECT No.
15.75420.0016

FIGURE
3



MW-8 Dec-12 Mar-13 Sep-13

B	ND	ND	ND
T	ND	ND	ND
E	14,J	14,J	75
X	42	42	92, J
N	4,300	1.1, J	1,300

MW-11R Dec-12 Mar-13 Sep-13

B	ND	ND	ND
T	ND	ND	ND
E	ND	ND	ND
X	ND	ND	ND
N	ND	ND	ND

MW-14 Dec-12 Mar-13 Sep-13

B	2.9	2.4	1.8
T	ND	ND	ND
E	1.3	0.83, J	0.55, J
X	ND	1.89, J	1.55, J
N	ND	1.7, J	2.4, J

MW-16 Dec-12 Mar-13 Sep-13

B	ND	ND	ND
T	ND	ND	ND
E	ND	ND	ND
X	ND	ND	ND
N	ND	ND	ND

MW-2 Dec-12 Mar-13 Sep-13

B	120	66.7	200
T	ND	0.74, J	3.9, J
E	28.3	59.4	130
X	ND	6.7	ND
N	3.7, J	6.3, J	9, J

MW-12R Dec-12 Mar-13 Sep-13

B	ND	0.98, J	ND
T	ND	ND	ND
E	ND	ND	ND
X	ND	ND	ND
N	ND	3.2	ND

MW-15 Dec-12 Mar-13 Sep-13

B	ND	ND	49.7
T	ND	ND	1.2
E	ND	ND	2.6
X	ND	ND	1.4, J
N	ND	ND	ND

0' 25' 50' 100'

SCALE IN FEET

ABBREVIATIONS

B	BENZENE
E	ETHYL BENZENE
T	TOLUENE
X	M/P-XYLENES AND O-XYLENE
N	NAPHTHALENE

LEGEND:

MW-11 — POST-REMEDIATION MONITORING WELL

MW-1 — PRE-EXISTING MONITORING WELL

LIMITS OF HYDRAULIC BARRIER

COMPOUND NAME

B	130

CONCENTRATION IN MICROGRAMS PER LITER (µg/L)

ND: Not detected
NS: Not Sampled
J: Indicates an estimated value.

Shaping the Future
Cardno ATC
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TEL: (212) 353-8280 FAX: (212) 979-8447

QUEENS WEST PARCEL 9
QUEENS, NEW YORK

BTEX & NAPTHALENE CONCENTRATIONS IN GROUNDWATER (2011)

DATE
APRIL 2014

SCALE
As shown

PROJECT No.
15.75420.0016

FIGURE
4

K:\Avalon Bay\QUEENS PARCEL 9 & 11\West Parcel 9\2013\PRR for Year 2013

TABLES

TABLE 1
VAPOR MITIGATION SYSTEM BLOWER RUNTIME DATA
QUEENS WEST DEVELOPMENT - PARCEL 9

Date	Zone 1				Zone 2				Zone 3				Zone 4			
	On/Off	Runtime (hrs)	Runtime (days)[1]	Est. Downtime (days)[2]	On/Off	Runtime (hrs)	Runtime (days)[1]	Est. Downtime (days)[2]	On/Off	Runtime (hrs)	Runtime (days)[1]	Est. Downtime (days)[2]	On/Off	Runtime (hrs)	Runtime (days)[1]	Est. Downtime (days)[2]
12/20/2012	On	42,230	1759.6	--	On	44,229	1842.9	--	On	42,103	1754.3	--	On	43,378	1807.4	--
1/15/2013	On	42,850	1785.4	0.0	On	44,857	1869.0	0.0	On	42,733	1780.5	0.0	On	44,041	1835.0	0.0
2/27/2013	On	43,894	1828.9	0.0	On	45,891	1912.1	0.0	On	43,775	1824.0	0.0	On	45,038	1876.6	0.0
3/28/2013	On	44,583	1857.6	0.0	On	46,582	1940.9	0.0	On	44,564	1856.8	0.0	On	45,729	1905.4	0.0
4/19/2013	On	45,114	1879.8	0.0	On	47,114	1963.1	0.0	On	44,988	1874.5	0.0	On	46,261	1927.5	0.0
5/30/2013	On	46,100	1920.8	0.0	On	48,099	2004.1	0.0	On	45,973	1915.5	0.0	On	47,246	1968.6	0.0
6/26/2013	On	46,745	1947.7	0.0	On	48,744	2031.0	0.0	On	46,618	1942.4	0.0	On	47,892	1995.5	0.0
7/29/2013	On	47,537	1980.7	0.0	On	49,545	2064.4	0.0	On	47,411	1975.5	0.0	On	48,810	2033.8	0.0
8/16/2013	On	47,977	1999.0	0.0	On	49,975	2082.3	0.0	On	47,850	1993.8	0.0	On	49,118	2046.6	0.0
9/24/2013	On	48,900	2037.5	0.0	On	50,901	2120.9	0.0	On	48,775	2032.3	0.0	On	50,049	2085.4	0.0
10/31/2013	On	49,805	2075.2	0.0	On	51,794	2158.1	0.0	On	49,666	2069.4	0.0	On	50,942	2122.6	0.0
11/18/2013	On	50,227	2092.8	0.0	On	52,227	2176.1	0.0	On	50,100	2087.5	0.0	On	51,374	2140.6	0.0
12/17/2013	On	50,916	2121.5	0.0	On	52,917	2204.9	0.0	On	50,791	2116.3	0.0	On	52,065	2169.4	0.0

Notes:

[1] Estimated Runtime (days) = Runtime (hours)/24

[2] Estimated Downtime = # Calendar Days - Runtime (days)

*Total Zone 3 runtime calculated by adding reading at new meter to final reading pulled from broken meter (7415.4).

TABLE 2
VAPOR MITIGATION SYSTEM VACUUM AND FLOW RATE READINGS
QUEENS WEST DEVELOPMENT - PARCEL 9

	Zone 1			Zone 2			Zone 3				Zone 4			
	Vacuum at Filter		Flow	Vacuum at Filter		Flow	Vacuum at Filter		Flow		Vacuum at Filter		Flow	
Date	Pre ("H_2O)	Post ("H_2O)	(CFM)	Pre ("H_2O)	Post ("H_2O)	(CFM)	Pre ("H_2O)	Post ("H_2O)	Riser (CFM)	Total(CFM)	Pre ("H_2O)	Post ("H_2O)	Riser (CFM)	Total(CFM)
1/15/2013	7.0	7.5	326	10.0	10.0	298	13.5	14.0	520	278	4.0	4.5	430	250
2/27/2013	7.0	7.0	325	10.0	10.0	290	13.5	14.0	560	250	4.0	4.5	426	248
3/28/2013	7.0	7.0	325	10.0	10.0	300	12.0	12.5	547	240	4.0	4.5	430	250
4/19/2013	7.0	7.0	324	10.0	10.5	300	13.5	14.0	480	250	4.0	4.5	430	250
5/30/2013	7.0	7.0	321	10.0	10.0	300	13.5	14.0	212	416	4.0	4.5	250	420
6/26/2013	7.0	7.0	320	10.0	10.0	305	13.5	14.0	280	195	4.0	4.5	430	250
7/29/2013	7.0	7.0	320	10.0	10.0	298	13.5	13.5	230	198	4.0	4.5	426	251
8/16/2013	7.0	7.0	319	10.0	10.0	298	13.5	14.0	285	200	4.5	5.0	444	220
9/24/2013	7.0	7.0	324	10.0	10.0	304	13.5	14.0	320	210	4.5	5.0	435	250
10/31/2013	7.0	7.0	325	10.0	10.0	336	13.5	14.0	390	230	4.5	5.0	448	253
11/18/2013	7.0	7.0	324	10.0	10.5	344	13.5	14.0	430	240	4.5	5.0	450	251
12/17/2013	7.0	7.0	325	10.0	10.0	328	12.5	13.0	490	250	4.5	5.0	447	250

Notes:
Pre - Reading taken before air filter.
Post - Reading taken after air filter.
Riser - Flow reading taken before dilution valve.
Total - flow reading taken after dilution valve.

TABLE 3
SOIL VAPOR ANALYTICAL RESULTS-VOLATILE ORGANIC COMPOUNDS
QUEENS WEST DEVELOPMENT - PARCEL 9

Client ID Lab Sample ID Date Sampled Dilution Units=ug/m^3	NYSDEC SGC	NYSDEC AGC	Zone 1-Effluent E2759-01DL 6/27/2013 10	Zone 1-Effluent E3853-01DL 9/24/2013 10	Zone 2-Effluent D3234-02 6/27/2013 1	Zone 2-Effluent E3853-02 9/24/2013 1	Zone 3-Effluent E2759-03DL 6/27/2013 10	Zone 3-Effluent E3853-03DL 9/24/2013 10	Zone 4-Pre Carbon E2759-04 6/27/2013 1	Zone 4-Pre Carbon E3853-04 9/24/2013 1	Zone 4-Post Carbon E2759-05 6/27/2013 1	Zone 4-Post Carbon E3853-05 9/24/2013 1	Ambient Upwind E2759-06 6/27/2013 1	Ambient Upwind E3853-06 9/24/2013 1	Ambient Downwind E2759-07DL 6/27/2013 10	Ambient Downwind E3853-07 9/24/2013 10
1,1,1-Trichloroethane	**68,000**	**1,000**	0.82 J	1.64 UD	0.16 U	0.16 U	0.16 U	6.55 U	0.27 J	0.33 J	0.33 J	0.33 J	0.16 U	0.16 U	1.64 U	0.16 U
1,2,4-Trimethylbenzene	**NS**	**290**	4.92 U	4.92 U	0.59 J	0.49 U	0.49 U	19.7 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	4.92 U	0.49 U
1,2-Dichloroethene (cis)	**NS**	**63**	1.98 U	1.98 U	0.2 U	0.2 U	0.2 U	7.93 U	0.59 J	1.03 J	1.11 J	0.87 J	0.2 U	0.2 U	1.98 U	0.2 U
1,2-Dichloroethene (trans)	**NS**	**63**	1.98 U	1.98 U	0.2 U	0.2 U	0.2 U	7.93 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.98 U	0.2 U
1,2-Dichloropropane	**NS**	**4**	4.62 U	4.62 U	0.46 U	0.46 U	0.46 U	18.5 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	4.62 U	0.46 U
1,2-Dichlorotetrafluoroethane (Freon 114)	**NS**	**17,000**	2.8 U	1.98 U	0.28 U	1.68 J	0.28 U	7.91 U	0.28 U	1.68 J	0.28 U	1.78 J	0.28 U	1.34 J	2.8 U	1.68 J
1,3,5-Trimethylbenzene	**NS**	**290**	4.92 U	4.92 U	0.49 U	0.49 U	0.49 U	19.7 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	4.92 U	0.49 U
1,4-Dichlorobenzene	**NS**	**0.09**	6.01 U	6.01 U	0.6 U	0.6 U	0.6 U	24 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6.01 U	0.6 U
3-Chloropropene (allyl chloride)	**600**	**1**	1.57 U	1.57 U	0.16 U	0.16 U	0.16 U	6.26 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.57 U	0.16 U
4-Ethyltoluene (p-Ethyltoluene)	**NS**	**NS**	4.92 U	4.92 U	0.49 U	0.49 U	0.49 U	19.7 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	4.92 U	0.49 U
Acetone	**180,000**	**28,000**	219 U	49.2 D	29.7	14	71.7 D	831 D	3.33	1.81	5.46	17.4	8.55	10	71.7 U	11.9
Benzene	**1,300**	**0.13**	**7.67** U	1.28 UD	**3.19**	**0.61** J	1.28 UD	**0.41** U	**1.15** J	0.13 U	**2.43**	**0.38** J	**0.32** J	**0.42** J	0.61 J	**0.38** J
Bromoform	**NS**	**0.91**	5.17 U	5.17 U	0.52 U	0.52 U	0.52 U	20.7 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	5.17 U	5.17 U
Carbon disulfide	**6,200**	**700**	4.05 JD	1.56 U	0.16 U	0.53 J	0.53 U	6.23 U	2.68 U	0.84 J	0.16 U	0.56 J	0.16 U	0.16 U	1.56 U	0.53 J
Carbon tetrachloride	**1,900**	**0.170**	1.89 U	1.89 U	**0.44**	**0.44 J**	0.44 U	7.55 U	**0.5** U	**0.38** J	**0.82** J	**0.5** J	**0.44** J	**0.44**	1.89 U	0.44 J
Chlorobenzene	**NS**	**110**	4.61 U	4.61 U	0.46 U	0.46 U	0.46 U	18.4 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	4.61 U	0.46 U
Chloroethane (ethyl chloride)	**NS**	**10,000**	2.64 U	2.64 U	0.26 U	0.26 U	0.26 U	10.6 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	2.64 U	0.26 U
Chloroform	**150**	**0.043**	0.83 J	0.73 J	**0.98**	1.42 J	0.98 UD	1.27 J	**17.6** U	**10.3**	**15.1**	**13.2**	0.1 U	0.1 U	0.1 U	0.1 U
Chloromethane (Methyl chloride)	**22,000**	**90**	2.07 U	1.74 U	1.94	3.82 B	2.07 UD	6.95 U	0.21 U	1.6 JB	0.21 U	4.86 B	1.01 J	1.98 B	2.07 U	1.98 B
Dichlorodifluoromethane	**NS**	**12,000**	1.98 DQ	1.98 U	2.62	1.68 J	1.98 UDQ	7.91 U	1.34 JQ	1.68 J	1.24 JQ	1.78 J	1.24 JQ	1.34 J	1.98 U	1.66 J
Ethylbenzene	**54,000**	**1,000**	4.34 U	4.34 U	0.56 J	0.43 U	4.34 U	17.4 U	0.43 U	1.48 J	0.43 U	0.56 J	0.43 U	0.43 U	4.34 U	0.43 U
Methylene Chloride	**14,000**	**2.1**	**21.9**	1.74 UD	**2.29**	**3.82** B	1.35 J	1.32 JB	1.42 J	1.6 JN	1.67 J	**4.86** B	**2.71**	1.98 B	1.74 UD	1.98 B
n-Heptane	**210,000**	**3,900**	4.1 U	4.1 U	0.41 U	0.41 U	0.41 U	16.4 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	4.1 U	0.41 U
n-Hexane	**NS**	**700**	1.41 U	1.41 U	0.14 U	1.13 J	0.14 U	5.64 U	0.14 U	0.14 U	0.56 J	1.97 U	0.14 U	0.49 J	4.41 U	0.46 J
Styrene	**17,000**	**1,000**	4.26 U	4.26 U	0.87 J	0.43 U	0.43 U	17 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	4.34 U	0.43 U
Tertiary butyl alcohol (TBA)	**NS**	**720**	65.2 DQ	18.5 D	1.79 Q	0.82 J	3.03 UDQ	12.1 U	1.39 JQ	0.3 U	1.76 Q	0.3 U	0.3 UQ	0.2 U	3.03 U	0.3 U
Tetrachloroethene (PCE)	**1,000**	**1**	**14.9** JD	0.68 J	**7.46**	**4.07**	38.6 D	5.9 U	**33.9**	**39.3**	**3.73**	**5.15**	0.2 U	0.61 J	0.2 U	0.61 J
Tetrahydrofuran	**30,000**	**350**	2.95 U	2.95 U	0.29 U	0.32 J	2.95 UD	2.36 U	11.8 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	2.95 U	0.29 U
Toluene	**37,000**	**5,000**	6.78 JD	25.6 D	3.17	1.81 J	1.88 UD	7.54 U	1.39 J	0.9 J	1.17 J	1.55 J	1.55 J	1.73 J	1.88 U	1.73 J
Trichloroethene (TCE)	**14,000**	**0.5**	0.75 J	0.11 U	0.11 U	0.11 U	0.32 J	0.32 J	**1.88** J	**3.28**	1.07 J	2.2 J	0.11 U	0.21 J	0.11 U	0.21 J
Trichlorofluoromethane (Freon 11)	**9,000**	**5,000**	2.25 U	2.25 U	1.52 J	1.35 J	2.25 UD	8.99 U	2.14 J	1.91 J	2.08 J	1.91 J	1.29 J	1.57 J	2.25 U	1.69 J
Xylene (m&p)	**4,300**	**100**	4.34 U	4.34 U	2.48 J	0.96 J	4.34 UD	29.5 J	0.87 J	5.21	0.69 J	2.78 J	1.39 J	0.52 J	4.34 U	0.48 J
Xylene (o)	**4,300**	**100**	4.34 UD	4.34 U	0.87 J	0.43 J	4.34 UD	17.4 U	0.48 U	1.17 J	0.43 U	0.96 J	0.43 J	0.43 U	1.74 U	0.43 U

Notes:

AGC - Annual guideline concentration, NYSDEC DAR-1 AGC/SCG Tables, October 18, 2010

SGC - Short term guideline concentration, NYSDEC DAR-1 AGC/SCG Tables, October 18, 2010

NS - No standard.

U - Analyzed for but not detected.

ug/m^3 - microgram per cubic meter.

Bold - exceeds AGC and/or SGC

J - Estimated Value

B - Analyte Found in associated Method Blank

D - Dilution

TABLE 4
WATER LEVEL MEASUREMENTS and PRODUCT THICKNESS
QUEENS WEST DEVELOPMENT - PARCEL 9

Well	Total Well Depth (feet)	Top of Casing Elev. (feet)	March 2013				September 2013			
			DTP	DTW	Product Thickness	ELEV	DTP	DTW	Product Thickness	ELEV
MW-2	**32.3**	**8.93**	ND	8.02	0.00	0.91	ND	9.62	0.00	-0.69
MW-8	**29.4**	**10.30**	ND	10.10	0.00	0.20	ND	10.55	0.00	-0.25
MW-11R	**20.3**	**10.52**	ND	10.95	0.00	-0.43	ND	10.44	0.00	0.08
MW-12R	**17.9**	**10.46**	ND	10.03	0.00	0.43	ND	9.04	0.00	1.42
MW-14	**18.3**	**8.30**	ND	7.99	0.01	0.31	ND	8.15	0.00	0.15
MW-15	**18.1**	**7.24**	ND	7.05	0.00	0.19	ND	7.73	0.00	-0.49
MW-16	**14.2**	**7.22**	ND	8.20	0.00	-0.98	ND	8.31	0.00	-1.09

Notes:

ND - Not detected

DTP - Depth to product in feet

DTW - Depth to water in feet

ELEV - Water table elevation in feet above the Queens Borough Datum, which is 2.725 feet above the mean sea level referenced to the National Geodetic Vertical Datum (NGVD) of 1929.

Table 5
GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
QUEENS WEST DEVELOPMENT - PARCEL 9

Client ID Lab Sample ID Date Sampled Dilution units=ug/L	NYSDEC Class GA AWQV	MW2 E1676-01 3/28/2013 1	MW-2 E3854-01DL 9/24/2013 5	MW8 E1676-02DL 3/28/2013 50	MW-8 E3854-02DL 9/24/2013 50	MW11R E1676-03 3/28/2013 1	MW-11R E3854-03 9/24/2013 1	MW-12R E1676-06 3/28/2013 1	MW-12R E3854-06 9/24/2013 1	MW14 E1676-07 3/28/2013 1	MW-14 (DUP) E1676-11 3/28/2013 1	MW-14 E3854-07 9/24/2013 1	MW15 E1676-08 3/28/2013 1	MW-15 E3854-08 9/24/2013 1	MW-15 (DUP) E3854-11 9/24/2013 1
1,1,1-Trichloroethane	**5**	0.4 U	1 UD	20 UD	10 UD	0.4 U	0.2 U	0.4 U	0.2 U	0.4 U	0.4 U	0.2 U	0.4 U	0.2 U	0.2 U
1,1,2,2-Tetrachloroethane	**5**	0.31 U	1 UD	15.5 UD	10 UD	0.31 U	0.2 U	0.31 U	0.2 U	0.31 U	0.31 U	0.2 U	0.31 U	0.2 U	0.2 U
1,1,2-Trichloroethane	**1**	0.38 U	1 UD	19 UD	10 UD	0.38 U	0.2 U	0.38 U	0.2 U	0.38 U	0.38 U	0.2 U	0.38 U	0.2 U	0.2 U
1,1-Dichloroethane	**5**	0.36 U	1 UD	18 UD	10 UD	0.36 U	0.2 U	0.36 U	0.2 U	0.36 U	0.36 U	0.2 U	0.36 U	0.2 U	0.2 U
1,1-Dichloroethene	**5**	0.47 U	1 UD	23.5 UD	10 UD	0.47 U	0.2 U	0.47 U	0.2 U	0.47 U	0.47 U	0.2 U	0.47 U	0.2 U	0.2 U
1,2-Dichloroethane	**0.6**	0.48 U	1 UD	24 UD	10 UD	0.48 U	0.2 U	0.48 U	0.2 U	0.48 U	0.48 U	0.2 U	0.48 U	0.2 U	0.2 U
1,2-Dichloropropane	**1**	0.46 U	1 UD	23 UD	10 UD	0.46 U	0.2 U	0.46 U	0.2 U	0.46 U	0.46 U	0.2 U	0.46 U	0.2 U	0.2 U
2-Hexanone	**50**	1.9 U	9.7 UD	97 UD	97 UD	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Acetone	**50**	0.5 U	2.5 UD	25 UD	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.5 J	0.5 U	0.5 U	3.6 J	2.3 J
Benzene	**1**	**66.7**	**200** D	16 UD	10 UD	0.32 U	0.2 U	0.98 J	0.2 U	**2.4**	**2.3**	**1.8**	0.32 U	**49.7**	**55.2**
Bromodichloromethane	**50**	0.36 U	1 UD	18 UD	10 UD	0.36 U	0.2 U	0.36 U	0.2 U	0.36 U	0.36 U	0.2 U	0.36 U	0.2 U	0.2 U
Bromoform	**50**	0.47 U	1 UD	23.5 UD	10 UD	0.47 U	0.2 U	0.47 U	0.2 U	0.47 U	0.47 U	0.2 U	0.47 U	0.2 U	0.2 U
Bromomethane	**5**	0.2 U	1 UD	10 UD	10 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Carbon disulfide	**60**	0.2 U	1 UD	10 UD	10 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Carbon tetrachloride	**5**	0.2 U	1 UD	10 UD	10 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chlorobenzene	**5**	0.49 U	1 UD	24.5 UD	10 UD	0.49 U	0.2 U	0.49 U	0.2 U	0.49 U	0.49 U	0.2 U	0.49 U	0.2 U	0.2 U
Chloroethane	**5**	0.2 U	1 UD	10 UD	10 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroform	**7**	0.34 U	1 UD	17 UD	10 UD	0.34 U	0.2 U	0.34 U	0.2 U	0.34 U	0.34 U	0.2 U	0.34 U	0.2 U	0.2 U
Chloromethane	**5**	0.2 U	1 UD	10 UD	10 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	**5**	0.35 U	1 UD	17.5 UD	10 UD	0.35 U	0.2 U	0.35 U	0.2 U	0.35 U	0.35 U	0.2 U	0.35 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	**0.4**	0.31 U	1 UD	15.5 UD	10 UD	0.31 U	0.2 U	0.31 U	0.2 U	0.31 U	0.31 U	0.2 U	0.31 U	0.2 U	0.2 U
Dibromochloromethane	**50**	0.2 U	1 UD	10 UD	10 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Ethylbenzene	**5**	**59.4**	**130** D	10 UD	**75** D	0.2 U	0.2 U	0.2 U	0.2 U	0.83 J	0.78 J	0.55 J	0.2 U	2.6	2.8
Methylene Chloride	**5**	0.41 U	1 UD	20.5 UD	10 UD	0.41 U	0.2 U	0.41 U	0.2 U	0.41 U	0.41 U	0.2 U	0.41 U	0.2 U	0.2 U
Styrene	**5**	0.36 U	1 UD	18 UD	10 UD	0.36 U	0.2 U	0.36 U	0.2 U	0.36 U	0.36 U	0.2 U	0.36 U	0.2 U	0.2 U
Tetrachloroethene	**5**	0.27 U	1 UD	13.5 UD	10 UD	0.27 U	0.2 U	0.27 U	0.2 U	0.27 U	0.27 U	0.2 U	0.27 U	0.2 U	0.2 U
Toluene	**5**	0.74 J	3.9 JD	18.5 UD	10 UD	0.37 U	0.2 U	0.37 U	0.2 U	0.37 U	0.37 U	0.2 U	0.37 U	1.2	1.3
trans-1,2-Dichloroethene	**5**	0.41 U	1 UD	20.5 UD	10 UD	0.41 U	0.2 U	0.41 U	0.2 U	0.41 U	0.41 U	0.2 U	0.41 U	0.2 U	0.2 U
Trichloroethene	**5**	0.28 U	1 UD	14 UD	10 UD	0.28 U	0.2 U	0.28 U	0.2 U	0.28 U	0.28 U	0.2 U	0.28 U	0.2 U	0.2 U
Vinyl chloride	**2**	0.34 U	1 UD	17 UD	10 UD	0.34 U	0.2 U	0.34 U	0.2 U	0.34 U	0.34 U	0.2 U	0.34 U	0.2 U	0.2 U
Xylenes, Total	**5**	**6.7**	8.6 UD	69 UD	**92** JD	1.38 U	0.6 U	1.38 U	0.6 U	1.89 J	1.92 J	1.55 J	1.38 U	1.4 J	1.4 J

Notes:

AWQVs - Ambient Water Quality Standards and Guidance Values listed in NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1

U - Analyzed for but not detected.

J - Indicates an estimated value.

B - Analyte was detected in assocated blank, as well as in the sample.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

ug/L - micrograms per liter.

Bold - exceeds TOGS

FB - Field Blank

TB - Trip Blank

Table 5
GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
QUEENS WEST DEVELOPMENT - PARCEL 9

Client ID Lab Sample ID Date Sampled Dilution units=ug/L	NYSDEC Class GA AWQV	MW16 E1676-09 3/28/2013 1	MW-16 E3854-09 9/24/2013 1	FB E1676-10 3/28/2013 1	FB E3854-10 9/24/2013 1	TB E1676-12 3/28/2013 1	TB E3854-12 9/24/2013 1
1,1,1-Trichloroethane	**5**	0.4 U	0.2 U	0.4 U	0.2 U	0.4 U	0.2 U
1,1,2,2-Tetrachloroethane	**5**	0.31 U	0.2 U	0.31 U	0.2 U	0.31 U	0.2 U
1,1,2-Trichloroethane	**1**	0.38 U	0.2 U	0.38 U	0.2 U	0.38 U	0.2 U
1,1-Dichloroethane	**5**	0.36 U	0.2 U	0.36 U	0.2 U	0.36 U	0.2 U
1,1-Dichloroethene	**5**	0.47 U	0.2 U	0.47 U	0.2 U	0.47 U	0.2 U
1,2-Dichloroethane	**0.6**	0.48 U	0.2 U	0.48 U	0.2 U	0.48 U	0.2 U
1,2-Dichloropropane	**1**	0.46 U	0.2 U	0.46 U	0.2 U	0.46 U	0.2 U
2-Hexanone	**50**	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Acetone	**50**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	**1**	0.32 U	0.2 U	0.32 U	0.2 U	0.32 U	0.2 U
Bromodichloromethane	**50**	0.36 U	0.2 U	0.36 U	0.2 U	0.36 U	0.2 U
Bromoform	**50**	0.47 U	0.2 U	0.47 U	0.2 U	0.47 U	0.2 U
Bromomethane	**5**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Carbon disulfide	**60**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Carbon tetrachloride	**5**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chlorobenzene	**5**	0.49 U	0.2 U	0.49 U	0.2 U	0.49 U	0.2 U
Chloroethane	**5**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroform	**7**	0.34 U	0.2 U	0.34 U	0.2 U	0.34 U	0.2 U
Chloromethane	**5**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	**5**	0.35 U	0.2 U	0.35 U	0.2 U	0.35 U	0.2 U
cis-1,3-Dichloropropene	**0.4**	0.31 U	0.2 U	0.31 U	0.2 U	0.31 U	0.2 U
Dibromochloromethane	**50**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Ethylbenzene	**5**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Methylene Chloride	**5**	0.41 U	0.2 U	0.41 U	0.2 U	0.41 U	0.2 U
Styrene	**5**	0.36 U	0.2 U	0.36 U	0.2 U	0.36 U	0.2 U
Tetrachloroethene	**5**	0.27 U	0.2 U	0.27 U	0.2 U	0.27 U	0.2 U
Toluene	**5**	0.37 U	0.2 U	0.37 U	0.2 U	0.37 U	0.2 U
trans-1,2-Dichloroethene	**5**	0.41 U	0.2 U	0.41 U	0.2 U	0.41 U	0.2 U
Trichloroethene	**5**	0.28 U	0.2 U	0.28 U	0.2 U	0.28 U	0.2 U
Vinyl chloride	**2**	0.34 U	0.2 U	0.34 U	0.2 U	0.34 U	0.2 U
Xylenes, Total	**5**	1.38 U	0.6 U	1.38 U	0.6 U	1.38 U	0.6 U

Notes:

AWQVs - Ambient Water Quality Standards and Guidance Values listed in NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1

U - Analyzed for but not detected.

J - Indicates an estimated value.

B - Analyte was detected in assocated blank, as we

D - The reported value is from a secondary analysis

ug/L - micrograms per liter.

Bold - exceeds TOGS

FB - Field Blank

TB - Trip Blank

Table 6
GROUNDWATER ANALYTICAL RESULTS - SEMI-VOLATILE ORGANIC COMPOUNDS
QUEENS WEST DEVELOPMENT - PARCEL 9

Client ID Lab Sample ID Date Sampled Dilution Units=ug/L	NYSDEC Class GA AWQV	MW2 E1676-01DL 3/28/2013 5	MW-2 E3854-01DL 9/24/2013 5	MW8 E1676-02 3/28/2013 1	MW-8 E3854-02DL2 9/24/2013 50	MW11R E1676-03 3/28/2013 1	MW-11R E3854-03 9/24/2013 1	MW-12R E1676-06 3/28/2013 1	MW-12R E3854-06 9/24/2013 1	MW14 E1676-07 3/28/2013 1	MW-14 (DUP) E1676-11 3/28/2013 1
1,2,4-Trichlorobenzene	**5**	0.71 UD	0.71 UD	0.14 U	7.1 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2-Dichlorobenzene	**3**	1.3 UD	1.3 UD	0.25 U	12.6 UD	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-Dichlorobenzene	**3**	0.61 UD	0.61 UD	0.12 U	6.1 UD	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,4-Dichlorobenzene	**3**	0.92 UD	0.91 UD	0.18 U	9.1 UD	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2,2'-oxybis[1-chloropropane]	**5**	1.8 UD	1.8 UD	0.35 U	17.7 UD	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
2,4,5-Trichlorophenol	**NS**	11.6 UD	11.5 UD	2.3 U	110 UD	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
2,4,6-Trichlorophenol	**NS**	10.8 UD	10.7 UD	2.1 U	110 UD	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
2,4-Dichlorophenol	**5**	16.4 UD	16.2 UD	3.2 U	160 UD	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U
2,4-Dimethylphenol	**50**	3.6 UD	3.5 UD	4.8	35.4 UD	0.7 U	0.7 U	0.71 U	0.7 U	0.71 U	0.71 U
2,4-Dinitrophenol	**10**	9.6 UD	9.5 UD	1.9 U	94.9 UD	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
2,4-Dinitrotoluene	**5**	10.8 UD	10.7 UD	2.1 U	110 UD	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
2,6-Dinitrotoluene	**5**	1.4 UD	1.4 UD	0.27 U	13.6 UD	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
2-Chloronaphthalene	**10**	0.77 UD	0.76 UDQ	0.15 U	7.6 UDQ	0.15 U	0.15 UQ	0.15 U	0.15 UQ	0.15 U	0.15 U
2-Chlorophenol	**NS**	0.97 UD	0.96 UD	0.19 U	9.6 UD	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
2-Methylnaphthalene	**NS**	0.97 UD	0.96 UD	0.19 U	9.6 UD	0.19 U	0.19 U	0.19 U	0.19 U	7.5	6.6
2-Methylphenol	**NS**	9.2 UD	9.1 UD	8.2 J	91.4 UD	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
2-Nitroaniline	**5**	21.6 UD	21.4 UD	4.2 U	210 UD	4.2 U	4.2 U	4.3 U	4.2 U	4.3 U	4.3 U
2-Nitrophenol	**NS**	22.4 UD	22.2 UD	4.4 U	220 UD	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U
3,3'-Dichlorobenzidine	**5**	18.3 UD	18.1 UD	3.6 U	180 UD	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
3-Nitroaniline	**5**	10.3 UDQ	10.2 UD	2 UQ	100 UD	2 UQ	2 U	2 UQ	2 U	2 UQ	2 UQ
4,6-Dinitro-2-methylphenol	**NS**	9.5 UD	9.4 UD	1.9 U	94.4 UD	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
4-Bromophenyl phenyl ether	**NS**	2.1 UD	2.1 UD	0.42 U	21.2 UD	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
4-Chloro-3-methylphenol	**NS**	8.8 UD	8.7 UD	1.7 U	86.9 UD	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
4-Chloroaniline	**5**	13.5 UD	13.3 UD	2.6 U	130 UD	2.6 U	2.6 U	2.7 U	2.6 U	2.7 U	2.7 U
4-Chlorophenyl phenyl ether	**NS**	1.4 UD	1.4 UD	0.27 U	13.6 UD	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
4-Nitroaniline	**5**	12.7 UD	12.6 UDQ	2.5 U	130 UDQ	2.5 U	2.5 UQ	2.5 U	2.5 UQ	2.5 U	2.5 U
4-Nitrophenol	**NS**	19.7 UD	19.5 UD	3.9 U	200 UD	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U
Acenaphthene	**20**	**100** D	**49.1** D	**27.6**	**240** D	0.17 U	0.17 U	0.17 U	0.17 U	**22**	**22.3**
Acenaphthylene	**NS**	0.82 UD	0.81 UD	1 J	8.1 UD	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.1 J
Anthracene	**50**	1.5 UD	1.5 UD	1.1 J	15.2 UD	0.3 U	0.3 U	0.3 U	0.3 U	1.2 J	1.3 J
Benzo[a]anthracene	**0.002**	0.61 UD	0.61 UD	0.12 U	6.1 UD	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	**1.3** J
Benzo[a]pyrene	**NS**	0.87 UD	0.86 UD	0.17 U	8.6 UD	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	1 J
Benzo[b]fluoranthene	**0.002**	0.87 UD	0.86 UD	0.17 U	8.6 UD	0.17 U	0.17 U	**1.3** J	0.17 U	0.17 U	**1.1** J
Benzo[g,h,i]perylene	**NS**	0.66 UD	0.66 UD	0.13 U	6.6 UD	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Benzo[k]fluoranthene	**0.002**	1.4 UD	1.4 UD	0.28 U	14.1 UD	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Bis(2-chloroethoxy)methane	**5**	5.7 UD	5.6 UD	1.1 U	56.1 UD	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Bis(2-chloroethyl)ether	**1**	1.8 UD	1.8 UD	0.35 U	17.7 UD	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Bis(2-ethylhexyl) phthalate	**5**	1.5 UD	1.5 UD	0.29 U	14.6 UD	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
Butyl benzyl phthalate	**50**	1.1 UD	1.1 UD	0.22 U	11.1 UD	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chrysene	**0.002**	1.2 UD	1.2 UD	0.24 U	12.1 UD	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	**1.3** J
Dibenz(a,h)anthracene	**NS**	1.4 UD	1.4 UD	0.28 U	14.1 UD	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Dibenzofuran	**NS**	57.9 D	25.1 JD	12.8	160 JD	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Diethyl phthalate	**50**	0.51 UD	0.51 UD	1.3 J	5.1 UD	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dimethyl phthalate	**50**	0.87 UD	5.2 JD	2.2 J	8.6 UD	0.17 U	0.17 U	0.17 U	0.17 U	1.3 J	0.17 U
Di-n-butyl phthalate	**50**	3 UD	3 UD	1 J	29.8 UD	0.59 U	0.59 U	0.6 U	0.59 U	0.6 U	0.6 U
Di-n-octyl phthalate	**50**	1.6 UD	1.6 UD	0.31 U	15.7 UD	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
Fluoranthene	**50**	4.3 UD	4.2 UD	0.84 U	42.4 UD	0.84 U	0.84 U	1.1 J	0.84 U	2.4 J	2.9
Fluorene	**50**	21.3 D	12.1 JDQ	9	**75.3** JDQ	0.15 U	0.15 UQ	0.15 U	0.15 UQ	7	6.7
Hexachlorobenzene	**0.04**	1.1 UD	1.1 UD	0.22 U	11.1 UD	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Hexachlorobutadiene	**0.5**	0.87 UD	0.86 UD	0.17 U	8.6 UD	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Hexachlorocyclopentadiene	**5**	7.7 UDQ	7.6 UD	1.5 UQ	75.8 UD	1.5 UQ	1.5 U	1.5 UQ	1.5 U	1.5 UQ	1.5 UQ
Hexachloroethane	**5**	1.3 UD	1.3 UD	0.25 U	12.6 UD	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Indeno[1,2,3-cd]pyrene	**0.002**	3.4 UD	3.3 UD	0.66 U	33.3 UD	0.66 U	0.66 U	0.67 U	0.66 U	0.67 U	0.67 U
Isophorone	**50**	2.1 UD	2.1 UD	0.41 U	20.7 UD	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Naphthalene	**10**	6.3 JD	9 JD	1.1 J	**1300** D	0.19 U	0.19 U	3.2	0.19 U	1.7 J	1.7 J
Nitrobenzene	**0.4**	3.3 UD	3.3 UD	0.65 U	32.8 UD	0.65 U	0.65 U	0.66 U	0.65 U	0.66 U	0.66 U
N-Nitrosodi-n-propylamine	**NS**	1.1 UD	1.1 UD	0.22 U	11.1 UD	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
N-Nitrosodiphenylamine	**50**	4.1 UD	4 UD	0.8 U	40.4 UD	0.8 U	0.8 U	0.81 U	0.8 U	0.81 U	0.81 U
Pentachlorophenol	**NS**	13.7 UD	13.6 UD	3.3 J	140 UD	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U
Phenanthrene	**50**	13.5 D	0.56 UD	0.11 U	5.6 UD	0.11 U	0.11 U	0.11 U	0.11 U	4.1	4.3
Phenol	**NS**	2.3 UD	2.3 UD	0.46 U	23.2 UD	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
Pyrene	**50**	0.66 UD	0.66 UD	0.13 U	6.6 UD	0.13 U	0.13 U	1.1 J	0.13 U	2.9	3.5

Notes:

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NS - No Standard

U - Analyzed for but not detected.

J - Indicates an estimated value.

B - Analyte was detected in assocated blank, as well as in

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

ug/L - micrograms per liter.

Bold - exceeds TOGS

FB - Field Blank

Table 6
GROUNDWATER ANALYTICAL RESULTS - SEMI-VOLATILE ORGANIC COMPOUNDS
QUEENS WEST DEVELOPMENT - PARCEL 9

Client ID Lab Sample ID Date Sampled Dilution Units=ug/L	NYSDEC Class GA AWQV	MW-14 E3854-07 9/24/2013 1	MW15 E1676-08 3/28/2013 1	MW-15 E3854-08 9/24/2013 1	MW-15 (DUP) E3854-11 9/24/2013 1	MW16 E1676-09 3/28/2013 1	MW-16 E3854-09 9/24/2013 1	FB E1676-10 3/28/2013 1	FB E3854-10 9/24/2013 1
1,2,4-Trichlorobenzene	5	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2-Dichlorobenzene	3	0.25 U	0.26 U	0.26 U	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U
1,3-Dichlorobenzene	3	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,4-Dichlorobenzene	3	0.18 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U
2,2'-oxybis[1-chloropropane]	5	0.35 U	0.36 U	0.36 U	0.35 U	0.35 U	0.36 U	0.36 U	0.35 U
2,4,5-Trichlorophenol	NS	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
2,4,6-Trichlorophenol	NS	2.1 U	2.2 U	2.2 U	2.1 U	2.1 U	2.2 U	2.2 U	2.1 U
2,4-Dichlorophenol	5	3.2 U	3.3 U	3.3 U	3.2 U	3.2 U	3.3 U	3.3 U	3.2 U
2,4-Dimethylphenol	50	0.71 U	0.72 U	0.71 U	0.7 U	0.7 U	0.72 U	0.71 U	0.7 U
2,4-Dinitrophenol	10	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
2,4-Dinitrotoluene	5	2.1 U	2.2 U	2.2 U	2.1 U	2.1 U	2.2 U	2.2 U	2.1 U
2,6-Dinitrotoluene	5	0.27 U	0.28 U	0.28 U	0.27 U	0.27 U	0.28 U	0.28 U	0.27 U
2-Chloronaphthalene	10	0.15 UQ	0.15 U	0.15 UQ	0.15 UQ	0.15 U	0.15 UQ	0.15 U	0.15 UQ
2-Chlorophenol	NS	0.19 U	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U
2-Methylnaphthalene	NS	3.2	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U
2-Methylphenol	NS	1.8 U	1.9 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U
2-Nitroaniline	5	4.3 U	4.4 U	4.3 U	4.2 U	4.2 U	4.4 U	4.3 U	4.2 U
2-Nitrophenol	NS	4.4 U	4.5 U	4.5 U	4.4 U	4.4 U	4.5 U	4.5 U	4.4 U
3,3'-Dichlorobenzidine	5	3.6 U	3.7 U	3.7 U	3.6 U	3.6 U	3.7 U	3.7 U	3.6 U
3-Nitroaniline	5	2 U	2.1 UQ	2.1 U	2 U	2 UQ	2.1 U	2.1 UQ	2 U
4,6-Dinitro-2-methylphenol	NS	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
4-Bromophenyl phenyl ether	NS	0.42 U	0.43 U	0.43 U	0.42 U	0.42 U	0.43 U	0.43 U	0.42 U
4-Chloro-3-methylphenol	NS	1.7 U	1.8 U	1.8 U	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U
4-Chloroaniline	5	2.7 U	2.7 U	2.7 U	2.6 U	2.6 U	2.7 U	2.7 U	2.6 U
4-Chlorophenyl phenyl ether	NS	0.27 U	0.28 U	0.28 U	0.27 U	0.27 U	0.28 U	0.28 U	0.27 U
4-Nitroaniline	5	2.5 UQ	2.6 U	2.5 UQ	2.5 UQ	2.5 U	2.6 UQ	2.5 U	2.5 UQ
4-Nitrophenol	NS	3.9 U	4 U	3.9 U	3.9 U	3.9 U	4 U	3.9 U	3.9 U
Acenaphthene	20	**24.6**	0.18 U	**22.1**	**25.7**	0.17 U	0.18 U	0.17 U	0.17 U
Acenaphthylene	NS	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Anthracene	50	0.3 U	0.31 U	0.31 U	0.3 U	0.3 U	0.31 U	0.31 U	0.3 U
Benzo[a]anthracene	0.002	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Benzo[a]pyrene	NS	0.17 U	0.18 U	0.17 U	0.17 U	0.17 U	0.18 U	0.17 U	0.17 U
Benzo[b]fluoranthene	0.002	0.17 U	0.18 U	0.17 U	0.17 U	0.17 U	0.18 U	0.17 U	0.17 U
Benzo[g,h,i]perylene	NS	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Benzo[k]fluoranthene	0.002	0.28 U	0.29 U	0.29 U	0.28 U	0.28 U	0.29 U	0.29 U	0.28 U
Bis(2-chloroethoxy)methane	5	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Bis(2-chloroethyl)ether	1	0.35 U	0.36 U	0.36 U	0.35 U	0.35 U	0.36 U	0.36 U	0.35 U
Bis(2-ethylhexyl) phthalate	5	0.29 U	0.3 U	0.3 U	1.2 J	0.29 U	0.3 U	0.3 U	0.29 U
Butyl benzyl phthalate	50	0.22 U	0.23 U	0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.22 U
Chrysene	0.002	0.24 U	0.25 U	0.24 U	0.24 U	0.24 U	0.25 U	0.24 U	0.24 U
Dibenz(a,h)anthracene	NS	0.28 U	0.29 U	0.29 U	0.28 U	0.28 U	0.29 U	0.29 U	0.28 U
Dibenzofuran	NS	2.1 U	2.2 U	15.2	17.6	2.1 U	2.2 U	2.2 U	2.1 U
Diethyl phthalate	50	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dimethyl phthalate	50	0.17 U	2.2 J	4.4	5.6	0.17 U	3.4	0.17 U	0.17 U
Di-n-butyl phthalate	50	0.6 U	0.61 U	0.6 U	0.59 U	0.59 U	0.61 U	0.6 U	0.59 U
Di-n-octyl phthalate	50	0.31 U	0.32 U	0.32 U	0.31 U	0.31 U	0.32 U	0.32 U	0.31 U
Fluoranthene	50	0.85 U	0.87 U	0.86 U	0.84 U	0.84 U	0.87 U	0.86 U	0.84 U
Fluorene	50	6.8 Q	0.15 U	0.15 UQ	0.15 UQ	0.15 U	0.15 UQ	0.15 U	0.15 UQ
Hexachlorobenzene	0.04	0.22 U	0.23 U	0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.22 U
Hexachlorobutadiene	0.5	0.17 U	0.18 U	0.17 U	0.17 U	0.17 U	0.18 U	0.17 U	0.17 U
Hexachlorocyclopentadiene	5	1.5 U	1.5 UQ	1.5 U	1.5 U	1.5 UQ	1.5 U	1.5 UQ	1.5 U
Hexachloroethane	5	0.25 U	0.26 U	0.26 U	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U
Indeno[1,2,3-cd]pyrene	0.002	0.67 U	0.68 U	0.67 U	0.66 U	0.66 U	0.68 U	0.67 U	0.66 U
Isophorone	50	0.41 U	0.42 U	0.42 U	0.41 U	0.41 U	0.42 U	0.42 U	0.41 U
Naphthalene	10	2.1 J	0.2 U	0.19 U	1.4 J	0.19 U	0.2 U	0.19 U	0.19 U
Nitrobenzene	0.4	0.66 U	0.67 U	0.66 U	0.65 U	0.65 U	0.67 U	0.66 U	0.65 U
N-Nitrosodi-n-propylamine	NS	0.22 U	0.23 U	0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.22 U
N-Nitrosodiphenylamine	50	0.81 U	0.82 U	0.82 U	0.8 U	0.8 U	0.82 U	0.82 U	0.8 U
Pentachlorophenol	NS	2.7 U	2.8 U	2.7 U	2.7 U	2.7 U	2.8 U	2.7 U	2.7 U
Phenanthrene	50	3.6	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
Phenol	NS	0.46 U	0.47 U	0.47 U	0.46 U	0.46 U	0.47 U	0.47 U	0.46 U
Pyrene	50	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

Notes:
AWQVs - Ambient Water Quality Standards and Guidance V
NS - No Standard
U - Analyzed for but not detected.
J - Indicates an estimated value.
B - Analyte was detected in assocated blank, as well as in
D - The reported value is from a secondary analysis with a d
ug/L - micrograms per liter.
Bold - exceeds TOGS
FB - Field Blank

APPENDICES

Appendix A - Site Cover Inspection Log and Photographs

SITE CAP INSPECTION FORM
QUEENS WEST PARCEL 9
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector: JOHN MASCIOLI

Date: DECEMBER 31, 2013

1. Courtyard/landscaped areas:

Adequate top soil cover present?

YES

Signs of erosion?

NO

Recommended corrective action:

NONE

2. Outdoor paving/sidewalks:

Note any signs of cracking or other damage:

NONE

Note any areas where greater than 25% of surface is cracked/damaged:

NONE

Recommended corrective action:

NONE

3. Lower level garage slab:

Note any signs of cracking or other damage:

Surficial cracking (hairline) was noted.
No significant visible cracking was observed

Note any areas where greater than 25% of surface is cracked/damaged:

NONE

Recommended corrective action:

NONE

Comments (attach photos/sketches to illustrate any damage noted):

photographs attached



Photo 1: View of typical landscaping and paving in courtyard.



Photo 2: View of typical landscaping in courtyard

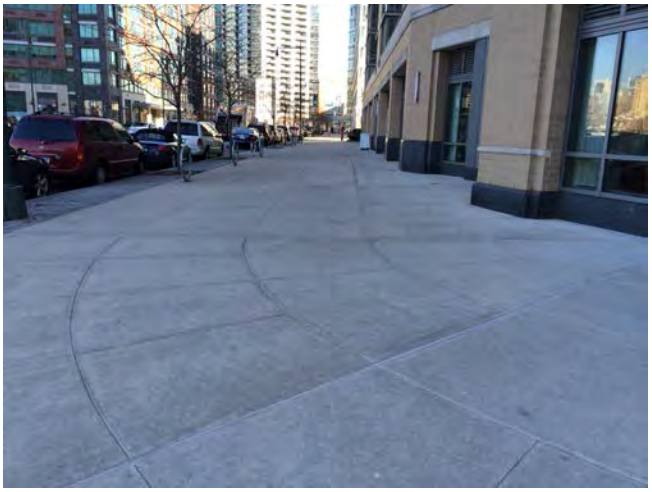


Photo 3: View of paving along Center Blvd. looking north @ Center Blvd & 48th Ave. intersection.



Photo 4: View of typical landscaping and paving along 5th Street looking north @ 48th Ave & 5th St. intersection.

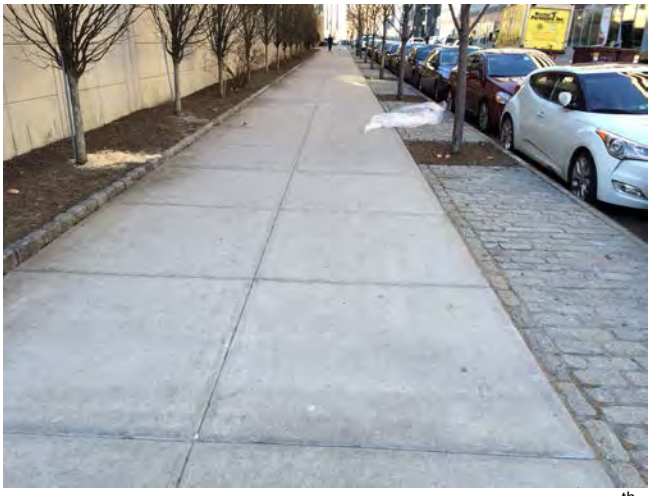


Photo 5: View of typical landscaping and paving along 47th Rd. looking west @ 47t Rd. & 5th St. intersection.

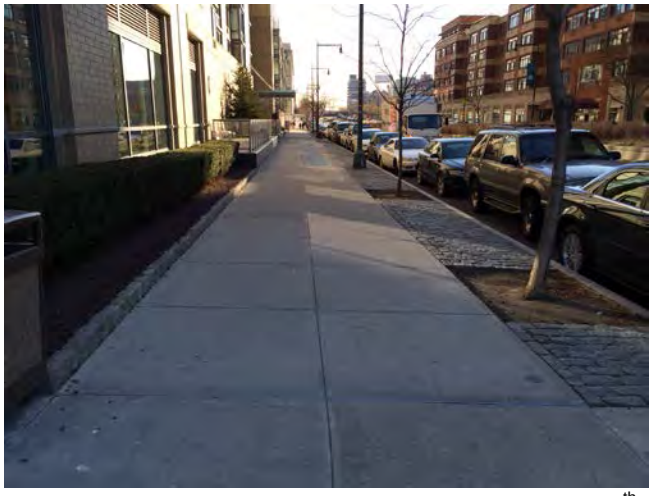


Photo 6: View of typical landscaping and paving along 48th Ave. looking east @ 48th Ave. & Center Blvd. intersection.



Photo 7: View of Zone 3 Equipment.



Photo 8: View of typical condition of concrete slab in parking garage at parking space 105.



Photo 9: View of Zone 4 Equipment.

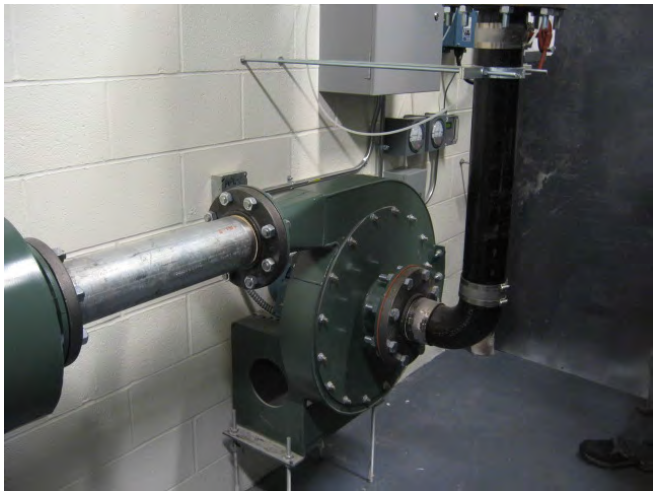


Photo 10: View of Zone 2 Equipment.



Photo 11: View of Zone 1 Equipment.

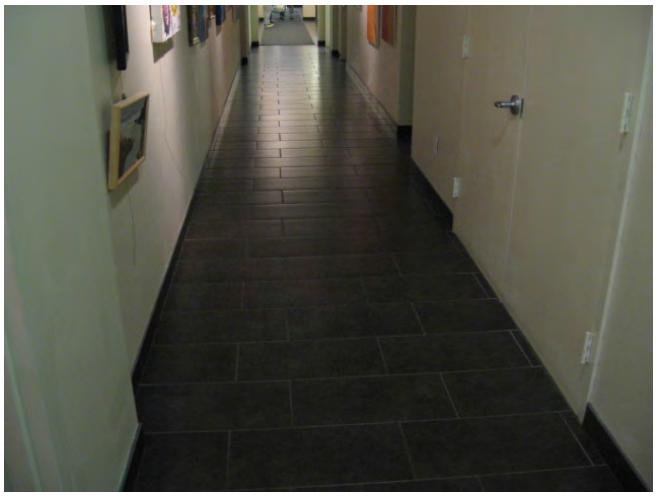


Photo 12: View of typical corridor with ceramic floor tiles.

Appendix B - Vapor Mitigation System Inspection Logs

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: JOHN MASCIOLI	**Date:** 1/15/2013
Time IN:	**Time OUT:**

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	428500.8	326	
Zone 2	44857.3	298	
Zone 3	353178	TOTAL 278	WELL 520
Zone 4	44041.1	250	430

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Oulet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Oulet "H_2O	Differential "H_2O
Zone 1	7.0	7.5	0.5	N			
Zone 2	10.0	10.0	0	N			
Zone 3	13.5	14.0	0.5	N			
Zone 4	4.0	4.5	0.5	N			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: John Mascioli	**Date:** 2/27/2013
Time IN:	**Time OUT:**

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	43894.2	325	
Zone 2	45891.2	290	
Zone 3	36359	TOTAL 250	WELL 360
Zone 4	45037.6	TOTAL 248	WELL 426

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Oulet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Oulet "H_2O	Differential "H_2O
Zone 1	7.0	7.0	0	No			
Zone 2	10.0	10.0	0	No			
Zone 3	13.5	14.0	0.5	No			
Zone 4	4.0	4.5	0.5	No			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: John Mascioli	**Date:** 3/28/2013
Time IN:	**Time OUT:**

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	44582.7	325	
Zone 2	46582.3	300	
Zone 3	37041	TOTAL 240	WELL 547
Zone 4	47729.0	TOTAL 250	WELL 430

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Oulet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Oulet "H_2O	Differential "H_2O
Zone 1	7.0	7.0	0	No			
Zone 2	10.0	10.0	0	No			
Zone 3	12.0	12.5	0.5	No			
Zone 4	4.0	4.5	0.5	No			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: John Mascioli	Date: 4/19/2013
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	4511.40	324	
Zone 2	47113.8	300	
Zone 3	37573	TOTAL 250	WELL 480
Zone 4	46201.3	TOTAL 250	WELL 430

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Oulet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Oulet "H_2O	Differential "H_2O
Zone 1	7.0	7.0	0	No			
Zone 2	10.0	10.5	0.5	No			
Zone 3	13.5	14.0	0.5	No			
Zone 4	4.0	4.5	0.5	No			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: John Mascioli	**Date:** 5/30/2013
Time IN:	**Time OUT:**

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	46099.7	321	
Zone 2	48099.2	300	
Zone 3	38558	TOTAL 416	WELL 212
Zone 4	47246	TOTAL 420	WELL 250

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Oulet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Oulet "H_2O	Differential "H_2O
Zone 1	7.0	7.0	0	No			
Zone 2	10.0	10.0	0	No			
Zone 3	13.5	14.0	0.5	No			
Zone 4	4.0	4.5	0.5	No			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: John Masciolli	Date: 6/26/2013
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	46744.7	320	
Zone 2	48744.4	305	
Zone 3	39203	TOTAL 195	WELL 280
Zone 4	47892.1	TOTAL 250	WELL 430

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Oulet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Oulet "H_2O	Differential "H_2O
Zone 1	7.0	7.0	0	No			
Zone 2	10.0	10.0	0	No			
Zone 3	13.5	14.0	0.5	No			
Zone 4	4.0	4.5	0.5	No			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: John Mascioli	Date: 7/29/13
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	47537.2	320	
Zone 2	49544.6	298	
Zone 3	39906	TOTAL 198	WELL 230
Zone 4	46809.6	TOTAL 251	WELL 420

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Oulet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Oulet "H_2O	Differential "H_2O
Zone 1	7.0	7.0	0	NO			
Zone 2	10.0	10.0	0	NO			
Zone 3	13.5	13.5	0	NO			
Zone 4	4.0	4.5	0.5	NO			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: John Mascioli	Date: 8/16/2013
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	47977.2	319	
Zone 2	49975.3	298	
Zone 3	40435	TOTAL 200	WELL 285
Zone 4	49117.6	TOTAL 220	WELL 449

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Oulet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Oulet "H_2O	Differential "H_2O
Zone 1	7.0	7.0	0	No			
Zone 2	10.0	10.0	0	No			
Zone 3	13.5	14.0	0.5	No			
Zone 4	4.0	4.5	0.5	No			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: John Mascioli	Date: 9/24/2013
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	48899.7	324	
Zone 2	50900.5	304	
Zone 3	41359.9	TOTAL 310	WELL 32.8
Zone 4	50049.1	TOTAL 250	WELL 435

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Oulet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Oulet "H_2O	Differential "H_2O
Zone 1	7.0	7.0	0	NO			
Zone 2	10.0	10.0	0	NO			
Zone 3	13.5	14.0	0.5	NO			
Zone 4	4.5	5.0	0.5	NO			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
49th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: John Mascioli	Date: 10/31/2013
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	49804.16	325	
Zone 2	51794.3	336	
Zone 3	42251	TOTAL 230	WELL 320
Zone 4	50941.7	TOTAL 253	WELL 446

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Oulet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Oulet "H_2O	Differential "H_2O
Zone 1	7.0	7.0	0	No			
Zone 2	10.0	10.0	0	No			
Zone 3	13.5	14.0	0.5	No			
Zone 4	4.5	5.0	0.5	No			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: John Mascioli	**Date:** 11/18/13
Time IN:	**Time OUT:**

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	50226.5	324	
Zone 2	52226.9	344	
Zone 3	42685	TOTAL 240	WELL 430
Zone 4	51374.1	TOTAL 251	WELL 450

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Oulet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Oulet "H_2O	Differential "H_2O
Zone 1	7.0	7.0	0	NO			
Zone 2	10.0	10.5	0.5	NO			
Zone 3	13.5	14.0	0.5	NO			
Zone 4	4.5	5.0	0.5	NO			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: John Mascioli	**Date:** 12/17/2013
Time IN:	**Time OUT:**

GENERAL

Are there any leaks in system? ~~yes~~ or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? ~~yes~~ or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	60916.2	325	
Zone 2	52917	328	
Zone 3	47376	TOTAL 260	WELL 410
Zone 4	52067.1	TOTAL 250	WELL 447

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Outlet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Outlet "H_2O	Differential "H_2O
Zone 1	7.0	7.0	0	No			
Zone 2	10.0	10.0	0	No			
Zone 3	12.5	13.0	0.5	No			
Zone 4	4.5	5.0	0.5	No			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

ROUTINE SYSTEM CHECK
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK
ZONE: (1) 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well	Observations	Pre	Post
Ed Durant	12/28/12	☑ ON ☐ OFF	424342	330		7	7
	1/4/13	☑ ON ☐ OFF	42602.0	325		7	7
	1/10/13	☑ ON ☐ OFF	427456	325		7	7
	1/14/13	☑ ON ☐ OFF	428345	322		7	7
	1/15/13	☑ ON ☐ OFF	428856	324		7	7
	1/16/13	☑ ON ☐ OFF	428821	323		7	7
	1/17/13	☑ ON ☐ OFF	429077	327		7	7
	1/18/13	☑ ON ☐ OFF	429304	325		7	7
	1/22/13	☑ ON ☐ OFF	430244	325		7	7
	1/23/13	☑ ON ☐ OFF	430503	324		7	7
	1/24/13	☑ ON ☐ OFF	430781	325		7	7
	1/25/13	☑ ON ☐ OFF	431053	325		7	7
	1/28/13	☑ ON ☐ OFF	431747.0	325		7	7
	1/29/13	☑ ON ☐ OFF	431747	325		7	7
	1/30/13	☑ ON ☐ OFF	432280	325		7	7
	1/31/13	☑ ON ☐ OFF	432428	328		7	7
	2/1/13	☑ ON ☐ OFF	432669	327			

ROUTINE SYSTEM CHECK
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK
ZONE: (1) 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	IW	OUT
EC	2/4	☑ ON ☐ OFF	433393	336		7	7
	2/5	☑ ON ☐ OFF	433634	334		7	7
	2/6	☑ ON ☐ OFF	433871	328		7	7
	2/7	☑ ON ☐ OFF	434115	328		7	7
	2/8	☑ ON ☐ OFF	434351	330		7	7
	2/11	☑ ON ☐ OFF	435087	327		7	7
	2/12	☑ ON ☐ OFF	435346	328		7	7
	2/13	☑ ON ☐ OFF	435585	325		7	7
	2/14	☑ ON ☐ OFF	435862	327		7	7
	2/15	☑ ON ☐ OFF	436120	328		7	7
	2/19	☑ ON ☐ OFF	436485	326		7	7
	2/20	☑ ON ☐ OFF	436722.8	326		7	7
	2/21	☑ ON ☐ OFF	437048.1	326		7	7
	2/22	☑ ON ☐ OFF	437329	323		7	7
	2/25	☑ ON ☐ OFF	437644.1	328		7	7
	2/26	☑ ON ☐ OFF	437908	329		7	7
	2/27	☑ ON ☐ OFF	438942	329		7	7

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: (1) 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	Pre	Post
	2/28	☑ ON ☐ OFF	43918.5	330		✓	✓
	2/29	☑ ON ☐ OFF	43942.0	330		✓	✓
	3/1	☑ ON ☐ OFF	43946.0	326		✓	✓
	3/4	☑ ON ☐ OFF	440186	327		✓	✓
	3/5	☑ ON ☐ OFF	440413	325		✓	✓
	3/6	☑ ON ☐ OFF	44065.2	325		✓	✓
	3/7	☑ ON ☐ OFF	440901	325		✓	✓
	3/8	☑ ON ☐ OFF	44110.8	325		✓	✓
	3/11	☑ ON ☐ OFF	44185.1	324		✓	✓
	3/12	☑ ON ☐ OFF	44208.7	326		✓	✓
	3/13	☑ ON ☐ OFF	44231.6	326		✓	✓
	3/14	☑ ON ☐ OFF	44255	325		✓	✓
	3/18	☑ ON ☐ OFF	44281.4	325		✓	✓
	3/19	☑ ON ☐ OFF	44345.5	326		✓	✓
	3/20	☑ ON ☐ OFF	44370.2	325		✓	✓
	3/21	☑ ON ☐ OFF	44394.3	327		✓	✓
		☑ ON ☐ OFF	44423.1	326		✓	✓

ROUTINE SYSTEM CHECK
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK
ZONE: (1) 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CEM	Observations	PRE	Post
Ed	3/22	☑ ON ☐ OFF	44448.2	325		7	7
	3/23	☑ ON ☐ OFF	44514.2	326		7	7
	3/26	☑ ON ☐ OFF	44543.6	325		7	7
	3/27	☑ ON ☐ OFF	44560.4	325		7	7
	3/28	☑ ON ☐ OFF	44587.6	325		7	7
	3/29	☑ ON ☐ OFF	44617.1	326		7	7
	3/30	☑ ON ☐ OFF	44682.8	326		7	7
	4/1	☑ ON ☐ OFF	44705.4	327		7	7
	4/2	☑ ON ☐ OFF	44730.8	327		7	7
	4/3	☑ ON ☐ OFF	44779.3	324		7	7
	4/04	☑ ON ☐ OFF	44850.1	326		7	7
	4/8	☑ ON ☐ OFF	44876.3	324		7	7
	4/9	☑ ON ☐ OFF	44897.8	325		7	7
	4/10	☑ ON ☐ OFF	44916.4	325		7	7
	4/11	☑ ON ☐ OFF	44947.3	324		7	7
	4/11	☑ ON ☐ OFF	45041.7	324		7	7
	4/16	☑ ON ☐ OFF	45063.8	325		7	7
	4/17						

ROUTINE SYSTEM CHECK
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK
ZONE: (1) 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	Post
EC	[illegible]	☑ ON ☐ OFF					
EC	4/18	☑ ON ☐ OFF	450912	324		7	7
EC	4/19	☑ ON ☐ OFF	451140	324		7	7
EC	4/22	☑ ON ☐ OFF	451936	325		7	7
	4/23	☑ ON ☐ OFF	452174	325		7	7
	4/24	☑ ON ☐ OFF	452348	326		7	7
		☐ ON ☐ OFF					
	4/26	☑ ON ☐ OFF	452886	325		7	7
	4/30	☑ ON ☐ OFF	453783	325		7	7
	5/1	☑ ON ☐ OFF	454033	325		7	7
	5/2	☑ ON ☐ OFF	454273				
	5/3	☑ ON ☐ OFF	454505	325		7	7
	5/6	☑ ON ☐ OFF	455225	325		7	7
	5/7	☑ ON ☐ OFF	455440	326		7	7
	5/8	☑ ON ☐ OFF	456104	324		7	7
	5/9	☑ ON ☐ OFF	455942	322		7	7
	5/13	☑ ON ☐ OFF	456902	324			

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: (1) 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	Post
Ed Durack	5/14	☑ ON ☐ OFF	45714.0	325		7	7
Ed	5/16	☑ ON ☐ OFF	45761.5	322		7	7
Ed	5/17	☑ ON ☐ OFF	45786.4	324		7	7
	5/20	☑ ON ☐ OFF	45855.1	322		7	7
	5/21	☑ ON ☐ OFF	45881.1	322		7	7
	5/22	☑ ON ☐ OFF	459067	321		7	7
	5/23	☑ ON ☐ OFF	459300	322		7	7
	5/24	☑ ON ☐ OFF	45954.1	323		7	7
	5/28	☑ ON ☐ OFF	460502	321		7	7
	6/4	☑ ON ☐ OFF	462848	323		7	7
	6/10	☑ ON ☐ OFF	463821	325		7	7
	6/11	☑ ON ☐ OFF	463931.8	327		7	7
	6/18	☑ ON ☐ OFF	465604	322		7	7
	6/19	☑ ON ☐ OFF	465776	320		7	7
	8/24	☑ ON ☐ OFF	467053	328		7	7
	7/23	☑ ON ☐ OFF	473936	320		7	7
	8/6	☑ ON ☐ OFF	473940	320		7	7

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: (1) 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	Post
	8/7	☑ ON ☐ OFF	473984	325		7	7
	8/8	☑ ON ☐ OFF	474008	325		7	7
	8/9	☑ ON ☐ OFF	478085	314		7	7
	8/12	☑ ON ☐ OFF	478815	318		7	7
	8/27	☑ ON ☐ OFF	482342	314		7	7
	8/28	☑ ON ☐ OFF	482654	320		7	7
	8/29	☑ ON ☐ OFF	4889.1	320		7	7
	8/30	☑ ON ☐ OFF	4913.5	320		7	7
	9/2	☑ ON ☐ OFF	4961.1	325		7	7
	9/3	☑ ON ☐ OFF	4985.2	320		7	7
	9/4	☑ ON ☐ OFF	5009.1	325		7	7
	9/5	☑ ON ☐ OFF	50333	300		7	7
	9/6	☑ ON ☐ OFF	50775	315		7	7
	9/9	☑ ON ☐ OFF	5105.1	320		7	7
	9/10	☑ ON ☐ OFF	5124.3	321		7	7
	9/11	☑ ON ☐ OFF	5153.5	320		7	7
	9/12	☑ ON ☐ OFF	5177.0	320		7	7

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: (1) 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	POST
	9/13	☑ ON ☐ OFF	5201.7	320		7	7
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
	9/16	☑ ON ☐ OFF	48721.2	320		7	7
	9/17	☑ ON ☐ OFF	48745	320		7	7
	9/18	☑ ON ☐ OFF	48769.5	323		7	7
	9/19	☑ ON ☐ OFF		320		7	7
	9/20	☑ ON ☐ OFF		320		7	7
	9/23	☑ ON ☐ OFF		325		7	7
	9/24	☑ ON ☐ OFF		320		7	7
	9/25	☑ ON ☐ OFF	48929.5	324		7	7
	10/1	☑ ON ☐ OFF	49080.0	325		7	7
	10/2	☐ ON ☐ OFF	~~49104.0~~ 49004.0	325		7	7

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	Pre	Post
AA EO	10/3	☑ ON ☐ OFF	49150.8	328		7	7
	10/4	☑ ON ☐ OFF	49174.0	322		7	7
	10/7	☑ ON ☐ OFF	49222.8	322		7	7
	10/8	☑ ON ☐ OFF	49246.1	320		7	7
	10/9	☑ ON ☐ OFF	49270.5	320		7	7
	10/10	☑ ON ☐ OFF	49294.1	322		7	7
	10/11	☑ ON ☐ OFF	49318.9	322		7	7
	10/14	☑ ON ☐ OFF	49391.7	324		7	7
	10/15	☑ ON ☐ OFF	49408.7	322		7	7
	10/16	☑ ON ☐ OFF	49440.1	322		7	7
	10/17	☑ ON ☐ OFF	49486.7	322		7	7
	10/21	☑ ON ☐ OFF	49558.6	322		7	7
	10/22	☑ ON ☐ OFF	49580.2	324		7	7
	10/23	☑ ON ☐ OFF	49604	324		7	7
	10/24	☑ ON ☐ OFF	49628.1	322		7	7
	10/28	☑ ON ☐ OFF	49604	323		7	7
	10/29	☑ ON ☐ OFF	47744.1	232		7	7

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: (1) 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	Post
EC	10/30	☐ ON ☐ OFF	49776.5	324		7	7
	10/31	☑ ON ☐ OFF	49804.8	325		7	7
	11/1	☑ ON ☐ OFF	49816.7	332		7	7
	11/5	☑ ON ☐ OFF	49913.6	323		7	7
	11/6	☑ ON ☐ OFF	49931.06	323		7	7
	11/7	☑ ON ☐ OFF	49946.34	325		7	7
	11/8	☑ ON ☐ OFF	49986.3	324		7	7
	11/12	☑ ON ☐ OFF	50081.4	323		7	7
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well	Observations	PRE	Post
Ed Durant	12/27/12	☑ ON ☐ OFF	44409.3	285		10	10
	1/4/13	☑ ON ☐ OFF	44601.7	290		10	10
	1/10/13	☑ ON ☐ OFF	44754.3	300		10	10
	1/14/13	☑ ON ☐ OFF	44834.2	304		10	10
	1/15/13	☑ ON ☐ OFF	44857.2	294		10	10
	1/16/13	☑ ON ☐ OFF	44881.8	306		10	10
	1/17/13	☑ ON ☐ OFF	44907.4	301		10	10
	1/18/13	☑ ON ☐ OFF	44930.1	304		10	10
	1/22/13	☑ ON ☐ OFF	45027.2	304		10	10
	1/23/13	☑ ON ☐ OFF	45050.0	293		10	10
	1/24	☑ ON ☐ OFF	45080.4	295		10	10
	1/25	☑ ON ☐ OFF	45106.2	306		10	10
	1/28	☑ ON ☐ OFF	45170.6	301		10	10
	1/29	☑ ON ☐ OFF	45144.5	297		10	10
	1/30	☑ ON ☐ OFF	45226.2	269		10	10
	1/31	☑ ON ☐ OFF	45250.5	270		10	10
	2/1	☑ ON ☐ OFF	45274.7	268		10	10

ROUTINE SYSTEM CHECK
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK
ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	Post
Ed Durant	2/4/13	☑ ON ☐ OFF	45339.1	2969		10	10
	2/5/13	☑ ON ☐ OFF	45363.2	302		10	10
	2/6/13	☑ ON ☐ OFF	45397.5	300		10	10
	2/7/13	☑ ON ☐ OFF	45411.0	307		10	10
	2/8/13	☑ ON ☐ OFF	45435	310		10	10
	2/11/13	☑ ON ☐ OFF	45513.2	289	FUNNY SMELL (waste)	10	10
	2/12	☑ ON ☐ OFF	45534.6	296	FUNNY SMELL (waste)	10	10
	2/13	☑ ON ☐ OFF	45558.1	299	FUNNY SMELL WASTE	10	10
	2/14	☑ ON ☐ OFF	45585.8	300	"	10	10
	2/15	☑ ON ☐ OFF	45607.7	294	" "	10	10
	2/18	☑ ON ☐ OFF	45675.2	290	" "	10	10
	2/19	☑ ON ☐ OFF	45679.1	295	" "	10	10
	2/20	☑ ON ☐ OFF	45725	307		10	10
	2/21	☑ ON ☐ OFF	45751.8	309		10	10
	2/22	☑ ON ☐ OFF	45775	300		10	10
	2/25	☑ ON ☐ OFF	45850.1	305	SMELL IS FROM TRANSFORMER IN PANEL	10	10
	2/26	☑ ON ☐ OFF	45867.0	303		10	10

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	Pre	Post
EC	2/27	☑ ON ☐ OFF	45841.1	290		10	10
	2/28	☑ ON ☐ OFF	45922.1	300		10	10
	2/29	☑ ON ☐ OFF	45945.7	300		10	10
	3/1	☑ ON ☐ OFF	45945.7	308		10	10
	3/4	☑ ON ☐ OFF	460183	298		10	10
	3/5	☑ ON ☐ OFF	460422	305		10	10
	3/6	☑ ON ☐ OFF	46644.1	299		10	10
	3/7	☑ ON ☐ OFF	460848	296		10	10
	3/8	☑ ON ☐ OFF	46113.7	298		10	10
	3/11	☑ ON ☐ OFF	461788	263	odor from TRANSFORMER	10	10
	3/12	☑ ON ☐ OFF	462085	268	" " "	10	10
	3/13	☑ ON ☐ OFF	462326	306	" " "	10	10
	3/14	☑ ON ☐ OFF	462567	244		10	10
	3/15	☑ ON ☐ OFF	42281.1	300		10	10
	3/16	☑ ON ☐ OFF	46345.1	305		10	10
	3/18	☑ ON ☐ OFF	46377.5	290		10	10
	3/20	☑ ON ☐ OFF	46401.2	303		10	10

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well CFM	Observations	Pre	Post
	3/21	☑ ON ☐ OFF	46 4252	297		10	10
	3/22	☑ ON ☐ OFF	464488	293		10	10
	3/25	☑ ON ☐ OFF	463140	285		10	10
	3/26	☑ ON ☐ OFF	465456	297		10	10
	3/27	☑ ON ☐ OFF	465618	303		10	10
	3/28	☐ ON ☐ OFF	465875	287		10	10
	3/29	☑ ON ☐ OFF	466148	298		10	10
	4/1	☑ ON ☐ OFF	466825	294		10	10
	4/2	☑ ON ☐ OFF	467035.7	284		10	10
	4/3	☑ ON ☐ OFF	467306	284		10	10
	4/5	☑ ON ☐ OFF	467805	301		10	10
	4/8	☑ ON ☐ OFF	468498	291		10	10
	4/9	☑ ON ☐ OFF	468740	301		10	10
	4/10	☑ ON ☐ OFF	468975	298		10	10
	4/11	☑ ON ☐ OFF	469161	313		10	10
	4/12	☑ ON ☐ OFF	469471	300		10	10
	4/16	☑ ON ☐ OFF	470411	295		10	10

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations PRE	Post
	4/17	☑ ON ☐ OFF	470655	291	10	10
	4/18	☑ ON ☐ OFF	470904	301	10	10
	4/19	☑ ON ☐ OFF	471137	299	10	10
	4/22	☑ ON ☐ OFF	471934	303	10	10
	4/23	☑ ON ☐ OFF	472172	311	10	10
	4/24	☑ ON ☐ OFF	472353	303	10	10
		☐ ON ☐ OFF				
	4/26	☑ ON ☐ OFF	472882	292	10	10
	4/30	☑ ON ☐ OFF	472982	294	10	10
	5/1	☑ ON ☐ OFF	474031	305	10	10
	5/2	☑ ON ☐ OFF	474326	300	10	10
	5/3	☑ ON ☐ OFF	474571	304	10	10
	5/6	☑ ON ☐ OFF	475224	294	10	10
	5/7	☑ ON ☐ OFF	475464	292	10	10
	5/8	☑ ON ☐ OFF	475701	292	10	10
	5/9	☑ ON ☐ OFF	475940	304	10	10
	5/10	☑ ON ☐ OFF	476253	303	10	10

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	POST
	5/13	☑ ON ☐ OFF	47690	281		10	10
	5/14	☑ ON ☐ OFF	47713.7	300		10	10
	5/16	☑ ON ☐ OFF	47763	294		10	10
	5/17	☑ ON ☐ OFF	47786.2	292		10	10
	5/20	☑ ON ☐ OFF	47857.9	301		10	10
	5/21	☑ ON ☐ OFF	47888	293		10	10
	5/22	☑ ON ☐ OFF	47906.4	282		10	10
	5/23	☑ ON ☐ OFF	47924.3	297		10	10
	5/24	☑ ON ☐ OFF	47953.8	296		10	10
	5/28	☑ ON ☐ OFF	48050.2	308		10	10
	6/4	☑ ON ☐ OFF	48224.6	297		10	10
	6/10	☑ ON ☐ OFF	48361.7	314		10	10
	6/11	☑ ON ☐ OFF	48393.3	284		10	10
	6/12	☑ ON ☐ OFF	48417.5	284		10	10
	6/13	☑ ON ☐ OFF	48421.4	287		10	10
	6/14	☑ ON ☐ OFF	48463.4	280		10	10
	6/17	☑ ON ☐ OFF	48537.2	290		10	10

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	POST
	6/18	☑ ON ☐ OFF	48560.7	291		10.5	10
	6/19	☑ ON ☐ OFF	48584.7	300		10	10
	6/24	☑ ON ☐ OFF	48704.5	300		10	10
	6/25	☑ ON ☐ OFF	48728.5	291		10	10
	7/23	☑ ON ☐ OFF	49394	294		10	10
	8/6	☑ ON ☐ OFF	49736.1	300		10	10
	8/7	☑ ON ☐ OFF	49760.4	304		10	10
	8/8	☑ ON ☐ OFF	49784.5	304		10	10
	8/9	☑ ON ☐ OFF	49808.9	304		10	10
	8/12	☑ ON ☐ OFF	49881.3	295		10	10
	8/13	☑ ON ☐ OFF	49903.0	296		10	10
	8/14	☑ ON ☐ OFF	49927.7	296		10	10
	8/27	☑ ON ☐ OFF	50234.1	302		10	10
	8/28	☑ ON ☐ OFF	50265.2	294		10	10
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	POST
		☐ ON ☐ OFF				~~[illegible]~~	~~[illegible]~~
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
	4/16	☑ ON ☐ OFF	50720.9	304		10	10
	4/17	☑ ON ☐ OFF	50744.0	305		10	10
	4/18	☑ ON ☐ OFF	50768.4	304		10	10
	4/19	☑ ON ☐ OFF	50792.2	305		10	10

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	Pee	Post
	8/20	☑ ON ☐ OFF	5081 6.2	305		10	10
	8/23	☑ ON ☐ OFF	5084 0.5	300		10	10
	8/24	☑ ON ☐ OFF	5084 4.1	305		10	10
	8/25	☑ ON ☐ OFF	5093 00.0	299		10	10
	10/1	☑ ON ☐ OFF	5108 0.5	304		10	10
	10/2	☑ ON ☐ OFF	5110 4.1	304		10	10
	10/3	☑ ON ☐ OFF	5112 5.3	294		10	10
	10/4	☑ ON ☐ OFF	5114 9.0	294		10	10
	•10/7	☑ ON ☐ OFF	5116 7.2	300		10	10
	10/8	☑ ON ☐ OFF	5129 0.1	302		10	10
	10/9	☑ ON ☐ OFF	5131 4.2	301		10	10
	10/10	☑ ON ☐ OFF	5133 8.0	295		10	10
	10/11	☑ ON ☐ OFF	5136 2.1	302		10	10
	•10/14	☑ ON ☐ OFF	5138 6.7	302		10	10
	10/15	☑ ON ☐ OFF	5141 0.6	302		10	10
	10/16	☑ ON ☐ OFF	5144 0.8	314		10	10
	10/17	☑ ON ☐ OFF	5145 8.7	295		10	10

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well Observations	PRe	Post
	10/18	☑ ON ☐ OFF	5148 7.7	300	10	10
	10/21	☑ ON ☐ OFF	5155 9.7	300	10	10
	10/22	☑ ON ☐ OFF	5158 3.1	300	10	10
	10/23	☑ ON ☐ OFF	5160 3.1	299	10	10
	10/24	☑ ON ☐ OFF	5162 8.2	309	10	10
	10/25	☑ ON ☐ OFF	5163 8.1	309	10	10
	10/26	☑ ON ☐ OFF	↑ 0 ↑	309	10	10
~~[illegible]~~	~~[illegible]~~	☐ ON ☐ OFF	5172 1.9	X X X		
	10/29	☑ ON ☐ OFF	5174 5.1	303	10	10
	10/30	☑ ON ☐ OFF	5177 7.2	337	10	10
	10/31	☑ ON ☐ OFF	5179 4.3	327	10	10
	11/1	☑ ON ☐ OFF	5181 7.1	333	10	10
	11/5	☑ ON ☐ OFF	5191 4.6	330	10	10
	11/6	☑ ON ☐ OFF	5193 2.6	340	10	10
	11/7	☑ ON ☐ OFF	5196 3.0	337	10	10
	11/8	☑ ON ☐ OFF	5198 7.3	340	10	10
	11/12	☑ ON ☐ OFF	5208 2.4	346	10	10

ROUTINE SYSTEM CHECK
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK
ZONE: 1 2 (3) 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	TOTAL well Observations	PRE	Post
ED.	12/26	☑ ON ☐ OFF	34843.5	226 451	13.5	13.5
	1/4	☑ ON ☐ OFF	35061.2	236 504	13.5	13.5
	1/10	☑ ON ☐ OFF	35204.	241 514	13.5	13.5
	1/14	☑ ON ☐ OFF	35293.5	236 505	13.5	13.5
	1/15	☑ ON ☐ OFF	35317.4	234 519	13.5	14
	1/16	☑ ON ☐ OFF	353413	235 500	13.5	14
	1/17	☑ ON ☐ OFF	353670	234 501	13.5	14
	1/18	☑ ON ☐ OFF	353897	238 526	13.5	14
	1/22	☑ ON ☐ OFF	354586?	244 556	13.5	14
	1/23	☑ ON ☐ OFF	355095	244 560	13.5	14
	1/24	☑ ON ☐ OFF	355534.0	246 574	13.5	14
	1/25	☑ ON ☐ OFF	355680	249 580	13.5	14
	1/28	☑ ON ☐ OFF	356050	248 584	13.5	14
	1/29	☑ ON ☐ OFF	356420.	249 580	13	14
	1/29-30	☑ ON ☐ OFF	356852.1	247 566	13	14
	1/31	☑ ON ☐ OFF	357248.	248 560		
	RG-1	☐ ON ☐ OFF	357648	248 560		

ROUT .NE SYSTEM CHECK
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK
ZONE: 1 2 (3) 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well CFM	Total CFM	Observations	PRE	POST
Ed	2/4	☒ ON ☐ OFF	35748.2	247	247		13.5	14
	2/5	☒ ON ☐ OFF	35822.2	261	247		13.5	14
	2/6	☒ ON ☐ OFF	35846.2	560	288		13.5	14
	2/7	☒ ON ☐ OFF	35870.2	509	248		13.5	14
	2/8	☒ ON ☐ OFF	35944.2	566	246		13.5	14
	2/11	☒ ON ☐ OFF	35968.2	542	241		13.5	14
	2/12	☒ ON ☐ OFF	35943.2	550	239		13.5	14
	2/13	☒ ON ☐ OFF	36014.2	555	242		13.5	14
	2/14	☐ ON ☐ OFF	36038.2	554	240		13.5	14
	2/15	☒ ON ☐ OFF	36061.2	550	240		13.5	14
	2/19	☒ ON ☐ OFF	36157.2	562	244		13.5	14
	2/20	☒ ON ☐ OFF	36182.2	570	246		13.5	14
	2/21	☒ ON ☐ OFF	36207.2	566	245		13.5	14
	2/22	☒ ON ☐ OFF	36231	560	244		13.5	14
	2/25	☒ ON ☐ OFF	36304.2	577	249		13.5	14
	2/26	☐ ON ☐ OFF	36333.2	570	249		13.5	14
	2/27	☐ ON ☐ OFF	36357	560	250			

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 (3) 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well	Total	Observations	Pre	Post
	2/28	☑ ON ☐ OFF	36381.2	520	236		13.5	14
	2/29	☑ ON ☐ OFF	36404.5	521	235		13.5	14
	3/01	☑ ON ☐ OFF	36434.6	539	236		13.5	14
	3/04	☑ ON ☐ OFF	36476.4	560	240		13.5	14
	3/5	☑ ON ☐ OFF	36501.?	555	243		13.5	14
	3/6	☑ ON ☐ OFF	36525.?	555	242		13.5	14
	3/7	☑ ON ☐ OFF	36548.5	558	243		13.5	14
	3/8	☑ ON ☐ OFF	36573.2	556	234		13.5	14
	3/11	☑ ON ☐ OFF	36638.?	449	217		13.5	14
	3/12	☑ ON ☐ OFF	36660.?	511	234		13.5	14
	3/13	☑ ON ☐ OFF	36686.3	522	234		13.5	14
	3/14	☑ ON ☐ OFF	3711.?	517	234		13.5	14
	3/15	☑ ON ☐ OFF	36735.?	522	237		13.5	14
	3/18	☑ ON ☐ OFF	36804.5	539	237		13.5	14
	3/19	☑ ON ☐ OFF	36831.6	521	230		13.5	14
	3/20	☑ ON ☐ OFF	36855.?	513	233		13.5	14
	3/21	☑ ON ☐ OFF	36878.1	514	233		13	14

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 (3) 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well CFM	Observations		
					Total	Pre	Post
EC	3/22	☑ ON ☐ OFF	36908.3	518	236	13	14
	3/25	☑ ON ☐ OFF	36934.4	530	234	13	14
	3/26	☑ ON ☐ OFF	36972.4	550	234	13	14
	3/27	☑ ON ☐ OFF	370206	534	239	13	14
	3/28	☑ ON ☐ OFF	37047.2	444	281	13	14
	3/29	☑ ON ☐ OFF	37069.0	474	285	13	14
	4/1	☑ ON ☐ OFF	37142.5	504	258	13	14
	4/2	☐ ON ☐ OFF	37165.?	517	260	13.5	14
	4/3	☑ ON ☐ OFF	37189	510	261	13.5	14
	4/5	☑ ON ☐ OFF	37241.?	508	260	13.5	14
	4/8	☑ ON ☐ OFF	37305.3	500	255	13.5	14
	4/9	☑ ON ☐ OFF	37335.0	502	257	13.5	14
	4/10	☑ ON ☐ OFF	37357.0	494	255	13.5	14
	4/11	☑ ON ☐ OFF	37375.2	486	251	13.5	14
	4/12	☑ ON ☐ OFF	37406.0	452	241	13.5	14
	4/16	☑ ON ☐ OFF	37501.2	494	253	13.5	14
	4/17	☑ ON ☐ OFF	37525.6	484	252	13.5	14

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 (3) 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM Well	CFM Total	Observations	Filters PRE	Filters Post
Ed Dumont	4/18	☑ ON ☐ OFF	37549.9	482	253		13	14
	4/19	☑ ON ☐ OFF	37573.2	486	250		13.5	14
	4/22	☑ ON ☐ OFF	37652.4	482	252		13.5	14
	4/23	☑ ON ☐ OFF	37 67?.0	474	254		13.5	14
	4/24	☑ ON ☐ OFF	37 694.6	480	250		13.5	14
		☐ ON ☐ OFF						
	4/26	☑ ON ☐ OFF	37747.7	481	253		13.5	14
	5/1	☑ ON ☐ OFF	37862.7	465	253		13.5	14
	5/2	☑ ON ☐ OFF	37892.0	482	251		13.5	14
	5/3	☑ ON ☐ OFF	37910.5	488	250		13.5	14
	5/6	☑ ON ☐ OFF	37981.5	474	250		13.5	14
	5/7	☑ ON ☐ OFF	380008	478	248		13.5	14
	5/8	☑ ON ☐ OFF	380030.2	405	238		13.5	14
	5/9	☑ ON ☐ OFF	380530	413	236		13.5	14
	5/10	☑ ON ☐ OFF	380840	420	238		13.5	14
	5/13	☑ ON ☐ OFF	38149..	423	240		13.5	14
	5/14	☑ ON ☐ OFF	38173.0	436	241		13.5	14

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 (3) 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM Well	Observations	Filters PRE	Filters POST
EDWARD	~~5/15~~ 5/16	☑ ON ☐ OFF	38221.0	418	235	12	13
	5/17	☐ ON ☐ OFF	38245.0	422	241	12.5	13
	5/20	☑ ON ☐ OFF	38317.3	370	236	13	13.5
	5/21	☑ ON ☐ OFF	38342.0	434	215	13	13.5
	5/22	☑ ON ☐ OFF	38365.0	445	214	13	13.5
	5/23	☑ ON ☐ OFF	38388.0	404	215	13	13.5
	5/24	☑ ON ☐ OFF	38409.5	412	214	13	13.5
	6/4	☑ ON ☐ OFF	38484.0	371	210	13	13.5
	6/10	☑ ON ☐ OFF	38521.6	240	~~195~~ 195	13	13.5
	6/11	☑ ON ☐ OFF	38557.7	263	193	14	14.5
	6/12	☑ ON ☐ OFF	38586.5	243	194	14	14.5
	6/13	☑ ON ☐ OFF	38900	260	191	14	14.5
	6/14	☑ ON ☐ OFF	38920.5	247	191	13.5	14
	6/17	☑ ON ☐ OFF	38996.0	277	195	13.5	14
	6/18	☑ ON ☐ OFF	39020.1	267	194	13.5	14
	6/19	☑ ON ☐ OFF	39044.0	331	196	13.5	14
	6/24	☑ ON ☐ OFF	39164.0	242	196	13.5	14

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 (3) 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM Well	CFM Total	Observations	Filter PRE	Filter POST
EDUARDO	7/1/13	☑ ON ☐ OFF	39332.4	264	192	13.5	14	
	7/22/13	☑ ON ☐ OFF	39852.5	236	195	13.5	14	
	8/6	☑ ON ☐ OFF	3998.1	236	195	13.5	14	
	8/7	☑ ON ☐ OFF	40202	230	200	13.5	14	
	8/8	☑ ON ☐ OFF	40244.1	260	201	13.5	14	
	8/9	☑ ON ☐ OFF	40268.2	260	201	13.5	14	
	8/12	☑ ON ☐ OFF	40340.2	271	202	13.5	14	
	8/13	☑ ON ☐ OFF	40363.5	271	202	13.5	14	
	8/14	☑ ON ☐ OFF	40387.1	284	200	13.5	14	
	8/27	☑ ON ☐ OFF	40693.1	240	205	13.5	14	
	8/28	☑ ON ☐ OFF	40717.7	241	204	13.5	14	
	8/29	☑ ON ☐ OFF	40748.0	290	204	13.5	14	
	8/30	☑ ON ☐ OFF	40772.5	300	200	13.5	14	
	9/2	☑ ON ☐ OFF	40796.1	270	205	13.5	14	
	9/3	☑ ON ☐ OFF	40820.3	270	200	13.5	14	
	9/4	☑ ON ☐ OFF	40844.1	200	200	13.5	14	
	9/5	☑ ON ☐ OFF	40868.5	270	205	13.5	14	

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 (3) 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well	Total	Observations	Pre	Post
	9/6	☑ ON ☐ OFF	410892.1	244	209		13.5	14
	9/9	☑ ON ☐ OFF	40940.5	230	200		13.5	14
	9/10	☑ ON ☐ OFF	40964.0	230	209		13.5	14
	9/11	☑ ON ☐ OFF	40988.1	230	209		13.5	14
	9/12	☑ ON ☐ OFF	41012.5	230	209		13.5	14
	9/13	☑ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
	9/16	☑ ON ☐ OFF	41180.9	311	209		13.5	14
	9/17	☑ ON ☐ OFF	41227.3	316	209		13	14
	9/18	☑ ON ☐ OFF	41251.4	316	212		13	14
	9/19	☑ ON ☐ OFF	41275.2	316	212		13	14
	9/20	☑ ON ☐ OFF	41299.4	318	211		13	14

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 (3) 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well	TOTAL	Observations	Pre	Post
	9/23	☑ ON ☐ OFF	4341.5	320	210		13.5	14
	9/24	☑ ON ☐ OFF	4365.5	333	202		13.5	14
	9/25	☑ ON ☐ OFF	4389.2	330	211		13.5	14
	9/26	☑ ON ☐ OFF	4412.1	330	209		13.5	14
	10/1	☑ ON ☐ OFF	4540.5	335	210		13.5	14
	10/2	☑ ON ☐ OFF	4564	335	210		13.5	14
	10/3	☑ ON ☐ OFF	4584.0	324	209		13.5	14
	10/4	☑ ON ☐ OFF	4608.0	324	209		13.5	14
	10/7	☑ ON ☐ OFF	4646.1	320	210		13.5	14
	10/8	☑ ON ☐ OFF	4668 0.0	323	210		13.5	14
	10/9	☑ ON ☐ OFF	4704.0	324	210		13.5	14
	10/10	☑ ON ☐ OFF	4728.1	324	209		13.5	14
	10/11	☑ ON ☐ OFF	4756.0	325	209		13.5	14
	10/14	☑ ON ☐ OFF	4780.1	324	210		13.5	14
	10/15	☑ ON ☐ OFF	4820.2	324	209		13.5	14
	10/16	☑ ON ☐ OFF	4849.0	349	213		13.5	14
	10/17	☑ ON ☐ OFF	4923.2	349	213		13.5	14

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 (3) 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well	Total	Observations	PRE	Post
BC	10/18	☑ ON ☐ OFF	419478	356	216		13.5	14
	10/21	☑ ON ☐ OFF	42020.0	371	219		13.5	14
	10/22	☑ ON ☐ OFF	42036.4	346	219		13.5	14
	10/23	☑ ON ☐ OFF	42061.2	376	221		13.5	14
	10/24	☑ ON ☐ OFF	42088.0	405	225		13.5	14
	10/25	☑ ON ☐ OFF	42112.5	405	225		13.5	14
	10/28	☑ ON ☐ OFF	42221.1	378	232		13.5	14
	10/29	☑ ON ☐ OFF	42205.1	378	233		13.5	14
	10/30	☑ ON ☐ OFF	42236.2	378	230		13.5	14
	10/31	☑ ON ☐ OFF	42253.5	394	230		13.5	14
	11/1	☑ ON ☐ OFF	42276.2	384	228		13.5	14
	11/5	☑ ON ☐ OFF	42374.2	424	238		13.5	14
	11/6	☑ ON ☐ OFF	42392.	424	234		13.5	14
	11/7	☑ ON ☐ OFF	42422.5	424	235		13.5	14
	11/8	☑ ON ☐ OFF	42445.	424	235		13.5	14
	11/12	☑ ON ☐ OFF	42541.5	444	240		13.5	14
		☐ ON ☐ OFF						

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 (4) (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM Total	CFM Well	Observations	PRE	Post
EC	1/14/13	☑ ON ☐ OFF	439904	248	428		4	4.0
	1/15	☑ ON ☐ OFF	440410	250	431		4	4.5
	1/16	☑ ON ☐ OFF	440383	249	428		4	4.0
	1/17	☑ ON ☐ OFF	440627	250	433		4	4.5
	1/18	☑ ON ☐ OFF	440840	250	425		4	4.5
	1/22	☑ ON ☐ OFF	440421	250	427		4	4.5
	1/23	☑ ON ☐ OFF	441978	248	437		4	4.5
	1/24	☑ ON ☐ OFF	442210	250	434		4	4.0
	1/25	☑ ON ☐ OFF	442445	249	430		4	4.5
	1/28	☑ ON ☐ OFF	443140	251	435		4	4.5
	1/29	☑ ON ☐ OFF	443514	245	446		4	4.5
	1/30	☑ ON ☐ OFF	443655	250	437		4	4.5
	1/31	☑ ON ☐ OFF	443896	251	434		4	4.5
	2/1	☑ ON ☐ OFF	444132	250	438		4	4.5
	2/4	☑ ON ☐ OFF	444571	250	427		4	4.5
	2/5	☑ ON ☐ OFF	445119	255	426		4	4.5
	2/6	☑ ON ☐ OFF	445352	250	437		4	4.5

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM Total	CFM Well	Observations	Pre	Post
EC	2/7	☑ ON ☐ OFF	44359.0	248	428		4	4.5
	2/8	☑ ON ☐ OFF	44583.2	250	437		4	4.5
	2/11	☑ ON ☐ OFF	44661.4	250	426		4	4.5
	2/12	☑ ON ☐ OFF	44685.5	250	427		4	4.5
	2/13	☑ ON ☐ OFF	44709.8	248	420		4	4.5
	2/14	☑ ON ☐ OFF	44731.0	251	425		4	4.5
	2/15	☑ ON ☐ OFF	44755.3	250	425		4	4.5
	2/19	☑ ON ☐ OFF	44779.5	249	420		4	4.5
	2/20	☑ ON ☐ OFF	44803.9	240	425		4	4.5
	2/21	☑ ON ☐ OFF	44843.5	251	424		4	4.5
	2/22	☑ ON ☐ OFF	44917.9	250	424		4	4.5
	2/25	☑ ON ☐ OFF	44989.5	251	427		4	4.5
	2/26	☑ ON ☐ OFF	45013.7	250	428		4	4.5
	2/27	☑ ON ☐ OFF	45037.6	249	426		4	4.5
	2/28	☑ ON ☐ OFF	45061.5	249	425		4	4.5
	3/1	☑ ON ☐ OFF	45085.4	249	420		4	4.5
	3/4	☑ ON ☐ OFF	45160.4	250	426		4	4.5

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Total CFM	Well Observations	PRE	Post
Edward S. Dunn	3/5	☑ ON ☐ OFF	45181.6	251	427	4.5	4.5
	3/6	☑ ON ☐ OFF	45205.5	251	427	4.5	4.5
	3/7	☑ ON ☐ OFF	45230.0	251	430	4.5	4.5
	3/8	☑ ON ☐ OFF	45254.1	250	432	4.5	4.0
	3/11	☑ ON ☐ OFF	45324.2	249	424	4	4.5
	3/12	☑ ON ☐ OFF	45358.4	250	425	4	4.5
	3/13	☑ ON ☐ OFF	45376.2	250	414	4	4.3
	3/14	☑ ON ☐ OFF	45396.7	250	424	4	4.5
	3/15	☑ ON ☐ OFF	45420.7	251	428	4	4.5
	3/16	☑ ON ☐ OFF	45492.6	250	433	4	4.5
	3/19	☑ ON ☐ OFF	45517.6	250	431	4	4.5
	3/20	☑ ON ☐ OFF	45540.6	250	430	4	4.5
	3/21	☑ ON ☐ OFF	45566.8	251	431	4	4.5
	3/22	☑ ON ☐ OFF	45589.0	250	434	4	4.5
	3/25	☑ ON ☐ OFF	45667.0	250	433	4	4.5
	3/26	☑ ON ☐ OFF	45691.5	251	430	4	4.5
	3/27	☑ ON ☐ OFF	45708.5	249	425	4	4.5

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well	TOA	Observations Pre	Post
	3/27	☑ ON ☐ OFF	45709.5	430	250	4	4.5
	3/28	☑ ON ☐ OFF	45733.9	430	250	4	4.5
	3/29	☑ ON ☐ OFF	45752.5	430	251	4	4.5
	4/1	☑ ON ☐ OFF	45830.9	431	250	4	4.5
	4/2	☑ ON ☐ OFF	45853.2	429	252	4	4.5
	4/3	☑ ON ☐ OFF	45878.4	426	252	4	4.5
	4/5	☑ ON ☐ OFF	45933.4	429	250	4	4.5
	4/8	☑ ON ☐ OFF	45997.4	429	251	4	4.5
	4/9	☑ ON ☐ OFF	46023.6	438	251	4	4.5
	4/10	☑ ON ☐ OFF	46054.2	428	250	4	4.5
	4/11	☑ ON ☐ OFF	46063.7	426	249	4	4.5
	4/12	☑ ON ☐ OFF	46094.6	433	251	4	4.5
	4/16	☑ ON ☐ OFF	46189.5	435	250	4	4.5
	4/17	☑ ON ☐ OFF	46214.0	428	248	4	4.5
	4/18	☑ ON ☐ OFF	46240.3	429	250	4	4.5
	4/19	☑ ON ☐ OFF	46261.3	431	250	4	4.3
	4/22	☑ ON ☐ OFF	46285.5	431	250	4	4.5

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM Well	CFM Total	Observations	Pressure (in) Pre	Pressure (in) Post
EC	4/23	☑ ON ☐ OFF	463575	422	251		4	4.5
EC	4/30	☑ ON ☐ OFF	465270	425	251		4	4.5
	5/1	☑ ON ☐ OFF	466561.2	425	250		4	4.5
	5/2	☑ ON ☐ OFF	467973.6	426	251		4	4.5
	5/3	☑ ON ☐ OFF	469604.6	421	251		4	4.5
	5/6	☑ ON ☐ OFF	466609.6	422	250		4	4.5
	5/7	☑ ON ☐ OFF	464496.2	425	251		4	4.5
	5/8	☑ ON ☐ OFF	467183.8	424	250		4	4.5
	5/9	☑ ON ☐ OFF	467418	432	250		4	4.5
	5/13	☑ ON ☐ OFF	468376	426	250		4	4.5
	5/14	☑ ON ☐ OFF	468614	425	250		4	4.5
	5/16	☑ ON ☐ OFF	469040	424	251		4	4.5
	5/17	☑ ON ☐ OFF	469340	427	251		4	4.5
	5/20	☑ ON ☐ OFF	470056	418	250		4	4.5
	5/21	☑ ON ☐ OFF	470305	414	250		4	4.5
	5/22	☑ ON ☐ OFF	470554	414	250		4	4.5
	5/23	☑ ON ☐ OFF	470776	416	250		4	4.5

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM Well	CFM Total	Observations	Filters Pre	Filters Post
EA	5/24	☐ ON ☐ OFF	47101.5	427	248		4	5
EC	5/25	☑ ON ☐ OFF	47198.1	426	251		4	5
	6/4	☑ ON ☐ OFF	47372.2	421	250		4	5
	6/11	☑ ON ☐ OFF	47536.1	435	250		4	4.5
	6/12	☑ ON ☐ OFF	47560.2	435	250		4	4.5
	6/13	☑ ON ☐ OFF	47584.8	426	250		4	4.5
	6/14	☑ ON ☐ OFF	47611.4	433	248		4	4.5
	6/17	☑ ON ☐ OFF	47674.5	433	251		4	4.5
	7/1	☑ ON ☐ OFF	48012.5	430	251		4	4.5
	7/23	☑ ON ☐ OFF	48541.1	426	251		4	4.5
	7/24	☑ ON ☐ OFF	48689.0	425	251		4	4.5
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 (4) (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Total CFM	Observations	PRE	Post
	8/27	☑ ON ☐ OFF	4938 1.5	252	451	4	5
	8/29	☑ ON ☐ OFF	4943 44	0250	446	4	5
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
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		☐ ON ☐ OFF					
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 (4) (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Total	well	Observations	Pre	Post
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
	4/18	☑ ON ☐ OFF	4993.5.5	250	450		4	4.5
	4/19	☑ ON ☐ OFF	4995.0	250	440		4	4.5
	4/20	☑ ON ☐ OFF	4996.3.2	250	450		4	4.5
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
	4/23	☑ ON ☐ OFF	5002.9.5	250	400		4	4.5
	4/24	☑ ON ☐ OFF	5005.3.0	250	440		4	4.5
	4/25	☑ ON ☐ OFF	5007.7.2	250	442		4	4.5
	4/26	☑ ON ☐ OFF	5010.1.2	250	442		4	4.5
	4/27	☑ ON ☐ OFF	5012.5.4	249	445		4	4.5
	10/1	☑ ON ☐ OFF	5022.8.5	252	446		4	4.5
	10/2	☑ ON ☐ OFF	5024.8.7	253	444		4	4.5
	10/3	☑ ON ☐ OFF	5027.2.8	253	444		4	4.5

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well	Total Observations	Pre	Post
	10/4	☑ ON ☐ OFF	50296.0	450	252	4	4.5
	10/7	☑ ON ☐ OFF	50344.1	451	252	4	4.5
	10/8	☑ ON ☐ OFF	50368.7	452	250	4	4.5
	10/9	☑ ON ☐ OFF	50392.1	450	250	4	4.5
	10/10	☑ ON ☐ OFF	50416.2	451	252	4	4.5
	10/11	☑ ON ☐ OFF	50440.1	450	250	4	4.5
	10/14	☑ ON ☐ OFF	50488.2	452	252	4	4.5
	10/15	☑ ON ☐ OFF	50558.2	452	252	4	4.5
	10/16	☑ ON ☐ OFF	50583.7	442	252	4	5
	10/17	☑ ON ☐ OFF	50604.8	451	251	4	5
	10/18	☑ ON ☐ OFF	50628.1	450	250	4	5
	10/21	☑ ON ☐ OFF	50695.7	450	250	4	5
	10/22	☑ ON ☐ OFF	50728.0	448	253	4	5
	10/23	☑ ON ☐ OFF	50750.2	446	252	4	5
	10/24	☑ ON ☐ OFF	50776.5	444	253	4	5
	10/25	☑ ON ☐ OFF	50800.2	444	253	4	5
	10/28	☑ ON ☐ OFF	50848	444	253	4	5

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well	Total	Observations	Pre	Post
CD	10/29	☑ ON ☐ OFF	50893.7	445	252		4.5	5
	10/30	☑ ON ☐ OFF	5091 7.5	444	252		4.5	5
	10/31	☑ ON ☐ OFF	50941.7	448	253		4.5	5
	11/1	☑ ON ☐ OFF	50964.7	445	251		4.5	5
	11/5	☑ ON ☐ OFF	51062.3	449	253		4.5	5
	11/6	☑ ON ☐ OFF	51080.3	450	253		4.5	5
	11/7	☑ ON ☐ OFF	51110.5	448	253		4.5	5
	11/8	☑ ON ☐ OFF	51134.9	444	251		4.5	4
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						

Appendix C - Monitoring Well Sampling Logs

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Shaping the Future

Well Sampling Log

Project Number: 015.75420.0016		**Client:** Avalon Bay	**Well No.:** MW2
Project Location: Queens West Parcel 9, Long Island City, NY		**Sampled By:** John Mascioli	
Date: March 28, 2013		**Sampling Time:** 14:10	
PID at surface: 0.0			
Total Depth: ~~28~~ 32.1	ft. below top of casing	**Water Column (WC):** 24.08 feet	* = 0.163 * WC for 2" wells
Depth to Water: 8.02	ft. below top of casing	**Well Volume*:** 3.93 gallons	* = 0.653 * WC for 4" wells
Depth to Product: —	ft. below top of casing	**Volume Purged:** 0.53 gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~ 18	ft. below top of casing	**Well Diameter:** 2 inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~ 33	ft. below top of casing	**Pump Type:** SS Monsoon Pump	
Approx. Pump Intake: ~ 25	ft. below top of casing	**Field Screening Instrument:** Horiba U-52	

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
1355	9.95	~100	13.22	1.03	11.55	7.40	10	5.0	
1400	9.72		13.81	1.02	11.52	7.40	15	10.1	
1405	9.64	↓	14.25	1.27	11.57	7.41	14	10.9	
1410	9.60		15.44	2.27	12.05	7.32	12	15.6	Pre sample
1415	9.53	↓	15.50	3.14	12.10	7.31	10	25.1	Post samp
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

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Well Sampling Log

Project Number: 015.75420.0016	**Client:** Avalon Bay		**Well No.:** MW-8
Project Location: Queens West Parcel 9, Long Island City, NY	**Sampled By:** John Mascioli		
Date: March 28, 2013	**Sampling Time:** 1335		
PID at surface: 0.0			
Total Depth: 29.25 ft. below top of casing	**Water Column (WC):** 19.15 feet		* = 0.163 * WC for 2" wells
Depth to Water: 10.1 ft. below top of casing	**Well Volume*:** 3.12 gallons		* = 0.653 * WC for 4" wells
Depth to Product: — ft. below top of casing	**Volume Purged:** 1.32 gallons		* = 1.469 * WC for 6" wells
Depth to top of screen: ~ 5 ft. below top of casing	**Well Diameter:** 2 inches		Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~ 30 ft. below top of casing	**Pump Type:** SS Monsoon Pump		
Approx. Pump Intake: ~ 20 ft. below top of casing	**Field Screening Instrument:** Horiba U-52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
1250	10.2	~100	12.01	1.78	6.01	8.29	61	21.6	
1255	10.25		12.14	1.75	12.46	7.95	67	21.8	
1300	10.27		12.30	1.74	12.66	7.82	63	21.6	
1305	10.32		12.52	1.75	12.30	7.74	41	13.9	
1310	10.34		12.58	1.75	12.05	7.64	28	11.8	
1315	10.34		13.01	1.80	11.33	7.59	-4	11.9	
1320	10.35		13.16	1.87	11.26	7.59	-14	10.7	
1325	10.36		13.32	1.97	11.34	7.56	-12	10.8	
1330	10.37		13.39	1.01	11.41	7.63	-14	10.1	
1335	10.38		12.88	.802	11.45	7.65	-15	9.9	Pre sample
1340	10.39	↓	12.75	1.05	11.69	7.67	-12	15.1	Post sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

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Well Sampling Log

Project Number: 015.75420.0016		**Client:** Avalon Bay	**Well No.:** MW 11R
Project Location: Queens West Parcel 9, Long Island City, NY		**Sampled By:** John Mascioli	
Date: March 28, 2013		**Sampling Time:** 10:00	
PID at surface: 0.0			
Total Depth: 20.20	ft. below top of casing	**Water Column (WC):** 9.25 feet	* = 0.163 * WC for 2" wells
Depth to Water: 10.95	ft. below top of casing	**Well Volume*:** 1.51 gallons	* = 0.653 * WC for 4" wells
Depth to Product: —	ft. below top of casing	**Volume Purged:** 0.79 gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~ 5	ft. below top of casing	**Well Diameter:** 2 inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~ 20	ft. below top of casing	**Pump Type:** SS Monsoon Pump	
Approx. Pump Intake: ~ 14	ft. below top of casing	**Field Screening Instrument:** Horiba U-52	

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
9:30	10.98	~ 100	11.61	0.888	1.74	7.92	136	73.9	
9:35	10.98	↓	11.73	0.879	1.65	7.87	138	69.6	
9:40	10.97		13.04	0.868	1.36	7.64	141	44.1	
9:45	10.97		13.19	0.869	1.27	7.60	139	35.4	
9:50	10.98		13.28	0.868	1.23	7.59	138	42.4	
9:55	10.98		13.45	0.868	1.21	7.59	137	39.9	
9:57	10.98		13.60	0.868	1.20	7.59	137	40.0	Pre sample
10:00	10.99		13.61	0.869	1.20	7.59	136	39.6	Post sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

MS/MSD collected

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Shaping the Future

Well Sampling Log

Project Number: 015.75420.0016	**Client:** Avalon Bay		**Well No.:** 12R
Project Location: Queens West Parcel 9, Long Island City, NY	**Sampled By:** John Mascioli		
Date: March 28, 2013	**Sampling Time:** 9:15		
PID at surface: 0.0			
Total Depth: 17.9 ft. below top of casing	**Water Column (WC):** 7.87 feet		* = 0.163 * WC for 2" wells
Depth to Water: 10.03 ft. below top of casing	**Well Volume*:** 1.28 gallons		* = 0.653 * WC for 4" wells
Depth to Product: — ft. below top of casing	**Volume Purged:** 1.32 gallons		* = 1.469 * WC for 6" wells
Depth to top of screen: ~ 3 ft. below top of casing	**Well Diameter:** 2 inches		Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~ 18 ft. below top of casing	**Pump Type:** SS Monsoon Pump		
Approx. Pump Intake: ~ 13 ft. below top of casing	**Field Screening Instrument:** Horiba U-52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
8:30	10.03	~100	9.48	0.744	14.43	7.01	175	800	
8:35	12.40		9.98	0.733	13.49	7.50	173	600	
8:40	12.41		9.96	0.731	13.18	7.58	170	495	
8:45	12.41		10.89	0.721	11.76	7.80	87	247	
8:50	12.42		10.83	0.719	11.22	7.83	79	97	
8:55	12.44		10.83	0.717	11.06	7.84	75	49	
9:00	12.44		10.77	0.721	11.61	7.84	75	40	
9:05	12.45		10.83	0.721	11.98	7.81	76	39.5	
9:10	12.46		11.00	0.720	11.79	7.85	74	32.1	
9:15	12:47		11.11	0.723	11.62	7.85	71	35.2	Pre sample
9:20	12:48		11.12	0.724	11.64	7.96	70	34.7	Post sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

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Well Sampling Log

Project Number: 015.75420.0016			**Client:** Avalon Bay		**Well No.:** MW 14
Project Location: Queens West Parcel 9, Long Island City, NY			**Sampled By:** John Mascioli		
Date: March 28, 2013			**Sampling Time:** 1045		
PID at surface: 5.10					
Total Depth: 18.05	ft. below top of casing		**Water Column (WC):** 10.06	feet	* = 0.163 * WC for 2" wells
Depth to Water: 7.99	ft. below top of casing		**Well Volume*:** 1.64	gallons	* = 0.653 * WC for 4" wells
Depth to Product: —	ft. below top of casing		**Volume Purged:** 0.92	gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~ 5	ft. below top of casing		**Well Diameter:** 2	inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~ 19	ft. below top of casing		**Pump Type:** SS Monsoon Pump		
Approx. Pump Intake: ~ 13	ft. below top of casing		**Field Screening Instrument:** Horiba U-52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
10:15	7.99	~100	10.04	3.42	5.40	7.30	-112	402	
10:20	8.18	↓	9.82	3.43	8.89	6.98	-108	230	
10 25	8.19		9.99	3.49	8.40	6.94	-110	116	
10 30	8.22		10.10	3.53	7.05	6.93	-114	32	
10 35	8.22		10.15	3.53	7.04	6.93	-115	20.5	
1040	8.24		10.23	3.52	6.80	6.92	-116	11.4	
10 45	8.26		10.24	3.52	6.79	6.92	-117	10.9	Duplicate
1050	8.25	↓	10.26	3.52	6.78	6.94	-117	10.1	post sample

Stabilization Criteria:	+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

*DUP Collected

Cardno ATC
Shaping the Future

Well Sampling Log

Project Number: 015.75420.0016	**Client:** Avalon Bay		**Well No.:** MW 15
Project Location: Queens West Parcel 9, Long Island City, NY	**Sampled By:** John Mascioli		
Date: March 28, 2013	**Sampling Time:** 12:30		
PID at surface: 0.0			
Total Depth: 18 ft. below top of casing	**Water Column (WC):** 10.95 feet		* = 0.163 * WC for 2" wells
Depth to Water: 7.05 ft. below top of casing	**Well Volume*:** 1.78 gallons		* = 0.653 * WC for 4" wells
Depth to Product: — ft. below top of casing	**Volume Purged:** 1.06 gallons		* = 1.469 * WC for 6" wells
Depth to top of screen: ~5 ft. below top of casing	**Well Diameter:** 2 inches		Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~19 ft. below top of casing	**Pump Type:** SS Monsoon Pump		
Approx. Pump Intake: ~12 ft. below top of casing	**Field Screening Instrument:** Horiba U-52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
11:55	7.09	~100	11.43	9.19	3.87	7.96	1	459	
12:00	7.95		11.72	9.32	0.80	7.10	-5	295	
12:05	8.02		12.12	9.36	1.17	6.80	15	114	
12:10	8.08		12.27	9.41	0.96	6.78	12	70	
12:15	8.13		12.57	9.41	0.88	6.76	11	42.3	
12:20	8.16		12.76	9.40	0.87	6.75	10	36.2	
12:25	8.43		13.27	9.41	0.75	6.71	12	31.3	
12:30	8.46		13.27	9.40	0.76	6.71	11	30.1	Pre Samp
12:35	8.47	↓	13.26	9.40	0.77	6.71	11	30.2	Post Sample

Stabilization Criteria:	+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Cardno ATC
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Well Sampling Log

Project Number: 015.75420.0016	**Client:** Avalon Bay		**Well No.:** MW 16
Project Location: Queens West Parcel 9, Long Island City, NY	**Sampled By:** John Mascioli		
Date: March 28, 2013	**Sampling Time:** 11:35		
PID at surface: 0.0			
Total Depth: 13.75 ft. below top of casing	**Water Column (WC):** 5.55 feet		* = 0.163 * WC for 2" wells
Depth to Water: 8.20 ft. below top of casing	**Well Volume*:** 0.90 gallons		* = 0.653 * WC for 4" wells
Depth to Product: — ft. below top of casing	**Volume Purged:** 1.06 gallons		* = 1.469 * WC for 6" wells
Depth to top of screen: ~ 5 ft. below top of casing	**Well Diameter:** 2 inches		Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~ 15 ft. below top of casing	**Pump Type:** SS Monsoon Pump		
Approx. Pump Intake: ~ 11 ft. below top of casing	**Field Screening Instrument:** Horiba U-52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
11:00	8.44	~ 100	10.31	6.74	4.06	7.27	-18	720	
11:05	8.95		10.83	6.28	1.35	6.75	-16	515	
11:10	8.57		11.05	6.12	1.71	6.74	-13	194	
11:15	9.09		10.82	6.13	1.67	6.74	-13	66.0	
11:20	9.21		11.23	6.73	1.55	6.74	-16	48.7	
11:25	9.35		11.36	6.21	1.49	6.74	-17	45.1	
11:30	9.45		11.78	6.44	1.24	6.76	-23	38.7	
11:35	9.60		11.77	6.45	1.28	6.76	-24	35.4	Pre sample
11:40	9.62	↓	11.79	6.47	1.27	6.74	-23	34.2	Post Sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

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Well Sampling Log

Project Number: 015.75420.0016		**Client:** Avalon Bay	**Well No.:** MW 2
Project Location: Queens West Parcel 9, Long Island City, NY		**Sampled By:** John Mascioli	
Date: September 24, 2013		**Sampling Time:** 14.20	
PID at surface: 0.0			
Total Depth: 32.12	ft. below top of casing	**Water Column (WC):** 22.5 feet	* = 0.163 * WC for 2" wells
Depth to Water: 9.62	ft. below top of casing	**Well Volume*:** 3.67 gallons	* = 0.653 * WC for 4" wells
Depth to Product: —	ft. below top of casing	**Volume Purged:** 0.66 gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~ 18	ft. below top of casing	**Well Diameter:** 2 inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~ 33	ft. below top of casing	**Pump Type:** SS Masoon Pump	
Approx. Pump Intake: ~ 24	ft. below top of casing	**Field Screening Instrument:** Horiba U-52	

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
14:00	10.32	~100	20.53	2.54	2.87	8.01	-227	5.8	
14:05	10.20		20.77	4.02	1.91	7.63	-241	0.7	
14:10	10.12		20.74	4.85	1.79	7.65	-262	0.8	
14:15	10.01		20.78	4.99	1.85	7.66	-266	0.7	
14:20	9.79		20.80	5.14	1.85	7.67	-270	0.6	Pre Sample
14:25	10.11		21.07	5.58	1.43	7.74	-277	2.3	Post Sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

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Well Sampling Log

Project Number: 015.75420.0016		**Client:** Avalon Bay	**Well No.:** MW 8
Project Location: Queens West Parcel 9, Long Island City, NY		**Sampled By:** John Mascioli	
Date: September 24, 2013		**Sampling Time:** 13:40	
PID at surface: 0.0			
Total Depth: 29.2	ft. below top of casing	**Water Column (WC):** 18.65 feet	* = 0.163 * WC for 2" wells
Depth to Water: 10.55	ft. below top of casing	**Well Volume*:** 3.04 gallons	* = 0.653 * WC for 4" wells
Depth to Product: —	ft. below top of casing	**Volume Purged:** 0.25 gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~5	ft. below top of casing	**Well Diameter:** 2 inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~30	ft. below top of casing	**Pump Type:** SS Masoon Pump	
Approx. Pump Intake: ~20	ft. below top of casing	**Field Screening Instrument:** Horiba U-52	

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
13:35	10.60	~100	20.47	1.02	9.16	7.58	-89	34.1	
13:36	10.65		20.11	1.16	6.88	7.36	-126	3.3	
13:37	10.69		19.62	2.19	6.43	7.25	-234	0.0	
13:38	10.70		19.51	2.71	6.36	7.25	-240	0.0	
13:39	10.70		19.11	2.85	6.20	7.29	-245	0.0	
13:40	10.72		19.05	3.00	6.14	7.32	-249	0.0	Pre sample.
13:42	10.80		19.03	5.45	1.06	7.59	-322	18.1	Post sample.
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

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Well Sampling Log

Project Number: 015.75420.0016		**Client:** Avalon Bay	**Well No.:** MW-11R
Project Location: Queens West Parcel 9, Long Island City, NY		**Sampled By:** John Mascioli	
Date: September 24, 2013		**Sampling Time:** 10:35	
PID at surface: 0.0			
Total Depth: 20.2	ft. below top of casing	**Water Column (WC):** 9.76 feet	* = 0.163 * WC for 2" wells
Depth to Water: 10.44	ft. below top of casing	**Well Volume*:** 1.59 gallons	* = 0.653 * WC for 4" wells
Depth to Product: —	ft. below top of casing	**Volume Purged:** 0.66 gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~5	ft. below top of casing	**Well Diameter:** 2 inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~20	ft. below top of casing	**Pump Type:** SS Monsoon Pump	
Approx. Pump Intake: ~12	ft. below top of casing	**Field Screening Instrument:** Horiba U-52	

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
10:15	10.2	~100	17.38	1.67	5.29	7.29	159	32.5	
10:20	10.46	↓	17.43	1.69	3.75	7.29	157	32.9	
10:25	10.47		17.43	1.71	3.17	7.29	157	31.0	
10:30	10.50		17.64	1.72	3.22	7.29	157	32.4	
10:35	10.51		17.76	1.72	3.07	7.29	157	36.7	Pre Sample
10:40	10.54	↓	17.71	1.77	3.64	7.39	166	5.2	Post Sample

Stabilization Criteria:	+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

* MS/MSD Collected

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Well Sampling Log

Project Number: 015.75420.0016	**Client:** Avalon Bay		**Well No.:** MW-12R
Project Location: Queens West Parcel 9, Long Island City, NY	**Sampled By:** John Mascioli		
Date: September 24, 2013	**Sampling Time:** 9:40		
PID at surface: 0.0			
Total Depth: 17.85 ft. below top of casing	**Water Column (WC):** 8.81 feet		* = 0.163 * WC for 2" wells
Depth to Water: 9.04 ft. below top of casing	**Well Volume*:** 1.44 gallons		* = 0.653 * WC for 4" wells
Depth to Product: — ft. below top of casing	**Volume Purged:** 0.92 gallons		* = 1.469 * WC for 6" wells
Depth to top of screen: ~ 3 ft. below top of casing	**Well Diameter:** 2 inches		Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~ 18 ft. below top of casing	**Pump Type:** SS Monsoon Pump		
Approx. Pump Intake: ~ 13 ft. below top of casing	**Field Screening Instrument:** Horiba U-52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
9:10	10.1	~100	16.42	0.578	8.01	7.00	137	338	
9:15	9.65		16.89	0.587	7.68	7.47	129	259	
9:20	9.54		17.65	0.583	6.19	7.59	124	75.5	
9:25	9.81		17.72	0.587	6.10	7.61	116	41.1	
9:30	9.83		17.71	0.590	5.96	7.62	110	30.0	
9:35	9.87		17.70	0.591	5.89	7.63	106	15.6	
9:40	10.01		17.79	0.594	5.91	7.65	104	10.1	Pre-sample
9:45	11.5		17.55	0.595	6.13	7.65	103	24.5	Post-sample

Stabilization Criteria:	+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

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Well Sampling Log

Project Number: 015.75420.0016	**Client:** Avalon Bay		**Well No.:** MW 14
Project Location: Queens West Parcel 9, Long Island City, NY	**Sampled By:** John Mascioli		
Date: September 24, 2013	**Sampling Time:** 12:05		
PID at surface: 0.0			
Total Depth: 18.05 ft. below top of casing	**Water Column (WC):** 9.90 feet		* = 0.163 * WC for 2" wells
Depth to Water: 8.15 ft. below top of casing	**Well Volume*:** 1.61 gallons		* = 0.653 * WC for 4" wells
Depth to Product: — ft. below top of casing	**Volume Purged:** 0.53 gallons		* = 1.469 * WC for 6" wells
Depth to top of screen: ~5 ft. below top of casing	**Well Diameter:** 2 inches		Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~19 ft. below top of casing	**Pump Type:** SS Monsoon Pump		
Approx. Pump Intake: ~18 ft. below top of casing	**Field Screening Instrument:** Horiba U-52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
11:50	8.35	~100	19.08	3.34	10.39	7.08	-118	128	odor, sheen noted
11:55	8.40	↓	19.26	3.38	9.38	6.98	-132	35.2	
12:00	8.46	↓	19.30	3.37	9.04	6.98	-135	13.4	
12:05	8.50	↓	19.30	3.37	8.89	6.98	-139	3.4	Pre sample
12:10	8.52	↓	19.31	3.38	8.87	6.97	-140	3.1	Post sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

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Well Sampling Log

Project Number: 015.75420.0016	**Client:** Avalon Bay	**Well No.:** MW 15	
Project Location: Queens West Parcel 9, Long Island City, NY	**Sampled By:** John Mascioli		
Date: September 24, 2013	**Sampling Time:** 13:10		
PID at surface: 0.0			
Total Depth: 17.55 ft. below top of casing	**Water Column (WC):** 9.82 feet	* = 0.163 * WC for 2" wells	
Depth to Water: 7.73 ft. below top of casing	**Well Volume*:** 1.60 gallons	* = 0.653 * WC for 4" wells	
Depth to Product: — ft. below top of casing	**Volume Purged:** 0.92 gallons	* = 1.469 * WC for 6" wells	
Depth to top of screen: ~5 ft. below top of casing	**Well Diameter:** 2 inches	Target maximum flow rate is 100 ml/min	
Depth to bottom of screen: ~19 ft. below top of casing	**Pump Type:** SS Monsoon Pump		
Approx. Pump Intake: ~13 ft. below top of casing	**Field Screening Instrument:** Horiba U-52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
12:40	7.73	~100	18.95	1.80	3.50	7.35	56	480	
12:45	9.42	↓	19.36	1.79	2.87	7.22	59	307	
12:50	11.65		18.63	1.31	1.31	6.94	-12	229	
12:55	11.74		18.53	3.19	1.17	6.93	-16	92.3	
13:00	11 9.2		18.53	3.42	1.17	6.93	-16	48.5	
13:05	12.04		18.56	3.54	1.07	6.93	-13	27.8	
13:10	12.15		18.61	3.54	1.00	6.93	-13	23.6	Pre sample QC
13:15	12.34		18.74	3.69	1.40	6.93	-2	37.9	Post sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Field Dup

Cardno ATC
Shaping the Future

Well Sampling Log

Project Number: 015.75420.0016	**Client:** Avalon Bay		**Well No.:** MW 16
Project Location: Queens West Parcel 9, Long Island City, NY	**Sampled By:** John Mascioli		
Date: September 24, 2013	**Sampling Time:** 8:45		
PID at surface: 0.0			
Total Depth: 13.82 ft. below top of casing	**Water Column (WC):** 5.51 feet		* = 0.163 * WC for 2" wells
Depth to Water: 8.31 ft. below top of casing	**Well Volume*:** 0.90 gallons		* = 0.653 * WC for 4" wells
Depth to Product: — ft. below top of casing	**Volume Purged:** 0.92 gallons		* = 1.469 * WC for 6" wells
Depth to top of screen: ~5 ft. below top of casing	**Well Diameter:** 2 inches		Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~15 ft. below top of casing	**Pump Type:** SS Monsoon Pump		
Approx. Pump Intake: ~12 ft. below top of casing	**Field Screening Instrument:** Horiba U-52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
8:15	9.12	~100	20.91	3.29	2.04	6.89	41	3.86	
8:20	9.25	↓	20.59	4.02	1.56	6.75	23	3.48	
8:25	9.31		20.65	4.85	1.35	6.76	8	2.30	
8:30	9.41		21.51	6.13	1.09	6.72	-15	1.31	
8:35	9.75		21.50	6.30	1.15	6.74	-18	49.7	
8:40	9.90		21.38	6.36	1.14	6.75	-19	41.3	
8:45	9.99		21.31	6.39	1.12	6.75	-20	34.3	Pre sample
8:50	10.1		20.36	6.63	11.05	6.81	-30	45.2	Pos Samp
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Appendix D - Groundwater Sampling Analytical Results

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

ANALYTICAL RESULTS SUMMARY

SEMI-VOLATILE ORGANICS
VOLATILE ORGANICS

PROJECT NAME : AVALON- WP9

CARDNO ATC

104 East 25th Street

New York, NY - 10010

Phone No: 212-353-8280

ORDER ID : E1676

ATTENTION : John Mascioli

ACCREDITED IN ACCORDANCE WITH nelac

DoD ELAP

Table Of Contents for E1676

1) Signature Page 3

2) Case Narrative 9

2.1) VOC- Chemtech Full- Case Narrative 9

2.2) SVOC- Chemtech Full- Case Narrative 11

3) Qualifier Page 13

4) QA Checklist 14

5) VOC- Chemtech Full Data 15

6) SVOC- Chemtech Full Data 104

7) Shipping Document 182

7.1) CHAIN OF CUSTODY 183

7.2) Lab Certificate 184

7.3) Internal COC 185

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Cover Page

Order ID : E1676

Project ID : Avalon- WP9

Client : Cardno ATC

Lab Sample Number	Client Sample Number
E1676-01	MW-2-Q12013
E1676-02	MW-8-Q12013
E1676-03	MW-11R-Q12013
E1676-04	E1676-03MS
E1676-05	E1676-03MSD
E1676-06	MW-12R-Q12013
E1676-07	MW-14-Q12013
E1676-08	MW-15-Q12013
E1676-09	MW-16-Q12013
E1676-10	FB-Q-12013
E1676-11	DUP-Q-12013
E1676-12	TB-Q-12013

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 4/5/2013

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FORM S-I

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sampl ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
MW-2-Q12013	E1676-01	8260-Low	625				
MW-8-Q12013	E1676-02	8260-Low	625				
MW-11R-Q12013	E1676-03	8260-Low	625				
MW-12R-Q12013	E1676-06	8260-Low	625				
MW-14-Q12013	E1676-07	8260-Low	625				
MW-15-Q12013	E1676-08	8260-Low	625				
MW-16-Q12013	E1676-09	8260-Low	625				
FB-Q-12013	E1676-10	8260-Low	625				
DUP-Q-12013	E1676-11	8260-Low	625				
TB-Q-12013	E1676-12	8260-Low	625				

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIa

SAMPLE PREPARATION AND ANALYSIS SUMMARY SEMIVOLATILE (BNA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
E1676-01	Water	03/28/13	03/28/13	03/29/13	04/03/13
E1676-02	Water	03/28/13	03/28/13	03/29/13	04/03/13
E1676-03	Water	03/28/13	03/28/13	03/29/13	04/03/13
E1676-06	Water	03/28/13	03/28/13	03/29/13	04/03/13
E1676-07	Water	03/28/13	03/28/13	03/29/13	04/03/13
E1676-08	Water	03/28/13	03/28/13	03/29/13	04/02/13
E1676-09	Water	03/28/13	03/28/13	03/29/13	04/03/13
E1676-10	Water	03/28/13	03/28/13	03/29/13	04/03/13
E1676-11	Water	03/28/13	03/28/13	03/29/13	04/03/13

*** Details For Test :** SVOC- Chemtech Full

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIb

SAMPLE PREPARATION AND ANALYSIS SUMMARY VOLATILE (VOA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
E1676-01	Water	03/28/13	03/28/13		03/29/13
E1676-02	Water	03/28/13	03/28/13		03/29/13
E1676-03	Water	03/28/13	03/28/13		03/29/13
E1676-06	Water	03/28/13	03/28/13		03/29/13
E1676-07	Water	03/28/13	03/28/13		03/29/13
E1676-08	Water	03/28/13	03/28/13		03/29/13
E1676-09	Water	03/28/13	03/28/13		03/29/13
E1676-10	Water	03/28/13	03/28/13		03/29/13
E1676-11	Water	03/28/13	03/28/13		03/29/13
E1676-12	Water	03/28/13	03/28/13		03/29/13

*** Details For Test :** VOC- Chemtech Full

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
E1676-01	Water	8260-Low	NA		
E1676-02	Water	8260-Low	NA		
E1676-03	Water	8260-Low	NA		
E1676-04	Water	8260-Low	NA		
E1676-05	Water	8260-Low	NA		
E1676-06	Water	8260-Low	NA		
E1676-07	Water	8260-Low	NA		
E1676-08	Water	8260-Low	NA		
E1676-09	Water	8260-Low	NA		
E1676-10	Water	8260-Low	NA		
E1676-11	Water	8260-Low	NA		
E1676-12	Water	8260-Low	NA		

2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY
MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
E1676-01	Water	625	3510C		
E1676-02	Water	625	3510C		
E1676-03	Water	625	3510C		
E1676-04	Water	625	3510C		
E1676-05	Water	625	3510C		
E1676-06	Water	625	3510C		
E1676-07	Water	625	3510C		
E1676-08	Water	625	3510C		
E1676-09	Water	625	3510C		
E1676-10	Water	625	3510C		
E1676-11	Water	625	3510C		

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CASE NARRATIVE

Cardno ATC
Project Name: Avalon- WP9
Project # N/A
Chemtech Project # E1676
Test Name: VOC- Chemtech Full

A. Number of Samples and Date of Receipt:
12 Water samples were received on 03/28/2013.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SVOC- Chemtech Full and VOC- Chemtech Full. This data package contains results for VOC- Chemtech Full.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_N were done using GC column RXI-624SIL MS 30m 0.25mm 1.4 um. Cat#13868.The analysis of VOC- Chemtech Full was based on method 8260-Low.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS recoveries for {E1676-04MS} with File ID: VN004758.D met requirements for all samples except for Methyl iodide [51%] and 2-Chloroethyl vinyl ether .
The MSD {E1676-05MSD} with File ID: VN004759.D recoveries met requirements for all samples except for Methyl iodide [66%] and 2-Chloroethyl vinyl ether .
The RPD for {E1676-05MSD} with File ID: VN004759.D recoveries met criteria except for Bromomethane[23%], Methyl iodide [26%] .
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The %RSD is greater than 15% in the Initial Calibration (Method 82N032713W.M) for Acrolein, Cyclohexane & Methyl Iodide these compounds are passing on Linear regression .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.
Sample MW-8-Q12013 was diluted due to high concentration.

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E. Additional Comments:
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

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CASE NARRATIVE

Cardno ATC
Project Name: Avalon- WP9
Project # N/A
Chemtech Project # E1676
Test Name: SVOC- Chemtech Full

A. Number of Samples and Date of Receipt:
12 Water samples were received on 03/28/2013.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SVOC- Chemtech Full and VOC- Chemtech Full. This data package contains results for SVOC- Chemtech Full.

C. Analytical Techniques:
The samples were analyzed on instrument BNA_F using GC Column RTX-5 which is 20 meters, 0.18 mm ID, 0.36 um dfThe analysis of SVOC- Chemtech Full was based on method 625 and extraction was done based on method 3510.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS {E1676-04MS} with File ID: BF061304.D recoveries met the requirements for all compounds except for 1,4-Dioxane[32%], Aniline[11%] and Benzidine[0%] .
The MSD {E1676-05MSD} with File ID: BF061305.D recoveries met the acceptable requirements except for 1,4-Dioxane[33%], Aniline[11%] and Benzidine[0%] .
The RPD for {E1676-05MSD} with File ID: BF061305.D recoveries met criteria except for 3-Nitroaniline[29%], Benzaldehyde[46%] .
The Blank Spike for {PB68924BS} with File ID: BF061297.D met requirements for all samples except for 1,4-Dioxane[65%], 3-Nitroaniline[17%], Aniline[13%], Benzidine[9%] and Hexachlorocyclopentadiene[180%].
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.
Sample MW-2-Q12013 was diluted due to high concentration.

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.E: Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value**.** This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: E1676

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

1st Level QA Review Signature: MOHINI SONI **Date:** 04/05/2013

2nd Level QA Review Signature: _____ **Date:** _____

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LAB CHRONICLE

OrderID:	E1676	**OrderDate:**	3/28/2013 5:31:00 PM
Client:	Cardno ATC	**Project:**	Avalon- WP9
Contact:	John Mascioli	**Location:**	L62

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
E1676-01	**MW-2-Q12013**	**Water**			**03/28/13**			**03/28/13**
			VOC- Chemtech Full	8260-Low			03/29/13	
E1676-02	**MW-8-Q12013**	**Water**			**03/28/13**			**03/28/13**
			VOC- Chemtech Full	8260-Low			03/29/13	
E1676-02DL	**MW-8-Q12013DL**	**Water**			**03/28/13**			**03/28/13**
			VOC- Chemtech Full	8260-Low			03/29/13	
E1676-03	**MW-11R-Q12013**	**Water**			**03/28/13**			**03/28/13**
			VOC- Chemtech Full	8260-Low			03/29/13	
E1676-06	**MW-12R-Q12013**	**Water**			**03/28/13**			**03/28/13**
			VOC- Chemtech Full	8260-Low			03/29/13	
E1676-07	**MW-14-Q12013**	**Water**			**03/28/13**			**03/28/13**
			VOC- Chemtech Full	8260-Low			03/29/13	
E1676-08	**MW-15-Q12013**	**Water**			**03/28/13**			**03/28/13**
			VOC- Chemtech Full	8260-Low			03/29/13	
E1676-09	**MW-16-Q12013**	**Water**			**03/28/13**			**03/28/13**
			VOC- Chemtech Full	8260-Low			03/29/13	
E1676-10	**FB-Q-12013**	**Water**			**03/28/13**			**03/28/13**
			VOC- Chemtech Full	8260-Low			03/29/13	
E1676-11	**DUP-Q-12013**	**Water**			**03/28/13**			**03/28/13**
			VOC- Chemtech Full	8260-Low			03/29/13	
E1676-12	**TB-Q-12013**	**Water**			**03/28/13**			**03/28/13**
			VOC- Chemtech Full	8260-Low			03/29/13	

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Hit Summary Sheet
SW-846

SDG No.: E1676

Client: Cardno ATC

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID:	**DUP-Q-12013**								
E1676-11	DUP-Q-12013	Water	Acetone	4.50	J	0.5	2.5	5	ug/L
E1676-11	DUP-Q-12013	Water	Cyclohexane	2.00		0.2	0.5	1	ug/L
E1676-11	DUP-Q-12013	Water	Methylcyclohexane	1.90		0.2	0.5	1	ug/L
E1676-11	DUP-Q-12013	Water	Benzene	2.30		0.32	0.5	1	ug/L
E1676-11	DUP-Q-12013	Water	Ethyl Benzene	0.78	J	0.2	0.5	1	ug/L
E1676-11	DUP-Q-12013	Water	o-Xylene	0.97	J	0.43	0.5	1	ug/L
E1676-11	DUP-Q-12013	Water	Isopropylbenzene	30.20		0.45	0.5	1	ug/L
E1676-11	DUP-Q-12013	Water	n-propylbenzene	35.60		0.45	0.5	1	ug/L
E1676-11	DUP-Q-12013	Water	tert-Butylbenzene	2.30		0.44	0.5	1	ug/L
E1676-11	DUP-Q-12013	Water	1,2,4-Trimethylbenzene	0.51	J	0.38	0.5	1	ug/L
E1676-11	DUP-Q-12013	Water	sec-Butylbenzene	4.80		0.46	0.5	1	ug/L
E1676-11	DUP-Q-12013	Water	n-Butylbenzene	2.40		0.41	0.5	1	ug/L
E1676-11	DUP-Q-12013	Water	Naphthalene	3.00		0.2	0.5	1	ug/L
			Total Voc :	**91.26**					
			Total Concentration:	**91.26**					
Client ID:	**MW-12R-Q12013**								
E1676-06	MW-12R-Q12013	Water	Benzene	0.98	J	0.32	0.5	1	ug/L
E1676-06	MW-12R-Q12013	Water	Naphthalene	3.30		0.2	0.5	1	ug/L
			Total Voc :	**4.28**					
			Total Concentration:	**4.28**					
Client ID:	**MW-14-Q12013**								
E1676-07	MW-14-Q12013	Water	Cyclohexane	2.30		0.2	0.5	1	ug/L
E1676-07	MW-14-Q12013	Water	Methylcyclohexane	2.40		0.2	0.5	1	ug/L
E1676-07	MW-14-Q12013	Water	Benzene	2.40		0.32	0.5	1	ug/L
E1676-07	MW-14-Q12013	Water	Ethyl Benzene	0.83	J	0.2	0.5	1	ug/L
E1676-07	MW-14-Q12013	Water	o-Xylene	0.94	J	0.43	0.5	1	ug/L
E1676-07	MW-14-Q12013	Water	Isopropylbenzene	34.00		0.45	0.5	1	ug/L
E1676-07	MW-14-Q12013	Water	n-propylbenzene	40.10		0.45	0.5	1	ug/L
E1676-07	MW-14-Q12013	Water	tert-Butylbenzene	2.50		0.44	0.5	1	ug/L
E1676-07	MW-14-Q12013	Water	1,2,4-Trimethylbenzene	0.43	J	0.38	0.5	1	ug/L
E1676-07	MW-14-Q12013	Water	sec-Butylbenzene	5.20		0.46	0.5	1	ug/L
E1676-07	MW-14-Q12013	Water	n-Butylbenzene	2.70		0.41	0.5	1	ug/L
E1676-07	MW-14-Q12013	Water	Naphthalene	1.70		0.2	0.5	1	ug/L
			Total Voc :	**95.50**					
			Total Concentration:	**95.50**					
Client ID:	**MW-2-Q12013**								
E1676-01	MW-2-Q12013	Water	Methyl tert-butyl Ether	2.50		0.35	0.5	1	ug/L
E1676-01	MW-2-Q12013	Water	Benzene	66.70		0.32	0.5	1	ug/L

Hit Summary Sheet
SW-846

SDG No.: E1676

Client: Cardno ATC

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
E1676-01	MW-2-Q12013	Water	Toluene	0.74	J	0.37	0.5	1	ug/L
E1676-01	MW-2-Q12013	Water	Ethyl Benzene	59.40		0.2	0.5	1	ug/L
E1676-01	MW-2-Q12013	Water	m/p-Xylenes	2.20		0.95	1	2	ug/L
E1676-01	MW-2-Q12013	Water	o-Xylene	4.50		0.43	0.5	1	ug/L
E1676-01	MW-2-Q12013	Water	Isopropylbenzene	13.90		0.45	0.5	1	ug/L
E1676-01	MW-2-Q12013	Water	n-propylbenzene	5.70		0.45	0.5	1	ug/L
E1676-01	MW-2-Q12013	Water	1,2,4-Trimethylbenzene	1.50		0.38	0.5	1	ug/L
E1676-01	MW-2-Q12013	Water	Naphthalene	10.00		0.2	0.5	1	ug/L
			Total Voc :	**167.14**					
			Total Concentration:	**167.14**					
Client ID:	**MW-8-Q12013**								
E1676-02	MW-8-Q12013	Water	Acetone	3.00	J	0.5	2.5	5	ug/L
E1676-02	MW-8-Q12013	Water	Carbon Disulfide	0.49	J	0.2	0.5	1	ug/L
E1676-02	MW-8-Q12013	Water	Methylcyclohexane	0.78	J	0.2	0.5	1	ug/L
E1676-02	MW-8-Q12013	Water	Benzene	0.81	J	0.32	0.5	1	ug/L
E1676-02	MW-8-Q12013	Water	Ethyl Benzene	15.90		0.2	0.5	1	ug/L
E1676-02	MW-8-Q12013	Water	m/p-Xylenes	12.80		0.95	1	2	ug/L
E1676-02	MW-8-Q12013	Water	o-Xylene	19.00		0.43	0.5	1	ug/L
E1676-02	MW-8-Q12013	Water	Isopropylbenzene	10.60		0.45	0.5	1	ug/L
E1676-02	MW-8-Q12013	Water	n-propylbenzene	3.90		0.45	0.5	1	ug/L
E1676-02	MW-8-Q12013	Water	1,3,5-Trimethylbenzene	12.80		0.46	0.5	1	ug/L
E1676-02	MW-8-Q12013	Water	1,2,4-Trimethylbenzene	100.00		0.38	0.5	1	ug/L
E1676-02	MW-8-Q12013	Water	p-Isopropyltoluene	2.30		0.43	0.5	1	ug/L
E1676-02	MW-8-Q12013	Water	Naphthalene	680.00	E	0.2	0.5	1	ug/L
			Total Voc :	**862.38**					
			Total Concentration:	**862.38**					
Client ID:	**MW-8-Q12013DL**								
E1676-02DL	MW-8-Q12013DL	Water	1,2,4-Trimethylbenzene	98.50	D	19	25	50	ug/L
E1676-02DL	MW-8-Q12013DL	Water	Naphthalene	1,500.00	D	10	25	50	ug/L
			Total Voc :	**1,598.50**					
			Total Concentration:	**1,598.50**					

SAMPLE DATA

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-2-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-01	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004751.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	0.5	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.5	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.35	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.45	U	0.45	0.5	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	2.5	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.47	U	0.47	0.5	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	2.5	5	ug/L
107-13-1	Acrylonitrile	1.8	U	1.8	2.5	5	ug/L
67-64-1	Acetone	0.5	U	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	2.5		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.41	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.41	U	0.41	0.5	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.36	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.5	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.35	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.34	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.4	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-2-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-01	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004751.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	66.7		0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.28	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	0.5	1	ug/L
74-95-3	Dibromomethane	0.44	U	0.44	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.36	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.1	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.74	J	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.29	U	0.29	0.5	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.31	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.38	U	0.38	0.5	1	ug/L
142-28-9	1,3-Dichloropropane	0.35	U	0.35	0.5	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1.8	U	1.8	2.5	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.41	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.27	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.49	U	0.49	0.5	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.43	U	0.43	0.5	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.5	1	ug/L
100-41-4	Ethyl Benzene	59.4		0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	2.2		0.95	1	2	ug/L
95-47-6	o-Xylene	4.5		0.43	0.5	1	ug/L
100-42-5	Styrene	0.36	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.47	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	13.9		0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.31	U	0.31	0.5	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.5	U	0.5	0.5	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.5	1	ug/L
103-65-1	n-propylbenzene	5.7		0.45	0.5	1	ug/L
95-49-8	2-Chlorotoluene	0.43	U	0.43	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-2-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-01	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004751.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.46	U	0.46	0.5	1	ug/L
106-43-4	4-Chlorotoluene	0.42	U	0.42	0.5	1	ug/L
98-06-6	tert-Butylbenzene	0.44	U	0.44	0.5	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	1.5		0.38	0.5	1	ug/L
135-98-8	sec-Butylbenzene	0.46	U	0.46	0.5	1	ug/L
99-87-6	p-Isopropyltoluene	0.43	U	0.43	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.43	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.32	U	0.32	0.5	1	ug/L
104-51-8	n-Butylbenzene	0.41	U	0.41	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.45	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.5	1	ug/L
91-20-3	Naphthalene	10		0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.5	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.5	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.5	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.5		61 - 141		97%	SPK: 50
1868-53-7	Dibromofluoromethane	47.4		69 - 133		95%	SPK: 50
2037-26-5	Toluene-d8	48		65 - 126		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.3		58 - 135		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	887052	7.87				
540-36-3	1,4-Difluorobenzene	1391560	8.79				
3114-55-4	Chlorobenzene-d5	1239230	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	653541	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-2-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-01	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004751.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-8-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-02	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004753.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	0.5	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.5	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.35	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.45	U	0.45	0.5	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	2.5	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.47	U	0.47	0.5	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	2.5	5	ug/L
107-13-1	Acrylonitrile	1.8	U	1.8	2.5	5	ug/L
67-64-1	Acetone	3	J	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.49	J	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.41	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.41	U	0.41	0.5	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.36	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.5	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.35	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.34	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.4	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.78	J	0.2	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-8-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-02	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004753.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.81	J	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.28	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	0.5	1	ug/L
74-95-3	Dibromomethane	0.44	U	0.44	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.36	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.1	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.37	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.29	U	0.29	0.5	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.31	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.38	U	0.38	0.5	1	ug/L
142-28-9	1,3-Dichloropropane	0.35	U	0.35	0.5	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1.8	U	1.8	2.5	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.41	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.27	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.49	U	0.49	0.5	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.43	U	0.43	0.5	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.5	1	ug/L
100-41-4	Ethyl Benzene	15.9		0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	12.8		0.95	1	2	ug/L
95-47-6	o-Xylene	19		0.43	0.5	1	ug/L
100-42-5	Styrene	0.36	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.47	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	10.6		0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.31	U	0.31	0.5	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.5	U	0.5	0.5	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.5	1	ug/L
103-65-1	n-propylbenzene	3.9		0.45	0.5	1	ug/L
95-49-8	2-Chlorotoluene	0.43	U	0.43	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-8-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-02	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004753.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	12.8		0.46	0.5	1	ug/L
106-43-4	4-Chlorotoluene	0.42	U	0.42	0.5	1	ug/L
98-06-6	tert-Butylbenzene	0.44	U	0.44	0.5	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	100		0.38	0.5	1	ug/L
135-98-8	sec-Butylbenzene	0.46	U	0.46	0.5	1	ug/L
99-87-6	p-Isopropyltoluene	2.3		0.43	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.43	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.32	U	0.32	0.5	1	ug/L
104-51-8	n-Butylbenzene	0.41	U	0.41	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.45	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.5	1	ug/L
91-20-3	Naphthalene	680	E	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.5	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.5	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.5	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	47.3		61 - 141		95%	SPK: 50
1868-53-7	Dibromofluoromethane	47		69 - 133		94%	SPK: 50
2037-26-5	Toluene-d8	49		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.3		58 - 135		94%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	914968	7.87				
540-36-3	1,4-Difluorobenzene	1414510	8.79				
3114-55-4	Chlorobenzene-d5	1281790	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	683251	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-8-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-02	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004753.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-8-Q12013DL	SDG No.:	E1676
Lab Sample ID:	E1676-02DL	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004754.D	50		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	10	UD	10	25	50	ug/L
74-87-3	Chloromethane	10	UD	10	25	50	ug/L
75-01-4	Vinyl Chloride	17	UD	17	25	50	ug/L
141-78-6	Ethyl Acetate	10	UD	10	25	50	ug/L
108-21-4	Isopropyl Acetate	10	UD	10	25	50	ug/L
74-83-9	Bromomethane	10	UD	10	25	50	ug/L
75-00-3	Chloroethane	10	UD	10	25	50	ug/L
75-69-4	Trichlorofluoromethane	17.5	UD	17.5	25	50	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	22.5	UD	22.5	25	50	ug/L
75-65-0	Tert butyl alcohol	25	UD	25	130	250	ug/L
60-29-7	Diethyl Ether	13.5	UD	13.5	25	50	ug/L
75-35-4	1,1-Dichloroethene	23.5	UD	23.5	25	50	ug/L
107-02-8	Acrolein	25	UD	25	130	250	ug/L
107-13-1	Acrylonitrile	88	UD	88	130	250	ug/L
67-64-1	Acetone	25	UD	25	130	250	ug/L
75-15-0	Carbon Disulfide	10	UD	10	25	50	ug/L
1634-04-4	Methyl tert-butyl Ether	17.5	UD	17.5	25	50	ug/L
79-20-9	Methyl Acetate	10	UD	10	25	50	ug/L
75-09-2	Methylene Chloride	20.5	UD	20.5	25	50	ug/L
156-60-5	trans-1,2-Dichloroethene	20.5	UD	20.5	25	50	ug/L
108-05-4	Vinyl Acetate	52.5	UD	52.5	130	250	ug/L
75-34-3	1,1-Dichloroethane	18	UD	18	25	50	ug/L
110-82-7	Cyclohexane	10	UD	10	25	50	ug/L
78-93-3	2-Butanone	66	UD	66	130	250	ug/L
56-23-5	Carbon Tetrachloride	10	UD	10	25	50	ug/L
594-20-7	2,2-Dichloropropane	10	UD	10	25	50	ug/L
156-59-2	cis-1,2-Dichloroethene	17.5	UD	17.5	25	50	ug/L
74-97-5	Bromochloromethane	10	UD	10	25	50	ug/L
67-66-3	Chloroform	17	UD	17	25	50	ug/L
71-55-6	1,1,1-Trichloroethane	20	UD	20	25	50	ug/L
108-87-2	Methylcyclohexane	10	UD	10	25	50	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-8-Q12013DL	SDG No.:	E1676
Lab Sample ID:	E1676-02DL	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004754.D	50		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	19.5	UD	19.5	25	50	ug/L
71-43-2	Benzene	16	UD	16	25	50	ug/L
107-06-2	1,2-Dichloroethane	24	UD	24	25	50	ug/L
79-01-6	Trichloroethene	14	UD	14	25	50	ug/L
78-87-5	1,2-Dichloropropane	23	UD	23	25	50	ug/L
74-95-3	Dibromomethane	22	UD	22	25	50	ug/L
75-27-4	Bromodichloromethane	18	UD	18	25	50	ug/L
108-10-1	4-Methyl-2-Pentanone	110	UD	110	130	250	ug/L
108-88-3	Toluene	18.5	UD	18.5	25	50	ug/L
10061-02-6	t-1,3-Dichloropropene	14.5	UD	14.5	25	50	ug/L
10061-01-5	cis-1,3-Dichloropropene	15.5	UD	15.5	25	50	ug/L
79-00-5	1,1,2-Trichloroethane	19	UD	19	25	50	ug/L
142-28-9	1,3-Dichloropropane	17.5	UD	17.5	25	50	ug/L
110-75-8	2-Chloroethyl Vinyl ether	89.5	UD	89.5	130	250	ug/L
591-78-6	2-Hexanone	97	UD	97	130	250	ug/L
124-48-1	Dibromochloromethane	10	UD	10	25	50	ug/L
106-93-4	1,2-Dibromoethane	20.5	UD	20.5	25	50	ug/L
127-18-4	Tetrachloroethene	13.5	UD	13.5	25	50	ug/L
108-90-7	Chlorobenzene	24.5	UD	24.5	25	50	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	21.5	UD	21.5	25	50	ug/L
67-72-1	Hexachloroethane	10	UD	10	25	50	ug/L
100-41-4	Ethyl Benzene	10	UD	10	25	50	ug/L
179601-23-1	m/p-Xylenes	47.5	UD	47.5	50	100	ug/L
95-47-6	o-Xylene	21.5	UD	21.5	25	50	ug/L
100-42-5	Styrene	18	UD	18	25	50	ug/L
75-25-2	Bromoform	23.5	UD	23.5	25	50	ug/L
98-82-8	Isopropylbenzene	22.5	UD	22.5	25	50	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	15.5	UD	15.5	25	50	ug/L
96-18-4	1,2,3-Trichloropropane	25	UD	25	25	50	ug/L
108-86-1	Bromobenzene	10	UD	10	25	50	ug/L
103-65-1	n-propylbenzene	22.5	UD	22.5	25	50	ug/L
95-49-8	2-Chlorotoluene	21.5	UD	21.5	25	50	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-8-Q12013DL	SDG No.:	E1676
Lab Sample ID:	E1676-02DL	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004754.D	50		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	23	UD	23	25	50	ug/L
106-43-4	4-Chlorotoluene	21	UD	21	25	50	ug/L
98-06-6	tert-Butylbenzene	22	UD	22	25	50	ug/L
95-63-6	1,2,4-Trimethylbenzene	98.5	D	19	25	50	ug/L
135-98-8	sec-Butylbenzene	23	UD	23	25	50	ug/L
99-87-6	p-Isopropyltoluene	21.5	UD	21.5	25	50	ug/L
541-73-1	1,3-Dichlorobenzene	21.5	UD	21.5	25	50	ug/L
106-46-7	1,4-Dichlorobenzene	16	UD	16	25	50	ug/L
104-51-8	n-Butylbenzene	20.5	UD	20.5	25	50	ug/L
95-50-1	1,2-Dichlorobenzene	22.5	UD	22.5	25	50	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	23	UD	23	25	50	ug/L
120-82-1	1,2,4-Trichlorobenzene	10	UD	10	25	50	ug/L
87-68-3	Hexachlorobutadiene	10	UD	10	25	50	ug/L
91-20-3	Naphthalene	1500	D	10	25	50	ug/L
87-61-6	1,2,3-Trichlorobenzene	10	UD	10	25	50	ug/L
628-63-7	N-amyl acetate	10	UD	10	25	50	ug/L
74-88-4	Methyl Iodide	10	UD	10	25	50	ug/L
107-05-1	Allyl chloride	10	UD	10	25	50	ug/L
126-98-7	Methacrylonitrile	10	UD	10	25	50	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	10	UD	10	25	50	ug/L
97-63-2	Ethyl methacrylate	10	UD	10	25	50	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	47.1		61 - 141		94%	SPK: 50
1868-53-7	Dibromofluoromethane	46.7		69 - 133		93%	SPK: 50
2037-26-5	Toluene-d8	48.4		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.3		58 - 135		91%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	917862	7.87				
540-36-3	1,4-Difluorobenzene	1414170	8.79				
3114-55-4	Chlorobenzene-d5	1283720	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	642308	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-8-Q12013DL	SDG No.:	E1676
Lab Sample ID:	E1676-02DL	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004754.D	50		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-03	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004757.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	0.5	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.5	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.35	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.45	U	0.45	0.5	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	2.5	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.47	U	0.47	0.5	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	2.5	5	ug/L
107-13-1	Acrylonitrile	1.8	U	1.8	2.5	5	ug/L
67-64-1	Acetone	0.5	U	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.41	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.41	U	0.41	0.5	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.36	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.5	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.35	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.34	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.4	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-03	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004757.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.32	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.28	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	0.5	1	ug/L
74-95-3	Dibromomethane	0.44	U	0.44	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.36	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.1	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.37	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.29	U	0.29	0.5	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.31	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.38	U	0.38	0.5	1	ug/L
142-28-9	1,3-Dichloropropane	0.35	U	0.35	0.5	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1.8	U	1.8	2.5	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.41	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.27	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.49	U	0.49	0.5	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.43	U	0.43	0.5	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	0.95	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.43	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.36	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.47	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.45	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.31	U	0.31	0.5	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.5	U	0.5	0.5	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.5	1	ug/L
103-65-1	n-propylbenzene	0.45	U	0.45	0.5	1	ug/L
95-49-8	2-Chlorotoluene	0.43	U	0.43	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-03	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004757.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.46	U	0.46	0.5	1	ug/L
106-43-4	4-Chlorotoluene	0.42	U	0.42	0.5	1	ug/L
98-06-6	tert-Butylbenzene	0.44	U	0.44	0.5	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.38	U	0.38	0.5	1	ug/L
135-98-8	sec-Butylbenzene	0.46	U	0.46	0.5	1	ug/L
99-87-6	p-Isopropyltoluene	0.43	U	0.43	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.43	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.32	U	0.32	0.5	1	ug/L
104-51-8	n-Butylbenzene	0.41	U	0.41	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.45	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.5	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.5	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.5	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.5	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.6		61 - 141		93%	SPK: 50
1868-53-7	Dibromofluoromethane	47		69 - 133		94%	SPK: 50
2037-26-5	Toluene-d8	48.4		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.2		58 - 135		90%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	922873	7.87				
540-36-3	1,4-Difluorobenzene	1415120	8.79				
3114-55-4	Chlorobenzene-d5	1274580	11.613				
3855-82-1	1,4-Dichlorobenzene-d4	637029	13.564				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-03	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004757.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-12R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-06	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004747.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	0.5	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.5	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.35	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.45	U	0.45	0.5	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	2.5	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.47	U	0.47	0.5	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	2.5	5	ug/L
107-13-1	Acrylonitrile	1.8	U	1.8	2.5	5	ug/L
67-64-1	Acetone	0.5	U	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.41	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.41	U	0.41	0.5	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.36	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.5	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.35	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.34	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.4	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-12R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-06	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004747.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.98	J	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.28	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	0.5	1	ug/L
74-95-3	Dibromomethane	0.44	U	0.44	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.36	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.1	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.37	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.29	U	0.29	0.5	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.31	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.38	U	0.38	0.5	1	ug/L
142-28-9	1,3-Dichloropropane	0.35	U	0.35	0.5	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1.8	U	1.8	2.5	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.41	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.27	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.49	U	0.49	0.5	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.43	U	0.43	0.5	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	0.95	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.43	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.36	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.47	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.45	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.31	U	0.31	0.5	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.5	U	0.5	0.5	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.5	1	ug/L
103-65-1	n-propylbenzene	0.45	U	0.45	0.5	1	ug/L
95-49-8	2-Chlorotoluene	0.43	U	0.43	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-12R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-06	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004747.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.46	U	0.46	0.5	1	ug/L
106-43-4	4-Chlorotoluene	0.42	U	0.42	0.5	1	ug/L
98-06-6	tert-Butylbenzene	0.44	U	0.44	0.5	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.38	U	0.38	0.5	1	ug/L
135-98-8	sec-Butylbenzene	0.46	U	0.46	0.5	1	ug/L
99-87-6	p-Isopropyltoluene	0.43	U	0.43	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.43	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.32	U	0.32	0.5	1	ug/L
104-51-8	n-Butylbenzene	0.41	U	0.41	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.45	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.5	1	ug/L
91-20-3	Naphthalene	3.3		0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.5	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.5	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.5	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.4		61 - 141		97%	SPK: 50
1868-53-7	Dibromofluoromethane	47.9		69 - 133		96%	SPK: 50
2037-26-5	Toluene-d8	49		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	44		58 - 135		88%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	875024	7.87				
540-36-3	1,4-Difluorobenzene	1346690	8.79				
3114-55-4	Chlorobenzene-d5	1227910	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	598726	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-12R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-06	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004747.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-14-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-07	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004748.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	0.5	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.5	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.35	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.45	U	0.45	0.5	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	2.5	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.47	U	0.47	0.5	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	2.5	5	ug/L
107-13-1	Acrylonitrile	1.8	U	1.8	2.5	5	ug/L
67-64-1	Acetone	0.5	U	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.41	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.41	U	0.41	0.5	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.36	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	2.3		0.2	0.5	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.5	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.35	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.34	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.4	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	2.4		0.2	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-14-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-07	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004748.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	2.4		0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.28	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	0.5	1	ug/L
74-95-3	Dibromomethane	0.44	U	0.44	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.36	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.1	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.37	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.29	U	0.29	0.5	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.31	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.38	U	0.38	0.5	1	ug/L
142-28-9	1,3-Dichloropropane	0.35	U	0.35	0.5	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1.8	U	1.8	2.5	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.41	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.27	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.49	U	0.49	0.5	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.43	U	0.43	0.5	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.83	J	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	0.95	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.94	J	0.43	0.5	1	ug/L
100-42-5	Styrene	0.36	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.47	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	34		0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.31	U	0.31	0.5	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.5	U	0.5	0.5	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.5	1	ug/L
103-65-1	n-propylbenzene	40.1		0.45	0.5	1	ug/L
95-49-8	2-Chlorotoluene	0.43	U	0.43	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-14-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-07	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004748.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.46	U	0.46	0.5	1	ug/L
106-43-4	4-Chlorotoluene	0.42	U	0.42	0.5	1	ug/L
98-06-6	tert-Butylbenzene	2.5		0.44	0.5	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.43	J	0.38	0.5	1	ug/L
135-98-8	sec-Butylbenzene	5.2		0.46	0.5	1	ug/L
99-87-6	p-Isopropyltoluene	0.43	U	0.43	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.43	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.32	U	0.32	0.5	1	ug/L
104-51-8	n-Butylbenzene	2.7		0.41	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.45	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.5	1	ug/L
91-20-3	Naphthalene	1.7		0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.5	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.5	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.5	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.2		61 - 141		96%	SPK: 50
1868-53-7	Dibromofluoromethane	48.1		69 - 133		96%	SPK: 50
2037-26-5	Toluene-d8	48.7		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.6		58 - 135		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	846812	7.87				
540-36-3	1,4-Difluorobenzene	1309550	8.79				
3114-55-4	Chlorobenzene-d5	1183830	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	615013	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-14-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-07	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004748.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-15-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-08	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004749.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	0.5	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.5	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.35	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.45	U	0.45	0.5	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	2.5	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.47	U	0.47	0.5	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	2.5	5	ug/L
107-13-1	Acrylonitrile	1.8	U	1.8	2.5	5	ug/L
67-64-1	Acetone	0.5	U	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.41	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.41	U	0.41	0.5	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.36	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.5	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.35	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.34	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.4	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-15-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-08	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004749.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.32	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.28	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	0.5	1	ug/L
74-95-3	Dibromomethane	0.44	U	0.44	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.36	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.1	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.37	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.29	U	0.29	0.5	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.31	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.38	U	0.38	0.5	1	ug/L
142-28-9	1,3-Dichloropropane	0.35	U	0.35	0.5	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1.8	U	1.8	2.5	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.41	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.27	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.49	U	0.49	0.5	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.43	U	0.43	0.5	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	0.95	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.43	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.36	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.47	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.45	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.31	U	0.31	0.5	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.5	U	0.5	0.5	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.5	1	ug/L
103-65-1	n-propylbenzene	0.45	U	0.45	0.5	1	ug/L
95-49-8	2-Chlorotoluene	0.43	U	0.43	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-15-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-08	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004749.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.46	U	0.46	0.5	1	ug/L
106-43-4	4-Chlorotoluene	0.42	U	0.42	0.5	1	ug/L
98-06-6	tert-Butylbenzene	0.44	U	0.44	0.5	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.38	U	0.38	0.5	1	ug/L
135-98-8	sec-Butylbenzene	0.46	U	0.46	0.5	1	ug/L
99-87-6	p-Isopropyltoluene	0.43	U	0.43	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.43	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.32	U	0.32	0.5	1	ug/L
104-51-8	n-Butylbenzene	0.41	U	0.41	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.45	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.5	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.5	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.5	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.5	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	47.9		61 - 141		96%	SPK: 50
1868-53-7	Dibromofluoromethane	47.6		69 - 133		95%	SPK: 50
2037-26-5	Toluene-d8	48.9		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.9		58 - 135		94%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	896227	7.87				
540-36-3	1,4-Difluorobenzene	1378590	8.79				
3114-55-4	Chlorobenzene-d5	1268660	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	676597	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-15-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-08	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004749.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-16-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-09	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004750.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	0.5	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.5	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.35	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.45	U	0.45	0.5	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	2.5	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.47	U	0.47	0.5	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	2.5	5	ug/L
107-13-1	Acrylonitrile	1.8	U	1.8	2.5	5	ug/L
67-64-1	Acetone	0.5	U	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.41	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.41	U	0.41	0.5	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.36	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.5	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.35	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.34	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.4	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-16-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-09	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004750.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.32	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.28	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	0.5	1	ug/L
74-95-3	Dibromomethane	0.44	U	0.44	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.36	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.1	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.37	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.29	U	0.29	0.5	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.31	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.38	U	0.38	0.5	1	ug/L
142-28-9	1,3-Dichloropropane	0.35	U	0.35	0.5	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1.8	U	1.8	2.5	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.41	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.27	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.49	U	0.49	0.5	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.43	U	0.43	0.5	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	0.95	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.43	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.36	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.47	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.45	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.31	U	0.31	0.5	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.5	U	0.5	0.5	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.5	1	ug/L
103-65-1	n-propylbenzene	0.45	U	0.45	0.5	1	ug/L
95-49-8	2-Chlorotoluene	0.43	U	0.43	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-16-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-09	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004750.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.46	U	0.46	0.5	1	ug/L
106-43-4	4-Chlorotoluene	0.42	U	0.42	0.5	1	ug/L
98-06-6	tert-Butylbenzene	0.44	U	0.44	0.5	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.38	U	0.38	0.5	1	ug/L
135-98-8	sec-Butylbenzene	0.46	U	0.46	0.5	1	ug/L
99-87-6	p-Isopropyltoluene	0.43	U	0.43	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.43	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.32	U	0.32	0.5	1	ug/L
104-51-8	n-Butylbenzene	0.41	U	0.41	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.45	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.5	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.5	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.5	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.5	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	47.9		61 - 141		96%	SPK: 50
1868-53-7	Dibromofluoromethane	47.4		69 - 133		95%	SPK: 50
2037-26-5	Toluene-d8	48.8		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	45		58 - 135		90%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	902759	7.87				
540-36-3	1,4-Difluorobenzene	1384870	8.79				
3114-55-4	Chlorobenzene-d5	1249210	11.613				
3855-82-1	1,4-Dichlorobenzene-d4	622171	13.565				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-16-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-09	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004750.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	FB-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-10	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004744.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	0.5	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.5	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.35	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.45	U	0.45	0.5	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	2.5	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.47	U	0.47	0.5	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	2.5	5	ug/L
107-13-1	Acrylonitrile	1.8	U	1.8	2.5	5	ug/L
67-64-1	Acetone	0.5	U	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.41	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.41	U	0.41	0.5	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.36	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.5	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.35	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.34	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.4	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	FB-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-10	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004744.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.32	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.28	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	0.5	1	ug/L
74-95-3	Dibromomethane	0.44	U	0.44	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.36	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.1	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.37	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.29	U	0.29	0.5	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.31	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.38	U	0.38	0.5	1	ug/L
142-28-9	1,3-Dichloropropane	0.35	U	0.35	0.5	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1.8	U	1.8	2.5	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.41	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.27	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.49	U	0.49	0.5	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.43	U	0.43	0.5	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	0.95	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.43	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.36	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.47	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.45	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.31	U	0.31	0.5	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.5	U	0.5	0.5	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.5	1	ug/L
103-65-1	n-propylbenzene	0.45	U	0.45	0.5	1	ug/L
95-49-8	2-Chlorotoluene	0.43	U	0.43	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	FB-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-10	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004744.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.46	U	0.46	0.5	1	ug/L
106-43-4	4-Chlorotoluene	0.42	U	0.42	0.5	1	ug/L
98-06-6	tert-Butylbenzene	0.44	U	0.44	0.5	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.38	U	0.38	0.5	1	ug/L
135-98-8	sec-Butylbenzene	0.46	U	0.46	0.5	1	ug/L
99-87-6	p-Isopropyltoluene	0.43	U	0.43	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.43	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.32	U	0.32	0.5	1	ug/L
104-51-8	n-Butylbenzene	0.41	U	0.41	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.45	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.5	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.5	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.5	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.5	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.1		61 - 141		96%	SPK: 50
1868-53-7	Dibromofluoromethane	48.5		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	48.8		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.7		58 - 135		87%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	885303	7.87				
540-36-3	1,4-Difluorobenzene	1356120	8.79				
3114-55-4	Chlorobenzene-d5	1230670	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	591499	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	FB-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-10	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004744.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	DUP-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-11	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004755.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	0.5	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.5	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.35	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.45	U	0.45	0.5	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	2.5	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.47	U	0.47	0.5	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	2.5	5	ug/L
107-13-1	Acrylonitrile	1.8	U	1.8	2.5	5	ug/L
67-64-1	Acetone	4.5	J	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.41	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.41	U	0.41	0.5	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.36	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	2		0.2	0.5	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.5	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.35	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.34	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.4	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	1.9		0.2	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	DUP-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-11	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004755.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	2.3		0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.28	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	0.5	1	ug/L
74-95-3	Dibromomethane	0.44	U	0.44	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.36	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.1	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.37	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.29	U	0.29	0.5	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.31	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.38	U	0.38	0.5	1	ug/L
142-28-9	1,3-Dichloropropane	0.35	U	0.35	0.5	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1.8	U	1.8	2.5	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.41	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.27	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.49	U	0.49	0.5	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.43	U	0.43	0.5	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.78	J	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	0.95	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.97	J	0.43	0.5	1	ug/L
100-42-5	Styrene	0.36	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.47	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	30.2		0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.31	U	0.31	0.5	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.5	U	0.5	0.5	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.5	1	ug/L
103-65-1	n-propylbenzene	35.6		0.45	0.5	1	ug/L
95-49-8	2-Chlorotoluene	0.43	U	0.43	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	DUP-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-11	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004755.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.46	U	0.46	0.5	1	ug/L
106-43-4	4-Chlorotoluene	0.42	U	0.42	0.5	1	ug/L
98-06-6	tert-Butylbenzene	2.3		0.44	0.5	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.51	J	0.38	0.5	1	ug/L
135-98-8	sec-Butylbenzene	4.8		0.46	0.5	1	ug/L
99-87-6	p-Isopropyltoluene	0.43	U	0.43	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.43	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.32	U	0.32	0.5	1	ug/L
104-51-8	n-Butylbenzene	2.4		0.41	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.45	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.5	1	ug/L
91-20-3	Naphthalene	3		0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.5	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.5	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.5	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.5		61 - 141		93%	SPK: 50
1868-53-7	Dibromofluoromethane	46.4		69 - 133		93%	SPK: 50
2037-26-5	Toluene-d8	48.4		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.4		58 - 135		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	933663	7.87				
540-36-3	1,4-Difluorobenzene	1440720	8.79				
3114-55-4	Chlorobenzene-d5	1288100	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	665397	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	DUP-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-11	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004755.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	TB-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-12	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004742.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	0.5	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.5	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.35	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.45	U	0.45	0.5	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	2.5	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.47	U	0.47	0.5	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	2.5	5	ug/L
107-13-1	Acrylonitrile	1.8	U	1.8	2.5	5	ug/L
67-64-1	Acetone	0.5	U	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.41	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.41	U	0.41	0.5	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.36	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.5	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.35	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.34	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.4	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	TB-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-12	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004742.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.32	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.28	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	0.5	1	ug/L
74-95-3	Dibromomethane	0.44	U	0.44	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.36	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.1	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.37	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.29	U	0.29	0.5	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.31	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.38	U	0.38	0.5	1	ug/L
142-28-9	1,3-Dichloropropane	0.35	U	0.35	0.5	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1.8	U	1.8	2.5	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.41	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.27	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.49	U	0.49	0.5	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.43	U	0.43	0.5	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	0.95	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.43	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.36	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.47	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.45	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.31	U	0.31	0.5	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.5	U	0.5	0.5	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.5	1	ug/L
103-65-1	n-propylbenzene	0.45	U	0.45	0.5	1	ug/L
95-49-8	2-Chlorotoluene	0.43	U	0.43	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	TB-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-12	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004742.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.46	U	0.46	0.5	1	ug/L
106-43-4	4-Chlorotoluene	0.42	U	0.42	0.5	1	ug/L
98-06-6	tert-Butylbenzene	0.44	U	0.44	0.5	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.38	U	0.38	0.5	1	ug/L
135-98-8	sec-Butylbenzene	0.46	U	0.46	0.5	1	ug/L
99-87-6	p-Isopropyltoluene	0.43	U	0.43	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.43	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.32	U	0.32	0.5	1	ug/L
104-51-8	n-Butylbenzene	0.41	U	0.41	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.45	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.5	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.5	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.5	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.5	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.7		61 - 141		97%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	48.7		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.9		58 - 135		88%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	868603	7.87				
540-36-3	1,4-Difluorobenzene	1344620	8.79				
3114-55-4	Chlorobenzene-d5	1217280	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	584713	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	TB-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-12	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004742.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

QC SUMMARY

Surrogate Summary

SDG No.: E1676

Client: Cardno ATC

Analytical Method: EPA SW846 8260

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
E1676-01	MW-2-Q12013	1,2-Dichloroethane-d4	50	48.46	97		61	141
		Dibromofluoromethane	50	47.35	95		69	133
		Toluene-d8	50	48.03	96		65	126
		4-Bromofluorobenzene	50	46.34	93		58	135
E1676-02	MW-8-Q12013	1,2-Dichloroethane-d4	50	47.34	95		61	141
		Dibromofluoromethane	50	47.03	94		69	133
		Toluene-d8	50	48.99	98		65	126
		4-Bromofluorobenzene	50	47.25	94		58	135
E1676-02DL	MW-8-Q12013DL	1,2-Dichloroethane-d4	50	47.07	94		61	141
		Dibromofluoromethane	50	46.71	93		69	133
		Toluene-d8	50	48.43	97		65	126
		4-Bromofluorobenzene	50	45.28	91		58	135
E1676-03	MW-11R-Q12013	1,2-Dichloroethane-d4	50	46.64	93		61	141
		Dibromofluoromethane	50	47.02	94		69	133
		Toluene-d8	50	48.42	97		65	126
		4-Bromofluorobenzene	50	45.16	90		58	135
E1676-04MS	MW-11R-Q12013MS	1,2-Dichloroethane-d4	50	48.71	97		70	120
		Dibromofluoromethane	50	48.89	98		85	115
		Toluene-d8	50	47.56	95		85	120
		4-Bromofluorobenzene	50	47.47	95		75	120
E1676-05MSD	MW-11R-Q12013MSD	1,2-Dichloroethane-d4	50	49.5	99		70	120
		Dibromofluoromethane	50	49.32	99		85	115
		Toluene-d8	50	48.25	96		85	120
		4-Bromofluorobenzene	50	48.06	96		75	120
E1676-06	MW-12R-Q12013	1,2-Dichloroethane-d4	50	48.39	97		61	141
		Dibromofluoromethane	50	47.91	96		69	133
		Toluene-d8	50	49	98		65	126
		4-Bromofluorobenzene	50	43.96	88		58	135
E1676-07	MW-14-Q12013	1,2-Dichloroethane-d4	50	48.23	96		61	141
		Dibromofluoromethane	50	48.08	96		69	133
		Toluene-d8	50	48.69	97		65	126
		4-Bromofluorobenzene	50	46.61	93		58	135
E1676-08	MW-15-Q12013	1,2-Dichloroethane-d4	50	47.9	96		61	141
		Dibromofluoromethane	50	47.61	95		69	133
		Toluene-d8	50	48.94	98		65	126
		4-Bromofluorobenzene	50	46.85	94		58	135
E1676-09	MW-16-Q12013	1,2-Dichloroethane-d4	50	47.86	96		61	141
		Dibromofluoromethane	50	47.39	95		69	133
		Toluene-d8	50	48.81	98		65	126
		4-Bromofluorobenzene	50	45.04	90		58	135
E1676-10	FB-Q-12013	1,2-Dichloroethane-d4	50	48.14	96		61	141
		Dibromofluoromethane	50	48.47	97		69	133
		Toluene-d8	50	48.76	98		65	126
		4-Bromofluorobenzene	50	43.68	87		58	135
E1676-11	DUP-Q-12013	1,2-Dichloroethane-d4	50	46.52	93		61	141
		Dibromofluoromethane	50	46.38	93		69	133
		Toluene-d8	50	48.36	97		65	126
		4-Bromofluorobenzene	50	46.38	93		58	135
E1676-12	TB-Q-12013	1,2-Dichloroethane-d4	50	48.7	97		61	141
		Dibromofluoromethane	50	48.68	97		69	133
		Toluene-d8	50	48.72	97		65	126
		4-Bromofluorobenzene	50	43.93	88		58	135

Surrogate Summary

SDG No.: E1676

Client: Cardno ATC

Analytical Method: EPA SW846 8260

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
VN0329WBL01	VN0329WBL01	1,2-Dichloroethane-d4	50	48.89	98		70	120
		Dibromofluoromethane	50	49.18	98		85	115
		Toluene-d8	50	48.7	97		85	120
		4-Bromofluorobenzene	50	42.36	85		75	120
VN0329WBS01	VN0329WBS01	1,2-Dichloroethane-d4	50	46.02	92		70	120
		Dibromofluoromethane	50	49.37	99		85	115
		Toluene-d8	50	48.58	97		85	120
		4-Bromofluorobenzene	50	47.46	95		75	120

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WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Client:** Cardno ATC

Lab Code: CHEM **Cas No:** E1676 **SAS No :** E1676 **SDG No:** E1676

Client SampleID : MW-11R-Q12013MS **Analytical Method:** EPA SW846 8260 **Datafile :** VN004758.D

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC#	QC LIMITS REC
Dichlorodifluoromethane	50		48.7	97	(30-155)
Chloromethane	50		46.4	93	(40-125)
Vinyl Chloride	50		48.7	97	(50-145)
Ethyl Acetate	50		48.4	97	(70-130)
Isopropyl Acetate	50		47.7	95	(70-130)
Bromomethane	50		38.3	77	(30-145)
Chloroethane	50		50.1	100	(60-135)
Trichlorofluoromethane	50		47.9	96	(60-145)
1,1,2-Trichlorotrifluoroethane	50		49.1	98	(52-142)
Tert butyl alcohol	250		270	108	(46-147)
Diethyl Ether	50		51.1	102	(70-130)
1,1-Dichloroethene	50		49.7	99	(70-130)
Acrolein	250		250	100	(38-155)
Acrylonitrile	250		270	108	(53-150)
Acetone	250		230	92	(40-140)
Carbon Disulfide	50		45.6	91	(35-160)
Methyl tert-butyl Ether	50		52.2	104	(65-125)
Methyl Acetate	50		49	98	(51-158)
Methylene Chloride	50		49.1	98	(55-140)
trans-1,2-Dichloroethene	50		49	98	(60-140)
Vinyl Acetate	250		300	120	(47-166)
1,1-Dichloroethane	50		50.2	100	(70-135)
Cyclohexane	50		50.8	102	(56-141)
2-Butanone	250		270	108	(30-150)
Carbon Tetrachloride	50		45.6	91	(65-140)
2,2-Dichloropropane	50		40.7	81	(70-135)
cis-1,2-Dichloroethene	50		50.9	102	(70-125)
Bromochloromethane	50		51.3	103	(65-130)
Chloroform	50		50.4	101	(65-135)
1,1,1-Trichloroethane	50		49.2	98	(65-130)
Methylcyclohexane	50		47	94	(56-137)
1,1-Dichloropropene	50		47.2	94	(75-130)
Benzene	50		47.5	95	(80-120)

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Client:** Cardno ATC

Lab Code: CHEM **Cas No:** E1676 **SAS No :** E1676 **SDG No:** E1676

Client SampleID : MW-11R-Q12013MS **Analytical Method:** EPA SW846 8260 **Datafile :** VN004758.D

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC#	QC LIMITS REC
1,2-Dichloroethane	50		47.5	95	(70-130)
Trichloroethene	50		45.8	92	(70-125)
1,2-Dichloropropane	50		48.5	97	(75-125)
Dibromomethane	50		47.2	94	(75-125)
Bromodichloromethane	50		47.8	96	(75-120)
4-Methyl-2-Pentanone	250		260	104	(60-135)
Toluene	50		48.4	97	(75-120)
t-1,3-Dichloropropene	50		47.7	95	(55-140)
cis-1,3-Dichloropropene	50		46.5	93	(70-130)
1,1,2-Trichloroethane	50		48.4	97	(75-125)
1,3-Dichloropropane	50		48.3	97	(75-125)
2-Chloroethyl Vinyl ether	250		0	0*	(54-151)
2-Hexanone	250		250	100	(55-130)
Dibromochloromethane	50		48.1	96	(60-135)
1,2-Dibromoethane	50		47.9	96	(80-120)
Tetrachloroethene	50		33	66	(45-150)
Chlorobenzene	50		47.2	94	(80-120)
1,1,1,2-Tetrachloroethane	50		48.4	97	(80-130)
Hexachloroethane	50		47.7	95	(70-130)
Ethyl Benzene	50		49	98	(75-125)
m/p-Xylenes	100		97.4	97	(75-130)
o-Xylene	50		49.7	99	(80-120)
Styrene	50		49.9	100	(65-135)
Bromoform	50		48.4	97	(70-130)
Isopropylbenzene	50		50.4	101	(75-125)
1,1,2,2-Tetrachloroethane	50		50.9	102	(65-130)
1,2,3-Trichloropropane	50		46.5	93	(75-125)
Bromobenzene	50		49.3	99	(75-125)
n-propylbenzene	50		50	100	(70-130)
2-Chlorotoluene	50		50.2	100	(75-125)
1,3,5-Trimethylbenzene	50		51.7	103	(75-130)
4-Chlorotoluene	50		49.4	99	(75-130)
tert-Butylbenzene	50		51.5	103	(70-130)

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

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WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Client:** Cardno ATC

Lab Code: CHEM **Cas No:** E1676 **SAS No :** E1676 **SDG No:** E1676

Client SampleID : MW-11R-Q12013MS **Analytical Method:** EPA SW846 8260 **Datafile :** VN004758.D

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC#	QC LIMITS REC
1,2,4-Trimethylbenzene	50		51.4	103	(75-130)
sec-Butylbenzene	50		49.9	100	(70-125)
p-Isopropyltoluene	50		50.1	100	(75-130)
1,3-Dichlorobenzene	50		48.5	97	(75-125)
1,4-Dichlorobenzene	50		47.1	94	(75-125)
n-Butylbenzene	50		48.6	97	(70-135)
1,2-Dichlorobenzene	50		48.3	97	(70-120)
1,2-Dibromo-3-Chloropropane	50		49.8	100	(50-130)
1,2,4-Trichlorobenzene	50		49.5	99	(65-135)
Hexachlorobutadiene	50		46.3	93	(50-140)
Naphthalene	50		55.3	111	(55-140)
1,2,3-Trichlorobenzene	50		49.8	100	(55-140)
N-amyl acetate	50		52.5	105	(70-130)
Methyl Iodide	50		25.4	51*	(70-130)
Allyl chloride	50		48.8	98	(70-130)
trans-1,4-Dichloro-2-butene	50		47.3	95	(70-130)
Methacrylonitrile	50		50.2	100	(70-130)
Ethyl methacrylate	50		52.6	105	(70-130)

RPD : 0 Out of 84 outside limits

Spike Recovery : 2 Out of 84 outside limits

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Client:** Cardno ATC

Lab Code: CHEM **Cas No:** E1676 **SAS No :** E1676 **SDG No:** E1676

Client SampleID : MW-11R-Q12013MSD **Analytical Method:** EPA SW846 8260 **Datafile :** VN004759.D

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	MSD %RPD	QC LIMITS RPD	QC LIMITS REC
Dichlorodifluoromethane	50	48.6	97	0	20	(30-155)
Chloromethane	50	46.6	93	0	20	(40-125)
Vinyl Chloride	50	48.6	97	0	20	(50-145)
Ethyl Acetate	50	44	88	10	20	(70-130)
Isopropyl Acetate	50	44.8	90	6	20	(70-130)
Bromomethane	50	48.1	96	23*	20	(30-145)
Chloroethane	50	50	100	0	20	(60-135)
Trichlorofluoromethane	50	48.1	96	0	20	(60-145)
1,1,2-Trichlorotrifluoroethane	50	48.8	98	1	20	(52-142)
Tert butyl alcohol	250	270	108	0	20	(46-147)
Diethyl Ether	50	51.6	103	1	20	(70-130)
1,1-Dichloroethene	50	49.5	99	0	20	(70-130)
Acrolein	250	250	100	0	20	(38-155)
Acrylonitrile	250	270	108	0	20	(53-150)
Acetone	250	230	92	0	20	(40-140)
Carbon Disulfide	50	46.7	93	2	20	(35-160)
Methyl tert-butyl Ether	50	52.7	105	1	20	(65-125)
Methyl Acetate	50	44.2	88	10	20	(51-158)
Methylene Chloride	50	49.3	99	0	20	(55-140)
trans-1,2-Dichloroethene	50	50.3	101	3	20	(60-140)
Vinyl Acetate	250	260	104	14	20	(47-166)
1,1-Dichloroethane	50	51.1	102	2	20	(70-135)
Cyclohexane	50	51.3	103	1	20	(56-141)
2-Butanone	250	270	108	0	20	(30-150)
Carbon Tetrachloride	50	46.6	93	2	20	(65-140)
2,2-Dichloropropane	50	40.8	82	0	20	(70-135)
cis-1,2-Dichloroethene	50	51.2	102	1	20	(70-125)
Bromochloromethane	50	51.8	104	1	20	(65-130)
Chloroform	50	50.5	101	0	20	(65-135)
1,1,1-Trichloroethane	50	49.6	99	1	20	(65-130)
Methylcyclohexane	50	46.8	94	0	20	(56-137)
1,1-Dichloropropene	50	47.6	95	1	20	(75-130)
Benzene	50	48	96	1	20	(80-120)

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Client:** Cardno ATC

Lab Code: CHEM **Cas No:** E1676 **SAS No :** E1676 **SDG No:** E1676

Client SampleID : MW-11R-Q12013MSD **Analytical Method:** EPA SW846 8260 **Datafile :** VN004759.D

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	MSD %RPD	QC LIMITS RPD	QC LIMITS REC
1,2-Dichloroethane	50	48	96	1	20	(70-130)
Trichloroethene	50	46.1	92	1	20	(70-125)
1,2-Dichloropropane	50	49.3	99	2	20	(75-125)
Dibromomethane	50	47.7	95	1	20	(75-125)
Bromodichloromethane	50	48.2	96	1	20	(75-120)
4-Methyl-2-Pentanone	250	260	104	0	20	(60-135)
Toluene	50	49.2	98	2	20	(75-120)
t-1,3-Dichloropropene	50	49.3	99	3	20	(55-140)
cis-1,3-Dichloropropene	50	47.2	94	1	20	(70-130)
1,1,2-Trichloroethane	50	49.2	98	2	20	(75-125)
1,3-Dichloropropane	50	49.2	98	2	20	(75-125)
2-Chloroethyl Vinyl ether	250	0	0*	0	20	(54-151)
2-Hexanone	250	250	100	0	20	(55-130)
Dibromochloromethane	50	48.7	97	1	20	(60-135)
1,2-Dibromoethane	50	48.3	97	1	20	(80-120)
Tetrachloroethene	50	32.7	65	1	20	(45-150)
Chlorobenzene	50	47.7	95	1	20	(80-120)
1,1,1,2-Tetrachloroethane	50	49.1	98	1	20	(80-130)
Hexachloroethane	50	48.5	97	2	20	(70-130)
Ethyl Benzene	50	49.5	99	1	20	(75-125)
m/p-Xylenes	100	98.7	99	1	20	(75-130)
o-Xylene	50	50.2	100	1	20	(80-120)
Styrene	50	50.1	100	0	20	(65-135)
Bromoform	50	49.4	99	2	20	(70-130)
Isopropylbenzene	50	50.9	102	1	20	(75-125)
1,1,2,2-Tetrachloroethane	50	51.3	103	1	20	(65-130)
1,2,3-Trichloropropane	50	46.2	92	1	20	(75-125)
Bromobenzene	50	50	100	1	20	(75-125)
n-propylbenzene	50	50.9	102	2	20	(70-130)
2-Chlorotoluene	50	50.9	102	1	20	(75-125)
1,3,5-Trimethylbenzene	50	52.3	105	1	20	(75-130)
4-Chlorotoluene	50	50.3	101	2	20	(75-130)
tert-Butylbenzene	50	52.3	105	2	20	(70-130)

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Client:** Cardno ATC

Lab Code: CHEM **Cas No:** E1676 **SAS No :** E1676 **SDG No:** E1676

Client SampleID : MW-11R-Q12013MSD **Analytical Method:** EPA SW846 8260 **Datafile :** VN004759.D

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	MSD %RPD	QC LIMITS RPD	QC LIMITS REC
1,2,4-Trimethylbenzene	50	52	104	1	20	(75-130)
sec-Butylbenzene	50	50.4	101	1	20	(70-125)
p-Isopropyltoluene	50	50.5	101	1	20	(75-130)
1,3-Dichlorobenzene	50	49.3	99	2	20	(75-125)
1,4-Dichlorobenzene	50	47.9	96	2	20	(75-125)
n-Butylbenzene	50	49.4	99	2	20	(70-135)
1,2-Dichlorobenzene	50	49.2	98	2	20	(70-120)
1,2-Dibromo-3-Chloropropane	50	50.8	102	2	20	(50-130)
1,2,4-Trichlorobenzene	50	51.2	102	3	20	(65-135)
Hexachlorobutadiene	50	47.2	94	2	20	(50-140)
Naphthalene	50	56.2	112	2	20	(55-140)
1,2,3-Trichlorobenzene	50	50.7	101	2	20	(55-140)
N-amyl acetate	50	47	94	11	20	(70-130)
Methyl Iodide	50	32.9	66*	26*	20	(70-130)
Allyl chloride	50	49.2	98	1	20	(70-130)
trans-1,4-Dichloro-2-butene	50	47.3	95	0	20	(70-130)
Methacrylonitrile	50	49.6	99	1	20	(70-130)
Ethyl methacrylate	50	53.2	106	1	20	(70-130)

RPD : 2 Out of 84 outside limits

Spike Recovery : 2 Out of 84 outside limits

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

Water VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Client:** Cardno ATC

Lab Code: CHEM **Cas No:** E1676 **SAS No :** E1676 **SDG No:** E1676

Matrix Spike - EPA Sample No : VN0329WBS01 **Analytical Method:** EPA SW846 8260 **Datafile :** VN004739.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		20.2	101	(30-155)
Chloromethane	20		20.2	101	(40-125)
Vinyl Chloride	20		20.6	103	(50-145)
Ethyl Acetate	20		19.7	99	(70-130)
Isopropyl Acetate	20		19.4	97	(70-130)
Bromomethane	20		24.2	121	(30-145)
Chloroethane	20		20	100	(60-135)
Trichlorofluoromethane	20		19.7	99	(60-145)
1,1,2-Trichlorotrifluoroethane	20		21	105	(52-142)
Tert butyl alcohol	100		91.3	91	(46-147)
Diethyl Ether	20		19.1	96	(70-130)
1,1-Dichloroethene	20		19.5	98	(70-130)
Acrolein	100		150	150	(38-155)
Acrylonitrile	100		100	100	(53-150)
Acetone	100		100	100	(40-140)
Carbon Disulfide	20		18.7	94	(35-160)
Methyl tert-butyl Ether	20		19.3	97	(65-125)
Methyl Acetate	20		19	95	(51-158)
Methylene Chloride	20		20.1	101	(55-140)
trans-1,2-Dichloroethene	20		19.9	100	(60-140)
Vinyl Acetate	100		110	110	(47-166)
1,1-Dichloroethane	20		19.9	100	(70-135)
Cyclohexane	20		20.9	104	(56-141)
2-Butanone	100		100	100	(30-150)
Carbon Tetrachloride	20		20	100	(65-140)
2,2-Dichloropropane	20		20	100	(70-135)
cis-1,2-Dichloroethene	20		19.8	99	(70-125)
Bromochloromethane	20		21.2	106	(65-130)
Chloroform	20		20	100	(65-135)
1,1,1-Trichloroethane	20		19.5	98	(65-130)
Methylcyclohexane	20		21	105	(56-137)
1,1-Dichloropropene	20		20.6	103	(75-130)
Benzene	20		20.6	103	(80-120)
1,2-Dichloroethane	20		20.6	103	(70-130)

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

Comments: _____

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Water VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Client:** Cardno ATC

Lab Code: CHEM **Cas No:** E1676 **SAS No :** E1676 **SDG No:** E1676

Matrix Spike - EPA Sample No : VN0329WBS01 **Analytical Method:** EPA SW846 8260 **Datafile :** VN004739.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Trichloroethene	20		20	100	(70-125)
1,2-Dichloropropane	20		20.9	104	(75-125)
Dibromomethane	20		20.5	103	(75-125)
Bromodichloromethane	20		20.5	103	(75-120)
4-Methyl-2-Pentanone	100		100	100	(60-135)
Toluene	20		20.6	103	(75-120)
t-1,3-Dichloropropene	20		20.5	103	(55-140)
cis-1,3-Dichloropropene	20		20.5	103	(70-130)
1,1,2-Trichloroethane	20		21	105	(75-125)
1,3-Dichloropropane	20		20.6	103	(75-125)
2-Chloroethyl Vinyl ether	100		100	100	(54-151)
2-Hexanone	100		97.9	98	(55-130)
Dibromochloromethane	20		20.4	102	(60-135)
1,2-Dibromoethane	20		20	100	(80-120)
Tetrachloroethene	20		20.4	102	(45-150)
Chlorobenzene	20		20.2	101	(80-120)
1,1,1,2-Tetrachloroethane	20		20.6	103	(80-130)
Hexachloroethane	20		20	100	(70-130)
Ethyl Benzene	20		20.5	103	(75-125)
m/p-Xylenes	40		41.4	104	(75-130)
o-Xylene	20		20.3	102	(80-120)
Styrene	20		20.7	104	(65-135)
Bromoform	20		20.3	102	(70-130)
Isopropylbenzene	20		20.4	102	(75-125)
1,1,2,2-Tetrachloroethane	20		20.3	102	(65-130)
1,2,3-Trichloropropane	20		18.7	94	(75-125)
Bromobenzene	20		20.1	101	(75-125)
n-propylbenzene	20		20.9	104	(70-130)
2-Chlorotoluene	20		20.6	103	(75-125)
1,3,5-Trimethylbenzene	20		21.1	106	(75-130)
4-Chlorotoluene	20		20.7	104	(75-130)
tert-Butylbenzene	20		20.4	102	(70-130)
1,2,4-Trimethylbenzene	20		21	105	(75-130)
sec-Butylbenzene	20		20.9	104	(70-125)

 # Column to be used to flag recovery and RPD values with an asterisk
*** Values outside of QC limits**

Comments: _____

Water VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Client:** Cardno ATC

Lab Code: CHEM **Cas No:** E1676 **SAS No :** E1676 **SDG No:** E1676

Matrix Spike - EPA Sample No : VN0329WBS01 **Analytical Method:** EPA SW846 8260 **Datafile :** VN004739.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
p-Isopropyltoluene	20		20.8	104	(75-130)
1,3-Dichlorobenzene	20		20.5	103	(75-125)
1,4-Dichlorobenzene	20		20.1	101	(75-125)
n-Butylbenzene	20		20.7	104	(70-135)
1,2-Dichlorobenzene	20		20.1	101	(70-120)
1,2-Dibromo-3-Chloropropane	20		18.8	94	(50-130)
1,2,4-Trichlorobenzene	20		21.3	106	(65-135)
Hexachlorobutadiene	20		21.7	109	(50-140)
Naphthalene	20		21	105	(55-140)
1,2,3-Trichlorobenzene	20		21	105	(55-140)
N-amyl acetate	20		19.4	97	(70-130)
Methyl Iodide	20		17.2	86	(70-130)
Allyl chloride	20		19.2	96	(70-130)
trans-1,4-Dichloro-2-butene	20		19.7	99	(70-130)
Methacrylonitrile	20		19.7	99	(70-130)
Ethyl methacrylate	20		19.9	100	(70-130)

RPD : 0 Out of 84 outside limits

Spike Recovery : 0 Out of 84 outside limits

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

Comments: _____

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0329WBL01

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG NO.: E1676

Lab File ID: VN004738.D Lab Sample ID: VN0329WBL01

Date Analyzed: 03/29/2013 Time Analyzed: 12:44

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0329WBS01	VN0329WBS01	VN004739.D	03/29/2013
TB-Q-12013	E1676-12	VN004742.D	03/29/2013
FB-Q-12013	E1676-10	VN004744.D	03/29/2013
MW-12R-Q12013	E1676-06	VN004747.D	03/29/2013
MW-14-Q12013	E1676-07	VN004748.D	03/29/2013
MW-15-Q12013	E1676-08	VN004749.D	03/29/2013
MW-16-Q12013	E1676-09	VN004750.D	03/29/2013
MW-2-Q12013	E1676-01	VN004751.D	03/29/2013
MW-8-Q12013	E1676-02	VN004753.D	03/29/2013
MW-8-Q12013DL	E1676-02DL	VN004754.D	03/29/2013
DUP-Q-12013	E1676-11	VN004755.D	03/29/2013
MW-11R-Q12013	E1676-03	VN004757.D	03/29/2013
MW-11R-Q12013MS	E1676-04MS	VN004758.D	03/29/2013
MW-11R-Q12013MSD	E1676-05MSD	VN004759.D	03/29/2013

COMMENTS:

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG NO.: E1676

Lab File ID: VN004663.D BFB Injection Date: 03/27/2013

Instrument ID: MSVOA_N BFB Injection Time: 14:21

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.3
75	30.0 - 60.0% of mass 95	48.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.8 (0.8) 1
174	50.0 - 100.0% of mass 95	94.1
175	5.0 - 9.0% of mass 174	7.1 (7.5) 1
176	95.0 - 101.0% of mass 174	90.7 (96.4) 1
177	5.0 - 9.0% of mass 176	5.7 (6.3) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC001	VSTDICC001	VN004664.D	03/27/2013	15:14
VSTDICC005	VSTDICC005	VN004665.D	03/27/2013	15:42
VSTDICC020	VSTDICC020	VN004666.D	03/27/2013	16:10
VSTDICCC050	VSTDICCC050	VN004667.D	03/27/2013	16:38
VSTDICC100	VSTDICC100	VN004668.D	03/27/2013	17:06
VSTDICC200	VSTDICC200	VN004669.D	03/27/2013	17:35

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG NO.: E1676

Lab File ID: VN004736.D BFB Injection Date: 03/29/2013

Instrument ID: MSVOA_N BFB Injection Time: 11:13

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.3
75	30.0 - 60.0% of mass 95	45
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.9 (1) 1
174	50.0 - 100.0% of mass 95	92.2
175	5.0 - 9.0% of mass 174	6.4 (7) 1
176	95.0 - 101.0% of mass 174	88.4 (95.9) 1
177	5.0 - 9.0% of mass 176	5.8 (6.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN004737.D	03/29/2013	11:59
VN0329WBL01	VN0329WBL01	VN004738.D	03/29/2013	12:44
VN0329WBS01	VN0329WBS01	VN004739.D	03/29/2013	13:20
TB-Q-12013	E1676-12	VN004742.D	03/29/2013	15:13
FB-Q-12013	E1676-10	VN004744.D	03/29/2013	16:09
MW-12R-Q12013	E1676-06	VN004747.D	03/29/2013	17:34
MW-14-Q12013	E1676-07	VN004748.D	03/29/2013	18:02
MW-15-Q12013	E1676-08	VN004749.D	03/29/2013	18:30
MW-16-Q12013	E1676-09	VN004750.D	03/29/2013	18:59
MW-2-Q12013	E1676-01	VN004751.D	03/29/2013	19:27
MW-8-Q12013	E1676-02	VN004753.D	03/29/2013	20:23
MW-8-Q12013DL	E1676-02DL	VN004754.D	03/29/2013	20:52
DUP-Q-12013	E1676-11	VN004755.D	03/29/2013	21:20
MW-11R-Q12013	E1676-03	VN004757.D	03/29/2013	22:16
MW-11R-Q12013MS	E1676-04MS	VN004758.D	03/29/2013	22:44
MW-11R-Q12013MSD	E1676-05MSD	VN004759.D	03/29/2013	23:12

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG NO.: E1676

Lab File ID: VN004737.D Date Analyzed: 03/29/2013

Instrument ID: MSVOA_N Time Analyzed: 11:59

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	811721	7.87	1208650	8.79	1104760	11.61
UPPER LIMIT	1623440	8.37	2417290	9.29	2209520	12.11
LOWER LIMIT	405861	7.37	604324	8.29	552380	11.11
EPA SAMPLE NO.						
MW-2-Q12013	887052	7.87	1391560	8.79	1239230	11.61
MW-8-Q12013	914968	7.87	1414510	8.79	1281790	11.61
MW-8-Q12013DL	917862	7.87	1414170	8.79	1283720	11.61
MW-11R-Q12013	922873	7.87	1415120	8.79	1274580	11.61
MW-11R-Q12013MS	790437	7.87	1281960	8.79	1165050	11.61
MW-11R-Q12013MSD	787253	7.87	1274260	8.79	1164500	11.61
MW-12R-Q12013	875024	7.87	1346690	8.79	1227910	11.61
MW-14-Q12013	846812	7.87	1309550	8.79	1183830	11.61
MW-15-Q12013	896227	7.87	1378590	8.79	1268660	11.61
MW-16-Q12013	902759	7.87	1384870	8.79	1249210	11.61
FB-Q-12013	885303	7.87	1356120	8.79	1230670	11.61
DUP-Q-12013	933663	7.87	1440720	8.79	1288100	11.61
TB-Q-12013	868603	7.87	1344620	8.79	1217280	11.61
VN0329WBL01	841912	7.87	1307010	8.79	1173630	11.61
VN0329WBS01	800907	7.87	1197090	8.79	1088860	11.61

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG NO.: E1676

Lab File ID: VN004737.D Date Analyzed: 03/29/2013

Instrument ID: MSVOA_N Time Analyzed: 11:59

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	585352	13.56				
UPPER LIMIT	1170700	14.06				
LOWER LIMIT	292676	13.06				
EPA SAMPLE NO.						
MW-2-Q12013	653541	13.56				
MW-8-Q12013	683251	13.56				
MW-8-Q12013DL	642308	13.56				
MW-11R-Q12013	637029	13.56				
MW-11R-Q12013MS	594394	13.56				
MW-11R-Q12013MSD	592338	13.56				
MW-12R-Q12013	598726	13.56				
MW-14-Q12013	615013	13.56				
MW-15-Q12013	676597	13.56				
MW-16-Q12013	622171	13.57				
FB-Q-12013	591499	13.56				
DUP-Q-12013	665397	13.56				
TB-Q-12013	584713	13.56				
VN0329WBL01	551769	13.56				
VN0329WBS01	575661	13.56				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0329WBL01	SDG No.:	E1676
Lab Sample ID:	VN0329WBL01	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004738.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	0.5	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.5	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.35	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.45	U	0.45	0.5	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	2.5	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.47	U	0.47	0.5	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	2.5	5	ug/L
107-13-1	Acrylonitrile	1.8	U	1.8	2.5	5	ug/L
67-64-1	Acetone	0.5	U	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.41	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.41	U	0.41	0.5	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.36	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.5	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.35	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.34	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.4	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0329WBL01	SDG No.:	E1676
Lab Sample ID:	VN0329WBL01	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004738.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.32	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.48	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.28	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.46	U	0.46	0.5	1	ug/L
74-95-3	Dibromomethane	0.44	U	0.44	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.36	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.1	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.37	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.29	U	0.29	0.5	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.31	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.38	U	0.38	0.5	1	ug/L
142-28-9	1,3-Dichloropropane	0.35	U	0.35	0.5	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1.8	U	1.8	2.5	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.41	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.27	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.49	U	0.49	0.5	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.43	U	0.43	0.5	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	0.95	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.43	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.36	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.47	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.45	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.31	U	0.31	0.5	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.5	U	0.5	0.5	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.5	1	ug/L
103-65-1	n-propylbenzene	0.45	U	0.45	0.5	1	ug/L
95-49-8	2-Chlorotoluene	0.43	U	0.43	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0329WBL01	SDG No.:	E1676
Lab Sample ID:	VN0329WBL01	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004738.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.46	U	0.46	0.5	1	ug/L
106-43-4	4-Chlorotoluene	0.42	U	0.42	0.5	1	ug/L
98-06-6	tert-Butylbenzene	0.44	U	0.44	0.5	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.38	U	0.38	0.5	1	ug/L
135-98-8	sec-Butylbenzene	0.46	U	0.46	0.5	1	ug/L
99-87-6	p-Isopropyltoluene	0.43	U	0.43	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.43	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.32	U	0.32	0.5	1	ug/L
104-51-8	n-Butylbenzene	0.41	U	0.41	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.45	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.5	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.5	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.5	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.5	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.5	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.9		70 - 120		98%	SPK: 50
1868-53-7	Dibromofluoromethane	49.2		85 - 115		98%	SPK: 50
2037-26-5	Toluene-d8	48.7		85 - 120		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.4		75 - 120		85%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	841912	7.87				
540-36-3	1,4-Difluorobenzene	1307010	8.79				
3114-55-4	Chlorobenzene-d5	1173630	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	551769	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0329WBL01	SDG No.:	E1676
Lab Sample ID:	VN0329WBL01	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004738.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0329WBS01	SDG No.:	E1676
Lab Sample ID:	VN0329WBS01	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004739.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	20.2		0.2	0.5	1	ug/L
74-87-3	Chloromethane	20.2		0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	20.6		0.34	0.5	1	ug/L
141-78-6	Ethyl Acetate	19.7		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	19.4		0.2	0.5	1	ug/L
74-83-9	Bromomethane	24.2		0.2	0.5	1	ug/L
75-00-3	Chloroethane	20		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	19.7		0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	21		0.45	0.5	1	ug/L
75-65-0	Tert butyl alcohol	91.3		0.5	2.5	5	ug/L
60-29-7	Diethyl Ether	19.1		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	19.5		0.47	0.5	1	ug/L
107-02-8	Acrolein	150		0.5	2.5	5	ug/L
107-13-1	Acrylonitrile	100		1.8	2.5	5	ug/L
67-64-1	Acetone	100		0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	18.7		0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	19.3		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	19		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	20.1		0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	19.9		0.41	0.5	1	ug/L
108-05-4	Vinyl Acetate	110		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	19.9		0.36	0.5	1	ug/L
110-82-7	Cyclohexane	20.9		0.2	0.5	1	ug/L
78-93-3	2-Butanone	100		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	20		0.2	0.5	1	ug/L
594-20-7	2,2-Dichloropropane	20		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	19.8		0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	21.2		0.2	0.5	1	ug/L
67-66-3	Chloroform	20		0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	19.5		0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	21		0.2	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0329WBS01	SDG No.:	E1676
Lab Sample ID:	VN0329WBS01	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004739.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	20.6		0.39	0.5	1	ug/L
71-43-2	Benzene	20.6		0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	20.6		0.48	0.5	1	ug/L
79-01-6	Trichloroethene	20		0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	20.9		0.46	0.5	1	ug/L
74-95-3	Dibromomethane	20.5		0.44	0.5	1	ug/L
75-27-4	Bromodichloromethane	20.5		0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	100		2.1	2.5	5	ug/L
108-88-3	Toluene	20.6		0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	20.5		0.29	0.5	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	20.5		0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	21		0.38	0.5	1	ug/L
142-28-9	1,3-Dichloropropane	20.6		0.35	0.5	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	100		1.8	2.5	5	ug/L
591-78-6	2-Hexanone	97.9		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	20.4		0.2	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	20		0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	20.4		0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	20.2		0.49	0.5	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	20.6		0.43	0.5	1	ug/L
67-72-1	Hexachloroethane	20		0.2	0.5	1	ug/L
100-41-4	Ethyl Benzene	20.5		0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	41.4		0.95	1	2	ug/L
95-47-6	o-Xylene	20.3		0.43	0.5	1	ug/L
100-42-5	Styrene	20.7		0.36	0.5	1	ug/L
75-25-2	Bromoform	20.3		0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	20.4		0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.3		0.31	0.5	1	ug/L
96-18-4	1,2,3-Trichloropropane	18.7		0.5	0.5	1	ug/L
108-86-1	Bromobenzene	20.1		0.2	0.5	1	ug/L
103-65-1	n-propylbenzene	20.9		0.45	0.5	1	ug/L
95-49-8	2-Chlorotoluene	20.6		0.43	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0329WBS01	SDG No.:	E1676
Lab Sample ID:	VN0329WBS01	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004739.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	21.1		0.46	0.5	1	ug/L
106-43-4	4-Chlorotoluene	20.7		0.42	0.5	1	ug/L
98-06-6	tert-Butylbenzene	20.4		0.44	0.5	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	21		0.38	0.5	1	ug/L
135-98-8	sec-Butylbenzene	20.9		0.46	0.5	1	ug/L
99-87-6	p-Isopropyltoluene	20.8		0.43	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	20.5		0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	20.1		0.32	0.5	1	ug/L
104-51-8	n-Butylbenzene	20.7		0.41	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	20.1		0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	18.8		0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	21.3		0.2	0.5	1	ug/L
87-68-3	Hexachlorobutadiene	21.7		0.2	0.5	1	ug/L
91-20-3	Naphthalene	21		0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	21		0.2	0.5	1	ug/L
628-63-7	N-amyl acetate	19.4		0.2	0.5	1	ug/L
74-88-4	Methyl Iodide	17.2		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	19.2		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	19.7		0.2	0.5	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	19.7		0.2	0.5	1	ug/L
97-63-2	Ethyl methacrylate	19.9		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46		70 - 120		92%	SPK: 50
1868-53-7	Dibromofluoromethane	49.4		85 - 115		99%	SPK: 50
2037-26-5	Toluene-d8	48.6		85 - 120		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.5		75 - 120		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	800907	7.87				
540-36-3	1,4-Difluorobenzene	1197090	8.79				
3114-55-4	Chlorobenzene-d5	1088860	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	575661	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0329WBS01	SDG No.:	E1676
Lab Sample ID:	VN0329WBS01	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004739.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MS	SDG No.:	E1676
Lab Sample ID:	E1676-04MS	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004758.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	48.7		0.2	0.5	1	ug/L
74-87-3	Chloromethane	46.4		0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	48.7		0.34	0.5	1	ug/L
141-78-6	Ethyl Acetate	48.4		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	47.7		0.2	0.5	1	ug/L
74-83-9	Bromomethane	38.3		0.2	0.5	1	ug/L
75-00-3	Chloroethane	50.1		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	47.9		0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	49.1		0.45	0.5	1	ug/L
75-65-0	Tert butyl alcohol	270		0.5	2.5	5	ug/L
60-29-7	Diethyl Ether	51.1		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	49.7		0.47	0.5	1	ug/L
107-02-8	Acrolein	250		0.5	2.5	5	ug/L
107-13-1	Acrylonitrile	270		1.8	2.5	5	ug/L
67-64-1	Acetone	230		0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	45.6		0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	52.2		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	49		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	49.1		0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	49		0.41	0.5	1	ug/L
108-05-4	Vinyl Acetate	300		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	50.2		0.36	0.5	1	ug/L
110-82-7	Cyclohexane	50.8		0.2	0.5	1	ug/L
78-93-3	2-Butanone	270		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	45.6		0.2	0.5	1	ug/L
594-20-7	2,2-Dichloropropane	40.7		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	50.9		0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	51.3		0.2	0.5	1	ug/L
67-66-3	Chloroform	50.4		0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	49.2		0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	47		0.2	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MS	SDG No.:	E1676
Lab Sample ID:	E1676-04MS	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004758.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	47.2		0.39	0.5	1	ug/L
71-43-2	Benzene	47.5		0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	47.5		0.48	0.5	1	ug/L
79-01-6	Trichloroethene	45.8		0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	48.5		0.46	0.5	1	ug/L
74-95-3	Dibromomethane	47.2		0.44	0.5	1	ug/L
75-27-4	Bromodichloromethane	47.8		0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	260		2.1	2.5	5	ug/L
108-88-3	Toluene	48.4		0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	47.7		0.29	0.5	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	46.5		0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	48.4		0.38	0.5	1	ug/L
142-28-9	1,3-Dichloropropane	48.3		0.35	0.5	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1.8	U	1.8	2.5	5	ug/L
591-78-6	2-Hexanone	250		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	48.1		0.2	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	47.9		0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	33		0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	47.2		0.49	0.5	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	48.4		0.43	0.5	1	ug/L
67-72-1	Hexachloroethane	47.7		0.2	0.5	1	ug/L
100-41-4	Ethyl Benzene	49		0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	97.4		0.95	1	2	ug/L
95-47-6	o-Xylene	49.7		0.43	0.5	1	ug/L
100-42-5	Styrene	49.9		0.36	0.5	1	ug/L
75-25-2	Bromoform	48.4		0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	50.4		0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	50.9		0.31	0.5	1	ug/L
96-18-4	1,2,3-Trichloropropane	46.5		0.5	0.5	1	ug/L
108-86-1	Bromobenzene	49.3		0.2	0.5	1	ug/L
103-65-1	n-propylbenzene	50		0.45	0.5	1	ug/L
95-49-8	2-Chlorotoluene	50.2		0.43	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MS	SDG No.:	E1676
Lab Sample ID:	E1676-04MS	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004758.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	51.7		0.46	0.5	1	ug/L
106-43-4	4-Chlorotoluene	49.4		0.42	0.5	1	ug/L
98-06-6	tert-Butylbenzene	51.5		0.44	0.5	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	51.4		0.38	0.5	1	ug/L
135-98-8	sec-Butylbenzene	49.9		0.46	0.5	1	ug/L
99-87-6	p-Isopropyltoluene	50.1		0.43	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	48.5		0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	47.1		0.32	0.5	1	ug/L
104-51-8	n-Butylbenzene	48.6		0.41	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	48.3		0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	49.8		0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	49.5		0.2	0.5	1	ug/L
87-68-3	Hexachlorobutadiene	46.3		0.2	0.5	1	ug/L
91-20-3	Naphthalene	55.3		0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	49.8		0.2	0.5	1	ug/L
628-63-7	N-amyl acetate	52.5		0.2	0.5	1	ug/L
74-88-4	Methyl Iodide	25.4		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	48.8		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	50.2		0.2	0.5	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	47.3		0.2	0.5	1	ug/L
97-63-2	Ethyl methacrylate	52.6		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.7		70 - 120		97%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		85 - 115		98%	SPK: 50
2037-26-5	Toluene-d8	47.6		85 - 120		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.5		75 - 120		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	790437	7.87				
540-36-3	1,4-Difluorobenzene	1281960	8.79				
3114-55-4	Chlorobenzene-d5	1165050	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	594394	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MS	SDG No.:	E1676
Lab Sample ID:	E1676-04MS	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004758.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MSD	SDG No.:	E1676
Lab Sample ID:	E1676-05MSD	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004759.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	48.6		0.2	0.5	1	ug/L
74-87-3	Chloromethane	46.6		0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	48.6		0.34	0.5	1	ug/L
141-78-6	Ethyl Acetate	44		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	44.8		0.2	0.5	1	ug/L
74-83-9	Bromomethane	48.1		0.2	0.5	1	ug/L
75-00-3	Chloroethane	50		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	48.1		0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	48.8		0.45	0.5	1	ug/L
75-65-0	Tert butyl alcohol	270		0.5	2.5	5	ug/L
60-29-7	Diethyl Ether	51.6		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	49.5		0.47	0.5	1	ug/L
107-02-8	Acrolein	250		0.5	2.5	5	ug/L
107-13-1	Acrylonitrile	270		1.8	2.5	5	ug/L
67-64-1	Acetone	230		0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	46.7		0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	52.7		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	44.2		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	49.3		0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	50.3		0.41	0.5	1	ug/L
108-05-4	Vinyl Acetate	260		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	51.1		0.36	0.5	1	ug/L
110-82-7	Cyclohexane	51.3		0.2	0.5	1	ug/L
78-93-3	2-Butanone	270		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	46.6		0.2	0.5	1	ug/L
594-20-7	2,2-Dichloropropane	40.8		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	51.2		0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	51.8		0.2	0.5	1	ug/L
67-66-3	Chloroform	50.5		0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	49.6		0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	46.8		0.2	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MSD	SDG No.:	E1676
Lab Sample ID:	E1676-05MSD	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004759.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	47.6		0.39	0.5	1	ug/L
71-43-2	Benzene	48		0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	48		0.48	0.5	1	ug/L
79-01-6	Trichloroethene	46.1		0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	49.3		0.46	0.5	1	ug/L
74-95-3	Dibromomethane	47.7		0.44	0.5	1	ug/L
75-27-4	Bromodichloromethane	48.2		0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	260		2.1	2.5	5	ug/L
108-88-3	Toluene	49.2		0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	49.3		0.29	0.5	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	47.2		0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	49.2		0.38	0.5	1	ug/L
142-28-9	1,3-Dichloropropane	49.2		0.35	0.5	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1.8	U	1.8	2.5	5	ug/L
591-78-6	2-Hexanone	250		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	48.7		0.2	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	48.3		0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	32.7		0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	47.7		0.49	0.5	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	49.1		0.43	0.5	1	ug/L
67-72-1	Hexachloroethane	48.5		0.2	0.5	1	ug/L
100-41-4	Ethyl Benzene	49.5		0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	98.7		0.95	1	2	ug/L
95-47-6	o-Xylene	50.2		0.43	0.5	1	ug/L
100-42-5	Styrene	50.1		0.36	0.5	1	ug/L
75-25-2	Bromoform	49.4		0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	50.9		0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	51.3		0.31	0.5	1	ug/L
96-18-4	1,2,3-Trichloropropane	46.2		0.5	0.5	1	ug/L
108-86-1	Bromobenzene	50		0.2	0.5	1	ug/L
103-65-1	n-propylbenzene	50.9		0.45	0.5	1	ug/L
95-49-8	2-Chlorotoluene	50.9		0.43	0.5	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MSD	SDG No.:	E1676
Lab Sample ID:	E1676-05MSD	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004759.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	52.3		0.46	0.5	1	ug/L
106-43-4	4-Chlorotoluene	50.3		0.42	0.5	1	ug/L
98-06-6	tert-Butylbenzene	52.3		0.44	0.5	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	52		0.38	0.5	1	ug/L
135-98-8	sec-Butylbenzene	50.4		0.46	0.5	1	ug/L
99-87-6	p-Isopropyltoluene	50.5		0.43	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	49.3		0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	47.9		0.32	0.5	1	ug/L
104-51-8	n-Butylbenzene	49.4		0.41	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	49.2		0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	50.8		0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	51.2		0.2	0.5	1	ug/L
87-68-3	Hexachlorobutadiene	47.2		0.2	0.5	1	ug/L
91-20-3	Naphthalene	56.2		0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	50.7		0.2	0.5	1	ug/L
628-63-7	N-amyl acetate	47		0.2	0.5	1	ug/L
74-88-4	Methyl Iodide	32.9		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	49.2		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	49.6		0.2	0.5	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	47.3		0.2	0.5	1	ug/L
97-63-2	Ethyl methacrylate	53.2		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.5		70 - 120		99%	SPK: 50
1868-53-7	Dibromofluoromethane	49.3		85 - 115		99%	SPK: 50
2037-26-5	Toluene-d8	48.3		85 - 120		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.1		75 - 120		96%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	787253	7.87				
540-36-3	1,4-Difluorobenzene	1274260	8.79				
3114-55-4	Chlorobenzene-d5	1164500	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	592338	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MSD	SDG No.:	E1676
Lab Sample ID:	E1676-05MSD	Matrix:	Water
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN004759.D	1		03/29/13	VN032913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG No.: E1676

Instrument ID: MSVOA_N Calibration Date(s): 03/27/2013 03/27/2013

Heated Purge: (Y/N) N Calibration Time(s): 15:14 17:35

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF001 = VN004664.D RRF005 = VN004665.D RRF020 = VN004666.D
RRF050 = VN004667.D RRF100 = VN004668.D RRF200 = VN004669.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.588	0.525	0.586	0.569	0.544	0.560	0.562	4.3
Chloromethane	0.658	0.585	0.579	0.554	0.541	0.546	0.577	7.5
Vinyl Chloride	0.679	0.657	0.656	0.641	0.612	0.625	0.645	3.7
Ethyl Acetate	0.247	0.301	0.306	0.305	0.302	0.312	0.295	8.2
Isopropyl Acetate	0.510	0.505	0.507	0.517	0.514	0.545	0.516	2.8
Bromomethane	0.292	0.262	0.279	0.284	0.286	0.311	0.286	5.6
Chloroethane	0.355	0.333	0.332	0.319	0.308	0.319	0.328	4.9
Trichlorofluoromethane	0.874	0.828	0.799	0.765	0.737	0.757	0.793	6.4
1,1,2-Trichlorotrifluoroethane	0.513	0.463	0.457	0.435	0.421	0.427	0.453	7.5
Tert butyl alcohol	0.040	0.046	0.050	0.051	0.050	0.053	0.048	9.7
Diethyl Ether	0.300	0.287	0.277	0.275	0.272	0.285	0.283	3.7
1,1-Dichloroethene	0.487	0.462	0.443	0.435	0.422	0.437	0.448	5.2
Acrolein	0.026	0.031	0.030	0.036	0.038	0.045	0.034	20
Acrylonitrile	0.144	0.176	0.192	0.197	0.192	0.201	0.184	11.5
Acetone	0.166	0.154	0.151	0.159	0.157	0.164	0.158	3.8
Carbon Disulfide	1.492	1.345	1.262	1.246	1.219	1.265	1.305	7.8
Methyl tert-butyl Ether	1.354	1.313	1.373	1.393	1.357	1.418	1.368	2.6
Methyl Acetate	0.537	0.563	0.569	0.597	0.591	0.663	0.587	7.4
Methylene Chloride	0.600	0.537	0.525	0.498	0.482	0.496	0.523	8.2
trans-1,2-Dichloroethene	0.507	0.512	0.494	0.483	0.470	0.483	0.492	3.2
Vinyl Acetate	0.642	0.670	0.696	0.680	0.622	0.588	0.650	6.2
1,1-Dichloroethane	0.905	0.855	0.837	0.814	0.793	0.815	0.836	4.8
Cyclohexane	1.523	0.879	0.749	0.715	0.686	0.706	0.876	37
2-Butanone	0.180	0.199	0.217	0.228	0.221	0.234	0.213	9.4
Carbon Tetrachloride	0.510	0.446	0.436	0.432	0.420	0.433	0.446	7.3
2,2-Dichloropropane	0.750	0.718	0.715	0.697	0.672	0.692	0.707	3.8
cis-1,2-Dichloroethene	0.591	0.567	0.562	0.557	0.542	0.561	0.563	2.8
Bromochloromethane	0.356	0.368	0.383	0.361	0.344	0.344	0.359	4.1
Chloroform	0.956	0.936	0.909	0.886	0.853	0.880	0.903	4.2
1,1,1-Trichloroethane	0.851	0.778	0.780	0.764	0.743	0.768	0.781	4.7
Methylcyclohexane	0.566	0.484	0.496	0.506	0.504	0.518	0.512	5.6
1,1-Dichloropropene	0.494	0.436	0.431	0.423	0.411	0.422	0.436	6.8
Benzene	1.466	1.311	1.286	1.264	1.222	1.253	1.300	6.7

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG No.: E1676

Instrument ID: MSVOA_N Calibration Date(s): 03/27/2013 03/27/2013

Heated Purge: (Y/N) N Calibration Time(s): 15:14 17:35

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF001 = VN004664.D RRF005 = VN004665.D RRF020 = VN004666.D
RRF050 = VN004667.D RRF100 = VN004668.D RRF200 = VN004669.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD
1,2-Dichloroethane	0.459	0.436	0.444	0.426	0.408	0.420	0.432	4.2
Trichloroethene	0.440	0.371	0.364	0.368	0.360	0.376	0.380	7.9
1,2-Dichloropropane	0.360	0.323	0.321	0.312	0.305	0.315	0.323	6.1
Dibromomethane	0.250	0.228	0.231	0.225	0.218	0.225	0.230	4.6
Bromodichloromethane	0.473	0.429	0.439	0.430	0.421	0.439	0.438	4.1
4-Methyl-2-Pentanone	0.255	0.277	0.299	0.311	0.307	0.318	0.295	8.1
Toluene	0.829	0.813	0.809	0.816	0.800	0.824	0.815	1.3
t-1,3-Dichloropropene	0.431	0.433	0.446	0.472	0.472	0.503	0.460	6.1
cis-1,3-Dichloropropene	0.514	0.487	0.502	0.512	0.509	0.535	0.510	3.1
1,1,2-Trichloroethane	0.362	0.335	0.335	0.333	0.323	0.332	0.337	4
1,3-Dichloropropane	0.591	0.535	0.533	0.534	0.516	0.537	0.541	4.7
2-Chloroethyl Vinyl ether	0.168	0.176	0.208	0.219	0.220	0.233	0.204	12.7
2-Hexanone	0.184	0.203	0.213	0.227	0.225	0.228	0.213	8.2
Dibromochloromethane	0.381	0.349	0.366	0.371	0.367	0.385	0.370	3.5
1,2-Dibromoethane	0.362	0.348	0.348	0.347	0.340	0.354	0.350	2.2
Tetrachloroethene	0.427	0.445	0.474	0.510	0.517	0.555	0.488	9.9
Chlorobenzene	1.199	1.087	1.037	1.015	0.994	1.035	1.061	7
1,1,1,2-Tetrachloroethane	0.370	0.378	0.368	0.369	0.359	0.376	0.370	1.8
Hexachloroethane	0.619	0.517	0.541	0.536	0.536	0.561	0.552	6.5
Ethyl Benzene	1.659	1.615	1.626	1.648	1.631	1.710	1.648	2.1
m/p-Xylenes	0.626	0.638	0.644	0.649	0.640	0.667	0.644	2.1
o-Xylene	0.596	0.617	0.639	0.641	0.641	0.670	0.634	4
Styrene	0.890	0.946	1.011	1.042	1.041	1.097	1.004	7.4
Bromoform	0.292	0.288	0.299	0.310	0.308	0.320	0.303	4
Isopropylbenzene	3.098	3.084	3.216	3.266	3.232	3.416	3.219	3.8
1,1,2,2-Tetrachloroethane	1.028	0.945	0.945	0.923	0.881	0.885	0.935	5.8
1,2,3-Trichloropropane	0.949	0.898	0.799	0.789	0.759	0.784	0.830	9.1
Bromobenzene	0.905	0.878	0.875	0.873	0.857	0.897	0.881	2
n-propylbenzene	3.407	3.545	3.684	3.716	3.675	3.869	3.649	4.3
2-Chlorotoluene	2.143	2.132	2.205	2.216	2.179	2.283	2.193	2.5
1,3,5-Trimethylbenzene	2.126	2.238	2.452	2.518	2.510	2.679	2.420	8.4
4-Chlorotoluene	2.155	2.160	2.205	2.179	2.164	2.273	2.189	2.1
tert-Butylbenzene	2.194	2.152	2.334	2.330	2.326	2.428	2.294	4.5

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG No.: E1676

Instrument ID: MSVOA_N Calibration Date(s): 03/27/2013 03/27/2013

Heated Purge: (Y/N) N Calibration Time(s): 15:14 17:35

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF001 = VN004664.D RRF005 = VN004665.D RRF020 = VN004666.D
RRF050 = VN004667.D RRF100 = VN004668.D RRF200 = VN004669.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD
1,2,4-Trimethylbenzene	2.165	2.337	2.520	2.576	2.557	2.711	2.478	7.9
sec-Butylbenzene	3.080	3.147	3.313	3.327	3.284	3.425	3.263	3.9
p-Isopropyltoluene	2.437	2.535	2.690	2.753	2.735	2.875	2.671	5.9
1,3-Dichlorobenzene	1.688	1.649	1.643	1.619	1.598	1.656	1.642	1.9
1,4-Dichlorobenzene	1.887	1.718	1.666	1.627	1.589	1.640	1.688	6.3
n-Butylbenzene	2.312	2.244	2.339	2.395	2.382	2.495	2.361	3.6
1,2-Dichlorobenzene	1.727	1.653	1.611	1.599	1.546	1.571	1.618	4
1,2-Dibromo-3-Chloropropane	0.171	0.168	0.180	0.184	0.174	0.176	0.176	3.3
1,2,4-Trichlorobenzene	1.107	0.970	1.005	1.025	0.988	1.033	1.021	4.7
Hexachlorobutadiene	0.572	0.501	0.514	0.513	0.475	0.460	0.506	7.7
Naphthalene	2.229	2.338	2.648	2.777	2.726	2.889	2.601	10
1,2,3-Trichlorobenzene	1.084	0.967	1.025	1.013	0.978	1.011	1.013	4.1
1,2-Dichloroethane-d4	0.600	0.555	0.572	0.539	0.510	0.518	0.549	6.2
Dibromofluoromethane	0.329	0.305	0.320	0.307	0.294	0.297	0.309	4.3
Toluene-d8	1.237	1.167	1.186	1.136	1.105	1.126	1.160	4.1
4-Bromofluorobenzene	0.490	0.412	0.427	0.422	0.418	0.425	0.432	6.6
N-amyl acetate	0.772	0.814	0.910	0.963	0.975	1.031	0.911	11
Methyl Iodide	0.293	0.484	0.603	0.664	0.667	0.704	0.569	27.4
Allyl chloride	0.635	0.573	0.565	0.559	0.551	0.568	0.575	5.3
trans-1,4-Dichloro-2-butene	0.256	0.263	0.289	0.306	0.313	0.336	0.294	10.4
Methacrylonitrile	0.171	0.174	0.179	0.184	0.179	0.188	0.179	3.5
Ethyl methacrylate	0.344	0.358	0.406	0.439	0.448	0.475	0.412	12.6

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG No.: E1676

Instrument ID: MSVOA_N Calibration Date/Time: 03/29/2013 11:59

Lab File ID: VN004737.D Init. Calib. Date(s): 03/27/2013 03/27/2013

Heated Purge: (Y/N) N Init. Calib. Time(s): 15:14 17:35

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.562	0.561		-0.18	20
Chloromethane	0.577	0.565	0.1	-2.08	20
Vinyl Chloride	0.645	0.637		-1.24	20
Ethyl Acetate	0.295	0.291		-1.36	20
Isopropyl Acetate	0.516	0.486		-5.81	20
Bromomethane	0.286	0.312		9.09	20
Chloroethane	0.328	0.319		-2.74	20
Trichlorofluoromethane	0.793	0.763		-3.78	20
1,1,2-Trichlorotrifluoroethane	0.453	0.462		1.99	20
Tert butyl alcohol	0.048	0.041		-14.58	20
Diethyl Ether	0.283	0.264		-6.71	20
1,1-Dichloroethene	0.448	0.428		-4.46	20
Acrolein	0.034	0.042		23.53	20
Acrylonitrile	0.184	0.182		-1.09	20
Acetone	0.158	0.157		-0.63	20
Carbon Disulfide	1.305	1.200		-8.05	20
Methyl tert-butyl Ether	1.368	1.300		-4.97	20
Methyl Acetate	0.587	0.537		-8.52	20
Methylene Chloride	0.523	0.518		-0.96	20
trans-1,2-Dichloroethene	0.492	0.477		-3.05	20
Vinyl Acetate	0.650	0.754		16	20
1,1-Dichloroethane	0.836	0.813	0.1	-2.75	20
Cyclohexane	0.876	0.731		-16.55	20
2-Butanone	0.213	0.207		-2.82	20
Carbon Tetrachloride	0.446	0.437		-2.02	20
2,2-Dichloropropane	0.707	0.694		-1.84	20
cis-1,2-Dichloroethene	0.563	0.546		-3.02	20
Bromochloromethane	0.359	0.354		-1.39	20
Chloroform	0.903	0.874		-3.21	20
1,1,1-Trichloroethane	0.781	0.739		-5.38	20
Methylcyclohexane	0.512	0.548		7.03	20
1,1-Dichloropropene	0.436	0.448		2.75	20
Benzene	1.300	1.300		0	20
1,2-Dichloroethane	0.432	0.427		-1.16	20
Trichloroethene	0.380	0.371		-2.37	20
1,2-Dichloropropane	0.323	0.329		1.86	20
Dibromomethane	0.230	0.227		-1.3	20
Bromodichloromethane	0.438	0.442		0.91	20
4-Methyl-2-Pentanone	0.295	0.289		-2.03	20
Toluene	0.815	0.836		2.58	20
t-1,3-Dichloropropene	0.460	0.475		3.26	20
cis-1,3-Dichloropropene	0.510	0.521		2.16	20

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG No.: E1676

Instrument ID: MSVOA_N Calibration Date/Time: 03/29/2013 11:59

Lab File ID: VN004737.D Init. Calib. Date(s): 03/27/2013 03/27/2013

Heated Purge: (Y/N) N Init. Calib. Time(s): 15:14 17:35

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
1,1,2-Trichloroethane	0.337	0.334		-0.89	20
1,3-Dichloropropane	0.541	0.541		0	20
2-Chloroethyl Vinyl ether	0.204	0.213		4.41	20
2-Hexanone	0.213	0.208		-2.35	20
Dibromochloromethane	0.370	0.372		0.54	20
1,2-Dibromoethane	0.350	0.340		-2.86	20
Tetrachloroethene	0.488	0.541		10.86	20
Chlorobenzene	1.061	1.055	0.3	-0.57	20
1,1,1,2-Tetrachloroethane	0.370	0.374		1.08	20
Hexachloroethane	0.552	0.549		-0.54	20
Ethyl Benzene	1.648	1.715		4.07	20
m/p-Xylenes	0.644	0.678		5.28	20
o-Xylene	0.634	0.659		3.94	20
Styrene	1.004	1.077		7.27	20
Bromoform	0.303	0.304	0.1	0.33	20
Isopropylbenzene	3.219	3.304		2.64	20
1,1,2,2-Tetrachloroethane	0.935	0.913	0.3	-2.35	20
1,2,3-Trichloropropane	0.830	0.738		-11.08	20
Bromobenzene	0.881	0.880		-0.11	20
n-propylbenzene	3.649	3.860		5.78	20
2-Chlorotoluene	2.193	2.268		3.42	20
1,3,5-Trimethylbenzene	2.420	2.590		7.03	20
4-Chlorotoluene	2.189	2.255		3.02	20
tert-Butylbenzene	2.294	2.405		4.84	20
1,2,4-Trimethylbenzene	2.478	2.653		7.06	20
sec-Butylbenzene	3.263	3.419		4.78	20
p-Isopropyltoluene	2.671	2.850		6.7	20
1,3-Dichlorobenzene	1.642	1.665		1.4	20
1,4-Dichlorobenzene	1.688	1.663		-1.48	20
n-Butylbenzene	2.361	2.529		7.12	20
1,2-Dichlorobenzene	1.618	1.608		-0.62	20
1,2-Dibromo-3-Chloropropane	0.176	0.160		-9.09	20
1,2,4-Trichlorobenzene	1.021	1.074		5.19	20
Hexachlorobutadiene	0.506	0.543		7.31	20
Naphthalene	2.601	2.698		3.73	20
1,2,3-Trichlorobenzene	1.013	1.037		2.37	20
1,2-Dichloroethane-d4	0.549	0.504		-8.2	20
Dibromofluoromethane	0.309	0.309		0	20
Toluene-d8	1.160	1.142		-1.47	20
4-Bromofluorobenzene	0.432	0.421		-2.55	20
N-amyl acetate	0.911	0.893		-1.98	20
Methyl Iodide	0.569	0.614		7.91	20

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Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG No.: E1676

Instrument ID: MSVOA_N Calibration Date/Time: 03/29/2013 11:59

Lab File ID: VN004737.D Init. Calib. Date(s): 03/27/2013 03/27/2013

Heated Purge: (Y/N) N Init. Calib. Time(s): 15:14 17:35

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Allyl chloride	0.575	0.545		-5.22	20
trans-1,4-Dichloro-2-butene	0.294	0.285		-3.06	20
Methacrylonitrile	0.179	0.177		-1.12	20
Ethyl methacrylate	0.412	0.424		2.91	20

All other compounds must meet a minimum RRF of 0.010.

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LAB CHRONICLE

OrderID:	E1676	**OrderDate:**	3/28/2013 5:31:00 PM
Client:	Cardno ATC	**Project:**	Avalon- WP9
Contact:	John Mascioli	**Location:**	L62

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
E1676-01	**MW-2-Q12013**	**Water**			**03/28/13**			**03/28/13**
			SVOC- Chemtech Full	625		03/29/13	04/03/13	
E1676-01DL	**MW-2-Q12013DL**	**Water**			**03/28/13**			**03/28/13**
			SVOC- Chemtech Full	625		03/29/13	04/03/13	
E1676-02	**MW-8-Q12013**	**Water**			**03/28/13**			**03/28/13**
			SVOC- Chemtech Full	625		03/29/13	04/03/13	
E1676-03	**MW-11R-Q12013**	**Water**			**03/28/13**			**03/28/13**
			SVOC- Chemtech Full	625		03/29/13	04/03/13	
E1676-06	**MW-12R-Q12013**	**Water**			**03/28/13**			**03/28/13**
			SVOC- Chemtech Full	625		03/29/13	04/03/13	
E1676-07	**MW-14-Q12013**	**Water**			**03/28/13**			**03/28/13**
			SVOC- Chemtech Full	625		03/29/13	04/03/13	
E1676-08	**MW-15-Q12013**	**Water**			**03/28/13**			**03/28/13**
			SVOC- Chemtech Full	625		03/29/13	04/02/13	
E1676-09	**MW-16-Q12013**	**Water**			**03/28/13**			**03/28/13**
			SVOC- Chemtech Full	625		03/29/13	04/03/13	
E1676-10	**FB-Q-12013**	**Water**			**03/28/13**			**03/28/13**
			SVOC- Chemtech Full	625		03/29/13	04/03/13	
E1676-11	**DUP-Q-12013**	**Water**			**03/28/13**			**03/28/13**
			SVOC- Chemtech Full	625		03/29/13	04/03/13	

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Hit Summary Sheet
SW-846

SDG No.: E1676

Client: Cardno ATC

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : DUP-Q-12013									
E1676-11	DUP-Q-12013	WATER	Naphthalene	1.700	J	0.19	1.25	2.5	ug/L
E1676-11	DUP-Q-12013	WATER	2-Methylnaphthalene	6.600		0.19	1.25	2.5	ug/L
E1676-11	DUP-Q-12013	WATER	Acenaphthylene	1.100	J	0.16	1.25	2.5	ug/L
E1676-11	DUP-Q-12013	WATER	Acenaphthene	22.300		0.17	1.25	2.5	ug/L
E1676-11	DUP-Q-12013	WATER	Fluorene	6.700		0.15	1.25	2.5	ug/L
E1676-11	DUP-Q-12013	WATER	Phenanthrene	4.300		0.11	1.25	2.5	ug/L
E1676-11	DUP-Q-12013	WATER	Anthracene	1.300	J	0.3	1.25	2.5	ug/L
E1676-11	DUP-Q-12013	WATER	Carbazole	2.000	J	0.47	1.25	2.5	ug/L
E1676-11	DUP-Q-12013	WATER	Fluoranthene	2.900		0.85	1.25	2.5	ug/L
E1676-11	DUP-Q-12013	WATER	Pyrene	3.500		0.13	1.25	2.5	ug/L
E1676-11	DUP-Q-12013	WATER	Benzo(a)anthracene	1.300	J	0.12	1.25	2.5	ug/L
E1676-11	DUP-Q-12013	WATER	Chrysene	1.300	J	0.24	1.25	2.5	ug/L
E1676-11	DUP-Q-12013	WATER	Benzo(b)fluoranthene	1.100	J	0.17	1.25	2.5	ug/L
E1676-11	DUP-Q-12013	WATER	Benzo(a)pyrene	1.000	J	0.17	1.25	2.5	ug/L
			Total Svoc :		**57.10**				
			Total Concentration:		**57.10**				
Client ID : MW-12R-Q12013									
E1676-06	MW-12R-Q12013	WATER	Naphthalene	3.200		0.19	1.25	2.5	ug/L
E1676-06	MW-12R-Q12013	WATER	Fluoranthene	1.100	J	0.85	1.25	2.5	ug/L
E1676-06	MW-12R-Q12013	WATER	Pyrene	1.100	J	0.13	1.25	2.5	ug/L
E1676-06	MW-12R-Q12013	WATER	Benzo(b)fluoranthene	1.300	J	0.17	1.25	2.5	ug/L
			Total Svoc :		**6.70**				
			Total Concentration:		**6.70**				
Client ID : MW-14-Q12013									
E1676-07	MW-14-Q12013	WATER	Naphthalene	1.700	J	0.19	1.25	2.5	ug/L
E1676-07	MW-14-Q12013	WATER	2-Methylnaphthalene	7.500		0.19	1.25	2.5	ug/L
E1676-07	MW-14-Q12013	WATER	Dimethylphthalate	1.300	J	0.17	1.25	2.5	ug/L
E1676-07	MW-14-Q12013	WATER	Acenaphthene	22.000		0.17	1.25	2.5	ug/L
E1676-07	MW-14-Q12013	WATER	Fluorene	7.000		0.15	1.25	2.5	ug/L
E1676-07	MW-14-Q12013	WATER	Phenanthrene	4.100		0.11	1.25	2.5	ug/L
E1676-07	MW-14-Q12013	WATER	Anthracene	1.200	J	0.3	1.25	2.5	ug/L
E1676-07	MW-14-Q12013	WATER	Carbazole	1.900	J	0.47	1.25	2.5	ug/L
E1676-07	MW-14-Q12013	WATER	Fluoranthene	2.400	J	0.85	1.25	2.5	ug/L
E1676-07	MW-14-Q12013	WATER	Pyrene	2.900		0.13	1.25	2.5	ug/L
			Total Svoc :		**52.00**				
			Total Concentration:		**52.00**				
Client ID : MW-15-Q12013									
E1676-08	MW-15-Q12013	WATER	Dimethylphthalate	2.200	J	0.18	1.3	2.6	ug/L

Hit Summary Sheet
SW-846

SDG No.: E1676

Client: Cardno ATC

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
			Total Svoc :		**2.20**				
			Total Concentration:		**2.20**				
Client ID :	**MW-2-Q12013**								
E1676-01	MW-2-Q12013	WATER	Naphthalene	6.800		0.19	1.3	2.6	ug/L
E1676-01	MW-2-Q12013	WATER	1,1-Biphenyl	1.800	J	0.27	1.3	2.6	ug/L
E1676-01	MW-2-Q12013	WATER	Dimethylphthalate	1.500	J	0.17	1.3	2.6	ug/L
E1676-01	MW-2-Q12013	WATER	Acenaphthene	82.400	E	0.17	1.3	2.6	ug/L
E1676-01	MW-2-Q12013	WATER	Dibenzofuran	48.200		2.2	5.1	10.2	ug/L
E1676-01	MW-2-Q12013	WATER	Fluorene	20.700		0.15	1.3	2.6	ug/L
E1676-01	MW-2-Q12013	WATER	Pentachlorophenol	5.000	J	2.7	5.1	10.2	ug/L
E1676-01	MW-2-Q12013	WATER	Phenanthrene	13.200		0.11	1.3	2.6	ug/L
E1676-01	MW-2-Q12013	WATER	Carbazole	38.000		0.48	1.3	2.6	ug/L
E1676-01	MW-2-Q12013	WATER	Bis(2-ethylhexyl)phthalate	1.200	J	0.3	1.3	2.6	ug/L
			Total Svoc :		**218.80**				
			Total Concentration:		**218.80**				
Client ID :	**MW-2-Q12013DL**								
E1676-01DL	MW-2-Q12013DL	WATER	Naphthalene	6.300	JD	0.97	6.4	12.8	ug/L
E1676-01DL	MW-2-Q12013DL	WATER	Acenaphthene	100.000	D	0.87	6.4	12.8	ug/L
E1676-01DL	MW-2-Q12013DL	WATER	Dibenzofuran	57.900	D	10.8	25.5	51	ug/L
E1676-01DL	MW-2-Q12013DL	WATER	Fluorene	21.300	D	0.77	6.4	12.8	ug/L
E1676-01DL	MW-2-Q12013DL	WATER	Phenanthrene	13.500	D	0.56	6.4	12.8	ug/L
E1676-01DL	MW-2-Q12013DL	WATER	Carbazole	38.000	D	2.4	6.4	12.8	ug/L
			Total Svoc :		**237.00**				
			Total Concentration:		**237.00**				
Client ID :	**MW-8-Q12013**								
E1676-02	MW-8-Q12013	WATER	2-Methylphenol	8.200	J	1.8	5	10	ug/L
E1676-02	MW-8-Q12013	WATER	Acetophenone	4.000		0.2	1.25	2.5	ug/L
E1676-02	MW-8-Q12013	WATER	3+4-Methylphenols	8.100		0.58	1.25	2.5	ug/L
E1676-02	MW-8-Q12013	WATER	2,4-Dimethylphenol	4.800		0.7	1.25	2.5	ug/L
E1676-02	MW-8-Q12013	WATER	Naphthalene	1.100	J	0.19	1.25	2.5	ug/L
E1676-02	MW-8-Q12013	WATER	1,1-Biphenyl	1.900	J	0.26	1.25	2.5	ug/L
E1676-02	MW-8-Q12013	WATER	Dimethylphthalate	2.200	J	0.17	1.25	2.5	ug/L
E1676-02	MW-8-Q12013	WATER	Acenaphthylene	1.000	J	0.16	1.25	2.5	ug/L
E1676-02	MW-8-Q12013	WATER	Acenaphthene	27.600		0.17	1.25	2.5	ug/L
E1676-02	MW-8-Q12013	WATER	Dibenzofuran	12.800		2.1	5	10	ug/L
E1676-02	MW-8-Q12013	WATER	Diethylphthalate	1.300	J	0.1	1.25	2.5	ug/L
E1676-02	MW-8-Q12013	WATER	Fluorene	9.000		0.15	1.25	2.5	ug/L
E1676-02	MW-8-Q12013	WATER	Pentachlorophenol	3.300	J	2.7	5	10	ug/L
E1676-02	MW-8-Q12013	WATER	Anthracene	1.100	J	0.3	1.25	2.5	ug/L
E1676-02	MW-8-Q12013	WATER	Carbazole	14.500		0.47	1.25	2.5	ug/L
E1676-02	MW-8-Q12013	WATER	Di-n-butylphthalate	1.000	J	0.59	1.25	2.5	ug/L

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Hit Summary Sheet
SW-846

SDG No.: E1676

Client: Cardno ATC

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
		Total Svoc :		**101.90**				
		Total Concentration:		**101.90**				

SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-2-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-01	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061302.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.2	ug/L
110-86-1	Pyridine	6	U	6	12.8	25.5	ug/L
100-52-7	Benzaldehyde	0.29	U	0.29	1.3	2.6	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.2	ug/L
108-95-2	Phenol	0.47	U	0.47	1.3	2.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.36	U	0.36	1.3	2.6	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.6	ug/L
95-50-1	1,2-Dichlorobenzene	0.26	U	0.26	1.3	2.6	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.6	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.6	ug/L
100-51-6	Benzyl Alcohol	0.33	U	0.33	1.3	2.6	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.2	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.36	U	0.36	1.3	2.6	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.6	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.6	ug/L
67-72-1	Hexachloroethane	0.26	U	0.26	1.3	2.6	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.6	ug/L
78-59-1	Isophorone	0.42	U	0.42	1.3	2.6	ug/L
88-75-5	2-Nitrophenol	4.5	U	4.5	5.1	10.2	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.6	ug/L
120-83-2	2,4-Dichlorophenol	3.3	U	3.3	5.1	10.2	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.6	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.8	25.5	ug/L
91-20-3	Naphthalene	6.8		0.19	1.3	2.6	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.2	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.6	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.2	ug/L
59-50-7	4-Chloro-3-methylphenol	1.8	U	1.8	5.1	10.2	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.6	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-2-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-01	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061302.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	UQ	1.5	5.1	10.2	ug/L
88-06-2	2,4,6-Trichlorophenol	2.2	U	2.2	5.1	10.2	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.2	ug/L
92-52-4	1,1-Biphenyl	1.8	J	0.27	1.3	2.6	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.6	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.2	ug/L
131-11-3	Dimethylphthalate	1.5	J	0.17	1.3	2.6	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.6	ug/L
606-20-2	2,6-Dinitrotoluene	0.28	U	0.28	1.3	2.6	ug/L
99-09-2	3-Nitroaniline	2.1	UQ	2.1	5.1	10.2	ug/L
83-32-9	Acenaphthene	82.4	E	0.17	1.3	2.6	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.8	25.5	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.2	ug/L
132-64-9	Dibenzofuran	48.2		2.2	5.1	10.2	ug/L
121-14-2	2,4-Dinitrotoluene	2.2	U	2.2	5.1	10.2	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.28	U	0.28	1.3	2.6	ug/L
86-73-7	Fluorene	20.7		0.15	1.3	2.6	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	2.5	2.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.2	ug/L
86-30-6	n-Nitrosodiphenylamine	0.82	U	0.82	1.3	2.6	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.6	ug/L
101-55-3	4-Bromophenyl-phenylether	0.43	U	0.43	1.3	2.6	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.6	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.6	ug/L
87-86-5	Pentachlorophenol	5	J	2.7	5.1	10.2	ug/L
85-01-8	Phenanthrene	13.2		0.11	1.3	2.6	ug/L
120-12-7	Anthracene	0.31	U	0.31	1.3	2.6	ug/L
86-74-8	Carbazole	38		0.48	1.3	2.6	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.6	ug/L
206-44-0	Fluoranthene	0.86	U	0.86	1.3	2.6	ug/L
92-87-5	Benzidine	8.9	UQ	8.9	12.8	25.5	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-2-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-01	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061302.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.6	ug/L
91-94-1	3,3-Dichlorobenzidine	3.7	U	3.7	5.1	10.2	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.6	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.2	J	0.3	1.3	2.6	ug/L
117-84-0	Di-n-octyl phthalate	0.32	U	0.32	1.3	2.6	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.6	ug/L
207-08-9	Benzo(k)fluoranthene	0.29	U	0.29	1.3	2.6	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.29	U	0.29	1.3	2.6	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.38	U	0.38	1.3	2.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.2	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.2	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	30		10 - 160		30%	SPK: 100
13127-88-3	Phenol-d6	17.4		10 - 161		17%	SPK: 100
4165-60-0	Nitrobenzene-d5	79		25 - 124		79%	SPK: 100
321-60-8	2-Fluorobiphenyl	73.1		20 - 129		73%	SPK: 100
118-79-6	2,4,6-Tribromophenol	67.2		10 - 140		67%	SPK: 100
1718-51-0	Terphenyl-d14	65.8		14 - 155		66%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	112768	3.99				
1146-65-2	Naphthalene-d8	512408	5.1				
15067-26-2	Acenaphthene-d10	250799	6.8				
1517-22-2	Phenanthrene-d10	377536	8.47				
1719-03-5	Chrysene-d12	327640	11.66				
1520-96-3	Perylene-d12	276940	13.62				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	03/28/13
Project:	Avalon- WP9			Date Received:	03/28/13
Client Sample ID:	MW-2-Q12013			SDG No.:	E1676
Lab Sample ID:	E1676-01			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061302.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-2-Q12013DL	SDG No.:	E1676
Lab Sample ID:	E1676-01DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061310.D	5	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	13.7	UD	13.7	25.5	51	ug/L
110-86-1	Pyridine	29.9	UD	29.9	63.8	130	ug/L
100-52-7	Benzaldehyde	1.4	UD	1.4	6.4	12.8	ug/L
62-53-3	Aniline	19.7	UDQ	19.7	25.5	51	ug/L
108-95-2	Phenol	2.3	UD	2.3	6.4	12.8	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.8	UD	1.8	6.4	12.8	ug/L
95-57-8	2-Chlorophenol	0.97	UD	0.97	6.4	12.8	ug/L
95-50-1	1,2-Dichlorobenzene	1.3	UD	1.3	6.4	12.8	ug/L
541-73-1	1,3-Dichlorobenzene	0.61	UD	0.61	6.4	12.8	ug/L
106-46-7	1,4-Dichlorobenzene	0.92	UD	0.92	6.4	12.8	ug/L
100-51-6	Benzyl Alcohol	1.6	UD	1.6	6.4	12.8	ug/L
95-48-7	2-Methylphenol	9.2	UD	9.2	25.5	51	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.8	UD	1.8	6.4	12.8	ug/L
98-86-2	Acetophenone	1	UD	1	6.4	12.8	ug/L
65794-96-9	3+4-Methylphenols	3	UD	3	6.4	12.8	ug/L
621-64-7	n-Nitroso-di-n-propylamine	1.1	UD	1.1	6.4	12.8	ug/L
67-72-1	Hexachloroethane	1.3	UD	1.3	6.4	12.8	ug/L
98-95-3	Nitrobenzene	3.3	UD	3.3	6.4	12.8	ug/L
78-59-1	Isophorone	2.1	UD	2.1	6.4	12.8	ug/L
88-75-5	2-Nitrophenol	22.4	UD	22.4	25.5	51	ug/L
105-67-9	2,4-Dimethylphenol	3.6	UD	3.6	6.4	12.8	ug/L
111-91-1	bis(2-Chloroethoxy)methane	5.7	UD	5.7	6.4	12.8	ug/L
120-83-2	2,4-Dichlorophenol	16.4	UD	16.4	25.5	51	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.71	UD	0.71	6.4	12.8	ug/L
65-85-0	Benzoic acid	16.5	UD	16.5	63.8	130	ug/L
91-20-3	Naphthalene	6.3	JD	0.97	6.4	12.8	ug/L
106-47-8	4-Chloroaniline	13.5	UD	13.5	25.5	51	ug/L
87-68-3	Hexachlorobutadiene	0.87	UD	0.87	6.4	12.8	ug/L
105-60-2	Caprolactam	10.2	UD	10.2	25.5	51	ug/L
59-50-7	4-Chloro-3-methylphenol	8.8	UD	8.8	25.5	51	ug/L
91-57-6	2-Methylnaphthalene	0.97	UD	0.97	6.4	12.8	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-2-Q12013DL	SDG No.:	E1676
Lab Sample ID:	E1676-01DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061310.D	5	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	7.7	UDQ	7.7	25.5	51	ug/L
88-06-2	2,4,6-Trichlorophenol	10.8	UD	10.8	25.5	51	ug/L
95-95-4	2,4,5-Trichlorophenol	11.6	UD	11.6	25.5	51	ug/L
92-52-4	1,1-Biphenyl	1.3	UD	1.3	6.4	12.8	ug/L
91-58-7	2-Chloronaphthalene	0.77	UD	0.77	6.4	12.8	ug/L
88-74-4	2-Nitroaniline	21.6	UD	21.6	25.5	51	ug/L
131-11-3	Dimethylphthalate	0.87	UD	0.87	6.4	12.8	ug/L
208-96-8	Acenaphthylene	0.82	UD	0.82	6.4	12.8	ug/L
606-20-2	2,6-Dinitrotoluene	1.4	UD	1.4	6.4	12.8	ug/L
99-09-2	3-Nitroaniline	10.3	UDQ	10.3	25.5	51	ug/L
83-32-9	Acenaphthene	100	D	0.87	6.4	12.8	ug/L
51-28-5	2,4-Dinitrophenol	9.6	UD	9.6	63.8	130	ug/L
100-02-7	4-Nitrophenol	19.7	UD	19.7	25.5	51	ug/L
132-64-9	Dibenzofuran	57.9	D	10.8	25.5	51	ug/L
121-14-2	2,4-Dinitrotoluene	10.8	UD	10.8	25.5	51	ug/L
84-66-2	Diethylphthalate	0.51	UD	0.51	6.4	12.8	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1.4	UD	1.4	6.4	12.8	ug/L
86-73-7	Fluorene	21.3	D	0.77	6.4	12.8	ug/L
100-01-6	4-Nitroaniline	12.7	UD	12.7	12.7	12.8	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	9.5	UD	9.5	25.5	51	ug/L
86-30-6	n-Nitrosodiphenylamine	4.1	UD	4.1	6.4	12.8	ug/L
103-33-3	Azobenzene	1.1	UD	1.1	6.4	12.8	ug/L
101-55-3	4-Bromophenyl-phenylether	2.1	UD	2.1	6.4	12.8	ug/L
118-74-1	Hexachlorobenzene	1.1	UD	1.1	6.4	12.8	ug/L
1912-24-9	Atrazine	2.9	UD	2.9	6.4	12.8	ug/L
87-86-5	Pentachlorophenol	13.7	UD	13.7	25.5	51	ug/L
85-01-8	Phenanthrene	13.5	D	0.56	6.4	12.8	ug/L
120-12-7	Anthracene	1.5	UD	1.5	6.4	12.8	ug/L
86-74-8	Carbazole	38	D	2.4	6.4	12.8	ug/L
84-74-2	Di-n-butylphthalate	3	UD	3	6.4	12.8	ug/L
206-44-0	Fluoranthene	4.3	UD	4.3	6.4	12.8	ug/L
92-87-5	Benzidine	44.3	UDQ	44.3	63.8	130	ug/L
129-00-0	Pyrene	0.66	UD	0.66	6.4	12.8	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-2-Q12013DL	SDG No.:	E1676
Lab Sample ID:	E1676-01DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061310.D	5	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1.1	UD	1.1	6.4	12.8	ug/L
91-94-1	3,3-Dichlorobenzidine	18.3	UD	18.3	25.5	51	ug/L
56-55-3	Benzo(a)anthracene	0.61	UD	0.61	6.4	12.8	ug/L
218-01-9	Chrysene	1.2	UD	1.2	6.4	12.8	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.5	UD	1.5	6.4	12.8	ug/L
117-84-0	Di-n-octyl phthalate	1.6	UD	1.6	6.4	12.8	ug/L
205-99-2	Benzo(b)fluoranthene	0.87	UD	0.87	6.4	12.8	ug/L
207-08-9	Benzo(k)fluoranthene	1.4	UD	1.4	6.4	12.8	ug/L
50-32-8	Benzo(a)pyrene	0.87	UD	0.87	6.4	12.8	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	3.4	UD	3.4	6.4	12.8	ug/L
53-70-3	Dibenzo(a,h)anthracene	1.4	UD	1.4	6.4	12.8	ug/L
191-24-2	Benzo(g,h,i)perylene	0.66	UD	0.66	6.4	12.8	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	1.9	UD	1.9	6.4	12.8	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	25.5	UD	25.5	25.5	51	ug/L
123-91-1	1,4-Dioxane	25.5	UDQ	25.5	25.5	51	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	26.6		10 - 160		27%	SPK: 100
13127-88-3	Phenol-d6	14.2		10 - 161		14%	SPK: 100
4165-60-0	Nitrobenzene-d5	71.6		25 - 124		72%	SPK: 100
321-60-8	2-Fluorobiphenyl	89.7		20 - 129		90%	SPK: 100
118-79-6	2,4,6-Tribromophenol	87		10 - 140		87%	SPK: 100
1718-51-0	Terphenyl-d14	71.9		14 - 155		72%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	71770	3.99				
1146-65-2	Naphthalene-d8	317874	5.1				
15067-26-2	Acenaphthene-d10	148268	6.8				
1517-22-2	Phenanthrene-d10	248169	8.47				
1719-03-5	Chrysene-d12	227968	11.66				
1520-96-3	Perylene-d12	205314	13.62				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	03/28/13
Project:	Avalon- WP9			Date Received:	03/28/13
Client Sample ID:	MW-2-Q12013DL			SDG No.:	E1676
Lab Sample ID:	E1676-01DL			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061310.D	5	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-8-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-02	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061309.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	8.2	J	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	4		0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	8.1		0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	4.8		0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	1.1	J	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-8-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-02	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061309.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	UQ	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	1.9	J	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	2.2	J	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	1	J	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	UQ	2	5	10	ug/L
83-32-9	Acenaphthene	27.6		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	12.8		2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	1.3	J	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	9		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	2.5	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	3.3	J	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	1.1	J	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	14.5		0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	1	J	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	UQ	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-8-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-02	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061309.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	U	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	UQ	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	28.3		10 - 160		28%	SPK: 100
13127-88-3	Phenol-d6	17.6		10 - 161		18%	SPK: 100
4165-60-0	Nitrobenzene-d5	79.8		25 - 124		80%	SPK: 100
321-60-8	2-Fluorobiphenyl	73		20 - 129		73%	SPK: 100
118-79-6	2,4,6-Tribromophenol	74.9		10 - 140		75%	SPK: 100
1718-51-0	Terphenyl-d14	60.3		14 - 155		60%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	115169	3.99				
1146-65-2	Naphthalene-d8	506451	5.1				
15067-26-2	Acenaphthene-d10	253140	6.8				
1517-22-2	Phenanthrene-d10	385692	8.47				
1719-03-5	Chrysene-d12	330938	11.66				
1520-96-3	Perylene-d12	290550	13.62				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-8-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-02	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061309.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-03	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061303.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-03	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061303.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	UQ	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	UQ	2	5	10	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	2.5	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	UQ	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-03	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061303.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	U	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	UQ	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	46.1		10 - 160		46%	SPK: 100
13127-88-3	Phenol-d6	19.3		10 - 161		19%	SPK: 100
4165-60-0	Nitrobenzene-d5	83.4		25 - 124		83%	SPK: 100
321-60-8	2-Fluorobiphenyl	90.5		20 - 129		90%	SPK: 100
118-79-6	2,4,6-Tribromophenol	96.9		10 - 140		97%	SPK: 100
1718-51-0	Terphenyl-d14	77.5		14 - 155		77%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	76482	3.99				
1146-65-2	Naphthalene-d8	346170	5.1				
15067-26-2	Acenaphthene-d10	167558	6.8				
1517-22-2	Phenanthrene-d10	272560	8.47				
1719-03-5	Chrysene-d12	230365	11.66				
1520-96-3	Perylene-d12	211972	13.62				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-03	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061303.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-12R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-06	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061306.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.1	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.6	25.3	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.1	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.1	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5.1	10.1	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5.1	10.1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.6	25.3	ug/L
91-20-3	Naphthalene	3.2		0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.1	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.1	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5.1	10.1	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-12R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-06	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061306.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	UQ	1.5	5.1	10.1	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5.1	10.1	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.1	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.1	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	UQ	2	5.1	10.1	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.6	25.3	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.1	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5.1	10.1	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5.1	10.1	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	2.5	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.1	ug/L
86-30-6	n-Nitrosodiphenylamine	0.81	U	0.81	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.1	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.5	ug/L
206-44-0	Fluoranthene	1.1	J	0.85	1.3	2.5	ug/L
92-87-5	Benzidine	8.8	UQ	8.8	12.6	25.3	ug/L
129-00-0	Pyrene	1.1	J	0.13	1.3	2.5	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-12R-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-06	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061306.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5.1	10.1	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	1.3	J	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.1	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.1	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	34.5		10 - 160		34%	SPK: 100
13127-88-3	Phenol-d6	20.6		10 - 161		21%	SPK: 100
4165-60-0	Nitrobenzene-d5	87.2		25 - 124		87%	SPK: 100
321-60-8	2-Fluorobiphenyl	79.5		20 - 129		79%	SPK: 100
118-79-6	2,4,6-Tribromophenol	74.3		10 - 140		74%	SPK: 100
1718-51-0	Terphenyl-d14	69.8		14 - 155		70%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	119881	3.99				
1146-65-2	Naphthalene-d8	522915	5.1				
15067-26-2	Acenaphthene-d10	249236	6.8				
1517-22-2	Phenanthrene-d10	387355	8.47				
1719-03-5	Chrysene-d12	330355	11.66				
1520-96-3	Perylene-d12	274722	13.63				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	03/28/13
Project:	Avalon- WP9			Date Received:	03/28/13
Client Sample ID:	MW-12R-Q12013			SDG No.:	E1676
Lab Sample ID:	E1676-06			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061306.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-14-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-07	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061307.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.1	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.6	25.3	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.1	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.1	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5.1	10.1	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5.1	10.1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.6	25.3	ug/L
91-20-3	Naphthalene	1.7	J	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.1	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.1	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5.1	10.1	ug/L
91-57-6	2-Methylnaphthalene	7.5		0.19	1.3	2.5	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-14-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-07	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061307.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	UQ	1.5	5.1	10.1	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5.1	10.1	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.1	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.1	ug/L
131-11-3	Dimethylphthalate	1.3	J	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	UQ	2	5.1	10.1	ug/L
83-32-9	Acenaphthene	22		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.6	25.3	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.1	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5.1	10.1	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5.1	10.1	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	7		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	2.5	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.1	ug/L
86-30-6	n-Nitrosodiphenylamine	0.81	U	0.81	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.1	ug/L
85-01-8	Phenanthrene	4.1		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	1.2	J	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	1.9	J	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.5	ug/L
206-44-0	Fluoranthene	2.4	J	0.85	1.3	2.5	ug/L
92-87-5	Benzidine	8.8	UQ	8.8	12.6	25.3	ug/L
129-00-0	Pyrene	2.9		0.13	1.3	2.5	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-14-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-07	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061307.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5.1	10.1	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.1	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.1	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	34.3		10 - 160		34%	SPK: 100
13127-88-3	Phenol-d6	19.9		10 - 161		20%	SPK: 100
4165-60-0	Nitrobenzene-d5	89.6		25 - 124		90%	SPK: 100
321-60-8	2-Fluorobiphenyl	84.8		20 - 129		85%	SPK: 100
118-79-6	2,4,6-Tribromophenol	80.8		10 - 140		81%	SPK: 100
1718-51-0	Terphenyl-d14	70.7		14 - 155		71%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	114215	3.99				
1146-65-2	Naphthalene-d8	472965	5.1				
15067-26-2	Acenaphthene-d10	225125	6.8				
1517-22-2	Phenanthrene-d10	349769	8.47				
1719-03-5	Chrysene-d12	311111	11.66				
1520-96-3	Perylene-d12	272626	13.63				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	03/28/13
Project:	Avalon- WP9			Date Received:	03/28/13
Client Sample ID:	MW-14-Q12013			SDG No.:	E1676
Lab Sample ID:	E1676-07			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061307.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-15-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-08	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	970 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061299.D	1	03/29/13	04/02/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.8	U	2.8	5.2	10.3	ug/L
110-86-1	Pyridine	6.1	U	6.1	12.9	25.8	ug/L
100-52-7	Benzaldehyde	0.29	U	0.29	1.3	2.6	ug/L
62-53-3	Aniline	4	UQ	4	5.2	10.3	ug/L
108-95-2	Phenol	0.47	U	0.47	1.3	2.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.36	U	0.36	1.3	2.6	ug/L
95-57-8	2-Chlorophenol	0.2	U	0.2	1.3	2.6	ug/L
95-50-1	1,2-Dichlorobenzene	0.26	U	0.26	1.3	2.6	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.6	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.3	2.6	ug/L
100-51-6	Benzyl Alcohol	0.33	U	0.33	1.3	2.6	ug/L
95-48-7	2-Methylphenol	1.9	U	1.9	5.2	10.3	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.36	U	0.36	1.3	2.6	ug/L
98-86-2	Acetophenone	0.21	U	0.21	1.3	2.6	ug/L
65794-96-9	3+4-Methylphenols	0.6	U	0.6	1.3	2.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.23	U	0.23	1.3	2.6	ug/L
67-72-1	Hexachloroethane	0.26	U	0.26	1.3	2.6	ug/L
98-95-3	Nitrobenzene	0.67	U	0.67	1.3	2.6	ug/L
78-59-1	Isophorone	0.42	U	0.42	1.3	2.6	ug/L
88-75-5	2-Nitrophenol	4.5	U	4.5	5.2	10.3	ug/L
105-67-9	2,4-Dimethylphenol	0.72	U	0.72	1.3	2.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.6	ug/L
120-83-2	2,4-Dichlorophenol	3.3	U	3.3	5.2	10.3	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.6	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.9	25.8	ug/L
91-20-3	Naphthalene	0.2	U	0.2	1.3	2.6	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.2	10.3	ug/L
87-68-3	Hexachlorobutadiene	0.18	U	0.18	1.3	2.6	ug/L
105-60-2	Caprolactam	2.1	U	2.1	5.2	10.3	ug/L
59-50-7	4-Chloro-3-methylphenol	1.8	U	1.8	5.2	10.3	ug/L
91-57-6	2-Methylnaphthalene	0.2	U	0.2	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-15-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-08	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	970 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061299.D	1	03/29/13	04/02/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	UQ	1.5	5.2	10.3	ug/L
88-06-2	2,4,6-Trichlorophenol	2.2	U	2.2	5.2	10.3	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.2	10.3	ug/L
92-52-4	1,1-Biphenyl	0.27	U	0.27	1.3	2.6	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.6	ug/L
88-74-4	2-Nitroaniline	4.4	U	4.4	5.2	10.3	ug/L
131-11-3	Dimethylphthalate	2.2	J	0.18	1.3	2.6	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.6	ug/L
606-20-2	2,6-Dinitrotoluene	0.28	U	0.28	1.3	2.6	ug/L
99-09-2	3-Nitroaniline	2.1	UQ	2.1	5.2	10.3	ug/L
83-32-9	Acenaphthene	0.18	U	0.18	1.3	2.6	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.9	25.8	ug/L
100-02-7	4-Nitrophenol	4	U	4	5.2	10.3	ug/L
132-64-9	Dibenzofuran	2.2	U	2.2	5.2	10.3	ug/L
121-14-2	2,4-Dinitrotoluene	2.2	U	2.2	5.2	10.3	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.28	U	0.28	1.3	2.6	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.6	ug/L
100-01-6	4-Nitroaniline	2.6	U	2.6	2.6	2.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.2	10.3	ug/L
86-30-6	n-Nitrosodiphenylamine	0.82	U	0.82	1.3	2.6	ug/L
103-33-3	Azobenzene	0.23	U	0.23	1.3	2.6	ug/L
101-55-3	4-Bromophenyl-phenylether	0.43	U	0.43	1.3	2.6	ug/L
118-74-1	Hexachlorobenzene	0.23	U	0.23	1.3	2.6	ug/L
1912-24-9	Atrazine	0.58	U	0.58	1.3	2.6	ug/L
87-86-5	Pentachlorophenol	2.8	U	2.8	5.2	10.3	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.6	ug/L
120-12-7	Anthracene	0.31	U	0.31	1.3	2.6	ug/L
86-74-8	Carbazole	0.48	U	0.48	1.3	2.6	ug/L
84-74-2	Di-n-butylphthalate	0.61	U	0.61	1.3	2.6	ug/L
206-44-0	Fluoranthene	0.87	U	0.87	1.3	2.6	ug/L
92-87-5	Benzidine	8.9	UQ	8.9	12.9	25.8	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	03/28/13
Project:	Avalon- WP9			Date Received:	03/28/13
Client Sample ID:	MW-15-Q12013			SDG No.:	E1676
Lab Sample ID:	E1676-08			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	970	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061299.D	1	03/29/13	04/02/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.23	U	0.23	1.3	2.6	ug/L
91-94-1	3,3-Dichlorobenzidine	3.7	U	3.7	5.2	10.3	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.6	ug/L
218-01-9	Chrysene	0.25	U	0.25	1.3	2.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.3	U	0.3	1.3	2.6	ug/L
117-84-0	Di-n-octyl phthalate	0.32	U	0.32	1.3	2.6	ug/L
205-99-2	Benzo(b)fluoranthene	0.18	U	0.18	1.3	2.6	ug/L
207-08-9	Benzo(k)fluoranthene	0.29	U	0.29	1.3	2.6	ug/L
50-32-8	Benzo(a)pyrene	0.18	U	0.18	1.3	2.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.68	U	0.68	1.3	2.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.29	U	0.29	1.3	2.6	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.38	U	0.38	1.3	2.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.2	U	5.2	5.2	10.3	ug/L
123-91-1	1,4-Dioxane	5.2	UQ	5.2	5.2	10.3	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	50.3		10 - 160		50%	SPK: 100
13127-88-3	Phenol-d6	31.2		10 - 161		31%	SPK: 100
4165-60-0	Nitrobenzene-d5	80.8		25 - 124		81%	SPK: 100
321-60-8	2-Fluorobiphenyl	86.7		20 - 129		87%	SPK: 100
118-79-6	2,4,6-Tribromophenol	94.6		10 - 140		95%	SPK: 100
1718-51-0	Terphenyl-d14	72.1		14 - 155		72%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	80038	3.99				
1146-65-2	Naphthalene-d8	355927	5.1				
15067-26-2	Acenaphthene-d10	172071	6.8				
1517-22-2	Phenanthrene-d10	275976	8.47				
1719-03-5	Chrysene-d12	245493	11.66				
1520-96-3	Perylene-d12	214877	13.62				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	03/28/13
Project:	Avalon- WP9			Date Received:	03/28/13
Client Sample ID:	MW-15-Q12013			SDG No.:	E1676
Lab Sample ID:	E1676-08			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	970	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061299.D	1	03/29/13	04/02/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-16-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-09	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061300.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-16-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-09	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061300.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	UQ	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	UQ	2	5	10	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	2.5	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	UQ	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-16-Q12013	SDG No.:	E1676
Lab Sample ID:	E1676-09	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061300.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	U	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	UQ	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	33.1		10 - 160		33%	SPK: 100
13127-88-3	Phenol-d6	20		10 - 161		20%	SPK: 100
4165-60-0	Nitrobenzene-d5	86.2		25 - 124		86%	SPK: 100
321-60-8	2-Fluorobiphenyl	82		20 - 129		82%	SPK: 100
118-79-6	2,4,6-Tribromophenol	76.3		10 - 140		76%	SPK: 100
1718-51-0	Terphenyl-d14	59.1		14 - 155		59%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	120122	3.99				
1146-65-2	Naphthalene-d8	525399	5.1				
15067-26-2	Acenaphthene-d10	250139	6.8				
1517-22-2	Phenanthrene-d10	385537	8.47				
1719-03-5	Chrysene-d12	325979	11.66				
1520-96-3	Perylene-d12	266299	13.63				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	03/28/13
Project:	Avalon- WP9			Date Received:	03/28/13
Client Sample ID:	MW-16-Q12013			SDG No.:	E1676
Lab Sample ID:	E1676-09			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061300.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	FB-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-10	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061301.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.2	ug/L
110-86-1	Pyridine	6	U	6	12.8	25.5	ug/L
100-52-7	Benzaldehyde	0.29	U	0.29	1.3	2.6	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.2	ug/L
108-95-2	Phenol	0.47	U	0.47	1.3	2.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.36	U	0.36	1.3	2.6	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.6	ug/L
95-50-1	1,2-Dichlorobenzene	0.26	U	0.26	1.3	2.6	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.6	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.6	ug/L
100-51-6	Benzyl Alcohol	0.33	U	0.33	1.3	2.6	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.2	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.36	U	0.36	1.3	2.6	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.6	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.6	ug/L
67-72-1	Hexachloroethane	0.26	U	0.26	1.3	2.6	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.6	ug/L
78-59-1	Isophorone	0.42	U	0.42	1.3	2.6	ug/L
88-75-5	2-Nitrophenol	4.5	U	4.5	5.1	10.2	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.6	ug/L
120-83-2	2,4-Dichlorophenol	3.3	U	3.3	5.1	10.2	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.6	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.8	25.5	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.6	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.2	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.6	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.2	ug/L
59-50-7	4-Chloro-3-methylphenol	1.8	U	1.8	5.1	10.2	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	FB-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-10	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061301.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	UQ	1.5	5.1	10.2	ug/L
88-06-2	2,4,6-Trichlorophenol	2.2	U	2.2	5.1	10.2	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.2	ug/L
92-52-4	1,1-Biphenyl	0.27	U	0.27	1.3	2.6	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.6	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.2	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.6	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.6	ug/L
606-20-2	2,6-Dinitrotoluene	0.28	U	0.28	1.3	2.6	ug/L
99-09-2	3-Nitroaniline	2.1	UQ	2.1	5.1	10.2	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.6	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.8	25.5	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.2	ug/L
132-64-9	Dibenzofuran	2.2	U	2.2	5.1	10.2	ug/L
121-14-2	2,4-Dinitrotoluene	2.2	U	2.2	5.1	10.2	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.28	U	0.28	1.3	2.6	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.6	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	2.5	2.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.2	ug/L
86-30-6	n-Nitrosodiphenylamine	0.82	U	0.82	1.3	2.6	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.6	ug/L
101-55-3	4-Bromophenyl-phenylether	0.43	U	0.43	1.3	2.6	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.6	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.6	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.2	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.6	ug/L
120-12-7	Anthracene	0.31	U	0.31	1.3	2.6	ug/L
86-74-8	Carbazole	0.48	U	0.48	1.3	2.6	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.6	ug/L
206-44-0	Fluoranthene	0.86	U	0.86	1.3	2.6	ug/L
92-87-5	Benzidine	8.9	UQ	8.9	12.8	25.5	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	03/28/13
Project:	Avalon- WP9			Date Received:	03/28/13
Client Sample ID:	FB-Q-12013			SDG No.:	E1676
Lab Sample ID:	E1676-10			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061301.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.6	ug/L
91-94-1	3,3-Dichlorobenzidine	3.7	U	3.7	5.1	10.2	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.6	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.3	U	0.3	1.3	2.6	ug/L
117-84-0	Di-n-octyl phthalate	0.32	U	0.32	1.3	2.6	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.6	ug/L
207-08-9	Benzo(k)fluoranthene	0.29	U	0.29	1.3	2.6	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.29	U	0.29	1.3	2.6	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.38	U	0.38	1.3	2.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.2	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.2	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	29.7		10 - 160		30%	SPK: 100
13127-88-3	Phenol-d6	17.5		10 - 161		17%	SPK: 100
4165-60-0	Nitrobenzene-d5	85.4		25 - 124		85%	SPK: 100
321-60-8	2-Fluorobiphenyl	80		20 - 129		80%	SPK: 100
118-79-6	2,4,6-Tribromophenol	75.9		10 - 140		76%	SPK: 100
1718-51-0	Terphenyl-d14	81		14 - 155		81%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	116962	3.99				
1146-65-2	Naphthalene-d8	512416	5.1				
15067-26-2	Acenaphthene-d10	247809	6.8				
1517-22-2	Phenanthrene-d10	391465	8.47				
1719-03-5	Chrysene-d12	326178	11.66				
1520-96-3	Perylene-d12	273709	13.62				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	03/28/13
Project:	Avalon- WP9			Date Received:	03/28/13
Client Sample ID:	FB-Q-12013			SDG No.:	E1676
Lab Sample ID:	E1676-10			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061301.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	DUP-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-11	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061308.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.1	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.6	25.3	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.1	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.1	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5.1	10.1	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5.1	10.1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.6	25.3	ug/L
91-20-3	Naphthalene	1.7	J	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.1	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.1	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5.1	10.1	ug/L
91-57-6	2-Methylnaphthalene	6.6		0.19	1.3	2.5	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	DUP-Q-12013	SDG No.:	E1676
Lab Sample ID:	E1676-11	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061308.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	UQ	1.5	5.1	10.1	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5.1	10.1	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.1	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.1	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	1.1	J	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	UQ	2	5.1	10.1	ug/L
83-32-9	Acenaphthene	22.3		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.6	25.3	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.1	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5.1	10.1	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5.1	10.1	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	6.7		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	2.5	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.1	ug/L
86-30-6	n-Nitrosodiphenylamine	0.81	U	0.81	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.1	ug/L
85-01-8	Phenanthrene	4.3		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	1.3	J	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	2	J	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.5	ug/L
206-44-0	Fluoranthene	2.9		0.85	1.3	2.5	ug/L
92-87-5	Benzidine	8.8	UQ	8.8	12.6	25.3	ug/L
129-00-0	Pyrene	3.5		0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	03/28/13
Project:	Avalon- WP9			Date Received:	03/28/13
Client Sample ID:	DUP-Q-12013			SDG No.:	E1676
Lab Sample ID:	E1676-11			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061308.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5.1	10.1	ug/L
56-55-3	Benzo(a)anthracene	1.3	J	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	1.3	J	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	1.1	J	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	1	J	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.1	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.1	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	43.3		10 - 160		43%	SPK: 100
13127-88-3	Phenol-d6	26.3		10 - 161		26%	SPK: 100
4165-60-0	Nitrobenzene-d5	84.3		25 - 124		84%	SPK: 100
321-60-8	2-Fluorobiphenyl	89.7		20 - 129		90%	SPK: 100
118-79-6	2,4,6-Tribromophenol	100		10 - 140		101%	SPK: 100
1718-51-0	Terphenyl-d14	73.1		14 - 155		73%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	76061	3.99				
1146-65-2	Naphthalene-d8	328004	5.1				
15067-26-2	Acenaphthene-d10	155390	6.8				
1517-22-2	Phenanthrene-d10	252201	8.47				
1719-03-5	Chrysene-d12	231951	11.66				
1520-96-3	Perylene-d12	201163	13.62				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Cardno ATC			Date Collected:	03/28/13
Project:	Avalon- WP9			Date Received:	03/28/13
Client Sample ID:	DUP-Q-12013			SDG No.:	E1676
Lab Sample ID:	E1676-11			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061308.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

QC SUMMARY

Surrogate Summary

SW-846

SDG No.: E1676

Client: Cardno ATC

Analytical Method: 625

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	High
E1676-01	MW-2-Q12013	2-Fluorophenol	100	29.97	30		10	160
		Phenol-d6	100	17.43	17		10	161
		Nitrobenzene-d5	100	79.01	79		25	124
		2-Fluorobiphenyl	100	73.10	73		20	129
		2,4,6-Tribromophenol	100	67.23	67		10	140
		Terphenyl-d14	100	65.78	66		14	155
E1676-01DL	MW-2-Q12013DL	2-Fluorophenol	100	26.60	27		10	160
		Phenol-d6	100	14.15	14		10	161
		Nitrobenzene-d5	100	71.55	72		25	124
		2-Fluorobiphenyl	100	89.70	90		20	129
		2,4,6-Tribromophenol	100	86.95	87		10	140
		Terphenyl-d14	100	71.90	72		14	155
E1676-02	MW-8-Q12013	2-Fluorophenol	100	28.25	28		10	160
		Phenol-d6	100	17.57	18		10	161
		Nitrobenzene-d5	100	79.77	80		25	124
		2-Fluorobiphenyl	100	72.97	73		20	129
		2,4,6-Tribromophenol	100	74.85	75		10	140
		Terphenyl-d14	100	60.34	60		14	155
E1676-03	MW-11R-Q12013	2-Fluorophenol	100	46.08	46		10	160
		Phenol-d6	100	19.25	19		10	161
		Nitrobenzene-d5	100	83.36	83		25	124
		2-Fluorobiphenyl	100	90.45	90		20	129
		2,4,6-Tribromophenol	100	96.93	97		10	140
		Terphenyl-d14	100	77.47	77		14	155
E1676-04MS	MW-11R-Q12013MS	2-Fluorophenol	100	35.83	36		10	160
		Phenol-d6	100	22.10	22		10	161
		Nitrobenzene-d5	100	92.53	93		25	124
		2-Fluorobiphenyl	100	84.82	85		20	129
		2,4,6-Tribromophenol	100	81.33	81		10	140
		Terphenyl-d14	100	75.32	75		14	155
E1676-05MSD	MW-11R-Q12013MSD	2-Fluorophenol	100	37.12	37		10	160
		Phenol-d6	100	22.57	23		10	161
		Nitrobenzene-d5	100	90.25	90		25	124
		2-Fluorobiphenyl	100	82.90	83		20	129
		2,4,6-Tribromophenol	100	79.83	80		10	140
		Terphenyl-d14	100	77.12	77		14	155
E1676-06	MW-12R-Q12013	2-Fluorophenol	100	34.48	34		10	160
		Phenol-d6	100	20.62	21		10	161
		Nitrobenzene-d5	100	87.22	87		25	124
		2-Fluorobiphenyl	100	79.48	79		20	129
		2,4,6-Tribromophenol	100	74.27	74		10	140
		Terphenyl-d14	100	69.83	70		14	155
E1676-07	MW-14-Q12013	2-Fluorophenol	100	34.28	34		10	160
		Phenol-d6	100	19.86	20		10	161
		Nitrobenzene-d5	100	89.58	90		25	124
		2-Fluorobiphenyl	100	84.78	85		20	129
		2,4,6-Tribromophenol	100	80.82	81		10	140
		Terphenyl-d14	100	70.70	71		14	155
E1676-08	MW-15-Q12013	2-Fluorophenol	100	50.28	50		10	160
		Phenol-d6	100	31.17	31		10	161
		Nitrobenzene-d5	100	80.84	81		25	124
		2-Fluorobiphenyl	100	86.73	87		20	129

Surrogate Summary

SW-846

SDG No.: E1676

Client: Cardno ATC

Analytical Method: 625

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
E1676-08	MW-15-Q12013	2,4,6-Tribromophenol	100	94.57	95		10	140
		Terphenyl-d14	100	72.05	72		14	155
E1676-09	MW-16-Q12013	2-Fluorophenol	100	33.09	33		10	160
		Phenol-d6	100	19.97	20		10	161
		Nitrobenzene-d5	100	86.16	86		25	124
		2-Fluorobiphenyl	100	81.95	82		20	129
		2,4,6-Tribromophenol	100	76.25	76		10	140
		Terphenyl-d14	100	59.12	59		14	155
E1676-10	FB-Q-12013	2-Fluorophenol	100	29.66	30		10	160
		Phenol-d6	100	17.48	17		10	161
		Nitrobenzene-d5	100	85.40	85		25	124
		2-Fluorobiphenyl	100	80.03	80		20	129
		2,4,6-Tribromophenol	100	75.87	76		10	140
		Terphenyl-d14	100	81.01	81		14	155
E1676-11	DUP-Q-12013	2-Fluorophenol	100	43.28	43		10	160
		Phenol-d6	100	26.30	26		10	161
		Nitrobenzene-d5	100	84.29	84		25	124
		2-Fluorobiphenyl	100	89.72	90		20	129
		2,4,6-Tribromophenol	100	101.49	101		10	140
		Terphenyl-d14	100	73.08	73		14	155
PB68924BL	PB68924BL	2-Fluorophenol	100	79.18	79		10	160
		Phenol-d6	100	79.64	80		10	161
		Nitrobenzene-d5	100	89.72	90		25	124
		2-Fluorobiphenyl	100	83.80	84		20	129
		2,4,6-Tribromophenol	100	78.19	78		10	140
		Terphenyl-d14	100	84.06	84		14	155
PB68924BS	PB68924BS	2-Fluorophenol	100	78.00	78		10	160
		Phenol-d6	100	78.11	78		10	161
		Nitrobenzene-d5	100	85.43	85		25	124
		2-Fluorobiphenyl	100	114.82	115		20	129
		2,4,6-Tribromophenol	100	96.19	96		10	140
		Terphenyl-d14	100	81.79	82		14	155

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E1676

Client: Cardno ATC

Analytical Method: 625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: E1676-04MS	**Client Sample ID: MW-11R-Q12013MS**						**DataFile: BF061304.D**				
n-Nitrosodimethylamine	50.5	0	21.8	ug/L	43				10	160	
Pyridine	50.5	0	16.6	ug/L	33				10	145	
Benzaldehyde	50.5	0	11.9	ug/L	24				10	160	
Aniline	50.5	0	5.5	ug/L	11	*			50	150	
Phenol	50.5	0	12.1	ug/L	24				5	112	
bis(2-Chloroethyl)ether	50.5	0	43	ug/L	85				12	158	
2-Chlorophenol	50.5	0	34.1	ug/L	68				23	134	
1,2-Dichlorobenzene	50.5	0	40.1	ug/L	79				32	129	
1,3-Dichlorobenzene	50.5	0	41	ug/L	81				1	172	
1,4-Dichlorobenzene	50.5	0	40.9	ug/L	81				20	124	
Benzyl Alcohol	50.5	0	27.9	ug/L	55				10	145	
2-Methylphenol	50.5	0	27.1	ug/L	54				10	152	
2,2-oxybis(1-Chloropropane)	50.5	0	41.7	ug/L	83				36	166	
Acetophenone	50.5	0	45.9	ug/L	91				50	135	
3+4-Methylphenols	50.5	0	24.1	ug/L	48				10	152	
N-Nitroso-di-n-propylamine	50.5	0	44.8	ug/L	89				1	230	
Hexachloroethane	50.5	0	39.9	ug/L	79				40	113	
Nitrobenzene	50.5	0	40.4	ug/L	80				35	180	
Isophorone	50.5	0	40.8	ug/L	81				21	196	
2-Nitrophenol	50.5	0	45.5	ug/L	90				29	182	
2,4-Dimethylphenol	50.5	0	36.5	ug/L	72				32	119	
bis(2-Chloroethoxy)methane	50.5	0	45	ug/L	89				33	184	
2,4-Dichlorophenol	50.5	0	41.5	ug/L	82				39	135	
1,2,4-Trichlorobenzene	50.5	0	43.3	ug/L	86				44	142	
Benzoic acid	50.5	0	13.4	ug/L	27				10	145	
Naphthalene	50.5	0	42.4	ug/L	84				21	133	
4-Chloroaniline	50.5	0	7.1	ug/L	14				10	157	
Hexachlorobutadiene	50.5	0	40.5	ug/L	80				24	116	
Caprolactam	50.5	0	7.2	ug/L	14				10	161	
4-Chloro-3-methylphenol	50.5	0	38.7	ug/L	77				22	147	
2-Methylnaphthalene	50.5	0	47.4	ug/L	94				41	130	
Hexachlorocyclopentadiene	100	0	130	ug/L	130				10	218	
2,4,6-Trichlorophenol	50.5	0	41.7	ug/L	83				37	144	
2,4,5-Trichlorophenol	50.5	0	41	ug/L	81				10	136	
1,1-Biphenyl	50.5	0	43.7	ug/L	87				51	126	
2-Chloronaphthalene	50.5	0	43.8	ug/L	87				60	118	
2-Nitroaniline	50.5	0	47.1	ug/L	93				46	154	
Dimethylphthalate	50.5	0	42.6	ug/L	84				1	112	
Acenaphthylene	50.5	0	43.6	ug/L	86				33	145	
2,6-Dinitrotoluene	50.5	0	41.1	ug/L	81				50	158	
3-Nitroaniline	50.5	0	7.7	ug/L	15				10	152	
Acenaphthene	50.5	0	44	ug/L	87				47	145	
2,4-Dinitrophenol	100	0	160	ug/L	160				1	191	
4-Nitrophenol	100	0	35	ug/L	35				1	132	
Dibenzofuran	50.5	0	42.9	ug/L	85				44	140	
2,4-Dinitrotoluene	50.5	0	41.2	ug/L	82				39	139	
Diethylphthalate	50.5	0	42.2	ug/L	84				1	114	

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E1676

Client: Cardno ATC

Analytical Method: 625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
4-Chlorophenyl-phenylether	50.5	0	41.5	ug/L	82				25	158	
Fluorene	50.5	0	41.7	ug/L	83				59	121	
4-Nitroaniline	50.5	0	34.7	ug/L	69				45	160	
4,6-Dinitro-2-methylphenol	50.5	0	54	ug/L	107				1	181	
N-Nitrosodiphenylamine	50.5	0	40.6	ug/L	80				59	137	
Azobenzene	50.5	0	47.1	ug/L	93				70	124	
4-Bromophenyl-phenylether	50.5	0	40.4	ug/L	80				53	127	
Hexachlorobenzene	50.5	0	40.6	ug/L	80				1	152	
Atrazine	50.5	0	39.5	ug/L	78				59	152	
Pentachlorophenol	100	0	88.8	ug/L	89				14	176	
Phenanthrene	50.5	0	42.8	ug/L	85				54	120	
Anthracene	50.5	0	43.9	ug/L	87				27	133	
Carbazole	50.5	0	43.6	ug/L	86				51	160	
Di-n-butylphthalate	50.5	0	42.6	ug/L	84				1	118	
Fluoranthene	50.5	0	42.5	ug/L	84				26	137	
Benzidine	100	0	0	ug/L	0	*			10	159	
Pyrene	50.5	0	43.3	ug/L	86				52	115	
Butylbenzylphthalate	50.5	0	49.1	ug/L	97				1	152	
3,3-Dichlorobenzidine	50.5	0	11.2	ug/L	22				1	262	
Benzo(a)anthracene	50.5	0	46.2	ug/L	91				33	143	
Chrysene	50.5	0	46.6	ug/L	92				17	168	
bis(2-Ethylhexyl)phthalate	50.5	0	47.2	ug/L	93				8	158	
Di-n-octyl phthalate	50.5	0	50.9	ug/L	101				4	146	
Benzo(b)fluoranthene	50.5	0	47.1	ug/L	93				24	159	
Benzo(k)fluoranthene	50.5	0	47.1	ug/L	93				11	162	
Benzo(a)pyrene	50.5	0	49	ug/L	97				17	163	
Indeno(1,2,3-cd)pyrene	50.5	0	45.3	ug/L	90				1	171	
Dibenz(a,h)anthracene	50.5	0	43	ug/L	85				1	227	
Benzo(g,h,i)perylene	50.5	0	46.4	ug/L	92				1	219	
1,2,4,5-Tetrachlorobenzene	50.5	0	39.3	ug/L	78				70	130	
2,3,4,6-Tetrachlorophenol	50.5	0	41.3	ug/L	82				70	130	
1,4-Dioxane	50.5	0	16.1	ug/L	32	*			70	130	

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E1676

Client: Cardno ATC

Analytical Method: 625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: E1676-05MSD	**Client Sample ID: MW-11R-Q12013MSD**						**DataFile: BF061305.D**				
n-Nitrosodimethylamine	51	0	22.8	ug/L	45		5		10	160	20
Pyridine	51	0	17	ug/L	33		0		10	145	20
Benzaldehyde	51	0	7.7	ug/L	15		46	*	10	160	20
Aniline	51	0	5.6	ug/L	11	*	0		50	150	20
Phenol	51	0	13.2	ug/L	26		8		5	112	20
bis(2-Chloroethyl)ether	51	0	45	ug/L	88		3		12	158	20
2-Chlorophenol	51	0	34.3	ug/L	67		1		23	134	20
1,2-Dichlorobenzene	51	0	40.2	ug/L	79		0		32	129	20
1,3-Dichlorobenzene	51	0	40.2	ug/L	79		3		1	172	20
1,4-Dichlorobenzene	51	0	40.9	ug/L	80		1		20	124	20
Benzyl Alcohol	51	0	30.2	ug/L	59		7		10	145	20
2-Methylphenol	51	0	28.9	ug/L	57		5		10	152	20
2,2-oxybis(1-Chloropropane)	51	0	42.2	ug/L	83		0		36	166	20
Acetophenone	51	0	47.3	ug/L	93		2		50	135	20
3+4-Methylphenols	51	0	26.2	ug/L	51		6		10	152	20
N-Nitroso-di-n-propylamine	51	0	45.9	ug/L	90		1		1	230	20
Hexachloroethane	51	0	40.8	ug/L	80		1		40	113	20
Nitrobenzene	51	0	41.3	ug/L	81		1		35	180	20
Isophorone	51	0	41.7	ug/L	82		1		21	196	20
2-Nitrophenol	51	0	46.1	ug/L	90		0		29	182	20
2,4-Dimethylphenol	51	0	35.8	ug/L	70		3		32	119	20
bis(2-Chloroethoxy)methane	51	0	46.1	ug/L	90		1		33	184	20
2,4-Dichlorophenol	51	0	42.4	ug/L	83		1		39	135	20
1,2,4-Trichlorobenzene	51	0	44.9	ug/L	88		2		44	142	20
Benzoic acid	51	0	14.2	ug/L	28		4		10	145	20
Naphthalene	51	0	43.2	ug/L	85		1		21	133	20
4-Chloroaniline	51	0	7.6	ug/L	15		7		10	157	20
Hexachlorobutadiene	51	0	42.1	ug/L	83		4		24	116	20
Caprolactam	51	0	7.3	ug/L	14		0		10	161	20
4-Chloro-3-methylphenol	51	0	39.1	ug/L	77		0		22	147	20
2-Methylnaphthalene	51	0	47	ug/L	92		2		41	130	20
Hexachlorocyclopentadiene	100	0	130	ug/L	130		0		10	218	20
2,4,6-Trichlorophenol	51	0	43	ug/L	84		1		37	144	20
2,4,5-Trichlorophenol	51	0	41.1	ug/L	81		0		10	136	20
1,1-Biphenyl	51	0	44.9	ug/L	88		1		51	126	20
2-Chloronaphthalene	51	0	44.9	ug/L	88		1		60	118	20
2-Nitroaniline	51	0	48.7	ug/L	95		2		46	154	20
Dimethylphthalate	51	0	43.8	ug/L	86		2		1	112	20
Acenaphthylene	51	0	44.1	ug/L	86		0		33	145	20
2,6-Dinitrotoluene	51	0	41.9	ug/L	82		1		50	158	20
3-Nitroaniline	51	0	10.1	ug/L	20		29	*	10	152	20
Acenaphthene	51	0	45.8	ug/L	90		3		47	145	20
2,4-Dinitrophenol	100	0	170	ug/L	170		6		1	191	20
4-Nitrophenol	100	0	36.8	ug/L	37		6		1	132	20
Dibenzofuran	51	0	44.7	ug/L	88		3		44	140	20
2,4-Dinitrotoluene	51	0	44	ug/L	86		5		39	139	20
Diethylphthalate	51	0	43.2	ug/L	85		1		1	114	20

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E1676

Client: Cardno ATC

Analytical Method: 625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
4-Chlorophenyl-phenylether	51	0	42.2	ug/L	83		1		25	158	20
Fluorene	51	0	43.5	ug/L	85		2		59	121	20
4-Nitroaniline	51	0	36.7	ug/L	72		4		45	160	20
4,6-Dinitro-2-methylphenol	51	0	54.7	ug/L	107		0		1	181	20
N-Nitrosodiphenylamine	51	0	38.9	ug/L	76		5		59	137	20
Azobenzene	51	0	48.1	ug/L	94		1		70	124	20
4-Bromophenyl-phenylether	51	0	40.5	ug/L	79		1		53	127	20
Hexachlorobenzene	51	0	40.9	ug/L	80		0		1	152	20
Atrazine	51	0	37.1	ug/L	73		7		59	152	20
Pentachlorophenol	100	0	90.9	ug/L	91		2		14	176	20
Phenanthrene	51	0	42.6	ug/L	84		1		54	120	20
Anthracene	51	0	44.2	ug/L	87		0		27	133	20
Carbazole	51	0	43.9	ug/L	86		0		51	160	20
Di-n-butylphthalate	51	0	42	ug/L	82		2		1	118	20
Fluoranthene	51	0	43.4	ug/L	85		1		26	137	20
Benzidine	100	0	0	ug/L	0	*	0		10	159	20
Pyrene	51	0	43.1	ug/L	85		1		52	115	20
Butylbenzylphthalate	51	0	49.3	ug/L	97		0		1	152	20
3,3-Dichlorobenzidine	51	0	10.6	ug/L	21		5		1	262	20
Benzo(a)anthracene	51	0	45.5	ug/L	89		2		33	143	20
Chrysene	51	0	46.1	ug/L	90		2		17	168	20
bis(2-Ethylhexyl)phthalate	51	0	46.7	ug/L	92		1		8	158	20
Di-n-octyl phthalate	51	0	50.6	ug/L	99		2		4	146	20
Benzo(b)fluoranthene	51	0	47.2	ug/L	93		0		24	159	20
Benzo(k)fluoranthene	51	0	47.4	ug/L	93		0		11	162	20
Benzo(a)pyrene	51	0	49.8	ug/L	98		1		17	163	20
Indeno(1,2,3-cd)pyrene	51	0	45.3	ug/L	89		1		1	171	20
Dibenz(a,h)anthracene	51	0	43.8	ug/L	86		1		1	227	20
Benzo(g,h,i)perylene	51	0	46.9	ug/L	92		0		1	219	20
1,2,4,5-Tetrachlorobenzene	51	0	41.2	ug/L	81		4		70	130	20
2,3,4,6-Tetrachlorophenol	51	0	41.2	ug/L	81		1		70	130	20
1,4-Dioxane	51	0	16.9	ug/L	33	*	3		70	130	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E1676

Client: Cardno ATC

Analytical Method: 625 **DataFile:** BF061297.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	RPD Qual	Qual	Limits Low	Limits High	RPD
PB68924BS	n-Nitrosodimethylamine	50	46.5	ug/L	93				10	156	
	Pyridine	50	39	ug/L	78				55	145	
	Benzaldehyde	50	17.5	ug/L	35				10	161	
	Aniline	50	6.5	ug/L	13			*	50	150	
	Phenol	50	42.1	ug/L	84				5	112	
	bis(2-Chloroethyl)ether	50	40.5	ug/L	81				12	158	
	2-Chlorophenol	50	38.1	ug/L	76				23	134	
	1,2-Dichlorobenzene	50	37.6	ug/L	75				32	129	
	1,3-Dichlorobenzene	50	38.9	ug/L	78				1	172	
	1,4-Dichlorobenzene	50	38.8	ug/L	78				20	124	
	Benzyl Alcohol	50	42.2	ug/L	84				10	156	
	2-Methylphenol	50	40.3	ug/L	81				15	153	
	2,2-oxybis(1-Chloropropane)	50	37.8	ug/L	76				36	166	
	Acetophenone	50	43.1	ug/L	86				21	128	
	3+4-Methylphenols	50	41	ug/L	82				10	156	
	N-Nitroso-di-n-propylamine	50	39.9	ug/L	80				1	230	
	Hexachloroethane	50	38.6	ug/L	77				40	113	
	Nitrobenzene	50	36.7	ug/L	73				35	180	
	Isophorone	50	37.2	ug/L	74				21	196	
	2-Nitrophenol	50	42.6	ug/L	85				29	182	
	2,4-Dimethylphenol	50	41.2	ug/L	82				32	119	
	bis(2-Chloroethoxy)methane	50	40.8	ug/L	82				33	184	
	2,4-Dichlorophenol	50	40.9	ug/L	82				39	135	
	1,2,4-Trichlorobenzene	50	42.2	ug/L	84				44	142	
	Benzoic acid	50	39	ug/L	78				10	159	
	Naphthalene	50	39.4	ug/L	79				21	133	
	4-Chloroaniline	50	7.2	ug/L	14				10	156	
	Hexachlorobutadiene	50	38.1	ug/L	76				24	116	
	Caprolactam	50	42	ug/L	84				10	160	
	4-Chloro-3-methylphenol	50	40.9	ug/L	82				22	147	
	2-Methylnaphthalene	50	43.1	ug/L	86				25	124	
	Hexachlorocyclopentadiene	100	180	ug/L	180			*	10	143	
	2,4,6-Trichlorophenol	50	57.4	ug/L	115				37	144	
	2,4,5-Trichlorophenol	50	56.3	ug/L	113				41	120	
	1,1-Biphenyl	50	41.8	ug/L	84				20	125	
	2-Chloronaphthalene	50	41.5	ug/L	83				60	118	
	2-Nitroaniline	50	37.4	ug/L	75				38	131	
	Dimethylphthalate	50	38.7	ug/L	77				1	112	
	Acenaphthylene	50	40.9	ug/L	82				33	145	
	2,6-Dinitrotoluene	50	37.6	ug/L	75				50	158	
	3-Nitroaniline	50	8.4	ug/L	17			*	24	126	
	Acenaphthene	50	40.9	ug/L	82				47	145	
	2,4-Dinitrophenol	100	160	ug/L	160				1	191	
	4-Nitrophenol	100	94.8	ug/L	95				1	132	
	Dibenzofuran	50	41.2	ug/L	82				29	125	
	2,4-Dinitrotoluene	50	38.5	ug/L	77				39	139	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E1676

Client: Cardno ATC

Analytical Method: 625 **DataFile:** BF061297.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	RPD Qual	Qual	Limits Low	Limits High	RPD
PB68924BS	Diethylphthalate	50	39.4	ug/L	79				1	114	
	4-Chlorophenyl-phenylether	50	41.2	ug/L	82				25	158	
	Fluorene	50	40.3	ug/L	81				59	121	
	4-Nitroaniline	50	32.7	ug/L	65				50	137	
	4,6-Dinitro-2-methylphenol	50	48.7	ug/L	97				1	181	
	N-Nitrosodiphenylamine	50	41.3	ug/L	83				37	139	
	Azobenzene	50	39.3	ug/L	79				45	134	
	4-Bromophenyl-phenylether	50	39	ug/L	78				53	127	
	Hexachlorobenzene	50	41.3	ug/L	83				1	152	
	Atrazine	50	40.1	ug/L	80				51	130	
	Pentachlorophenol	100	88.5	ug/L	89				14	176	
	Phenanthrene	50	38.7	ug/L	77				54	120	
	Anthracene	50	40.1	ug/L	80				27	133	
	Carbazole	50	39.4	ug/L	79				60	125	
	Di-n-butylphthalate	50	37.4	ug/L	75				1	118	
	Fluoranthene	50	39.7	ug/L	79				26	137	
	Benzidine	100	9.4	ug/L	9			*	10	158	
	Pyrene	50	37.3	ug/L	75				52	115	
	Butylbenzylphthalate	50	39.1	ug/L	78				1	152	
	3,3-Dichlorobenzidine	50	5	ug/L	10				1	262	
	Benzo(a)anthracene	50	40.9	ug/L	82				33	143	
	Chrysene	50	41.3	ug/L	83				17	168	
	bis(2-Ethylhexyl)phthalate	50	38.5	ug/L	77				8	158	
	Di-n-octyl phthalate	50	40.4	ug/L	81				4	146	
	Benzo(b)fluoranthene	50	43.4	ug/L	87				24	159	
	Benzo(k)fluoranthene	50	42.8	ug/L	86				11	162	
	Benzo(a)pyrene	50	44.9	ug/L	90				17	163	
	Indeno(1,2,3-cd)pyrene	50	41.6	ug/L	83				1	171	
	Dibenz(a,h)anthracene	50	40.6	ug/L	81				1	227	
	Benzo(g,h,i)perylene	50	43.2	ug/L	86				1	219	
	1,2,4,5-Tetrachlorobenzene	50	53.7	ug/L	107				70	130	
	2,3,4,6-Tetrachlorophenol	50	42.5	ug/L	85				70	130	
	1,4-Dioxane	50	32.3	ug/L	65			*	70	130	

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB68924BL

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG NO.: E1676

Lab File ID: BF061298.D Lab Sample ID: PB68924BL

Instrument ID: BNA_F Date Extracted: 03/29/2013

Matrix: (soil/water) Water Date Analyzed: 04/02/2013

Level: (low/med) LOW Time Analyzed: 23:31

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
MW-15-Q12013	E1676-08	BF061299.D	04/02/2013
MW-16-Q12013	E1676-09	BF061300.D	04/03/2013
FB-Q-12013	E1676-10	BF061301.D	04/03/2013
MW-14-Q12013	E1676-07	BF061307.D	04/03/2013
DUP-Q-12013	E1676-11	BF061308.D	04/03/2013
MW-2-Q12013	E1676-01	BF061302.D	04/03/2013
MW-8-Q12013	E1676-02	BF061309.D	04/03/2013
MW-11R-Q12013	E1676-03	BF061303.D	04/03/2013
MW-11R-Q12013MS	E1676-04MS	BF061304.D	04/03/2013
MW-11R-Q12013MSD	E1676-05MSD	BF061305.D	04/03/2013
MW-12R-Q12013	E1676-06	BF061306.D	04/03/2013
PB68924BS	PB68924BS	BF061297.D	04/02/2013

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM SAS No.: E1676 SDG NO.: E1676

Lab File ID: BF061281.D DFTPP Injection Date: 04/02/2013

Instrument ID: BNA_F DFTPP Injection Time: 16:19

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	53.8
68	Less than 2.0% of mass 69	0.9 (2) 1
69	Mass 69 relative abundance	45
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	60
197	Less than 2.0% of mass 198	0.4
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7
275	10.0 - 60.0% of mass 198	23.5
365	Greater than 1% of mass 198	3.1
441	Present, but less than mass 443	13.5
442	Greater than 50% of mass 198	85.5
443	15.0 - 24.0% of mass 442	16.1 (18.8) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC010	SSTDICC010	BF061290.D	04/02/2013	20:10
SSTDICCC025	SSTDICCC025	BF061291.D	04/02/2013	20:36
SSTDICC040	SSTDICC040	BF061292.D	04/02/2013	21:01
SSTDICC060	SSTDICC060	BF061293.D	04/02/2013	21:26
SSTDICC2.5	SSTDICC2.5	BF061294.D	04/02/2013	21:51
PB68924BS	PB68924BS	BF061297.D	04/02/2013	23:06
PB68924BL	PB68924BL	BF061298.D	04/02/2013	23:31
MW-15-Q12013	E1676-08	BF061299.D	04/02/2013	23:56
MW-16-Q12013	E1676-09	BF061300.D	04/03/2013	00:22
FB-Q-12013	E1676-10	BF061301.D	04/03/2013	00:47
MW-2-Q12013	E1676-01	BF061302.D	04/03/2013	01:12
MW-11R-Q12013	E1676-03	BF061303.D	04/03/2013	01:37
MW-11R-Q12013MS	E1676-04MS	BF061304.D	04/03/2013	02:01
MW-11R-Q12013MSD	E1676-05MSD	BF061305.D	04/03/2013	02:26
MW-12R-Q12013	E1676-06	BF061306.D	04/03/2013	02:51
MW-14-Q12013	E1676-07	BF061307.D	04/03/2013	03:17
DUP-Q-12013	E1676-11	BF061308.D	04/03/2013	03:42
MW-8-Q12013	E1676-02	BF061309.D	04/03/2013	04:06
MW-2-Q12013DL	E1676-01DL	BF061310.D	04/03/2013	09:08

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG NO.: E1676

EPA Sample No.: SSTDICCC025 Date Analyzed: 04/02/2013

Lab File ID: BF061291.D Time Analyzed: 20:36

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	97368	3.99	435564	5.11	161179	6.81
	UPPER LIMIT	194736	4.49	871128	5.61	322358	7.31
	LOWER LIMIT	48684	3.49	217782	4.61	80589.5	6.31
	EPA SAMPLE NO.						
01	MW-11R-Q12013	76482	3.99	346170	5.10	167558	6.80
02	MW-11R-Q12013MS	114170	3.99	495714	5.10	238172	6.81
03	MW-11R-Q12013MSD	122380	3.99	526447	5.10	247548	6.80
04	MW-12R-Q12013	119881	3.99	522915	5.10	249236	6.80
05	MW-14-Q12013	114215	3.99	472965	5.10	225125	6.80
06	MW-15-Q12013	80038	3.99	355927	5.10	172071	6.80
07	MW-16-Q12013	120122	3.99	525399	5.10	250139	6.80
08	FB-Q-12013	116962	3.99	512416	5.10	247809	6.80
09	DUP-Q-12013	76061	3.99	328004	5.10	155390	6.80
10	PB68924BL	115363	3.99	507663	5.10	243036	6.80
11	PB68924BS	112014	3.99	480580	5.10	156880	6.80
12	MW-2-Q12013	112768	3.99	512408	5.10	250799	6.80
13	MW-8-Q12013	115169	3.99	506451	5.10	253140	6.80
14	MW-2-Q12013DL	71770	3.99	317874	5.10	148268	6.80

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB68924BL	SDG No.:	E1676
Lab Sample ID:	PB68924BL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061298.D	1	03/29/13	04/02/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	U	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB68924BL	SDG No.:	E1676
Lab Sample ID:	PB68924BL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061298.D	1	03/29/13	04/02/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	2.5	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB68924BL	SDG No.:	E1676
Lab Sample ID:	PB68924BL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061298.D	1	03/29/13	04/02/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	U	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	U	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	79.2		10 - 160		79%	SPK: 100
13127-88-3	Phenol-d6	79.6		10 - 161		80%	SPK: 100
4165-60-0	Nitrobenzene-d5	89.7		25 - 124		90%	SPK: 100
321-60-8	2-Fluorobiphenyl	83.8		20 - 129		84%	SPK: 100
118-79-6	2,4,6-Tribromophenol	78.2		10 - 140		78%	SPK: 100
1718-51-0	Terphenyl-d14	84.1		14 - 155		84%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	115363	3.99				
1146-65-2	Naphthalene-d8	507663	5.1				
15067-26-2	Acenaphthene-d10	243036	6.8				
1517-22-2	Phenanthrene-d10	376043	8.47				
1719-03-5	Chrysene-d12	315827	11.66				
1520-96-3	Perylene-d12	267925	13.62				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	
Project:	Avalon- WP9			Date Received:	
Client Sample ID:	PB68924BL			SDG No.:	E1676
Lab Sample ID:	PB68924BL			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061298.D	1	03/29/13	04/02/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB68924BS	SDG No.:	E1676
Lab Sample ID:	PB68924BS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061297.D	1	03/29/13	04/02/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	46.5		2.7	5	10	ug/L
110-86-1	Pyridine	39		5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	17.5		0.28	1.3	2.5	ug/L
62-53-3	Aniline	6.5	J	3.9	5	10	ug/L
108-95-2	Phenol	42.1		0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	40.5		0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	38.1		0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	37.6		0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	38.9		0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	38.8		0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	42.2		0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	40.3		1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	37.8		0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	43.1		0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	41		0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	39.9		0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	38.6		0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	36.7		0.65	1.3	2.5	ug/L
78-59-1	Isophorone	37.2		0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	42.6		4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	41.2		0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	40.8		1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	40.9		3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	42.2		0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	39		3.2	12.5	25	ug/L
91-20-3	Naphthalene	39.4		0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	7.2	J	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	38.1		0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	42		2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	40.9		1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	43.1		0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB68924BS	SDG No.:	E1676
Lab Sample ID:	PB68924BS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061297.D	1	03/29/13	04/02/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	180	E	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	57.4		2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	56.3		2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	41.8		0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	41.5		0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	37.4		4.2	5	10	ug/L
131-11-3	Dimethylphthalate	38.7		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	40.9		0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	37.6		0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	8.4	J	2	5	10	ug/L
83-32-9	Acenaphthene	40.9		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	160	E	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	94.8	E	3.9	5	10	ug/L
132-64-9	Dibenzofuran	41.2		2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	38.5		2.1	5	10	ug/L
84-66-2	Diethylphthalate	39.4		0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	41.2		0.27	1.3	2.5	ug/L
86-73-7	Fluorene	40.3		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	32.7		2.5	2.5	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	48.7		1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	41.3		0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	39.3		0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	39		0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	41.3		0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	40.1		0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	88.5	E	2.7	5	10	ug/L
85-01-8	Phenanthrene	38.7		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	40.1		0.3	1.3	2.5	ug/L
86-74-8	Carbazole	39.4		0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	37.4		0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	39.7		0.84	1.3	2.5	ug/L
92-87-5	Benzidine	9.4	J	8.7	12.5	25	ug/L
129-00-0	Pyrene	37.3		0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	
Project:	Avalon- WP9			Date Received:	
Client Sample ID:	PB68924BS			SDG No.:	E1676
Lab Sample ID:	PB68924BS			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061297.D	1	03/29/13	04/02/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	39.1		0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	5	J	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	40.9		0.12	1.3	2.5	ug/L
218-01-9	Chrysene	41.3		0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	38.5		0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	40.4		0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	43.4		0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	42.8		0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	44.9		0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	41.6		0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	40.6		0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	43.2		0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	53.7		0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	42.5		5	5	10	ug/L
123-91-1	1,4-Dioxane	32.3		5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	78		10 - 160		78%	SPK: 100
13127-88-3	Phenol-d6	78.1		10 - 161		78%	SPK: 100
4165-60-0	Nitrobenzene-d5	85.4		25 - 124		85%	SPK: 100
321-60-8	2-Fluorobiphenyl	110		20 - 129		115%	SPK: 100
118-79-6	2,4,6-Tribromophenol	96.2		10 - 140		96%	SPK: 100
1718-51-0	Terphenyl-d14	81.8		14 - 155		82%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	112014	3.99				
1146-65-2	Naphthalene-d8	480580	5.1				
15067-26-2	Acenaphthene-d10	156880	6.8				
1517-22-2	Phenanthrene-d10	257039	8.47				
1719-03-5	Chrysene-d12	232022	11.66				
1520-96-3	Perylene-d12	199992	13.63				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	
Project:	Avalon- WP9			Date Received:	
Client Sample ID:	PB68924BS			SDG No.:	E1676
Lab Sample ID:	PB68924BS			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061297.D	1	03/29/13	04/02/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MS	SDG No.:	E1676
Lab Sample ID:	E1676-04MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061304.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	21.8		2.7	5.1	10.1	ug/L
110-86-1	Pyridine	16.6	J	5.9	12.6	25.3	ug/L
100-52-7	Benzaldehyde	11.9		0.28	1.3	2.5	ug/L
62-53-3	Aniline	5.5	J	3.9	5.1	10.1	ug/L
108-95-2	Phenol	12.1		0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	43		0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	34.1		0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	40.1		0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	41		0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	40.9		0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	27.9		0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	27.1		1.8	5.1	10.1	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	41.7		0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	45.9		0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	24.1		0.59	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	44.8		0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	39.9		0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	40.4		0.66	1.3	2.5	ug/L
78-59-1	Isophorone	40.8		0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	45.5		4.4	5.1	10.1	ug/L
105-67-9	2,4-Dimethylphenol	36.5		0.71	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	45		1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	41.5		3.2	5.1	10.1	ug/L
120-82-1	1,2,4-Trichlorobenzene	43.3		0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	13.4	J	3.3	12.6	25.3	ug/L
91-20-3	Naphthalene	42.4		0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	7.1	J	2.7	5.1	10.1	ug/L
87-68-3	Hexachlorobutadiene	40.5		0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	7.2	J	2	5.1	10.1	ug/L
59-50-7	4-Chloro-3-methylphenol	38.7		1.7	5.1	10.1	ug/L
91-57-6	2-Methylnaphthalene	47.4		0.19	1.3	2.5	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MS	SDG No.:	E1676
Lab Sample ID:	E1676-04MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061304.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	130	E	1.5	5.1	10.1	ug/L
88-06-2	2,4,6-Trichlorophenol	41.7		2.1	5.1	10.1	ug/L
95-95-4	2,4,5-Trichlorophenol	41		2.3	5.1	10.1	ug/L
92-52-4	1,1-Biphenyl	43.7		0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	43.8		0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	47.1		4.3	5.1	10.1	ug/L
131-11-3	Dimethylphthalate	42.6		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	43.6		0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	41.1		0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	7.7	J	2	5.1	10.1	ug/L
83-32-9	Acenaphthene	44		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	160	E	1.9	12.6	25.3	ug/L
100-02-7	4-Nitrophenol	35		3.9	5.1	10.1	ug/L
132-64-9	Dibenzofuran	42.9		2.1	5.1	10.1	ug/L
121-14-2	2,4-Dinitrotoluene	41.2		2.1	5.1	10.1	ug/L
84-66-2	Diethylphthalate	42.2		0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	41.5		0.27	1.3	2.5	ug/L
86-73-7	Fluorene	41.7		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	34.7		2.5	2.5	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	54		1.9	5.1	10.1	ug/L
86-30-6	n-Nitrosodiphenylamine	40.6		0.81	1.3	2.5	ug/L
103-33-3	Azobenzene	47.1		0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	40.4		0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	40.6		0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	39.5		0.57	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	88.8	E	2.7	5.1	10.1	ug/L
85-01-8	Phenanthrene	42.8		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	43.9		0.3	1.3	2.5	ug/L
86-74-8	Carbazole	43.6		0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	42.6		0.6	1.3	2.5	ug/L
206-44-0	Fluoranthene	42.5		0.85	1.3	2.5	ug/L
92-87-5	Benzidine	8.8	U	8.8	12.6	25.3	ug/L
129-00-0	Pyrene	43.3		0.13	1.3	2.5	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MS	SDG No.:	E1676
Lab Sample ID:	E1676-04MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061304.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	49.1		0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	11.2		3.6	5.1	10.1	ug/L
56-55-3	Benzo(a)anthracene	46.2		0.12	1.3	2.5	ug/L
218-01-9	Chrysene	46.6		0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	47.2		0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	50.9		0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	47.1		0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	47.1		0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	49		0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	45.3		0.67	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	43		0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	46.4		0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	39.3		0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	41.3		5.1	5.1	10.1	ug/L
123-91-1	1,4-Dioxane	16.1		5.1	5.1	10.1	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	35.8		10 - 160		36%	SPK: 100
13127-88-3	Phenol-d6	22.1		10 - 161		22%	SPK: 100
4165-60-0	Nitrobenzene-d5	92.5		25 - 124		93%	SPK: 100
321-60-8	2-Fluorobiphenyl	84.8		20 - 129		85%	SPK: 100
118-79-6	2,4,6-Tribromophenol	81.3		10 - 140		81%	SPK: 100
1718-51-0	Terphenyl-d14	75.3		14 - 155		75%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	114170	3.99				
1146-65-2	Naphthalene-d8	495714	5.1				
15067-26-2	Acenaphthene-d10	238172	6.81				
1517-22-2	Phenanthrene-d10	373013	8.47				
1719-03-5	Chrysene-d12	306255	11.66				
1520-96-3	Perylene-d12	266124	13.63				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	03/28/13
Project:	Avalon- WP9			Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MS			SDG No.:	E1676
Lab Sample ID:	E1676-04MS			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061304.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MSD	SDG No.:	E1676
Lab Sample ID:	E1676-05MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061305.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	22.8		2.7	5.1	10.2	ug/L
110-86-1	Pyridine	17	J	6	12.8	25.5	ug/L
100-52-7	Benzaldehyde	7.7		0.29	1.3	2.6	ug/L
62-53-3	Aniline	5.6	J	3.9	5.1	10.2	ug/L
108-95-2	Phenol	13.2		0.47	1.3	2.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	45		0.36	1.3	2.6	ug/L
95-57-8	2-Chlorophenol	34.3		0.19	1.3	2.6	ug/L
95-50-1	1,2-Dichlorobenzene	40.2		0.26	1.3	2.6	ug/L
541-73-1	1,3-Dichlorobenzene	40.2		0.12	1.3	2.6	ug/L
106-46-7	1,4-Dichlorobenzene	40.9		0.18	1.3	2.6	ug/L
100-51-6	Benzyl Alcohol	30.2		0.33	1.3	2.6	ug/L
95-48-7	2-Methylphenol	28.9		1.8	5.1	10.2	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	42.2		0.36	1.3	2.6	ug/L
98-86-2	Acetophenone	47.3		0.2	1.3	2.6	ug/L
65794-96-9	3+4-Methylphenols	26.2		0.59	1.3	2.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	45.9		0.22	1.3	2.6	ug/L
67-72-1	Hexachloroethane	40.8		0.26	1.3	2.6	ug/L
98-95-3	Nitrobenzene	41.3		0.66	1.3	2.6	ug/L
78-59-1	Isophorone	41.7		0.42	1.3	2.6	ug/L
88-75-5	2-Nitrophenol	46.1		4.5	5.1	10.2	ug/L
105-67-9	2,4-Dimethylphenol	35.8		0.71	1.3	2.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	46.1		1.1	1.3	2.6	ug/L
120-83-2	2,4-Dichlorophenol	42.4		3.3	5.1	10.2	ug/L
120-82-1	1,2,4-Trichlorobenzene	44.9		0.14	1.3	2.6	ug/L
65-85-0	Benzoic acid	14.2	J	3.3	12.8	25.5	ug/L
91-20-3	Naphthalene	43.2		0.19	1.3	2.6	ug/L
106-47-8	4-Chloroaniline	7.6	J	2.7	5.1	10.2	ug/L
87-68-3	Hexachlorobutadiene	42.1		0.17	1.3	2.6	ug/L
105-60-2	Caprolactam	7.3	J	2	5.1	10.2	ug/L
59-50-7	4-Chloro-3-methylphenol	39.1		1.8	5.1	10.2	ug/L
91-57-6	2-Methylnaphthalene	47		0.19	1.3	2.6	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MSD	SDG No.:	E1676
Lab Sample ID:	E1676-05MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061305.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	130	E	1.5	5.1	10.2	ug/L
88-06-2	2,4,6-Trichlorophenol	43		2.2	5.1	10.2	ug/L
95-95-4	2,4,5-Trichlorophenol	41.1		2.3	5.1	10.2	ug/L
92-52-4	1,1-Biphenyl	44.9		0.27	1.3	2.6	ug/L
91-58-7	2-Chloronaphthalene	44.9		0.15	1.3	2.6	ug/L
88-74-4	2-Nitroaniline	48.7		4.3	5.1	10.2	ug/L
131-11-3	Dimethylphthalate	43.8		0.17	1.3	2.6	ug/L
208-96-8	Acenaphthylene	44.1		0.16	1.3	2.6	ug/L
606-20-2	2,6-Dinitrotoluene	41.9		0.28	1.3	2.6	ug/L
99-09-2	3-Nitroaniline	10.1	J	2.1	5.1	10.2	ug/L
83-32-9	Acenaphthene	45.8		0.17	1.3	2.6	ug/L
51-28-5	2,4-Dinitrophenol	170	E	1.9	12.8	25.5	ug/L
100-02-7	4-Nitrophenol	36.8		3.9	5.1	10.2	ug/L
132-64-9	Dibenzofuran	44.7		2.2	5.1	10.2	ug/L
121-14-2	2,4-Dinitrotoluene	44		2.2	5.1	10.2	ug/L
84-66-2	Diethylphthalate	43.2		0.1	1.3	2.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	42.2		0.28	1.3	2.6	ug/L
86-73-7	Fluorene	43.5		0.15	1.3	2.6	ug/L
100-01-6	4-Nitroaniline	36.7		2.5	2.5	2.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	54.7		1.9	5.1	10.2	ug/L
86-30-6	n-Nitrosodiphenylamine	38.9		0.82	1.3	2.6	ug/L
103-33-3	Azobenzene	48.1		0.22	1.3	2.6	ug/L
101-55-3	4-Bromophenyl-phenylether	40.5		0.43	1.3	2.6	ug/L
118-74-1	Hexachlorobenzene	40.9		0.22	1.3	2.6	ug/L
1912-24-9	Atrazine	37.1		0.57	1.3	2.6	ug/L
87-86-5	Pentachlorophenol	90.9	E	2.7	5.1	10.2	ug/L
85-01-8	Phenanthrene	42.6		0.11	1.3	2.6	ug/L
120-12-7	Anthracene	44.2		0.31	1.3	2.6	ug/L
86-74-8	Carbazole	43.9		0.48	1.3	2.6	ug/L
84-74-2	Di-n-butylphthalate	42		0.6	1.3	2.6	ug/L
206-44-0	Fluoranthene	43.4		0.86	1.3	2.6	ug/L
92-87-5	Benzidine	8.9	U	8.9	12.8	25.5	ug/L
129-00-0	Pyrene	43.1		0.13	1.3	2.6	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MSD	SDG No.:	E1676
Lab Sample ID:	E1676-05MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061305.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	49.3		0.22	1.3	2.6	ug/L
91-94-1	3,3-Dichlorobenzidine	10.6		3.7	5.1	10.2	ug/L
56-55-3	Benzo(a)anthracene	45.5		0.12	1.3	2.6	ug/L
218-01-9	Chrysene	46.1		0.24	1.3	2.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	46.7		0.3	1.3	2.6	ug/L
117-84-0	Di-n-octyl phthalate	50.6		0.32	1.3	2.6	ug/L
205-99-2	Benzo(b)fluoranthene	47.2		0.17	1.3	2.6	ug/L
207-08-9	Benzo(k)fluoranthene	47.4		0.29	1.3	2.6	ug/L
50-32-8	Benzo(a)pyrene	49.8		0.17	1.3	2.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	45.3		0.67	1.3	2.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	43.8		0.29	1.3	2.6	ug/L
191-24-2	Benzo(g,h,i)perylene	46.9		0.13	1.3	2.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	41.2		0.38	1.3	2.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	41.2		5.1	5.1	10.2	ug/L
123-91-1	1,4-Dioxane	16.9		5.1	5.1	10.2	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	37.1		10 - 160		37%	SPK: 100
13127-88-3	Phenol-d6	22.6		10 - 161		23%	SPK: 100
4165-60-0	Nitrobenzene-d5	90.3		25 - 124		90%	SPK: 100
321-60-8	2-Fluorobiphenyl	82.9		20 - 129		83%	SPK: 100
118-79-6	2,4,6-Tribromophenol	79.8		10 - 140		80%	SPK: 100
1718-51-0	Terphenyl-d14	77.1		14 - 155		77%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	122380	3.99				
1146-65-2	Naphthalene-d8	526447	5.1				
15067-26-2	Acenaphthene-d10	247548	6.8				
1517-22-2	Phenanthrene-d10	390534	8.47				
1719-03-5	Chrysene-d12	328746	11.66				
1520-96-3	Perylene-d12	279788	13.63				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	03/28/13
Project:	Avalon- WP9	Date Received:	03/28/13
Client Sample ID:	MW-11R-Q12013MSD	SDG No.:	E1676
Lab Sample ID:	E1676-05MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF061305.D	1	03/29/13	04/03/13	PB68924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG No.: E1676

Instrument ID: BNA_F Calibration Date(s): 04/02/2013 04/02/2013

Calibration Time(s): 20:10 21:51

LAB FILE ID: RRF010 = BF061290.D RRF025 = BF061291.D RRF040 = BF061292.D
RRF060 = BF061293.D RRF2.5 = BF061294.D RRF =

COMPOUND	RRF010	RRF025	RRF040	RRF060	RRF2.5	RRF	RRF	% RSD
n-Nitrosodimethylamine	0.897	0.899	0.875	0.902	0.788		0.872	5.5
Pyridine	2.209	2.492	2.209	2.196	2.013		2.224	7.7
2-Fluorophenol	1.893	1.778	1.831	1.788	1.924		1.843	3.5
Benzaldehyde	1.372	1.276	1.297	1.101	1.285		1.266	7.9
Aniline	2.972	2.715	2.868	2.713	2.942		2.842	4.3
Phenol-d6	2.405	2.261	2.264	2.146	2.335		2.282	4.2
Phenol	2.328	2.210	2.295	2.216	2.328		2.276	2.6
bis(2-Chloroethyl)ether	1.990	1.871	1.968	1.839	2.120		1.958	5.7
2-Chlorophenol	1.942	1.800	1.804	1.743	1.826		1.823	4.0
1,2-Dichlorobenzene	1.879	1.651	1.622	1.571	1.840		1.712	8.1
1,3-Dichlorobenzene	1.923	1.821	1.779	1.755	1.898		1.835	4.0
1,4-Dichlorobenzene	1.927	1.748	1.771	1.794	2.053		1.859	6.9
Benzyl Alcohol	1.390	1.387	1.500	1.445	1.307		1.406	5.1
2-Methylphenol	1.501	1.442	1.431	1.376	1.395		1.429	3.4
2,2-oxybis(1-Chloropropane)	3.736	3.548	3.625	3.320	4.046		3.655	7.3
Acetophenone	0.567	0.529	0.513	0.497	0.506		0.523	5.2
3+4-Methylphenols	1.989	1.873	1.872	1.756	1.645		1.827	7.2
n-Nitroso-di-n-propylamine	1.382	1.242	1.235	1.147	1.448		1.291	9.4
Nitrobenzene-d5	0.420	0.389	0.388	0.380	0.414		0.398	4.4
Hexachloroethane	0.740	0.692	0.705	0.695	0.828		0.732	7.8
Nitrobenzene	0.502	0.461	0.475	0.463	0.498		0.480	4.0
Isophorone	0.939	0.833	0.853	0.808	0.956		0.878	7.5
2-Nitrophenol	0.207	0.205	0.201	0.214	0.167		0.199	9.2
2,4-Dimethylphenol	0.364	0.336	0.334	0.339	0.339		0.342	3.5
bis(2-Chloroethoxy)methane	0.525	0.483	0.490	0.483	0.483		0.493	3.7
2,4-Dichlorophenol	0.283	0.254	0.257	0.261	0.257		0.263	4.5
1,2,4-Trichlorobenzene	0.308	0.279	0.272	0.280	0.299		0.287	5.3
Benzoic acid	0.176	0.225	0.249	0.265	0.149		0.213	23.1
Naphthalene	1.203	1.111	1.035	1.006	1.213		1.114	8.5
4-Chloroaniline	0.480	0.452	0.458	0.443	0.437		0.454	3.7
Hexachlorobutadiene	0.141	0.139	0.130	0.138	0.169		0.143	10.4
Caprolactam	0.113	0.122	0.118	0.127	0.120		0.120	4.4
4-Chloro-3-methylphenol	0.272	0.357	0.345	0.348	0.342		0.333	10.4
2-Methylnaphthalene	0.576	0.698	0.654	0.665	0.746		0.668	9.4
Hexachlorocyclopentadiene	0.158	0.215	0.171	0.175	0.125		0.169	19.2
2,4,6-Trichlorophenol	0.369	0.385	0.352	0.346	0.360		0.363	4.2

All other compounds must meet a minimum RRF of 0.010.

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6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG No.: E1676

Instrument ID: BNA_F Calibration Date(s): 04/02/2013 04/02/2013

Calibration Time(s): 20:10 21:51

LAB FILE ID: RRF010 = BF061290.D RRF025 = BF061291.D RRF040 = BF061292.D
RRF060 = BF061293.D RRF2.5 = BF061294.D RRF =

COMPOUND	RRF010	RRF025	RRF040	RRF060	RRF2.5	RRF	RRF	% RSD
2-Fluorobiphenyl	1.369	1.298	1.131	1.085	1.407		1.258	11.4
2,4,5-Trichlorophenol	0.392	0.405	0.381	0.377	0.328		0.377	7.7
1,1-Biphenyl	1.688	1.687	1.560	1.484	1.711		1.626	6.1
2-Chloronaphthalene	1.278	1.245	1.145	1.121	1.294		1.217	6.5
2-Nitroaniline	0.437	0.447	0.489	0.458	0.438		0.454	4.7
Dimethylphthalate	1.493	1.424	1.324	1.306	1.480		1.405	6.2
Acenaphthylene	2.204	2.091	1.950	1.895	2.092		2.047	6.0
2,6-Dinitrotoluene	0.354	0.354	0.350	0.354	0.291		0.341	8.2
3-Nitroaniline	0.378	0.393	0.426	0.423	0.279		0.380	15.7
Acenaphthene	1.314	1.251	1.192	1.154	1.255		1.233	5.0
2,4-Dinitrophenol	0.056	0.085	0.101	0.108			0.088	26.4
4-Nitrophenol	0.237	0.294	0.310	0.298	0.162		0.260	23.6
Dibenzofuran	1.747	1.656	1.566	1.537	1.751		1.652	6.0
2,4-Dinitrotoluene	0.445	0.469	0.460	0.462	0.318		0.431	14.8
Diethylphthalate	1.534	1.466	1.394	1.390	1.596		1.476	6.1
4-Chlorophenyl-phenylether	0.663	0.641	0.557	0.549	0.586		0.599	8.5
Fluorene	1.498	1.387	1.283	1.231	1.401		1.360	7.7
4-Nitroaniline	0.323	0.385	0.417	0.422	0.280		0.365	16.9
4,6-Dinitro-2-methylphenol	0.097	0.114	0.131	0.136	0.058		0.107	29.6
n-Nitrosodiphenylamine	0.707	0.691	0.681	0.661	0.727		0.693	3.6
Azobenzene	1.569	1.555	1.661	1.575	1.737		1.620	4.8
2,4,6-Tribromophenol	0.161	0.166	0.133	0.147	0.110		0.143	15.8
4-Bromophenyl-phenylether	0.215	0.206	0.194	0.198	0.218		0.206	5.1
Hexachlorobenzene	0.230	0.228	0.196	0.210	0.213		0.215	6.4
Atrazine	0.218	0.209	0.212	0.204	0.190		0.207	5.2
Pentachlorophenol	0.127	0.128	0.124	0.131	0.101		0.122	9.9
Phenanthrene	1.496	1.199	1.138	1.117	1.333		1.257	12.6
Anthracene	1.547	1.184	1.127	1.127	1.184		1.234	14.4
Carbazole	1.413	1.094	1.085	1.060	1.096		1.150	12.9
Di-n-butylphthalate	1.915	1.481	1.482	1.437	1.558		1.575	12.4
Fluoranthene	1.475	1.156	1.108	1.079	1.072		1.178	14.4
Benzidine	0.891	0.670	0.697	0.875	0.796		0.786	12.8
Pyrene	1.660	1.288	1.317	1.559	1.399		1.445	11.1
Terphenyl-d14	1.019	0.862	0.814	0.805	0.902		0.881	9.9
Butylbenzylphthalate	0.694	0.708	0.757	0.702	0.734		0.719	3.6
3,3-Dichlorobenzidine	0.437	0.430	0.432	0.430	0.388		0.423	4.8

All other compounds must meet a minimum RRF of 0.010.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E1676 SAS No.: E1676 SDG No.: E1676

Instrument ID: BNA_F Calibration Date(s): 04/02/2013 04/02/2013

Calibration Time(s): 20:10 21:51

LAB FILE ID: RRF010 = BF061290.D RRF025 = BF061291.D RRF040 = BF061292.D
RRF060 = BF061293.D RRF2.5 = BF061294.D RRF =

COMPOUND	RRF010	RRF025	RRF040	RRF060	RRF2.5	RRF	RRF	% RSD
Benzo(a)anthracene	1.189	1.172	1.133	1.153	1.187		1.167	2.0
Chrysene	1.122	1.079	1.027	1.003	1.086		1.063	4.5
Bis(2-ethylhexyl)phthalate	0.942	0.947	0.972	0.887	1.008		0.951	4.7
Di-n-octyl phthalate	1.576	1.594	1.745	1.601	1.594		1.622	4.3
Benzo(b)fluoranthene	1.203	1.228	1.172	1.182	1.105		1.178	3.9
Benzo(k)fluoranthene	1.247	1.232	1.200	1.260	1.235		1.235	1.8
Benzo(a)pyrene	1.121	1.122	1.071	1.140	1.092		1.109	2.5
Indeno(1,2,3-cd)pyrene	1.293	1.096	1.083	1.136	1.006		1.123	9.5
Dibenzo(a,h)anthracene	1.310	1.108	1.083	1.140	0.941		1.116	11.9
Benzo(g,h,i)perylene	1.213	1.040	0.989	1.051	0.990		1.057	8.7
1,2,4,5-Tetrachlorobenzene	0.525	0.594	0.437	0.438	0.500		0.499	13.1
2,3,4,6-Tetrachlorophenol	0.291	0.304	0.263	0.284	0.267		0.282	6.0
1,4-Dioxane	0.955	0.826	0.798	0.778	0.997		0.871	11.3

All other compounds must meet a minimum RRF of 0.010.

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. E1676
QUOTE NO.
COC Number 022929

7 7.1

CLIENT INFORMATION
REPORT TO BE SENT TO:
COMPANY: CARDNO ATC
ADDRESS: 104 EAST 25 St.
CITY: New York STATE: NY ZIP: 10010
ATTENTION: JOHN MASCIOLI
PHONE: 212 432 8592 FAX: 212 979 8447

CLIENT PROJECT INFORMATION
PROJECT NAME: Avalon Bay WP9
PROJECT NO.: 15,754,20001.6 LOCATION: LIC
PROJECT MANAGER: J. MASCIOLI
e-mail: John.masciolli@cardno.com
PHONE: FAX:

CLIENT BILLING INFORMATION
BILL TO: Cardno ATC PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION
FAX: 10 or 15 DAYS *
HARD COPY: DAYS *
EDD: DAYS *
PREAPPROVED TAT: ☒ YES ☐ NO
* STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION
☐ LEVEL 1: Results only ☐ Others
☐ LEVEL 2: Results + QC
☐ LEVEL 3: Results (plus results raw data) + QC
☐ LEVEL 4: Results + QC (all raw data)
☐ EDD Format: NYSDEC CAT. B

ANALYSIS
VOCs Low Level
SVOCs " "

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES A/E 1	PRESERVATIVES E 2	3	4	5	6	7	8	9	COMMENTS
1.	MW-2 Q1 2013	GW		X	3/28/13	1410	3	α	α								
2.	MW-8 Q1 2013			X		1335	3	α	α								
3,4,5	MW-11R Q1 2013			X		1000	9	α	α								MS/MSD
4.6	MW-12R Q1 2013			X		915	3	α	α								
5.7	MW-14 Q1 2013			α		1045	3	α	α								
6.8	MW-15 Q1 2013			α		1230	3	α	α								
7.9	MW-16 Q1 2013			α		1135	3	α	α								
8.10	FB Q1 2013			α		1400	3	α	α								
9.11	DUP Q1 2013			α		1400	3	α	α								
10.12	TB Q1 2013					—	2	α									

IDT 3/28/13

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

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	3/28/13 1415	1.
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2.		2.
RELINQUISHED BY:	DATE/TIME: 1640	RECEIVED FOR LAB BY:
3.	3-28-13	3. Palak Shah

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:
Cooler Temp. 5°
Ice in Cooler?: yes

Page 1 of 1

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☒ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☐ YES ☐ NO

Revision 8/2007

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

State	License No.
New Jersey	20012
New York	11376
Connecticut	PH-0649
Florida	E87935
Maryland	296
Massachusetts	M-NJ503
Oklahoma	9705
Pennsylvania	68-548
Rhode Island	LAO00259
Virginia	460220
Texas	T10470448-10-1

Other:

DOD ELAP	L2219
Soil Permit	P330-11-00012
CLP Inorganic Contract	EPW09038
CLP Organic Contract	EPW11030

QA Control Code: A2070148

CHEMTECH

LOGIN REPORT/SAMPLE TRANSFER

Order ID:	E1676 ATCE02	**Order Date:**	3/28/2013	**Project Mgr:**	JohnD
Client Name:	Cardno ATC	**Project Name:**	Avalon- WP9	**Report Type:**	NYS ASP B
Client Contact:	John Mascioli	**Rec DateTime**	3/28/2013 4:40:00 PM	**EDD:**	Equis_EQNYDEC/Excel
Invoice Name:	Cardno ATC	**Purchase Order:**		**Hard Copy Date:**	
Invoice Contact	John Mascioli	**Login Tech:**	Nikul	**Date Signoff:**	3/28/2013 5:54:27 PM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	QTY	TEST	TEST GROUP	METHOD	COMMENT	FAX DATE	Due Dates
E1676-01	MW-2-Q12013	Water	3/28/2013	14:10	4	VOC- Chemtech Full		8260-Low		10 Bus. 4/11/2013	4/11/20
E1676-02	MW-8-Q12013	Water	3/28/2013	13:35	4	VOC- Chemtech Full		8260-Low		10 Bus. 4/11/2013	4/11/20
E1676-03	MW-11R-Q12013	Water	3/28/2013	10:00	4	VOC- Chemtech Full		8260-Low		10 Bus. 4/11/2013	4/11/20
E1676-04	E1676-03MS	Water	3/28/2013	10:00	4	VOC- Chemtech Full		8260-Low		10 Bus. 4/11/2013	4/11/20
E1676-05	E1676-03MSD	Water	3/28/2013	10:00	4	VOC- Chemtech Full		8260-Low		10 Bus. 4/11/2013	4/11/20
E1676-06	MW-12R-Q12013	Water	3/28/2013	9:15	4	VOC- Chemtech Full		8260-Low		10 Bus. 4/11/2013	4/11/20
E1676-07	MW-14-Q12013	Water	3/28/2013	10:45	4	VOC- Chemtech Full		8260-Low		10 Bus. 4/11/2013	4/11/20
E1676-08	MW-15-Q12013	Water	3/28/2013	12:30	4	VOC- Chemtech Full		8260-Low		10 Bus. 4/11/2013	4/11/20
E1676-09	MW-16-Q12013	Water	3/28/2013	11:35	4	VOC- Chemtech Full		8260-Low		10 Bus. 4/11/2013	4/11/20
E1676-10	FB-Q-12013	Water	3/28/2013	14:00	4	VOC- Chemtech Full		8260-Low		10 Bus. 4/11/2013	4/11/20
E1676-11	DUP-Q-12013	Water	3/28/2013	0:00	4	VOC- Chemtech Full		8260-Low		10 Bus. 4/11/2013	4/11/20

LOGIN REPORT/SAMPLE TRANSFER

Order ID:	E1676	ATCE02	**Order Date:**	3/28/2013	**Project Mgr:**	JohnD
Client Name:	Cardno ATC		**Project Name:**	Avalon- WP9	**Report Type:**	NYS ASP B
Client Contact:	John Mascioli		**Rec DateTime**	3/28/2013 4:40:00 PM	**EDD:**	Equis_EQNYDEC/Excel
Invoice Name:	Cardno ATC		**Purchase Order:**		**Hard Copy Date:**	
Invoice Contact	John Mascioli		**Login Tech:**	Nikul	**Date Signoff:**	3/28/2013 5:54:27 PM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	QTY	TEST	TEST GROUP	METHOD	COMMENT	FAX DATE	Due Dates
E1676-12	TB-Q-12013	Water	3/28/2013	0:00	3	VOC- Chemtech Full		8260-Low		10 Bus. 4/11/2013	4/11/20

SAMPLE CONDITION RECORD

Are samples submitted with a chain of custody?	Yes
Are the number of samples the same as stated on the chain of custody?	Yes
Are bottle caps tight and securely in place?	Yes
Were all containers intact when received?	Yes
Were samples submitted in an ice chest?	Yes
Were samples received cold?	Yes
Were samples within the holding time for the requested test(s)?	Yes
Is the volume of sample submitted sufficient for the requested test(s)?	Yes
Are all samples for volatile organic analyses free of headspace?	Yes

ORDER COMMENT

Relinquished By: _____ **Received By:** _____

Date / Time: 3/28/13 1805 **Date / Time:** 3/28/13 18:05

Storage Area: VOA Refridgerator Room

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

ANALYTICAL SUMMARY

VOLATILE ORGANICS
SEMI-VOLATILE ORGANICS

PROJECT NAME : AVALON- WP9

CARDNO ATC

104 East 25th Street

New York, NY - 10010

Phone No: 212-353-8280

ORDER ID : E3854

ATTENTION : John Mascioli

ACCREDITED IN ACCORDANCE WITH nelac

DoD ELAP

Table Of Contents for E3854

1) Signature Page 3

2) Case Narrative 9

2.1) VOC- Chemtech Full- Case Narrative 9

2.2) SVOC- Chemtech Full- Case Narrative 11

3) Qualifier Page 13

4) VOC- Chemtech Full Data 14

5) SVOC- Chemtech Full Data 139

6) Shipping Document 233

6.1) CHAIN OF CUSTODY 234

6.2) ROC 235

6.3) Lab Certificate 236

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Cover Page

Order ID : E3854

Project ID : Avalon- WP9

Client : Cardno ATC

Lab Sample Number	Client Sample Number
E3854-01	MW-2-Q3-2013
E3854-02	MW-8-Q3-2013
E3854-03	MW-11R-Q3-2013
E3854-04	E3854-03MS
E3854-05	E3854-03MSD
E3854-06	MW-12R-Q3-2013
E3854-07	MW-14-Q3-2013
E3854-08	MW-15-Q3-2013
E3854-09	MW-16-Q3-2013
E3854-10	FBQ3-2013
E3854-11	DUPQ3-2013
E3854-12	TBQ3-2013

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____ Date: 10/4/2013

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FORM S-I

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sampl ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
MW-2-Q3-2013	E3854-01	8260-Low	625				
MW-8-Q3-2013	E3854-02	8260-Low	625				
MW-11R-Q3-2013	E3854-03	8260-Low	625				
MW-12R-Q3-2013	E3854-06	8260-Low	625				
MW-14-Q3-2013	E3854-07	8260-Low	625				
MW-15-Q3-2013	E3854-08	8260-Low	625				
MW-16-Q3-2013	E3854-09	8260-Low	625				
FBQ3-2013	E3854-10	8260-Low	625				
DUPQ3-2013	E3854-11	8260-Low	625				
TBQ3-2013	E3854-12	8260-Low	625				

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIa

SAMPLE PREPARATION AND ANALYSIS SUMMARY SEMIVOLATILE (BNA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
E3854-01	Water	09/24/13	09/25/13	09/26/13	09/27/13
E3854-02	Water	09/24/13	09/25/13	09/26/13	09/27/13
E3854-03	Water	09/24/13	09/25/13	09/26/13	09/27/13
E3854-06	Water	09/24/13	09/25/13	09/26/13	09/27/13
E3854-07	Water	09/24/13	09/25/13	09/26/13	09/27/13
E3854-08	Water	09/24/13	09/25/13	09/26/13	09/27/13
E3854-09	Water	09/24/13	09/25/13	09/26/13	09/28/13
E3854-10	Water	09/24/13	09/25/13	09/26/13	09/28/13
E3854-11	Water	09/24/13	09/25/13	09/26/13	09/28/13

*** Details For Test :** SVOC- Chemtech Full

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIb

SAMPLE PREPARATION AND ANALYSIS SUMMARY VOLATILE (VOA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
E3854-01	Water	09/24/13	09/25/13		09/27/13
E3854-02	Water	09/24/13	09/25/13		09/27/13
E3854-03	Water	09/24/13	09/25/13		09/27/13
E3854-06	Water	09/24/13	09/25/13		09/27/13
E3854-07	Water	09/24/13	09/25/13		09/27/13
E3854-08	Water	09/24/13	09/25/13		09/27/13
E3854-09	Water	09/24/13	09/25/13		09/27/13
E3854-10	Water	09/24/13	09/25/13		09/27/13
E3854-11	Water	09/24/13	09/25/13		09/27/13
E3854-12	Water	09/24/13	09/25/13		09/27/13

*** Details For Test :** VOC- Chemtech Full

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
E3854-01	Water	8260-Low	NA		
E3854-02	Water	8260-Low	NA		
E3854-03	Water	8260-Low	NA		
E3854-04	Water	8260-Low	NA		
E3854-05	Water	8260-Low	NA		
E3854-06	Water	8260-Low	NA		
E3854-07	Water	8260-Low	NA		
E3854-08	Water	8260-Low	NA		
E3854-09	Water	8260-Low	NA		
E3854-10	Water	8260-Low	NA		
E3854-11	Water	8260-Low	NA		
E3854-12	Water	8260-Low	NA		

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
E3854-01	Water	625	3510C		
E3854-02	Water	625	3510C		
E3854-03	Water	625	3510C		
E3854-04	Water	625	3510C		
E3854-05	Water	625	3510C		
E3854-06	Water	625	3510C		
E3854-07	Water	625	3510C		
E3854-08	Water	625	3510C		
E3854-09	Water	625	3510C		
E3854-10	Water	625	3510C		
E3854-11	Water	625	3510C		

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CASE NARRATIVE

Cardno ATC
Project Name: Avalon- WP9
Project # N/A
Chemtech Project # E3854
Test Name: VOC- Chemtech Full

A. Number of Samples and Date of Receipt:
12 Water samples were received on 09/25/2013.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SVOC- Chemtech Full and VOC- Chemtech Full. This data package contains results for VOC- Chemtech Full.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_N were done using GC column RXI-624SIL MS 30m 0.25mm 1.4 um. Cat#13868.The analysis of VOC- Chemtech Full was based on method 8260-Low.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS {E3854-04MS} with File ID: VN009202.D recoveries met the requirements for all compounds except for 2-Chloroethyl vinyl ether[0%], Bromomethane[42%] and Methyl iodide [44%] .
The MSD {E3854-05MSD} with File ID: VN009203.D recoveries met the acceptable requirements except for 2-Chloroethyl vinyl ether[0%], Methyl iodide [67%] .
The RPD for {E3854-05MSD} with File ID: VN009203.D recoveries met criteria except for Bromomethane[29%], Methyl iodide [41%] .
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The %RSD is greater than 15% in the Initial Calibration (Method-82N092313W.M) Tert butyl alcohol, Cyclohexane, 2-Chloroethyl Vinyl ether, Methyl Iodide, these compounds are passing on Linear regression .
The Continuous Calibration File ID VN009226.D & VN009249.D met the requirements except for 1,2-Dichloroethane-d4 .
The Tuning criteria met requirements.
Samples MW-2-Q3-2013, MW-8-Q3-2013 were diluted due to high concentrations.

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E. Additional Comments:
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his design, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

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CASE NARRATIVE

Cardno ATC
Project Name: Avalon- WP9
Project # N/A
Chemtech Project # E3854
Test Name: SVOC- Chemtech Full

A. Number of Samples and Date of Receipt:
12 Water samples were received on 09/25/2013.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SVOC- Chemtech Full and VOC- Chemtech Full. This data package contains results for SVOC- Chemtech Full.

C. Analytical Techniques:
The samples were analyzed on instrument BNA_A using GC Column RTX-5 SILMS which is 30 meters, 0.32 mm ID, 0.5 um df, Catalog # 12739-125.The analysis of SVOC-Chemtech Full was based on method 625 and extraction was done based on method 3510.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS {E3854-04MS} with File ID: BA050746.D recoveries met the requirements for all compounds except for 1,2,4,5-Tetrachlorobenzene[46%], 1,4-Dioxane[36%], Aniline[37%] and Benzidine[0%] .
The MSD {E3854-05MSD} with File ID: BA050747.D recoveries met the acceptable requirements except for 1,4-Dioxane[37%], Aniline[40%] and Benzidine[0%] .
The RPD for {E3854-05MSD} with File ID: BA050747.D recoveries met criteria except for 1,2,4,5-Tetrachlorobenzene[67%], 2,3,4,6-Tetrachlorophenol[33%], Benzo(k)fluoranthene[21%] and Benzoic acid[32%] .
The Blank Spike for {PB72483BS} with File ID: BA050765.D met requirements for all samples except for 1,2,4,5-Tetrachlorobenzene[58%], 1,4-Dioxane[43%], 2,3,4,6-Tetrachlorophenol[60%], 2-Chloronaphthalene[57%], 4-Nitroaniline[49%], Aniline[34%], Carbazole[54%], Fluorene[56%] and Pyridine[54%] .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Tuning criteria met requirements.
Samples MW-2-Q3-2013, MW-8-Q3-2013 and MW-8-Q3-2013DL were diluted due to high concentrations.

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E. Additional Comments:
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his design, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value**.** This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

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LAB CHRONICLE

OrderID:	E3854	**OrderDate:**	9/25/2013 5:28:00 PM
Client:	Cardno ATC	**Project:**	Avalon- WP9
Contact:	John Mascioli	**Location:**	Extraction Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
E3854-01	**MW-2-Q3-2013**	**Water**			**09/24/13**			**09/25/13**
			VOC- Chemtech Full	8260-Low			09/27/13	
E3854-01DL	**MW-2-Q3-2013DL**	**Water**			**09/24/13**			**09/25/13**
			VOC- Chemtech Full	8260-Low			09/30/13	
E3854-02	**MW-8-Q3-2013**	**Water**			**09/24/13**			**09/25/13**
			VOC- Chemtech Full	8260-Low			09/27/13	
E3854-02DL	**MW-8-Q3-2013DL**	**Water**			**09/24/13**			**09/25/13**
			VOC- Chemtech Full	8260-Low			10/01/13	
E3854-03	**MW-11R-Q3-2013**	**Water**			**09/24/13**			**09/25/13**
			VOC- Chemtech Full	8260-Low			09/27/13	
E3854-06	**MW-12R-Q3-2013**	**Water**			**09/24/13**			**09/25/13**
			VOC- Chemtech Full	8260-Low			09/27/13	
E3854-07	**MW-14-Q3-2013**	**Water**			**09/24/13**			**09/25/13**
			VOC- Chemtech Full	8260-Low			09/27/13	
E3854-08	**MW-15-Q3-2013**	**Water**			**09/24/13**			**09/25/13**
			VOC- Chemtech Full	8260-Low			09/27/13	
E3854-09	**MW-16-Q3-2013**	**Water**			**09/24/13**			**09/25/13**
			VOC- Chemtech Full	8260-Low			09/27/13	
E3854-10	**FBQ3-2013**	**Water**			**09/24/13**			**09/25/13**
			VOC- Chemtech Full	8260-Low			09/27/13	
E3854-11	**DUPQ3-2013**	**Water**			**09/24/13**			**09/25/13**
			VOC- Chemtech Full	8260-Low			09/27/13	
E3854-12	**TBQ3-2013**	**Water**			**09/24/13**			**09/25/13**
			VOC- Chemtech Full	8260-Low			09/27/13	

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Hit Summary Sheet
SW-846

SDG No.: E3854

Client: Cardno ATC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID:	**DUPQ3-2013**								
E3854-11	DUPQ3-2013	Water	Acetone	2.30	J	0.5	1	5	ug/L
E3854-11	DUPQ3-2013	Water	Cyclohexane	1.50		0.2	0.2	1	ug/L
E3854-11	DUPQ3-2013	Water	Methylcyclohexane	0.54	J	0.2	0.2	1	ug/L
E3854-11	DUPQ3-2013	Water	Benzene	55.20		0.2	0.2	1	ug/L
E3854-11	DUPQ3-2013	Water	Toluene	1.30		0.2	0.2	1	ug/L
E3854-11	DUPQ3-2013	Water	Ethyl Benzene	2.80		0.2	0.2	1	ug/L
E3854-11	DUPQ3-2013	Water	m/p-Xylenes	1.20	J	0.4	0.4	2	ug/L
E3854-11	DUPQ3-2013	Water	Isopropylbenzene	2.70		0.2	0.2	1	ug/L
E3854-11	DUPQ3-2013	Water	n-propylbenzene	0.98	J	0.2	0.2	1	ug/L
E3854-11	DUPQ3-2013	Water	Naphthalene	0.91	J	0.2	0.2	1	ug/L
			Total Voc :	69.43					
			Total Concentration:	69.43					
Client ID:	**MW-14-Q3-2013**								
E3854-07	MW-14-Q3-2013	Water	Cyclohexane	1.70		0.2	0.2	1	ug/L
E3854-07	MW-14-Q3-2013	Water	Methylcyclohexane	3.40		0.2	0.2	1	ug/L
E3854-07	MW-14-Q3-2013	Water	Benzene	1.80		0.2	0.2	1	ug/L
E3854-07	MW-14-Q3-2013	Water	Ethyl Benzene	0.55	J	0.2	0.2	1	ug/L
E3854-07	MW-14-Q3-2013	Water	m/p-Xylenes	0.45	J	0.4	0.4	2	ug/L
E3854-07	MW-14-Q3-2013	Water	o-Xylene	1.10		0.2	0.2	1	ug/L
E3854-07	MW-14-Q3-2013	Water	Isopropylbenzene	44.60		0.2	0.2	1	ug/L
E3854-07	MW-14-Q3-2013	Water	n-propylbenzene	52.30		0.2	0.2	1	ug/L
E3854-07	MW-14-Q3-2013	Water	tert-Butylbenzene	2.90		0.2	0.2	1	ug/L
E3854-07	MW-14-Q3-2013	Water	sec-Butylbenzene	7.20		0.2	0.2	1	ug/L
E3854-07	MW-14-Q3-2013	Water	n-Butylbenzene	3.50		0.2	0.2	1	ug/L
			Total Voc :	119.5					
			Total Concentration:	119.5					
Client ID:	**MW-15-Q3-2013**								
E3854-08	MW-15-Q3-2013	Water	Acetone	3.60	J	0.5	1	5	ug/L
E3854-08	MW-15-Q3-2013	Water	Cyclohexane	1.50		0.2	0.2	1	ug/L
E3854-08	MW-15-Q3-2013	Water	Methylcyclohexane	0.52	J	0.2	0.2	1	ug/L
E3854-08	MW-15-Q3-2013	Water	Benzene	49.70		0.2	0.2	1	ug/L
E3854-08	MW-15-Q3-2013	Water	Toluene	1.20		0.2	0.2	1	ug/L
E3854-08	MW-15-Q3-2013	Water	Ethyl Benzene	2.60		0.2	0.2	1	ug/L
E3854-08	MW-15-Q3-2013	Water	m/p-Xylenes	1.20	J	0.4	0.4	2	ug/L
E3854-08	MW-15-Q3-2013	Water	Isopropylbenzene	2.50		0.2	0.2	1	ug/L
E3854-08	MW-15-Q3-2013	Water	n-propylbenzene	1.10		0.2	0.2	1	ug/L
			Total Voc :	63.92					

Hit Summary Sheet
SW-846

SDG No.: E3854

Client: Cardno ATC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
			Total Concentration:	63.92					
Client ID:	**MW-2-Q3-2013**								
E3854-01	MW-2-Q3-2013	Water	Methyl tert-butyl Ether	7.50		0.35	0.5	1	ug/L
E3854-01	MW-2-Q3-2013	Water	Benzene	210.00	E	0.2	0.2	1	ug/L
E3854-01	MW-2-Q3-2013	Water	Toluene	4.10		0.2	0.2	1	ug/L
E3854-01	MW-2-Q3-2013	Water	Ethyl Benzene	160.00		0.2	0.2	1	ug/L
E3854-01	MW-2-Q3-2013	Water	m/p-Xylenes	3.80		0.4	0.4	2	ug/L
E3854-01	MW-2-Q3-2013	Water	o-Xylene	7.90		0.2	0.2	1	ug/L
E3854-01	MW-2-Q3-2013	Water	Isopropylbenzene	18.90		0.2	0.2	1	ug/L
E3854-01	MW-2-Q3-2013	Water	n-propylbenzene	5.80		0.2	0.2	1	ug/L
E3854-01	MW-2-Q3-2013	Water	1,2,4-Trimethylbenzene	1.80		0.2	0.2	1	ug/L
E3854-01	MW-2-Q3-2013	Water	Naphthalene	16.50		0.2	0.2	1	ug/L
			Total Voc :	436.3					
			Total Concentration:	436.3					
Client ID:	**MW-2-Q3-2013DL**								
E3854-01DL	MW-2-Q3-2013DL	Water	Methyl tert-butyl Ether	6.80	D	1.8	2.5	5	ug/L
E3854-01DL	MW-2-Q3-2013DL	Water	Benzene	200.00	D	1	1	5	ug/L
E3854-01DL	MW-2-Q3-2013DL	Water	Toluene	3.90	JD	1	1	5	ug/L
E3854-01DL	MW-2-Q3-2013DL	Water	Ethyl Benzene	130.00	D	1	1	5	ug/L
E3854-01DL	MW-2-Q3-2013DL	Water	o-Xylene	6.60	D	1	1	5	ug/L
E3854-01DL	MW-2-Q3-2013DL	Water	Isopropylbenzene	17.00	D	1	1	5	ug/L
E3854-01DL	MW-2-Q3-2013DL	Water	n-propylbenzene	5.50	D	1	1	5	ug/L
E3854-01DL	MW-2-Q3-2013DL	Water	Naphthalene	14.00	D	1	1	5	ug/L
			Total Voc :	383.8					
			Total Concentration:	383.8					
Client ID:	**MW-8-Q3-2013**								
E3854-02	MW-8-Q3-2013	Water	Carbon Disulfide	2.80		0.2	0.2	1	ug/L
E3854-02	MW-8-Q3-2013	Water	Methylcyclohexane	4.30		0.2	0.2	1	ug/L
E3854-02	MW-8-Q3-2013	Water	Benzene	9.10		0.2	0.2	1	ug/L
E3854-02	MW-8-Q3-2013	Water	Toluene	1.30		0.2	0.2	1	ug/L
E3854-02	MW-8-Q3-2013	Water	Ethyl Benzene	84.60		0.2	0.2	1	ug/L
E3854-02	MW-8-Q3-2013	Water	m/p-Xylenes	32.90		0.4	0.4	2	ug/L
E3854-02	MW-8-Q3-2013	Water	o-Xylene	70.20		0.2	0.2	1	ug/L
E3854-02	MW-8-Q3-2013	Water	Isopropylbenzene	67.50		0.2	0.2	1	ug/L
E3854-02	MW-8-Q3-2013	Water	n-propylbenzene	24.20		0.2	0.2	1	ug/L
E3854-02	MW-8-Q3-2013	Water	1,3,5-Trimethylbenzene	6.80		0.2	0.2	1	ug/L
E3854-02	MW-8-Q3-2013	Water	1,2,4-Trimethylbenzene	320.00	E	0.2	0.2	1	ug/L
E3854-02	MW-8-Q3-2013	Water	sec-Butylbenzene	0.93	J	0.2	0.2	1	ug/L
E3854-02	MW-8-Q3-2013	Water	p-Isopropyltoluene	9.80		0.2	0.2	1	ug/L

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Hit Summary Sheet
SW-846

SDG No.: E3854

Client: Cardno ATC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
E3854-02	MW-8-Q3-2013	Water	n-Butylbenzene	1.50		0.2	0.2	1	ug/L
E3854-02	MW-8-Q3-2013	Water	Naphthalene	1,300.00	E	0.2	0.2	1	ug/L
			Total Voc :	1935.93					
			Total Concentration:	1935.93					
Client ID:	**MW-8-Q3-2013DL**								
E3854-02DL	MW-8-Q3-2013DL	Water	Ethyl Benzene	75.00	D	10	10	50	ug/L
E3854-02DL	MW-8-Q3-2013DL	Water	m/p-Xylenes	34.50	JD	20	20	100	ug/L
E3854-02DL	MW-8-Q3-2013DL	Water	o-Xylene	57.50	D	10	10	50	ug/L
E3854-02DL	MW-8-Q3-2013DL	Water	Isopropylbenzene	49.00	JD	10	10	50	ug/L
E3854-02DL	MW-8-Q3-2013DL	Water	n-propylbenzene	22.00	JD	10	10	50	ug/L
E3854-02DL	MW-8-Q3-2013DL	Water	1,2,4-Trimethylbenzene	270.00	D	10	10	50	ug/L
E3854-02DL	MW-8-Q3-2013DL	Water	Naphthalene	2,000.00	D	10	10	50	ug/L
			Total Voc :	2508					
			Total Concentration:	2508					

SAMPLE DATA

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009194.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	7.5		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009194.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	210	E	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	4.1		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	160		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	3.8		0.4	0.4	2	ug/L
95-47-6	o-Xylene	7.9		0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	18.9		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	5.8		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009194.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	1.8		0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	16.5		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	44.6		61 - 141		89%	SPK: 50
1868-53-7	Dibromofluoromethane	48		69 - 133		96%	SPK: 50
2037-26-5	Toluene-d8	52.7		65 - 126		105%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.1		58 - 135		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	616134	7.867				
540-36-3	1,4-Difluorobenzene	967113	8.783				
3114-55-4	Chlorobenzene-d5	835680	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	415994	13.561				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009194.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-01DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009240.D	5		09/30/13	VN093013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	UD	1	1	5	ug/L
74-87-3	Chloromethane	1	UD	1	1	5	ug/L
75-01-4	Vinyl Chloride	1	UD	1	1	5	ug/L
141-78-6	Ethyl Acetate	1	UD	1	2.5	5	ug/L
108-21-4	Isopropyl Acetate	1	UD	1	1	5	ug/L
74-83-9	Bromomethane	1	UD	1	1	5	ug/L
75-00-3	Chloroethane	1	UD	1	2.5	5	ug/L
75-69-4	Trichlorofluoromethane	1	UD	1	1	5	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	UD	1	1	5	ug/L
75-65-0	Tert butyl alcohol	2.5	UD	2.5	18.8	25	ug/L
60-29-7	Diethyl Ether	1.4	UD	1.4	2.5	5	ug/L
75-35-4	1,1-Dichloroethene	1	UD	1	1	5	ug/L
107-02-8	Acrolein	2.5	UD	2.5	18.8	25	ug/L
107-13-1	Acrylonitrile	5	UD	5	5	25	ug/L
67-64-1	Acetone	2.5	UD	2.5	5	25	ug/L
75-15-0	Carbon Disulfide	1	UD	1	1	5	ug/L
1634-04-4	Methyl tert-butyl Ether	6.8	D	1.8	2.5	5	ug/L
79-20-9	Methyl Acetate	1	UD	1	2.5	5	ug/L
75-09-2	Methylene Chloride	1	UD	1	1	5	ug/L
156-60-5	trans-1,2-Dichloroethene	1	UD	1	1	5	ug/L
108-05-4	Vinyl Acetate	5.3	UD	5.3	12.5	25	ug/L
75-34-3	1,1-Dichloroethane	1	UD	1	1	5	ug/L
110-82-7	Cyclohexane	1	UD	1	1	5	ug/L
78-93-3	2-Butanone	6.6	UD	6.6	12.5	25	ug/L
56-23-5	Carbon Tetrachloride	1	UD	1	1	5	ug/L
594-20-7	2,2-Dichloropropane	1	UD	1	2.5	5	ug/L
156-59-2	cis-1,2-Dichloroethene	1	UD	1	1	5	ug/L
74-97-5	Bromochloromethane	1	UD	1	2.5	5	ug/L
67-66-3	Chloroform	1	UD	1	1	5	ug/L
71-55-6	1,1,1-Trichloroethane	1	UD	1	1	5	ug/L
108-87-2	Methylcyclohexane	1	UD	1	1	5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-01DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009240.D	5		09/30/13	VN093013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	2	UD	2	2.5	5	ug/L
71-43-2	Benzene	200	D	1	1	5	ug/L
107-06-2	1,2-Dichloroethane	1	UD	1	1	5	ug/L
79-01-6	Trichloroethene	1	UD	1	1	5	ug/L
78-87-5	1,2-Dichloropropane	1	UD	1	1	5	ug/L
74-95-3	Dibromomethane	1	UD	1	1	5	ug/L
75-27-4	Bromodichloromethane	1	UD	1	1	5	ug/L
108-10-1	4-Methyl-2-Pentanone	5	UD	5	5	25	ug/L
108-88-3	Toluene	3.9	JD	1	1	5	ug/L
10061-02-6	t-1,3-Dichloropropene	1	UD	1	1	5	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	UD	1	1	5	ug/L
79-00-5	1,1,2-Trichloroethane	1	UD	1	1	5	ug/L
142-28-9	1,3-Dichloropropane	1	UD	1	1	5	ug/L
110-75-8	2-Chloroethyl Vinyl ether	5	UD	5	5	25	ug/L
591-78-6	2-Hexanone	9.7	UD	9.7	12.5	25	ug/L
124-48-1	Dibromochloromethane	1	UD	1	1	5	ug/L
106-93-4	1,2-Dibromoethane	1	UD	1	1	5	ug/L
127-18-4	Tetrachloroethene	1	UD	1	1	5	ug/L
108-90-7	Chlorobenzene	1	UD	1	1	5	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	1	UD	1	1	5	ug/L
67-72-1	Hexachloroethane	1	UD	1	1	5	ug/L
100-41-4	Ethyl Benzene	130	D	1	1	5	ug/L
179601-23-1	m/p-Xylenes	2	UD	2	2	10	ug/L
95-47-6	o-Xylene	6.6	D	1	1	5	ug/L
100-42-5	Styrene	1	UD	1	1	5	ug/L
75-25-2	Bromoform	1	UD	1	1	5	ug/L
98-82-8	Isopropylbenzene	17	D	1	1	5	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	UD	1	1	5	ug/L
96-18-4	1,2,3-Trichloropropane	1	UD	1	1	5	ug/L
108-86-1	Bromobenzene	1	UD	1	1	5	ug/L
103-65-1	n-propylbenzene	5.5	D	1	1	5	ug/L
95-49-8	2-Chlorotoluene	1	UD	1	1	5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-01DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009240.D	5		09/30/13	VN093013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	1	UD	1	1	5	ug/L
106-43-4	4-Chlorotoluene	1	UD	1	1	5	ug/L
98-06-6	tert-Butylbenzene	1	UD	1	1	5	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	UD	1	1	5	ug/L
135-98-8	sec-Butylbenzene	1	UD	1	1	5	ug/L
99-87-6	p-Isopropyltoluene	1	UD	1	1	5	ug/L
541-73-1	1,3-Dichlorobenzene	1	UD	1	1	5	ug/L
106-46-7	1,4-Dichlorobenzene	1	UD	1	1	5	ug/L
104-51-8	n-Butylbenzene	1	UD	1	1	5	ug/L
95-50-1	1,2-Dichlorobenzene	1	UD	1	1	5	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	UD	1	1	5	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	UD	1	1	5	ug/L
87-68-3	Hexachlorobutadiene	1	UD	1	1	5	ug/L
91-20-3	Naphthalene	14	D	1	1	5	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	UD	1	1	5	ug/L
628-63-7	N-amyl acetate	1	UD	1	3.8	5	ug/L
74-88-4	Methyl Iodide	1	UD	1	2.5	5	ug/L
107-05-1	Allyl chloride	1	UD	1	2.5	5	ug/L
126-98-7	Methacrylonitrile	1	UD	1	3.8	5	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	1	UD	1	3.8	5	ug/L
97-63-2	Ethyl methacrylate	1	UD	1	2.5	5	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.7		61 - 141		93%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	52.6		65 - 126		105%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.2		58 - 135		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	558492	7.87				
540-36-3	1,4-Difluorobenzene	861020	8.79				
3114-55-4	Chlorobenzene-d5	770129	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	363383	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-01DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009240.D	5		09/30/13	VN093013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009195.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	2.8		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	4.3		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009195.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	9.1		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	1.3		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	84.6		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	32.9		0.4	0.4	2	ug/L
95-47-6	o-Xylene	70.2		0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	67.5		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	24.2		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009195.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	6.8		0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	320	E	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.93	J	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	9.8		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	1.5		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	1300	E	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	44.4		61 - 141		89%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	53.2		65 - 126		106%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.6		58 - 135		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	644422	7.864				
540-36-3	1,4-Difluorobenzene	1012820	8.783				
3114-55-4	Chlorobenzene-d5	879711	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	407212	13.558				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009195.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-02DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009258.D	50		10/01/13	VN100113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	10	UD	10	10	50	ug/L
74-87-3	Chloromethane	10	UD	10	10	50	ug/L
75-01-4	Vinyl Chloride	10	UD	10	10	50	ug/L
141-78-6	Ethyl Acetate	10	UD	10	25	50	ug/L
108-21-4	Isopropyl Acetate	10	UD	10	10	50	ug/L
74-83-9	Bromomethane	10	UD	10	10	50	ug/L
75-00-3	Chloroethane	10	UD	10	25	50	ug/L
75-69-4	Trichlorofluoromethane	10	UD	10	10	50	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	10	UD	10	10	50	ug/L
75-65-0	Tert butyl alcohol	25	UD	25	190	250	ug/L
60-29-7	Diethyl Ether	13.5	UD	13.5	25	50	ug/L
75-35-4	1,1-Dichloroethene	10	UD	10	10	50	ug/L
107-02-8	Acrolein	25	UD	25	190	250	ug/L
107-13-1	Acrylonitrile	50	UD	50	50	250	ug/L
67-64-1	Acetone	25	UD	25	50	250	ug/L
75-15-0	Carbon Disulfide	10	UD	10	10	50	ug/L
1634-04-4	Methyl tert-butyl Ether	17.5	UD	17.5	25	50	ug/L
79-20-9	Methyl Acetate	10	UD	10	25	50	ug/L
75-09-2	Methylene Chloride	10	UD	10	10	50	ug/L
156-60-5	trans-1,2-Dichloroethene	10	UD	10	10	50	ug/L
108-05-4	Vinyl Acetate	52.5	UD	52.5	130	250	ug/L
75-34-3	1,1-Dichloroethane	10	UD	10	10	50	ug/L
110-82-7	Cyclohexane	10	UD	10	10	50	ug/L
78-93-3	2-Butanone	66	UD	66	130	250	ug/L
56-23-5	Carbon Tetrachloride	10	UD	10	10	50	ug/L
594-20-7	2,2-Dichloropropane	10	UD	10	25	50	ug/L
156-59-2	cis-1,2-Dichloroethene	10	UD	10	10	50	ug/L
74-97-5	Bromochloromethane	10	UD	10	25	50	ug/L
67-66-3	Chloroform	10	UD	10	10	50	ug/L
71-55-6	1,1,1-Trichloroethane	10	UD	10	10	50	ug/L
108-87-2	Methylcyclohexane	10	UD	10	10	50	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-02DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009258.D	50		10/01/13	VN100113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	19.5	UD	19.5	25	50	ug/L
71-43-2	Benzene	10	UD	10	10	50	ug/L
107-06-2	1,2-Dichloroethane	10	UD	10	10	50	ug/L
79-01-6	Trichloroethene	10	UD	10	10	50	ug/L
78-87-5	1,2-Dichloropropane	10	UD	10	10	50	ug/L
74-95-3	Dibromomethane	10	UD	10	10	50	ug/L
75-27-4	Bromodichloromethane	10	UD	10	10	50	ug/L
108-10-1	4-Methyl-2-Pentanone	50	UD	50	50	250	ug/L
108-88-3	Toluene	10	UD	10	10	50	ug/L
10061-02-6	t-1,3-Dichloropropene	10	UD	10	10	50	ug/L
10061-01-5	cis-1,3-Dichloropropene	10	UD	10	10	50	ug/L
79-00-5	1,1,2-Trichloroethane	10	UD	10	10	50	ug/L
142-28-9	1,3-Dichloropropane	10	UD	10	10	50	ug/L
110-75-8	2-Chloroethyl Vinyl ether	50	UD	50	50	250	ug/L
591-78-6	2-Hexanone	97	UD	97	130	250	ug/L
124-48-1	Dibromochloromethane	10	UD	10	10	50	ug/L
106-93-4	1,2-Dibromoethane	10	UD	10	10	50	ug/L
127-18-4	Tetrachloroethene	10	UD	10	10	50	ug/L
108-90-7	Chlorobenzene	10	UD	10	10	50	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	10	UD	10	10	50	ug/L
67-72-1	Hexachloroethane	10	UD	10	10	50	ug/L
100-41-4	Ethyl Benzene	75	D	10	10	50	ug/L
179601-23-1	m/p-Xylenes	34.5	JD	20	20	100	ug/L
95-47-6	o-Xylene	57.5	D	10	10	50	ug/L
100-42-5	Styrene	10	UD	10	10	50	ug/L
75-25-2	Bromoform	10	UD	10	10	50	ug/L
98-82-8	Isopropylbenzene	49	JD	10	10	50	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	10	UD	10	10	50	ug/L
96-18-4	1,2,3-Trichloropropane	10	UD	10	10	50	ug/L
108-86-1	Bromobenzene	10	UD	10	10	50	ug/L
103-65-1	n-propylbenzene	22	JD	10	10	50	ug/L
95-49-8	2-Chlorotoluene	10	UD	10	10	50	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-02DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009258.D	50		10/01/13	VN100113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	10	UD	10	10	50	ug/L
106-43-4	4-Chlorotoluene	10	UD	10	10	50	ug/L
98-06-6	tert-Butylbenzene	10	UD	10	10	50	ug/L
95-63-6	1,2,4-Trimethylbenzene	270	D	10	10	50	ug/L
135-98-8	sec-Butylbenzene	10	UD	10	10	50	ug/L
99-87-6	p-Isopropyltoluene	10	UD	10	10	50	ug/L
541-73-1	1,3-Dichlorobenzene	10	UD	10	10	50	ug/L
106-46-7	1,4-Dichlorobenzene	10	UD	10	10	50	ug/L
104-51-8	n-Butylbenzene	10	UD	10	10	50	ug/L
95-50-1	1,2-Dichlorobenzene	10	UD	10	10	50	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	10	UD	10	10	50	ug/L
120-82-1	1,2,4-Trichlorobenzene	10	UD	10	10	50	ug/L
87-68-3	Hexachlorobutadiene	10	UD	10	10	50	ug/L
91-20-3	Naphthalene	2000	D	10	10	50	ug/L
87-61-6	1,2,3-Trichlorobenzene	10	UD	10	10	50	ug/L
628-63-7	N-amyl acetate	10	UD	10	37.5	50	ug/L
74-88-4	Methyl Iodide	10	UD	10	25	50	ug/L
107-05-1	Allyl chloride	10	UD	10	25	50	ug/L
126-98-7	Methacrylonitrile	10	UD	10	37.5	50	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	10	UD	10	37.5	50	ug/L
97-63-2	Ethyl methacrylate	10	UD	10	25	50	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	45		61 - 141		90%	SPK: 50
1868-53-7	Dibromofluoromethane	49.3		69 - 133		99%	SPK: 50
2037-26-5	Toluene-d8	53.5		65 - 126		107%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.8		58 - 135		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	600342	7.87				
540-36-3	1,4-Difluorobenzene	890358	8.79				
3114-55-4	Chlorobenzene-d5	796380	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	373709	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-02DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009258.D	50		10/01/13	VN100113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009201.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009201.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009201.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	45.7		61 - 141		91%	SPK: 50
1868-53-7	Dibromofluoromethane	49		69 - 133		98%	SPK: 50
2037-26-5	Toluene-d8	53.5		65 - 126		107%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.5		58 - 135		99%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	579955	7.867				
540-36-3	1,4-Difluorobenzene	888034	8.787				
3114-55-4	Chlorobenzene-d5	797853	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	376997	13.561				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009201.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-12R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009196.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-12R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009196.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-12R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009196.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	45.3		61 - 141		91%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	52.9		65 - 126		106%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.1		58 - 135		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	575174	7.867				
540-36-3	1,4-Difluorobenzene	880742	8.787				
3114-55-4	Chlorobenzene-d5	792676	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	415079	13.561				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-12R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009196.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-14-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009197.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1.7		0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	3.4		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-14-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009197.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	1.8		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.55	J	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.45	J	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1.1		0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	44.6		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	52.3		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-14-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009197.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	2.9		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	7.2		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	3.5		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	45.1		61 - 141		90%	SPK: 50
1868-53-7	Dibromofluoromethane	48.2		69 - 133		96%	SPK: 50
2037-26-5	Toluene-d8	53.5		65 - 126		107%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.7		58 - 135		103%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	591803	7.867				
540-36-3	1,4-Difluorobenzene	904244	8.787				
3114-55-4	Chlorobenzene-d5	819419	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	403257	13.561				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-14-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009197.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-15-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009198.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	3.6	J	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1.5		0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.52	J	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-15-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009198.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	49.7		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	1.2		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	2.6		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1.2	J	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	2.5		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	1.1		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-15-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009198.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	45.3		61 - 141		91%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	53.3		65 - 126		107%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.9		58 - 135		100%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	591138	7.867				
540-36-3	1,4-Difluorobenzene	904165	8.786				
3114-55-4	Chlorobenzene-d5	805396	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	408571	13.561				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-15-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009198.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-16-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009199.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-16-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009199.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-16-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009199.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	45.5		61 - 141		91%	SPK: 50
1868-53-7	Dibromofluoromethane	49.3		69 - 133		99%	SPK: 50
2037-26-5	Toluene-d8	53.4		65 - 126		107%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.5		58 - 135		97%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	580741	7.867				
540-36-3	1,4-Difluorobenzene	886591	8.787				
3114-55-4	Chlorobenzene-d5	792379	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	374112	13.561				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-16-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009199.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	FBQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009189.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	FBQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009189.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	FBQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009189.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.3		61 - 141		93%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	53.3		65 - 126		107%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.2		58 - 135		96%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	568376	7.867				
540-36-3	1,4-Difluorobenzene	880448	8.787				
3114-55-4	Chlorobenzene-d5	785140	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	353170	13.561				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	FBQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009189.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	DUPQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009200.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	2.3	J	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1.5		0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.54	J	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	DUPQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009200.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	55.2		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	1.3		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	2.8		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	1.2	J	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	2.7		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.98	J	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	DUPQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009200.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.91	J	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	45.6		61 - 141		91%	SPK: 50
1868-53-7	Dibromofluoromethane	47.7		69 - 133		95%	SPK: 50
2037-26-5	Toluene-d8	53		65 - 126		106%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.6		58 - 135		101%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	612707	7.867				
540-36-3	1,4-Difluorobenzene	946709	8.787				
3114-55-4	Chlorobenzene-d5	843888	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	412200	13.561				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	DUPQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009200.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	TBQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009188.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	TBQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009188.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	TBQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009188.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	45.6		61 - 141		91%	SPK: 50
1868-53-7	Dibromofluoromethane	49.4		69 - 133		99%	SPK: 50
2037-26-5	Toluene-d8	53.4		65 - 126		107%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.4		58 - 135		97%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	573817	7.867				
540-36-3	1,4-Difluorobenzene	873916	8.787				
3114-55-4	Chlorobenzene-d5	775219	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	357761	13.561				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	TBQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009188.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

QC SUMMARY

Surrogate Summary

SDG No.: E3854

Client: Cardno ATC

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
E3854-01	MW-2-Q3-2013	1,2-Dichloroethane-d4	50	44.6	89		61	141
		Dibromofluoromethane	50	47.96	96		69	133
		Toluene-d8	50	52.65	105		65	126
		4-Bromofluorobenzene	50	49.11	98		58	135
E3854-01DL	MW-2-Q3-2013DL	1,2-Dichloroethane-d4	50	46.67	93		61	141
		Dibromofluoromethane	50	48.72	97		69	133
		Toluene-d8	50	52.58	105		65	126
		4-Bromofluorobenzene	50	49.21	98		58	135
E3854-02	MW-8-Q3-2013	1,2-Dichloroethane-d4	50	44.39	89		61	141
		Dibromofluoromethane	50	48.41	97		69	133
		Toluene-d8	50	53.19	106		65	126
		4-Bromofluorobenzene	50	47.59	95		58	135
E3854-02DL	MW-8-Q3-2013DL	1,2-Dichloroethane-d4	50	44.97	90		61	141
		Dibromofluoromethane	50	49.3	99		69	133
		Toluene-d8	50	53.47	107		65	126
		4-Bromofluorobenzene	50	48.75	98		58	135
E3854-03	MW-11R-Q3-2013	1,2-Dichloroethane-d4	50	45.67	91		61	141
		Dibromofluoromethane	50	49.03	98		69	133
		Toluene-d8	50	53.45	107		65	126
		4-Bromofluorobenzene	50	49.53	99		58	135
E3854-04MS	MW-11R-Q3-2013MS	1,2-Dichloroethane-d4	50	43.79	88		61	141
		Dibromofluoromethane	50	47.93	96		69	133
		Toluene-d8	50	45.02	90		65	126
		4-Bromofluorobenzene	50	49.26	99		58	135
E3854-05MSD	MW-11R-Q3-2013MSD	1,2-Dichloroethane-d4	50	42.7	85		61	141
		Dibromofluoromethane	50	47.05	94		69	133
		Toluene-d8	50	44.6	89		65	126
		4-Bromofluorobenzene	50	48.55	97		58	135
E3854-06	MW-12R-Q3-2013	1,2-Dichloroethane-d4	50	45.29	91		61	141
		Dibromofluoromethane	50	48.68	97		69	133
		Toluene-d8	50	52.91	106		65	126
		4-Bromofluorobenzene	50	51.13	102		58	135
E3854-07	MW-14-Q3-2013	1,2-Dichloroethane-d4	50	45.06	90		61	141
		Dibromofluoromethane	50	48.21	96		69	133
		Toluene-d8	50	53.5	107		65	126
		4-Bromofluorobenzene	50	51.68	103		58	135
E3854-08	MW-15-Q3-2013	1,2-Dichloroethane-d4	50	45.34	91		61	141
		Dibromofluoromethane	50	48.43	97		69	133
		Toluene-d8	50	53.34	107		65	126
		4-Bromofluorobenzene	50	49.91	100		58	135
E3854-09	MW-16-Q3-2013	1,2-Dichloroethane-d4	50	45.5	91		61	141
		Dibromofluoromethane	50	49.25	99		69	133
		Toluene-d8	50	53.35	107		65	126
		4-Bromofluorobenzene	50	48.49	97		58	135
E3854-10	FBQ3-2013	1,2-Dichloroethane-d4	50	46.3	93		61	141
		Dibromofluoromethane	50	48.66	97		69	133
		Toluene-d8	50	53.25	107		65	126
		4-Bromofluorobenzene	50	48.19	96		58	135
E3854-11	DUPQ3-2013	1,2-Dichloroethane-d4	50	45.57	91		61	141
		Dibromofluoromethane	50	47.71	95		69	133
		Toluene-d8	50	53.03	106		65	126
		4-Bromofluorobenzene	50	50.61	101		58	135

Surrogate Summary

SDG No.: E3854

Client: Cardno ATC

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
E3854-12	TBQ3-2013	1,2-Dichloroethane-d4	50	45.57	91		61	141
		Dibromofluoromethane	50	49.35	99		69	133
		Toluene-d8	50	53.44	107		65	126
		4-Bromofluorobenzene	50	48.38	97		58	135
VN0927WBL01	VN0927WBL01	1,2-Dichloroethane-d4	50	46.86	94		61	141
		Dibromofluoromethane	50	48.1	96		69	133
		Toluene-d8	50	53.33	107		65	126
		4-Bromofluorobenzene	50	47.86	96		58	135
VN0927WBS01	VN0927WBS01	1,2-Dichloroethane-d4	50	42.98	86		61	141
		Dibromofluoromethane	50	47.44	95		69	133
		Toluene-d8	50	44.88	90		65	126
		4-Bromofluorobenzene	50	47.34	95		58	135
VN0930WBL01	VN0930WBL01	1,2-Dichloroethane-d4	50	44.97	90		70	120
		Dibromofluoromethane	50	49.4	99		85	115
		Toluene-d8	50	52.68	105		85	120
		4-Bromofluorobenzene	50	47.42	95		75	120
VN0930WBS01	VN0930WBS01	1,2-Dichloroethane-d4	50	44.13	88		70	120
		Dibromofluoromethane	50	49.99	100		85	115
		Toluene-d8	50	46.33	93		85	120
		4-Bromofluorobenzene	50	49.64	99		75	120
VN1001WBL01	VN1001WBL01	1,2-Dichloroethane-d4	50	45.25	90		70	120
		Dibromofluoromethane	50	48.35	97		85	115
		Toluene-d8	50	53.72	107		85	120
		4-Bromofluorobenzene	50	48.15	96		75	120
VN1001WBS01	VN1001WBS01	1,2-Dichloroethane-d4	50	42.97	86		70	120
		Dibromofluoromethane	50	48.1	96		85	115
		Toluene-d8	50	44.9	90		85	120
		4-Bromofluorobenzene	50	47.68	95		75	120

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3854

Client: Cardno ATC

Analytical Method: SW8260-Low

Lab Sample ID : E3854-04MS **Client Sample ID :** MW-11R-Q3-2013MS **Datafile :** VN009202.D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Dichlorodifluoromethane	50	0	41.9	ug/L	84				47	161	
Chloromethane	50	0	41.1	ug/L	82				53	157	
Vinyl chloride	50	0	44.5	ug/L	89				57	149	
Ethyl Acetate	50	0	46.1	ug/L	92				60	147	
Isopropylacetate	50	0	49	ug/L	98				33	141	
Bromomethane	50	0	21.2	ug/L	42	*			45	165	
Chloroethane	50	0	44.4	ug/L	89				47	166	
Trichlorofluoromethane	50	0	44.8	ug/L	90				51	165	
1,1,2-Trichlorotrifluoroethane	50	0	43.2	ug/L	86				61	145	
Tert butyl alcohol	250	0	300	ug/L	120				29	188	
Diethyl Ether	50	0	47.4	ug/L	95				63	131	
1,1-Dichloroethene	50	0	45	ug/L	90				55	148	
Acrolein	250	0	230	ug/L	92				32	157	
Acrylonitrile	250	0	260	ug/L	104				60	146	
Acetone	250	0	210	ug/L	84				11	159	
Carbon disulfide	50	0	42.5	ug/L	85				13	149	
Methyl tert-butyl Ether	50	0	48.6	ug/L	97				60	145	
Methyl Acetate	50	0	46.2	ug/L	92				27	167	
Methylene Chloride	50	0	45.7	ug/L	91				56	146	
trans-1,2-Dichloroethene	50	0	45.2	ug/L	90				60	141	
Vinyl Acetate	250	0	230	ug/L	92				50	176	
1,1-Dichloroethane	50	0	45.5	ug/L	91				61	144	
Cyclohexane	50	0	45.4	ug/L	91				57	142	
2-Butanone	250	0	250	ug/L	100				42	145	
Carbon Tetrachloride	50	0	48.1	ug/L	96				60	140	
2,2-Dichloropropane	50	0	39.5	ug/L	79				39	146	
cis-1,2-Dichloroethene	50	0	46.9	ug/L	94				48	156	
Bromochloromethane	50	0	47.3	ug/L	95				59	146	
Chloroform	50	0	45.7	ug/L	91				63	140	
1,1,1-Trichloroethane	50	0	45.6	ug/L	91				65	140	
Methylcyclohexane	50	0	44.8	ug/L	90				62	128	
1,1-Dichloropropene	50	0	46.6	ug/L	93				64	132	
Benzene	50	0	46.9	ug/L	94				62	134	
1,2-Dichloroethane	50	0	45.4	ug/L	91				67	136	
Trichloroethene	50	0	47	ug/L	94				64	131	
1,2-Dichloropropane	50	0	47	ug/L	94				69	130	
Dibromomethane	50	0	48.1	ug/L	96				71	132	
Bromodichloromethane	50	0	47.2	ug/L	94				66	132	
4-Methyl-2-Pentanone	250	0	270	ug/L	108				57	148	
Toluene	50	0	48.4	ug/L	97				68	129	
t-1,3-Dichloropropene	50	0	48.2	ug/L	96				54	136	
cis-1,3-Dichloropropene	50	0	47	ug/L	94				56	133	
1,1,2-Trichloroethane	50	0	49.2	ug/L	98				68	134	
1,3-Dichloropropane	50	0	48.1	ug/L	96				71	132	
2-Chloroethyl vinyl ether	250	0	0	ug/L	0	*			70	128	
2-Hexanone	250	0	290	ug/L	116				46	158	
Dibromochloromethane	50	0	50.8	ug/L	102				59	136	

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3854

Client: Cardno ATC

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
1,2-Dibromoethane	50	0	50.1	ug/L	100				65	138	
Tetrachloroethene	50	0	43.1	ug/L	86				29	137	
Chlorobenzene	50	0	48.4	ug/L	97				68	126	
1,1,1,2-Tetrachloroethane	50	0	50.3	ug/L	101				69	129	
Hexachloroethane	50	0	46.3	ug/L	93				50	117	
Ethyl Benzene	50	0	48.6	ug/L	97				61	131	
m/p-Xylenes	100	0	99	ug/L	99				64	125	
o-Xylene	50	0	50.8	ug/L	102				65	126	
Styrene	50	0	50.8	ug/L	102				40	140	
Bromoform	50	0	55.2	ug/L	110				42	134	
Isopropylbenzene	50	0	47.1	ug/L	94				58	132	
1,1,2,2-Tetrachloroethane	50	0	48.6	ug/L	97				61	136	
1,2,3-Trichloropropane	50	0	45.3	ug/L	91				68	128	
Bromobenzene	50	0	48.1	ug/L	96				65	126	
N-propylbenzene	50	0	46.4	ug/L	93				64	126	
2-Chlorotoluene	50	0	46.4	ug/L	93				63	125	
1,3,5-Trimethylbenzene	50	0	48.2	ug/L	96				59	127	
4-Chlorotoluene	50	0	46.9	ug/L	94				63	126	
tert-Butylbenzene	50	0	49.6	ug/L	99				65	138	
1,2,4-Trimethylbenzene	50	0	48.2	ug/L	96				54	133	
Sec-butylbenzene	50	0	48.6	ug/L	97				65	125	
p-Isopropyltoluene	50	0	48.7	ug/L	97				64	124	
1,3-Dichlorobenzene	50	0	47.7	ug/L	95				63	125	
1,4-Dichlorobenzene	50	0	46.9	ug/L	94				64	124	
n-Butylbenzene	50	0	46	ug/L	92				62	127	
1,2-Dichlorobenzene	50	0	47.8	ug/L	96				64	126	
1,2-Dibromo-3-Chloropropane	50	0	54.8	ug/L	110				57	139	
1,2,4-Trichlorobenzene	50	0	53.2	ug/L	106				57	130	
Hexachlorobutadiene	50	0	47.2	ug/L	94				53	127	
Naphthalene	50	0	60	ug/L	120				56	136	
1,2,3-Trichlorobenzene	50	0	54.4	ug/L	109				57	131	
N-amyl acetate	50	0	53.5	ug/L	107				80	118	
Methyl iodide	50	0	22.2	ug/L	44	*			77	120	
Allyl chloride	50	0	44.9	ug/L	90				71	120	
Methacrylonitrile	50	0	50.4	ug/L	101				47	150	
trans-1,4-Dichloro-2-butene	50	0	43.4	ug/L	87				24	124	
Ethyl methacrylate	50	0	55.1	ug/L	110				79	119	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3854

Client: Cardno ATC

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : E3854-05MSD	**Client Sample ID :**		**MW-11R-Q3-2013MSD**				**Datafile :**	VN009203.D			
Dichlorodifluoromethane	50	0	45.1	ug/L	90		7		47	161	20
Chloromethane	50	0	42.3	ug/L	85		3		53	157	20
Vinyl chloride	50	0	45.7	ug/L	91		3		57	149	20
Ethyl Acetate	50	0	46	ug/L	92		0		60	147	20
Isopropylacetate	50	0	50.9	ug/L	102		4		33	141	20
Bromomethane	50	0	28.3	ug/L	57		29	*	45	165	20
Chloroethane	50	0	44.8	ug/L	90		1		47	166	20
Trichlorofluoromethane	50	0	45.9	ug/L	92		2		51	165	20
1,1,2-Trichlorotrifluoroethane	50	0	44.7	ug/L	89		3		61	145	20
Tert butyl alcohol	250	0	290	ug/L	116		3		29	188	20
Diethyl Ether	50	0	48.1	ug/L	96		1		63	131	20
1,1-Dichloroethene	50	0	45.7	ug/L	91		2		55	148	20
Acrolein	250	0	220	ug/L	88		4		32	157	20
Acrylonitrile	250	0	260	ug/L	104		0		60	146	20
Acetone	250	0	210	ug/L	84		0		11	159	20
Carbon disulfide	50	0	43.8	ug/L	88		3		13	149	20
Methyl tert-butyl Ether	50	0	50	ug/L	100		3		60	145	20
Methyl Acetate	50	0	46.1	ug/L	92		0		27	167	20
Methylene Chloride	50	0	46.3	ug/L	93		1		56	146	20
trans-1,2-Dichloroethene	50	0	46	ug/L	92		2		60	141	20
Vinyl Acetate	250	0	240	ug/L	96		4		50	176	20
1,1-Dichloroethane	50	0	46.5	ug/L	93		2		61	144	20
Cyclohexane	50	0	47.5	ug/L	95		5		57	142	20
2-Butanone	250	0	260	ug/L	104		4		42	145	20
Carbon Tetrachloride	50	0	49.9	ug/L	100		4		60	140	20
2,2-Dichloropropane	50	0	39.2	ug/L	78		1		39	146	20
cis-1,2-Dichloroethene	50	0	47.5	ug/L	95		1		48	156	20
Bromochloromethane	50	0	47.2	ug/L	94		0		59	146	20
Chloroform	50	0	46.3	ug/L	93		1		63	140	20
1,1,1-Trichloroethane	50	0	46	ug/L	92		1		65	140	20
Methylcyclohexane	50	0	47.5	ug/L	95		6		62	128	20
1,1-Dichloropropene	50	0	48.5	ug/L	97		4		64	132	20
Benzene	50	0	48	ug/L	96		2		62	134	20
1,2-Dichloroethane	50	0	46.9	ug/L	94		3		67	136	20
Trichloroethene	50	0	48.8	ug/L	98		4		64	131	20
1,2-Dichloropropane	50	0	48.9	ug/L	98		4		69	130	20
Dibromomethane	50	0	50.1	ug/L	100		4		71	132	20
Bromodichloromethane	50	0	48.8	ug/L	98		3		66	132	20
4-Methyl-2-Pentanone	250	0	280	ug/L	112		4		57	148	20
Toluene	50	0	50	ug/L	100		3		68	129	20
t-1,3-Dichloropropene	50	0	49.9	ug/L	100		3		54	136	20
cis-1,3-Dichloropropene	50	0	48	ug/L	96		2		56	133	20
1,1,2-Trichloroethane	50	0	51	ug/L	102		4		68	134	20
1,3-Dichloropropane	50	0	49.2	ug/L	98		2		71	132	20
2-Chloroethyl vinyl ether	250	0	0	ug/L	0	*	0		70	128	20
2-Hexanone	250	0	300	ug/L	120		3		46	158	20
Dibromochloromethane	50	0	52.4	ug/L	105		3		59	136	20

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3854

Client: Cardno ATC

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
1,2-Dibromoethane	50	0	50.8	ug/L	102		1		65	138	20
Tetrachloroethene	50	0	44.7	ug/L	89		4		29	137	20
Chlorobenzene	50	0	49.4	ug/L	99		2		68	126	20
1,1,1,2-Tetrachloroethane	50	0	51.4	ug/L	103		2		69	129	20
Hexachloroethane	50	0	48.5	ug/L	97		5		50	117	20
Ethyl Benzene	50	0	50.3	ug/L	101		3		61	131	20
m/p-Xylenes	100	0	100	ug/L	100		1		64	125	20
o-Xylene	50	0	52.4	ug/L	105		3		65	126	20
Styrene	50	0	52.5	ug/L	105		3		40	140	20
Bromoform	50	0	57.3	ug/L	115		4		42	134	20
Isopropylbenzene	50	0	48.4	ug/L	97		3		58	132	20
1,1,2,2-Tetrachloroethane	50	0	49.4	ug/L	99		2		61	136	20
1,2,3-Trichloropropane	50	0	46.4	ug/L	93		2		68	128	20
Bromobenzene	50	0	50.1	ug/L	100		4		65	126	20
N-propylbenzene	50	0	48.2	ug/L	96		4		64	126	20
2-Chlorotoluene	50	0	47.6	ug/L	95		3		63	125	20
1,3,5-Trimethylbenzene	50	0	49.7	ug/L	99		3		59	127	20
4-Chlorotoluene	50	0	48	ug/L	96		2		63	126	20
tert-Butylbenzene	50	0	50.7	ug/L	101		2		65	138	20
1,2,4-Trimethylbenzene	50	0	49.2	ug/L	98		2		54	133	20
Sec-butylbenzene	50	0	50	ug/L	100		3		65	125	20
p-Isopropyltoluene	50	0	50.2	ug/L	100		3		64	124	20
1,3-Dichlorobenzene	50	0	48.9	ug/L	98		2		63	125	20
1,4-Dichlorobenzene	50	0	48.4	ug/L	97		3		64	124	20
n-Butylbenzene	50	0	47.5	ug/L	95		3		62	127	20
1,2-Dichlorobenzene	50	0	49.6	ug/L	99		4		64	126	20
1,2-Dibromo-3-Chloropropane	50	0	55.9	ug/L	112		2		57	139	20
1,2,4-Trichlorobenzene	50	0	55.3	ug/L	111		4		57	130	20
Hexachlorobutadiene	50	0	48.4	ug/L	97		3		53	127	20
Naphthalene	50	0	62.9	ug/L	126		5		56	136	20
1,2,3-Trichlorobenzene	50	0	56.2	ug/L	112		3		57	131	20
N-amyl acetate	50	0	54.3	ug/L	109		1		80	118	20
Methyl iodide	50	0	33.7	ug/L	67	*	41	*	77	120	20
Allyl chloride	50	0	45.4	ug/L	91		1		71	120	20
Methacrylonitrile	50	0	53.4	ug/L	107		6		47	150	20
trans-1,4-Dichloro-2-butene	50	0	45.3	ug/L	91		4		24	124	20
Ethyl methacrylate	50	0	57.1	ug/L	114		4		79	119	20

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3854
Client: Cardno ATC
Analytical Method: SW8260-Low **Datafile :** VN009184.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN0927WBS01	Dichlorodifluoromethane	20	18.9	ug/L	95			46	139	
	Chloromethane	20	19.1	ug/L	96			58	139	
	Vinyl chloride	20	19.3	ug/L	97			65	137	
	Ethyl Acetate	20	19.7	ug/L	99			67	131	
	Isopropylacetate	20	20.2	ug/L	101			72	128	
	Bromomethane	20	18.3	ug/L	92			50	162	
	Chloroethane	20	18.2	ug/L	91			54	160	
	Trichlorofluoromethane	20	19.1	ug/L	96			67	143	
	1,1,2-Trichlorotrifluoroethane	20	19.4	ug/L	97			71	136	
	Tert butyl alcohol	100	110	ug/L	110			36	175	
	Diethyl Ether	20	19.5	ug/L	98			70	133	
	1,1-Dichloroethene	20	18.8	ug/L	94			69	134	
	Acrolein	100	100	ug/L	100			20	159	
	Acrylonitrile	100	99.4	ug/L	99			63	146	
	Acetone	100	100	ug/L	100			41	181	
	Carbon disulfide	20	17.6	ug/L	88			63	138	
	Methyl tert-butyl Ether	20	20	ug/L	100			72	136	
	Methyl Acetate	20	21.3	ug/L	106			51	158	
	Methylene Chloride	20	19.2	ug/L	96			67	138	
	trans-1,2-Dichloroethene	20	19	ug/L	95			72	132	
	Vinyl Acetate	100	99.1	ug/L	99			32	168	
	1,1-Dichloroethane	20	19	ug/L	95			74	135	
	Cyclohexane	20	19.1	ug/L	96			67	132	
	2-Butanone	100	110	ug/L	110			64	146	
	Carbon Tetrachloride	20	19.5	ug/L	98			71	134	
	2,2-Dichloropropane	20	19.8	ug/L	99			64	137	
	cis-1,2-Dichloroethene	20	19.6	ug/L	98			74	130	
	Bromochloromethane	20	24.3	ug/L	121			71	136	
	Chloroform	20	19.2	ug/L	96			74	134	
	1,1,1-Trichloroethane	20	19.2	ug/L	96			74	133	
	Methylcyclohexane	20	19.2	ug/L	96			71	125	
	1,1-Dichloropropene	20	19.4	ug/L	97			74	127	
	Benzene	20	19.6	ug/L	98			75	125	
	1,2-Dichloroethane	20	19.6	ug/L	98			76	130	
	Trichloroethene	20	19.9	ug/L	100			73	127	
	1,2-Dichloropropane	20	19.8	ug/L	99			76	125	
	Dibromomethane	20	20.2	ug/L	101			79	124	
	Bromodichloromethane	20	19.7	ug/L	99			78	127	
	4-Methyl-2-Pentanone	100	110	ug/L	110			71	140	
	Toluene	20	20.2	ug/L	101			74	125	
	t-1,3-Dichloropropene	20	20.2	ug/L	101			74	131	
	cis-1,3-Dichloropropene	20	20.1	ug/L	101			74	128	
	1,1,2-Trichloroethane	20	20.6	ug/L	103			75	129	
	1,3-Dichloropropane	20	20	ug/L	100			74	129	
	2-Chloroethyl vinyl ether	100	95.1	ug/L	95			31	161	
	2-Hexanone	100	110	ug/L	110			62	153	
	Dibromochloromethane	20	20.4	ug/L	102			74	131	
	1,2-Dibromoethane	20	20.2	ug/L	101			74	129	
	Tetrachloroethene	20	20	ug/L	100			46	157	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3854
Client: Cardno ATC
Analytical Method: SW8260-Low **Datafile :** VN009184.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN0927WBS01	Chlorobenzene	20	20.2	ug/L	101			76	123	
	1,1,1,2-Tetrachloroethane	20	20.8	ug/L	104			75	126	
	Hexachloroethane	20	19.4	ug/L	97			67	127	
	Ethyl Benzene	20	19.8	ug/L	99			75	126	
	m/p-Xylenes	40	39.8	ug/L	100			74	126	
	o-Xylene	20	20.3	ug/L	102			73	127	
	Styrene	20	20.2	ug/L	101			75	126	
	Bromoform	20	21.2	ug/L	106			66	130	
	Isopropylbenzene	20	19.8	ug/L	99			70	127	
	1,1,2,2-Tetrachloroethane	20	20	ug/L	100			66	131	
	1,2,3-Trichloropropane	20	23	ug/L	115			71	127	
	Bromobenzene	20	20.1	ug/L	101			71	123	
	N-propylbenzene	20	19.5	ug/L	98			71	126	
	2-Chlorotoluene	20	19.4	ug/L	97			73	124	
	1,3,5-Trimethylbenzene	20	20.3	ug/L	102			71	127	
	4-Chlorotoluene	20	19.5	ug/L	98			73	124	
	tert-Butylbenzene	20	20.4	ug/L	102			66	129	
	1,2,4-Trimethylbenzene	20	20.5	ug/L	103			69	130	
	Sec-butylbenzene	20	20.2	ug/L	101			72	126	
	p-Isopropyltoluene	20	20.2	ug/L	101			71	125	
	1,3-Dichlorobenzene	20	20	ug/L	100			70	125	
	1,4-Dichlorobenzene	20	19.7	ug/L	99			71	124	
	n-Butylbenzene	20	19.6	ug/L	98			68	128	
	1,2-Dichlorobenzene	20	20.1	ug/L	101			71	126	
	1,2-Dibromo-3-Chloropropane	20	23.1	ug/L	116			62	134	
	1,2,4-Trichlorobenzene	20	22.1	ug/L	111			62	129	
	Hexachlorobutadiene	20	20	ug/L	100			56	132	
	Naphthalene	20	23.5	ug/L	117			62	130	
	1,2,3-Trichlorobenzene	20	22.1	ug/L	111			58	130	
	N-amyl acetate	20	20.2	ug/L	101			80	121	
	Methyl iodide	20	15.6	ug/L	78			70	130	
	Allyl chloride	20	18.5	ug/L	93			75	121	
	Methacrylonitrile	20	20.4	ug/L	102			67	132	
	trans-1,4-Dichloro-2-butene	20	19.7	ug/L	99			52	149	
	Ethyl methacrylate	20	21.4	ug/L	107			84	121	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3854
Client: Cardno ATC
Analytical Method: SW8260-Low **Datafile :** VN009228.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN0930WBS01	Dichlorodifluoromethane	20	18.3	ug/L	92			30	155	
	Chloromethane	20	18.2	ug/L	91			40	125	
	Vinyl chloride	20	19	ug/L	95			50	145	
	Ethyl Acetate	20	19.6	ug/L	98			70	130	
	Isopropylacetate	20	20.6	ug/L	103			70	130	
	Bromomethane	20	17.7	ug/L	89			30	145	
	Chloroethane	20	18.4	ug/L	92			60	135	
	Trichlorofluoromethane	20	18.7	ug/L	94			60	145	
	1,1,2-Trichlorotrifluoroethane	20	19.2	ug/L	96			52	142	
	Tert butyl alcohol	100	98.2	ug/L	98			46	147	
	Diethyl Ether	20	19.6	ug/L	98			70	130	
	1,1-Dichloroethene	20	18.4	ug/L	92			70	130	
	Acrolein	100	110	ug/L	110			38	155	
	Acrylonitrile	100	98.3	ug/L	98			53	150	
	Acetone	100	110	ug/L	110			40	140	
	Carbon disulfide	20	17.7	ug/L	89			35	160	
	Methyl tert-butyl Ether	20	19.7	ug/L	99			65	125	
	Methyl Acetate	20	19.7	ug/L	99			51	158	
	Methylene Chloride	20	20.5	ug/L	103			55	140	
	trans-1,2-Dichloroethene	20	18.8	ug/L	94			60	140	
	Vinyl Acetate	100	96.5	ug/L	97			47	166	
	1,1-Dichloroethane	20	19.1	ug/L	96			70	135	
	Cyclohexane	20	19.4	ug/L	97			56	141	
	2-Butanone	100	100	ug/L	100			30	150	
	Carbon Tetrachloride	20	20.7	ug/L	104			65	140	
	2,2-Dichloropropane	20	19.8	ug/L	99			70	135	
	cis-1,2-Dichloroethene	20	19.5	ug/L	98			70	125	
	Bromochloromethane	20	24.9	ug/L	125			65	130	
	Chloroform	20	19.1	ug/L	96			65	135	
	1,1,1-Trichloroethane	20	18.9	ug/L	95			65	130	
	Methylcyclohexane	20	20.4	ug/L	102			56	137	
	1,1-Dichloropropene	20	19.8	ug/L	99			75	130	
	Benzene	20	20.2	ug/L	101			80	120	
	1,2-Dichloroethane	20	19.5	ug/L	98			70	130	
	Trichloroethene	20	20.8	ug/L	104			70	125	
	1,2-Dichloropropane	20	20.5	ug/L	103			75	125	
	Dibromomethane	20	20.3	ug/L	102			75	125	
	Bromodichloromethane	20	20.6	ug/L	103			75	120	
	4-Methyl-2-Pentanone	100	110	ug/L	110			60	135	
	Toluene	20	20.4	ug/L	102			75	120	
	t-1,3-Dichloropropene	20	20.7	ug/L	104			55	140	
	cis-1,3-Dichloropropene	20	20.8	ug/L	104			70	130	
	1,1,2-Trichloroethane	20	20.8	ug/L	104			75	125	
	1,3-Dichloropropane	20	20.3	ug/L	102			75	125	
	2-Chloroethyl vinyl ether	100	83.3	ug/L	83			54	151	
	2-Hexanone	100	110	ug/L	110			55	130	
	Dibromochloromethane	20	21.6	ug/L	108			60	135	
	1,2-Dibromoethane	20	21.1	ug/L	106			80	120	
	Tetrachloroethene	20	21.1	ug/L	106			45	150	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3854
Client: Cardno ATC
Analytical Method: SW8260-Low **Datafile :** VN009228.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN0930WBS01	Chlorobenzene	20	20.1	ug/L	101			80	120	
	1,1,1,2-Tetrachloroethane	20	20.8	ug/L	104			80	130	
	Hexachloroethane	20	20.6	ug/L	103			70	130	
	Ethyl Benzene	20	20.1	ug/L	101			75	125	
	m/p-Xylenes	40	40.5	ug/L	101			75	130	
	o-Xylene	20	20.9	ug/L	104			80	120	
	Styrene	20	20.6	ug/L	103			65	135	
	Bromoform	20	23.4	ug/L	117			70	130	
	Isopropylbenzene	20	19.9	ug/L	100			75	125	
	1,1,2,2-Tetrachloroethane	20	20.2	ug/L	101			65	130	
	1,2,3-Trichloropropane	20	21.8	ug/L	109			75	125	
	Bromobenzene	20	21.2	ug/L	106			75	125	
	N-propylbenzene	20	19.8	ug/L	99			70	130	
	2-Chlorotoluene	20	19.6	ug/L	98			75	125	
	1,3,5-Trimethylbenzene	20	20.6	ug/L	103			75	130	
	4-Chlorotoluene	20	19.7	ug/L	99			75	130	
	tert-Butylbenzene	20	20.7	ug/L	104			70	130	
	1,2,4-Trimethylbenzene	20	20.7	ug/L	104			75	130	
	Sec-butylbenzene	20	20.3	ug/L	102			70	125	
	p-Isopropyltoluene	20	20.5	ug/L	103			75	130	
	1,3-Dichlorobenzene	20	20.3	ug/L	102			75	125	
	1,4-Dichlorobenzene	20	20.2	ug/L	101			75	125	
	n-Butylbenzene	20	20	ug/L	100			70	135	
	1,2-Dichlorobenzene	20	20.8	ug/L	104			70	120	
	1,2-Dibromo-3-Chloropropane	20	22.4	ug/L	112			50	130	
	1,2,4-Trichlorobenzene	20	23	ug/L	115			65	135	
	Hexachlorobutadiene	20	22	ug/L	110			50	140	
	Naphthalene	20	23.1	ug/L	116			55	140	
	1,2,3-Trichlorobenzene	20	23.3	ug/L	117			55	140	
	N-amyl acetate	20	19.8	ug/L	99			70	130	
	Methyl iodide	20	15.4	ug/L	77			70	130	
	Allyl chloride	20	19	ug/L	95			70	130	
	Methacrylonitrile	20	20.4	ug/L	102			70	130	
	trans-1,4-Dichloro-2-butene	20	20.7	ug/L	104			70	130	
	Ethyl methacrylate	20	21.6	ug/L	108			70	130	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3854
Client: Cardno ATC
Analytical Method: SW8260-Low **Datafile :** VN009251.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN1001WBS01	Dichlorodifluoromethane	20	16.9	ug/L	85			30	155	
	Chloromethane	20	18.3	ug/L	92			40	125	
	Vinyl chloride	20	18.5	ug/L	93			50	145	
	Ethyl Acetate	20	20.9	ug/L	104			70	130	
	Isopropylacetate	20	21.2	ug/L	106			70	130	
	Bromomethane	20	17.2	ug/L	86			30	145	
	Chloroethane	20	18	ug/L	90			60	135	
	Trichlorofluoromethane	20	17.9	ug/L	90			60	145	
	1,1,2-Trichlorotrifluoroethane	20	18.3	ug/L	92			52	142	
	Tert butyl alcohol	100	110	ug/L	110			46	147	
	Diethyl Ether	20	19.6	ug/L	98			70	130	
	1,1-Dichloroethene	20	18.5	ug/L	93			70	130	
	Acrolein	100	93.4	ug/L	93			38	155	
	Acrylonitrile	100	97.5	ug/L	98			53	150	
	Acetone	100	110	ug/L	110			40	140	
	Carbon disulfide	20	17.1	ug/L	86			35	160	
	Methyl tert-butyl Ether	20	19.9	ug/L	100			65	125	
	Methyl Acetate	20	20.9	ug/L	104			51	158	
	Methylene Chloride	20	18.7	ug/L	94			55	140	
	trans-1,2-Dichloroethene	20	18.3	ug/L	92			60	140	
	Vinyl Acetate	100	98.7	ug/L	99			47	166	
	1,1-Dichloroethane	20	18.7	ug/L	94			70	135	
	Cyclohexane	20	18.3	ug/L	92			56	141	
	2-Butanone	100	110	ug/L	110			30	150	
	Carbon Tetrachloride	20	19.6	ug/L	98			65	140	
	2,2-Dichloropropane	20	19.6	ug/L	98			70	135	
	cis-1,2-Dichloroethene	20	18.9	ug/L	95			70	125	
	Bromochloromethane	20	23.7	ug/L	119			65	130	
	Chloroform	20	18.7	ug/L	94			65	135	
	1,1,1-Trichloroethane	20	18.6	ug/L	93			65	130	
	Methylcyclohexane	20	19.1	ug/L	96			56	137	
	1,1-Dichloropropene	20	19.6	ug/L	98			75	130	
	Benzene	20	19.7	ug/L	99			80	120	
	1,2-Dichloroethane	20	18.8	ug/L	94			70	130	
	Trichloroethene	20	20.1	ug/L	101			70	125	
	1,2-Dichloropropane	20	20	ug/L	100			75	125	
	Dibromomethane	20	20.1	ug/L	101			75	125	
	Bromodichloromethane	20	20.5	ug/L	103			75	120	
	4-Methyl-2-Pentanone	100	110	ug/L	110			60	135	
	Toluene	20	20.6	ug/L	103			75	120	
	t-1,3-Dichloropropene	20	20.4	ug/L	102			55	140	
	cis-1,3-Dichloropropene	20	20.6	ug/L	103			70	130	
	1,1,2-Trichloroethane	20	20.9	ug/L	104			75	125	
	1,3-Dichloropropane	20	20.6	ug/L	103			75	125	
	2-Chloroethyl vinyl ether	100	90.7	ug/L	91			54	151	
	2-Hexanone	100	120	ug/L	120			55	130	
	Dibromochloromethane	20	21.5	ug/L	108			60	135	
	1,2-Dibromoethane	20	20.8	ug/L	104			80	120	
	Tetrachloroethene	20	19.8	ug/L	99			45	150	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3854
Client: Cardno ATC
Analytical Method: SW8260-Low **Datafile :** VN009251.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN1001WBS01	Chlorobenzene	20	20.1	ug/L	101			80	120	
	1,1,1,2-Tetrachloroethane	20	21.1	ug/L	106			80	130	
	Hexachloroethane	20	20	ug/L	100			70	130	
	Ethyl Benzene	20	20.1	ug/L	101			75	125	
	m/p-Xylenes	40	40.5	ug/L	101			75	130	
	o-Xylene	20	20.8	ug/L	104			80	120	
	Styrene	20	20.7	ug/L	104			65	135	
	Bromoform	20	23.6	ug/L	118			70	130	
	Isopropylbenzene	20	19.5	ug/L	98			75	125	
	1,1,2,2-Tetrachloroethane	20	20.5	ug/L	103			65	130	
	1,2,3-Trichloropropane	20	23.3	ug/L	117			75	125	
	Bromobenzene	20	20.3	ug/L	102			75	125	
	N-propylbenzene	20	19.3	ug/L	97			70	130	
	2-Chlorotoluene	20	19.3	ug/L	97			75	125	
	1,3,5-Trimethylbenzene	20	20	ug/L	100			75	130	
	4-Chlorotoluene	20	19.2	ug/L	96			75	130	
	tert-Butylbenzene	20	20.5	ug/L	103			70	130	
	1,2,4-Trimethylbenzene	20	20.4	ug/L	102			75	130	
	Sec-butylbenzene	20	20	ug/L	100			70	125	
	p-Isopropyltoluene	20	20.1	ug/L	101			75	130	
	1,3-Dichlorobenzene	20	20	ug/L	100			75	125	
	1,4-Dichlorobenzene	20	19.6	ug/L	98			75	125	
	n-Butylbenzene	20	19.4	ug/L	97			70	135	
	1,2-Dichlorobenzene	20	20.2	ug/L	101			70	120	
	1,2-Dibromo-3-Chloropropane	20	22.5	ug/L	113			50	130	
	1,2,4-Trichlorobenzene	20	22.7	ug/L	114			65	135	
	Hexachlorobutadiene	20	20.7	ug/L	104			50	140	
	Naphthalene	20	23.1	ug/L	116			55	140	
	1,2,3-Trichlorobenzene	20	23	ug/L	115			55	140	
	N-amyl acetate	20	20.7	ug/L	104			70	130	
	Methyl iodide	20	16.2	ug/L	81			70	130	
	Allyl chloride	20	18.9	ug/L	95			70	130	
	trans-1,4-Dichloro-2-butene	20	21.1	ug/L	106			70	130	
	Methacrylonitrile	20	20.7	ug/L	104			70	130	
	Ethyl methacrylate	20	22	ug/L	110			70	130	

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0927WBL01

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

Lab File ID: VN009183.D Lab Sample ID: VN0927WBL01

Date Analyzed: 09/27/2013 Time Analyzed: 13:06

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0927WBS01	VN0927WBS01	VN009184.D	09/27/2013
TBQ3-2013	E3854-12	VN009188.D	09/27/2013
FBQ3-2013	E3854-10	VN009189.D	09/27/2013
MW-2-Q3-2013	E3854-01	VN009194.D	09/27/2013
MW-8-Q3-2013	E3854-02	VN009195.D	09/27/2013
MW-12R-Q3-2013	E3854-06	VN009196.D	09/27/2013
MW-14-Q3-2013	E3854-07	VN009197.D	09/27/2013
MW-15-Q3-2013	E3854-08	VN009198.D	09/27/2013
MW-16-Q3-2013	E3854-09	VN009199.D	09/27/2013
DUPQ3-2013	E3854-11	VN009200.D	09/27/2013
MW-11R-Q3-2013	E3854-03	VN009201.D	09/27/2013
MW-11R-Q3-2013MS	E3854-04MS	VN009202.D	09/27/2013
MW-11R-Q3-2013MSD	E3854-05MSD	VN009203.D	09/27/2013

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
VN0930WBL01

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

Lab File ID: VN009227.D Lab Sample ID: VN0930WBL01

Date Analyzed: 09/30/2013 Time Analyzed: 17:50

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0930WBS01	VN0930WBS01	VN009228.D	09/30/2013
MW-2-Q3-2013DL	E3854-01DL	VN009240.D	09/30/2013

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1001WBL01

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

Lab File ID: VN009250.D Lab Sample ID: VN1001WBL01

Date Analyzed: 10/01/2013 Time Analyzed: 11:28

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN1001WBS01	VN1001WBS01	VN009251.D	10/01/2013
MW-8-Q3-2013DL	E3854-02DL	VN009258.D	10/01/2013

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

Lab File ID: VN009033.D BFB Injection Date: 09/23/2013

Instrument ID: MSVOA_N BFB Injection Time: 18:09

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.6
75	30.0 - 60.0% of mass 95	47.4
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1 (1.1) 1
174	50.0 - 100.0% of mass 95	92.1
175	5.0 - 9.0% of mass 174	7.3 (8) 1
176	95.0 - 101.0% of mass 174	88.9 (96.5) 1
177	5.0 - 9.0% of mass 176	5.5 (6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC001	VSTDICC001	VN009034.D	09/23/2013	20:01
VSTDICC005	VSTDICC005	VN009035.D	09/23/2013	20:29
VSTDICC020	VSTDICC020	VN009036.D	09/23/2013	20:57
VSTDICCC050	VSTDICCC050	VN009037.D	09/23/2013	21:25
VSTDICC100	VSTDICC100	VN009038.D	09/23/2013	21:53
VSTDICC200	VSTDICC200	VN009039.D	09/23/2013	22:21

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

Lab File ID: VN009181.D BFB Injection Date: 09/27/2013

Instrument ID: MSVOA_N BFB Injection Time: 11:22

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.8
75	30.0 - 60.0% of mass 95	47
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.6 (0.6) 1
174	50.0 - 100.0% of mass 95	95.8
175	5.0 - 9.0% of mass 174	7.2 (7.5) 1
176	95.0 - 101.0% of mass 174	91.4 (95.4) 1
177	5.0 - 9.0% of mass 176	5.8 (6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN009182.D	09/27/2013	11:55
VN0927WBL01	VN0927WBL01	VN009183.D	09/27/2013	13:06
VN0927WBS01	VN0927WBS01	VN009184.D	09/27/2013	13:34
TBQ3-2013	E3854-12	VN009188.D	09/27/2013	15:27
FBQ3-2013	E3854-10	VN009189.D	09/27/2013	15:55
MW-2-Q3-2013	E3854-01	VN009194.D	09/27/2013	18:16
MW-8-Q3-2013	E3854-02	VN009195.D	09/27/2013	18:44
MW-12R-Q3-2013	E3854-06	VN009196.D	09/27/2013	19:13
MW-14-Q3-2013	E3854-07	VN009197.D	09/27/2013	19:41
MW-15-Q3-2013	E3854-08	VN009198.D	09/27/2013	20:09
MW-16-Q3-2013	E3854-09	VN009199.D	09/27/2013	20:37
DUPQ3-2013	E3854-11	VN009200.D	09/27/2013	21:06
MW-11R-Q3-2013	E3854-03	VN009201.D	09/27/2013	21:34
MW-11R-Q3-2013MS	E3854-04MS	VN009202.D	09/27/2013	22:02
MW-11R-Q3-2013MSD	E3854-05MSD	VN009203.D	09/27/2013	22:30

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

Lab File ID: VN009225.D BFB Injection Date: 09/30/2013

Instrument ID: MSVOA_N BFB Injection Time: 15:06

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.5
75	30.0 - 60.0% of mass 95	46.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1 (1) 1
174	50.0 - 100.0% of mass 95	96.2
175	5.0 - 9.0% of mass 174	7 (7.3) 1
176	95.0 - 101.0% of mass 174	92.7 (96.3) 1
177	5.0 - 9.0% of mass 176	6.4 (6.9) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN009226.D	09/30/2013	16:32
VN0930WBL01	VN0930WBL01	VN009227.D	09/30/2013	17:50
VN0930WBS01	VN0930WBS01	VN009228.D	09/30/2013	18:18
MW-2-Q3-2013DL	E3854-01DL	VN009240.D	09/30/2013	23:57

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

Lab File ID: VN009248.D BFB Injection Date: 10/01/2013

Instrument ID: MSVOA_N BFB Injection Time: 08:50

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.6
75	30.0 - 60.0% of mass 95	46.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.1 (1.1) 1
174	50.0 - 100.0% of mass 95	97.4
175	5.0 - 9.0% of mass 174	6.9 (7) 1
176	95.0 - 101.0% of mass 174	94.3 (96.8) 1
177	5.0 - 9.0% of mass 176	6.3 (6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN009249.D	10/01/2013	10:13
VN1001WBL01	VN1001WBL01	VN009250.D	10/01/2013	11:28
VN1001WBS01	VN1001WBS01	VN009251.D	10/01/2013	11:56
MW-8-Q3-2013DL	E3854-02DL	VN009258.D	10/01/2013	15:14

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

Lab File ID: VN009182.D Date Analyzed: 09/27/2013

Instrument ID: MSVOA_N Time Analyzed: 11:55

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	510349	7.87	776840	8.79	716151	11.61
UPPER LIMIT	1020700	8.37	1553680	9.29	1432300	12.11
LOWER LIMIT	255175	7.37	388420	8.29	358076	11.11
EPA SAMPLE NO.						
MW-2-Q3-2013	616134	7.87	967113	8.78	835680	11.61
MW-8-Q3-2013	644422	7.86	1012820	8.78	879711	11.61
MW-11R-Q3-2013	579955	7.87	888034	8.79	797853	11.61
MW-11R-Q3-2013MS	520338	7.87	842688	8.79	770757	11.61
MW-11R-Q3-2013MSD	528276	7.87	843026	8.79	771035	11.61
MW-12R-Q3-2013	575174	7.87	880742	8.79	792676	11.61
MW-14-Q3-2013	591803	7.87	904244	8.79	819419	11.61
MW-15-Q3-2013	591138	7.87	904165	8.79	805396	11.61
MW-16-Q3-2013	580741	7.87	886591	8.79	792379	11.61
FBQ3-2013	568376	7.87	880448	8.79	785140	11.61
DUPQ3-2013	612707	7.87	946709	8.79	843888	11.61
TBQ3-2013	573817	7.87	873916	8.79	775219	11.61
VN0927WBL01	575354	7.87	893513	8.79	792025	11.61
VN0927WBS01	502780	7.87	808208	8.79	734660	11.61

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

Lab File ID: VN009182.D Date Analyzed: 09/27/2013

Instrument ID: MSVOA_N Time Analyzed: 11:55

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	363970	13.56				
UPPER LIMIT	727940	14.06				
LOWER LIMIT	181985	13.06				
EPA SAMPLE NO.						
MW-2-Q3-2013	415994	13.56				
MW-8-Q3-2013	407212	13.56				
MW-11R-Q3-2013	376997	13.56				
MW-11R-Q3-2013MS	382065	13.56				
MW-11R-Q3-2013MSD	383452	13.56				
MW-12R-Q3-2013	415079	13.56				
MW-14-Q3-2013	403257	13.56				
MW-15-Q3-2013	408571	13.56				
MW-16-Q3-2013	374112	13.56				
FBQ3-2013	353170	13.56				
DUPQ3-2013	412200	13.56				
TBQ3-2013	357761	13.56				
VN0927WBL01	357773	13.56				
VN0927WBS01	352715	13.56				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

Lab File ID: VN009226.D Date Analyzed: 09/30/2013

Instrument ID: MSVOA_N Time Analyzed: 16:32

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	585632	7.87	863307	8.78	789318	11.61
UPPER LIMIT	1171260	8.37	1726610	9.28	1578640	12.11
LOWER LIMIT	292816	7.37	431654	8.28	394659	11.11
EPA SAMPLE NO.						
MW-2-Q3-2013DL	558492	7.87	861020	8.79	770129	11.61
VN0930WBL01	614151	7.87	929147	8.79	825351	11.61
VN0930WBS01	526017	7.87	816101	8.79	743545	11.61

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

Lab File ID: VN009226.D Date Analyzed: 09/30/2013

Instrument ID: MSVOA_N Time Analyzed: 16:32

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	403695	13.56				
UPPER LIMIT	807390	14.06				
LOWER LIMIT	201848	13.06				
EPA SAMPLE NO.						
MW-2-Q3-2013DL	363383	13.56				
VN0930WBL01	372894	13.56				
VN0930WBS01	359073	13.56				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

 # Column used to flag values outside QC limits with an asterisk.
*** Values outside of QC limits.**

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

Lab File ID: VN009249.D Date Analyzed: 10/01/2013

Instrument ID: MSVOA_N Time Analyzed: 10:13

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	609931	7.87	895957	8.78	808827	11.61
UPPER LIMIT	1219860	8.37	1791910	9.28	1617650	12.11
LOWER LIMIT	304966	7.37	447979	8.28	404414	11.11
EPA SAMPLE NO.						
MW-8-Q3-2013DL	600342	7.87	890358	8.79	796380	11.61
VN1001WBL01	627019	7.87	937264	8.79	838198	11.61
VN1001WBS01	545572	7.87	853237	8.79	770015	11.61

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

Lab File ID: VN009249.D Date Analyzed: 10/01/2013

Instrument ID: MSVOA_N Time Analyzed: 10:13

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	415903	13.56				
UPPER LIMIT	831806	14.06				
LOWER LIMIT	207952	13.06				
EPA SAMPLE NO.						
MW-8-Q3-2013DL	373709	13.56				
VN1001WBL01	381803	13.56				
VN1001WBS01	376529	13.56				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

 # Column used to flag values outside QC limits with an asterisk.
*** Values outside of QC limits.**

QC SAMPLE DATA

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0927WBL01	SDG No.:	E3854
Lab Sample ID:	VN0927WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009183.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0927WBL01	SDG No.:	E3854
Lab Sample ID:	VN0927WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009183.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0927WBL01	SDG No.:	E3854
Lab Sample ID:	VN0927WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009183.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.9		61 - 141		94%	SPK: 50
1868-53-7	Dibromofluoromethane	48.1		69 - 133		96%	SPK: 50
2037-26-5	Toluene-d8	53.3		65 - 126		107%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.9		58 - 135		96%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	575354	7.867				
540-36-3	1,4-Difluorobenzene	893513	8.787				
3114-55-4	Chlorobenzene-d5	792025	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	357773	13.561				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0927WBL01	SDG No.:	E3854
Lab Sample ID:	VN0927WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009183.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0930WBL01	SDG No.:	E3854
Lab Sample ID:	VN0930WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009227.D	1		09/30/13	VN093013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0930WBL01	SDG No.:	E3854
Lab Sample ID:	VN0930WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009227.D	1		09/30/13	VN093013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0930WBL01	SDG No.:	E3854
Lab Sample ID:	VN0930WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009227.D	1		09/30/13	VN093013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	45		70 - 120		90%	SPK: 50
1868-53-7	Dibromofluoromethane	49.4		85 - 115		99%	SPK: 50
2037-26-5	Toluene-d8	52.7		85 - 120		105%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.4		75 - 120		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	614151	7.87				
540-36-3	1,4-Difluorobenzene	929147	8.79				
3114-55-4	Chlorobenzene-d5	825351	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	372894	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0930WBL01	SDG No.:	E3854
Lab Sample ID:	VN0930WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009227.D	1		09/30/13	VN093013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1001WBL01	SDG No.:	E3854
Lab Sample ID:	VN1001WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009250.D	1		10/01/13	VN100113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1001WBL01	SDG No.:	E3854
Lab Sample ID:	VN1001WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009250.D	1		10/01/13	VN100113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1001WBL01	SDG No.:	E3854
Lab Sample ID:	VN1001WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009250.D	1		10/01/13	VN100113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	45.3		70 - 120		90%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		85 - 115		97%	SPK: 50
2037-26-5	Toluene-d8	53.7		85 - 120		107%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.2		75 - 120		96%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	627019	7.87				
540-36-3	1,4-Difluorobenzene	937264	8.79				
3114-55-4	Chlorobenzene-d5	838198	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	381803	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1001WBL01	SDG No.:	E3854
Lab Sample ID:	VN1001WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009250.D	1		10/01/13	VN100113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0927WBS01	SDG No.:	E3854
Lab Sample ID:	VN0927WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009184.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	18.9		0.2	0.2	1	ug/L
74-87-3	Chloromethane	19.1		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	19.3		0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	19.7		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	20.2		0.2	0.2	1	ug/L
74-83-9	Bromomethane	18.3		0.2	0.2	1	ug/L
75-00-3	Chloroethane	18.2		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	19.1		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.4		0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	110		0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	19.5		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	18.8		0.2	0.2	1	ug/L
107-02-8	Acrolein	100		0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	99.4		1	1	5	ug/L
67-64-1	Acetone	100		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	17.6		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	20		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	21.3		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	19.2		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	19		0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	99.1		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	19		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	19.1		0.2	0.2	1	ug/L
78-93-3	2-Butanone	110		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	19.5		0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	19.8		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	19.6		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	24.3		0.2	0.5	1	ug/L
67-66-3	Chloroform	19.2		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	19.2		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	19.2		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0927WBS01	SDG No.:	E3854
Lab Sample ID:	VN0927WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009184.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	19.4		0.39	0.5	1	ug/L
71-43-2	Benzene	19.6		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	19.6		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	19.9		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	19.8		0.2	0.2	1	ug/L
74-95-3	Dibromomethane	20.2		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	19.7		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	110		1	1	5	ug/L
108-88-3	Toluene	20.2		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	20.2		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	20.1		0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	20.6		0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	20		0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	95.1		1	1	5	ug/L
591-78-6	2-Hexanone	110		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	20.4		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	20.2		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	20		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	20.2		0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	20.8		0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	19.4		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	19.8		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	39.8		0.4	0.4	2	ug/L
95-47-6	o-Xylene	20.3		0.2	0.2	1	ug/L
100-42-5	Styrene	20.2		0.2	0.2	1	ug/L
75-25-2	Bromoform	21.2		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	19.8		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20		0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	23		0.2	0.2	1	ug/L
108-86-1	Bromobenzene	20.1		0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	19.5		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	19.4		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0927WBS01	SDG No.:	E3854
Lab Sample ID:	VN0927WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009184.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	20.3		0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	19.5		0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	20.4		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	20.5		0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	20.2		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	20.2		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	20		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	19.7		0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	19.6		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	20.1		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	23.1		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	22.1		0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	20		0.2	0.2	1	ug/L
91-20-3	Naphthalene	23.5		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	22.1		0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	20.2		0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	15.6		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	18.5		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	20.4		0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	19.7		0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	21.4		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	43		61 - 141		86%	SPK: 50
1868-53-7	Dibromofluoromethane	47.4		69 - 133		95%	SPK: 50
2037-26-5	Toluene-d8	44.9		65 - 126		90%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.3		58 - 135		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	502780	7.87				
540-36-3	1,4-Difluorobenzene	808208	8.79				
3114-55-4	Chlorobenzene-d5	734660	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	352715	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0927WBS01	SDG No.:	E3854
Lab Sample ID:	VN0927WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009184.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0930WBS01	SDG No.:	E3854
Lab Sample ID:	VN0930WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009228.D	1		09/30/13	VN093013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	18.3		0.2	0.2	1	ug/L
74-87-3	Chloromethane	18.2		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	19		0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	19.6		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	20.6		0.2	0.2	1	ug/L
74-83-9	Bromomethane	17.7		0.2	0.2	1	ug/L
75-00-3	Chloroethane	18.4		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	18.7		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.2		0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	98.2		0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	19.6		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	18.4		0.2	0.2	1	ug/L
107-02-8	Acrolein	110		0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	98.3		1	1	5	ug/L
67-64-1	Acetone	110		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	17.7		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	19.7		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	19.7		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	20.5		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	18.8		0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	96.5		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	19.1		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	19.4		0.2	0.2	1	ug/L
78-93-3	2-Butanone	100		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	20.7		0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	19.8		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	19.5		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	24.9		0.2	0.5	1	ug/L
67-66-3	Chloroform	19.1		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	18.9		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	20.4		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0930WBS01	SDG No.:	E3854
Lab Sample ID:	VN0930WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009228.D	1		09/30/13	VN093013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	19.8		0.39	0.5	1	ug/L
71-43-2	Benzene	20.2		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	19.5		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	20.8		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	20.5		0.2	0.2	1	ug/L
74-95-3	Dibromomethane	20.3		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	20.6		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	110		1	1	5	ug/L
108-88-3	Toluene	20.4		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	20.7		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	20.8		0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	20.8		0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	20.3		0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	83.3		1	1	5	ug/L
591-78-6	2-Hexanone	110		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	21.6		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	21.1		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	21.1		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	20.1		0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	20.8		0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	20.6		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	20.1		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	40.5		0.4	0.4	2	ug/L
95-47-6	o-Xylene	20.9		0.2	0.2	1	ug/L
100-42-5	Styrene	20.6		0.2	0.2	1	ug/L
75-25-2	Bromoform	23.4		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	19.9		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.2		0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	21.8		0.2	0.2	1	ug/L
108-86-1	Bromobenzene	21.2		0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	19.8		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	19.6		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0930WBS01	SDG No.:	E3854
Lab Sample ID:	VN0930WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009228.D	1		09/30/13	VN093013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	20.6		0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	19.7		0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	20.7		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	20.7		0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	20.3		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	20.5		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	20.3		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	20.2		0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	20		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	20.8		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	22.4		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	23		0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	22		0.2	0.2	1	ug/L
91-20-3	Naphthalene	23.1		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	23.3		0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	19.8		0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	15.4		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	19		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	20.4		0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	20.7		0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	21.6		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	44.1		70 - 120		88%	SPK: 50
1868-53-7	Dibromofluoromethane	50		85 - 115		100%	SPK: 50
2037-26-5	Toluene-d8	46.3		85 - 120		93%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.6		75 - 120		99%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	526017	7.87				
540-36-3	1,4-Difluorobenzene	816101	8.79				
3114-55-4	Chlorobenzene-d5	743545	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	359073	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0930WBS01	SDG No.:	E3854
Lab Sample ID:	VN0930WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009228.D	1		09/30/13	VN093013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1001WBS01	SDG No.:	E3854
Lab Sample ID:	VN1001WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009251.D	1		10/01/13	VN100113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	16.9		0.2	0.2	1	ug/L
74-87-3	Chloromethane	18.3		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	18.5		0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	20.9		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	21.2		0.2	0.2	1	ug/L
74-83-9	Bromomethane	17.2		0.2	0.2	1	ug/L
75-00-3	Chloroethane	18		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	17.9		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	18.3		0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	110		0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	19.6		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	18.5		0.2	0.2	1	ug/L
107-02-8	Acrolein	93.4		0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	97.5		1	1	5	ug/L
67-64-1	Acetone	110		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	17.1		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	19.9		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	20.9		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	18.7		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	18.3		0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	98.7		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	18.7		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	18.3		0.2	0.2	1	ug/L
78-93-3	2-Butanone	110		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	19.6		0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	19.6		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	18.9		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	23.7		0.2	0.5	1	ug/L
67-66-3	Chloroform	18.7		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	18.6		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	19.1		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1001WBS01	SDG No.:	E3854
Lab Sample ID:	VN1001WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009251.D	1		10/01/13	VN100113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	19.6		0.39	0.5	1	ug/L
71-43-2	Benzene	19.7		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	18.8		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	20.1		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	20		0.2	0.2	1	ug/L
74-95-3	Dibromomethane	20.1		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	20.5		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	110		1	1	5	ug/L
108-88-3	Toluene	20.6		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	20.4		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	20.6		0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	20.9		0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	20.6		0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	90.7		1	1	5	ug/L
591-78-6	2-Hexanone	120		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	21.5		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	20.8		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	19.8		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	20.1		0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	21.1		0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	20		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	20.1		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	40.5		0.4	0.4	2	ug/L
95-47-6	o-Xylene	20.8		0.2	0.2	1	ug/L
100-42-5	Styrene	20.7		0.2	0.2	1	ug/L
75-25-2	Bromoform	23.6		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	19.5		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.5		0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	23.3		0.2	0.2	1	ug/L
108-86-1	Bromobenzene	20.3		0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	19.3		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	19.3		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1001WBS01	SDG No.:	E3854
Lab Sample ID:	VN1001WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009251.D	1		10/01/13	VN100113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	20		0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	19.2		0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	20.5		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	20.4		0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	20		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	20.1		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	20		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	19.6		0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	19.4		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	20.2		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	22.5		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	22.7		0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	20.7		0.2	0.2	1	ug/L
91-20-3	Naphthalene	23.1		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	23		0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	20.7		0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	16.2		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	18.9		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	20.7		0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	21.1		0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	22		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	43		70 - 120		86%	SPK: 50
1868-53-7	Dibromofluoromethane	48.1		85 - 115		96%	SPK: 50
2037-26-5	Toluene-d8	44.9		85 - 120		90%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.7		75 - 120		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	545572	7.87				
540-36-3	1,4-Difluorobenzene	853237	8.79				
3114-55-4	Chlorobenzene-d5	770015	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	376529	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1001WBS01	SDG No.:	E3854
Lab Sample ID:	VN1001WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009251.D	1		10/01/13	VN100113

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MS	SDG No.:	E3854
Lab Sample ID:	E3854-04MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009202.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	41.9		0.2	0.2	1	ug/L
74-87-3	Chloromethane	41.1		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	44.5		0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	46.1		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	49		0.2	0.2	1	ug/L
74-83-9	Bromomethane	21.2		0.2	0.2	1	ug/L
75-00-3	Chloroethane	44.4		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	44.8		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	43.2		0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	300		0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	47.4		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	45		0.2	0.2	1	ug/L
107-02-8	Acrolein	230		0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	260		1	1	5	ug/L
67-64-1	Acetone	210		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	42.5		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	48.6		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	46.2		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	45.7		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	45.2		0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	230		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	45.5		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	45.4		0.2	0.2	1	ug/L
78-93-3	2-Butanone	250		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	48.1		0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	39.5		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	46.9		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	47.3		0.2	0.5	1	ug/L
67-66-3	Chloroform	45.7		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	45.6		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	44.8		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MS	SDG No.:	E3854
Lab Sample ID:	E3854-04MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009202.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	46.6		0.39	0.5	1	ug/L
71-43-2	Benzene	46.9		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	45.4		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	47		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	47		0.2	0.2	1	ug/L
74-95-3	Dibromomethane	48.1		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	47.2		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	270		1	1	5	ug/L
108-88-3	Toluene	48.4		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	48.2		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	47		0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	49.2		0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	48.1		0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	290		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	50.8		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	50.1		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	43.1		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	48.4		0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	50.3		0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	46.3		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	48.6		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	99		0.4	0.4	2	ug/L
95-47-6	o-Xylene	50.8		0.2	0.2	1	ug/L
100-42-5	Styrene	50.8		0.2	0.2	1	ug/L
75-25-2	Bromoform	55.2		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	47.1		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	48.6		0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	45.3		0.2	0.2	1	ug/L
108-86-1	Bromobenzene	48.1		0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	46.4		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	46.4		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MS	SDG No.:	E3854
Lab Sample ID:	E3854-04MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009202.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	48.2		0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	46.9		0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	49.6		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	48.2		0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	48.6		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	48.7		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	47.7		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	46.9		0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	46		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	47.8		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	54.8		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	53.2		0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	47.2		0.2	0.2	1	ug/L
91-20-3	Naphthalene	60		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	54.4		0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	53.5		0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	22.2		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	44.9		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	50.4		0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	43.4		0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	55.1		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	43.8		61 - 141		88%	SPK: 50
1868-53-7	Dibromofluoromethane	47.9		69 - 133		96%	SPK: 50
2037-26-5	Toluene-d8	45		65 - 126		90%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.3		58 - 135		99%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	520338	7.87				
540-36-3	1,4-Difluorobenzene	842688	8.79				
3114-55-4	Chlorobenzene-d5	770757	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	382065	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MS	SDG No.:	E3854
Lab Sample ID:	E3854-04MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009202.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MSD	SDG No.:	E3854
Lab Sample ID:	E3854-05MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009203.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	45.1		0.2	0.2	1	ug/L
74-87-3	Chloromethane	42.3		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	45.7		0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	46		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	50.9		0.2	0.2	1	ug/L
74-83-9	Bromomethane	28.3		0.2	0.2	1	ug/L
75-00-3	Chloroethane	44.8		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	45.9		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	44.7		0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	290		0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	48.1		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	45.7		0.2	0.2	1	ug/L
107-02-8	Acrolein	220		0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	260		1	1	5	ug/L
67-64-1	Acetone	210		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	43.8		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	50		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	46.1		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	46.3		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	46		0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	240		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	46.5		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	47.5		0.2	0.2	1	ug/L
78-93-3	2-Butanone	260		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	49.9		0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	39.2		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	47.5		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	47.2		0.2	0.5	1	ug/L
67-66-3	Chloroform	46.3		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	46		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	47.5		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MSD	SDG No.:	E3854
Lab Sample ID:	E3854-05MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009203.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	48.5		0.39	0.5	1	ug/L
71-43-2	Benzene	48		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	46.9		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	48.8		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	48.9		0.2	0.2	1	ug/L
74-95-3	Dibromomethane	50.1		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	48.8		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	280		1	1	5	ug/L
108-88-3	Toluene	50		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	49.9		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	48		0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	51		0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	49.2		0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	300		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	52.4		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	50.8		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	44.7		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	49.4		0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	51.4		0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	48.5		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	50.3		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	100		0.4	0.4	2	ug/L
95-47-6	o-Xylene	52.4		0.2	0.2	1	ug/L
100-42-5	Styrene	52.5		0.2	0.2	1	ug/L
75-25-2	Bromoform	57.3		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	48.4		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	49.4		0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	46.4		0.2	0.2	1	ug/L
108-86-1	Bromobenzene	50.1		0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	48.2		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	47.6		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MSD	SDG No.:	E3854
Lab Sample ID:	E3854-05MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009203.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	49.7		0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	48		0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	50.7		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	49.2		0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	50		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	50.2		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	48.9		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	48.4		0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	47.5		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	49.6		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	55.9		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	55.3		0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	48.4		0.2	0.2	1	ug/L
91-20-3	Naphthalene	62.9		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	56.2		0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	54.3		0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	33.7		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	45.4		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	53.4		0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	45.3		0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	57.1		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	42.7		61 - 141		85%	SPK: 50
1868-53-7	Dibromofluoromethane	47.1		69 - 133		94%	SPK: 50
2037-26-5	Toluene-d8	44.6		65 - 126		89%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.6		58 - 135		97%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	528276	7.87				
540-36-3	1,4-Difluorobenzene	843026	8.79				
3114-55-4	Chlorobenzene-d5	771035	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	383452	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MSD	SDG No.:	E3854
Lab Sample ID:	E3854-05MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN009203.D	1		09/27/13	VN092713

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: MSVOA_N Calibration Date(s): 09/23/2013 09/23/2013

Heated Purge: (Y/N) N Calibration Time(s): 20:01 22:21

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF001 = VN009034.D RRF005 = VN009035.D RRF020 = VN009036.D
RRF050 = VN009037.D RRF100 = VN009038.D RRF200 = VN009039.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.542	0.506	0.600	0.540	0.523	0.536	0.541	5.9
Chloromethane	0.659	0.546	0.584	0.503	0.480	0.499	0.545	12.3
Vinyl Chloride	0.760	0.707	0.725	0.663	0.623	0.644	0.687	7.6
Ethyl Acetate	0.287	0.237	0.306	0.243	0.225	0.243	0.257	12.4
Isopropyl Acetate	0.440	0.451	0.460	0.430	0.411	0.447	0.440	4
Bromomethane	0.481	0.452	0.411	0.362	0.364	0.368	0.406	12.5
Chloroethane	0.412	0.346	0.346	0.311	0.303	0.311	0.338	12
Trichlorofluoromethane	0.990	0.886	0.858	0.801	0.758	0.776	0.845	10.2
1,1,2-Trichlorotrifluoroethane	0.531	0.540	0.499	0.454	0.440	0.450	0.486	9
Tert butyl alcohol	0.052	0.045	0.054	0.038	0.035	0.038	0.044	18.6
Diethyl Ether	0.295	0.293	0.301	0.277	0.262	0.278	0.284	5.1
1,1-Dichloroethene	0.572	0.496	0.483	0.455	0.432	0.450	0.481	10.4
Acrolein	0.074	0.072	0.074	0.063	0.065	0.073	0.070	7.2
Acrylonitrile	0.160	0.159	0.181	0.163	0.149	0.166	0.163	6.5
Acetone	0.155	0.146	0.159	0.127	0.113	0.121	0.137	14
Carbon Disulfide	1.525	1.413	1.335	1.266	1.231	1.300	1.345	8
Methyl tert-butyl Ether	1.415	1.393	1.467	1.358	1.299	1.368	1.383	4.1
Methyl Acetate	0.408	0.408	0.430	0.370	0.340	0.369	0.388	8.7
Methylene Chloride	0.621	0.574	0.559	0.507	0.487	0.504	0.542	9.5
trans-1,2-Dichloroethene	0.575	0.562	0.528	0.505	0.489	0.499	0.526	6.7
Vinyl Acetate	0.695	0.756	0.874	0.812	0.776	0.865	0.796	8.6
1,1-Dichloroethane	0.932	0.902	0.872	0.813	0.782	0.818	0.853	6.8
Cyclohexane	1.583	0.905	0.757	0.697	0.671	0.682	0.882	40.1
2-Butanone	0.182	0.181	0.204	0.177	0.163	0.176	0.181	7.4
Carbon Tetrachloride	0.449	0.453	0.454	0.439	0.432	0.446	0.445	1.9
2,2-Dichloropropane	0.768	0.787	0.746	0.701	0.670	0.697	0.728	6.3
cis-1,2-Dichloroethene	0.668	0.628	0.600	0.574	0.555	0.572	0.599	7
Bromochloromethane	0.371	0.366	0.383	0.353	0.345	0.331	0.358	5.3
Chloroform	1.066	1.031	0.959	0.904	0.866	0.891	0.953	8.5
1,1,1-Trichloroethane	0.955	0.878	0.850	0.800	0.773	0.798	0.842	8
Methylcyclohexane	0.538	0.490	0.505	0.497	0.493	0.521	0.507	3.7
1,1-Dichloropropene	0.434	0.453	0.428	0.417	0.409	0.419	0.427	3.7
Benzene	1.328	1.293	1.268	1.203	1.174	1.210	1.246	4.8

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: MSVOA_N Calibration Date(s): 09/23/2013 09/23/2013

Heated Purge: (Y/N) N Calibration Time(s): 20:01 22:21

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF001 = VN009034.D RRF005 = VN009035.D RRF020 = VN009036.D
RRF050 = VN009037.D RRF100 = VN009038.D RRF200 = VN009039.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD
1,2-Dichloroethane	0.444	0.457	0.427	0.390	0.384	0.393	0.416	7.5
Trichloroethene	0.435	0.400	0.378	0.363	0.357	0.368	0.383	7.6
1,2-Dichloropropane	0.341	0.329	0.315	0.301	0.294	0.303	0.314	5.8
Dibromomethane	0.222	0.237	0.230	0.220	0.214	0.219	0.224	3.8
Bromodichloromethane	0.424	0.452	0.430	0.417	0.411	0.428	0.427	3.3
4-Methyl-2-Pentanone	0.225	0.229	0.279	0.239	0.221	0.235	0.238	8.9
Toluene	0.774	0.808	0.800	0.788	0.773	0.818	0.793	2.3
t-1,3-Dichloropropene	0.419	0.441	0.447	0.460	0.453	0.489	0.451	5.1
cis-1,3-Dichloropropene	0.477	0.504	0.496	0.496	0.490	0.519	0.497	2.9
1,1,2-Trichloroethane	0.326	0.349	0.334	0.313	0.304	0.315	0.324	5
1,3-Dichloropropane	0.529	0.555	0.536	0.508	0.486	0.509	0.520	4.7
2-Chloroethyl Vinyl ether	0.095	0.109	0.135	0.142	0.138	0.150	0.128	16.7
2-Hexanone	0.136	0.149	0.167	0.163	0.149	0.158	0.154	7.5
Dibromochloromethane	0.356	0.364	0.363	0.365	0.358	0.382	0.365	2.5
1,2-Dibromoethane	0.333	0.357	0.344	0.334	0.321	0.339	0.338	3.5
Tetrachloroethene	0.449	0.422	0.380	0.342	0.329	0.341	0.377	13
Chlorobenzene	1.101	1.138	1.061	1.023	0.995	1.058	1.063	4.9
1,1,1,2-Tetrachloroethane	0.375	0.376	0.390	0.369	0.364	0.383	0.376	2.5
Hexachloroethane	0.598	0.572	0.567	0.564	0.553	0.584	0.573	2.8
Ethyl Benzene	1.564	1.653	1.614	1.581	1.570	1.698	1.614	3.3
m/p-Xylenes	0.611	0.636	0.637	0.632	0.626	0.678	0.637	3.5
o-Xylene	0.550	0.610	0.624	0.617	0.614	0.667	0.614	6.1
Styrene	0.846	0.898	0.961	0.992	0.996	1.083	0.963	8.6
Bromoform	0.235	0.262	0.277	0.275	0.267	0.286	0.267	6.7
Isopropylbenzene	3.361	3.613	3.490	3.366	3.343	3.725	3.483	4.5
1,1,2,2-Tetrachloroethane	1.115	1.063	0.997	0.917	0.831	0.868	0.965	11.6
1,2,3-Trichloropropane	0.816	0.872	0.742	0.665	0.612	0.705	0.735	13.1
Bromobenzene	0.951	1.008	0.941	0.895	0.865	0.940	0.933	5.3
n-propylbenzene	3.740	3.901	3.902	3.723	3.728	4.106	3.850	3.9
2-Chlorotoluene	2.482	2.378	2.345	2.217	2.172	2.345	2.323	4.8
1,3,5-Trimethylbenzene	2.561	2.803	2.821	2.654	2.613	2.830	2.714	4.4
4-Chlorotoluene	2.302	2.328	2.287	2.174	2.159	2.339	2.265	3.5
tert-Butylbenzene	2.140	2.509	2.482	2.374	2.355	2.554	2.402	6.2

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: MSVOA_N Calibration Date(s): 09/23/2013 09/23/2013

Heated Purge: (Y/N) N Calibration Time(s): 20:01 22:21

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF001 = VN009034.D RRF005 = VN009035.D RRF020 = VN009036.D
RRF050 = VN009037.D RRF100 = VN009038.D RRF200 = VN009039.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD
1,2,4-Trimethylbenzene	2.659	2.962	2.930	2.742	2.675	2.849	2.803	4.6
sec-Butylbenzene	2.935	3.388	3.437	3.289	3.281	3.543	3.312	6.3
p-Isopropyltoluene	2.528	2.786	2.895	2.760	2.781	3.019	2.795	5.8
1,3-Dichlorobenzene	1.819	1.805	1.690	1.615	1.579	1.692	1.700	5.7
1,4-Dichlorobenzene	1.968	1.847	1.696	1.617	1.574	1.657	1.727	8.7
n-Butylbenzene	2.609	2.513	2.477	2.345	2.336	2.526	2.468	4.4
1,2-Dichlorobenzene	1.837	1.764	1.639	1.567	1.505	1.568	1.647	7.8
1,2-Dibromo-3-Chloropropane	0.137	0.141	0.159	0.147	0.132	0.141	0.143	6.6
1,2,4-Trichlorobenzene	0.896	0.947	1.035	0.977	0.926	1.004	0.964	5.3
Hexachlorobutadiene	0.484	0.507	0.453	0.404	0.387	0.406	0.440	11
Naphthalene	1.717	1.930	2.363	2.414	2.253	2.497	2.196	14
1,2,3-Trichlorobenzene	0.767	0.871	0.976	0.907	0.879	0.968	0.895	8.6
1,2-Dichloroethane-d4	0.631	0.590	0.534	0.486	0.461	0.444	0.524	14.2
Dibromofluoromethane	0.329	0.337	0.318	0.299	0.293	0.283	0.310	6.8
Toluene-d8	1.263	1.249	1.030	0.987	0.973	0.967	1.078	13
4-Bromofluorobenzene	0.422	0.393	0.361	0.359	0.361	0.346	0.374	7.6
N-amyl acetate	0.718	0.787	0.806	0.834	0.797	0.921	0.810	8.2
Methyl Iodide	0.219	0.357	0.497	0.606	0.638	0.666	0.497	35.6
Allyl chloride	0.566	0.518	0.518	0.493	0.479	0.504	0.513	5.8
trans-1,4-Dichloro-2-butene	0.251	0.238	0.254	0.273	0.256	0.299	0.262	8.2
Methacrylonitrile	0.131	0.136	0.152	0.137	0.133	0.142	0.138	5.6
Ethyl methacrylate	0.308	0.325	0.368	0.386	0.377	0.407	0.362	10.5

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: MSVOA_N Calibration Date/Time: 09/27/2013 11:55

Lab File ID: VN009182.D Init. Calib. Date(s): 09/23/2013 09/23/2013

Heated Purge: (Y/N) N Init. Calib. Time(s): 20:01 22:21

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.541	0.512		-5.36	20
Chloromethane	0.545	0.506	0.1	-7.16	20
Vinyl Chloride	0.687	0.638		-7.13	20
Ethyl Acetate	0.257	0.251		-2.34	20
Isopropyl Acetate	0.440	0.455		3.41	20
Bromomethane	0.406	0.337		-17	20
Chloroethane	0.338	0.303		-10.35	20
Trichlorofluoromethane	0.845	0.797		-5.68	20
1,1,2-Trichlorotrifluoroethane	0.486	0.480		-1.24	20
Tert butyl alcohol	0.044	0.041		-6.82	20
Diethyl Ether	0.284	0.271		-4.58	20
1,1-Dichloroethene	0.481	0.448		-6.86	20
Acrolein	0.070	0.068		-2.86	20
Acrylonitrile	0.163	0.159		-2.45	20
Acetone	0.137	0.141		2.92	20
Carbon Disulfide	1.345	1.201		-10.71	20
Methyl tert-butyl Ether	1.383	1.350		-2.39	20
Methyl Acetate	0.388	0.363		-6.44	20
Methylene Chloride	0.542	0.500		-7.75	20
trans-1,2-Dichloroethene	0.526	0.499		-5.13	20
Vinyl Acetate	0.796	0.807		1.38	20
1,1-Dichloroethane	0.853	0.800	0.1	-6.21	20
Cyclohexane	0.882	0.694		-21.32	20
2-Butanone	0.181	0.184		1.66	20
Carbon Tetrachloride	0.445	0.472		6.07	20
2,2-Dichloropropane	0.728	0.754		3.57	20
cis-1,2-Dichloroethene	0.599	0.574		-4.17	20
Bromochloromethane	0.358	0.335		-6.43	20
Chloroform	0.953	0.898		-5.77	20
1,1,1-Trichloroethane	0.842	0.792		-5.94	20
Methylcyclohexane	0.507	0.553		9.07	20
1,1-Dichloropropene	0.427	0.445		4.22	20
Benzene	1.246	1.269		1.85	20
1,2-Dichloroethane	0.416	0.411		-1.2	20
Trichloroethene	0.383	0.403		5.22	20
1,2-Dichloropropane	0.314	0.319		1.59	20
Dibromomethane	0.224	0.234		4.46	20
Bromodichloromethane	0.427	0.444		3.98	20
4-Methyl-2-Pentanone	0.238	0.255		7.14	20
Toluene	0.793	0.849		7.06	20
t-1,3-Dichloropropene	0.451	0.491		8.87	20
cis-1,3-Dichloropropene	0.497	0.539		8.45	20

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: MSVOA_N Calibration Date/Time: 09/27/2013 11:55

Lab File ID: VN009182.D Init. Calib. Date(s): 09/23/2013 09/23/2013

Heated Purge: (Y/N) N Init. Calib. Time(s): 20:01 22:21

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
1,1,2-Trichloroethane	0.324	0.343		5.86	20
1,3-Dichloropropane	0.520	0.541		4.04	20
2-Chloroethyl Vinyl ether	0.128	0.124		-3.13	20
2-Hexanone	0.154	0.183		18.83	20
Dibromochloromethane	0.365	0.402		10.14	20
1,2-Dibromoethane	0.338	0.361		6.8	20
Tetrachloroethene	0.377	0.400		6.1	20
Chlorobenzene	1.063	1.119	0.3	5.27	20
1,1,1,2-Tetrachloroethane	0.376	0.404		7.45	20
Hexachloroethane	0.573	0.598		4.36	20
Ethyl Benzene	1.614	1.730		7.19	20
m/p-Xylenes	0.637	0.699		9.73	20
o-Xylene	0.614	0.686		11.73	20
Styrene	0.963	1.092		13.4	20
Bromoform	0.267	0.306	0.1	14.61	20
Isopropylbenzene	3.483	3.593		3.16	20
1,1,2,2-Tetrachloroethane	0.965	0.921	0.3	-4.56	20
1,2,3-Trichloropropane	0.735	0.742		0.95	20
Bromobenzene	0.933	0.961		3	20
n-propylbenzene	3.850	4.005		4.03	20
2-Chlorotoluene	2.323	2.335		0.52	20
1,3,5-Trimethylbenzene	2.714	2.850		5.01	20
4-Chlorotoluene	2.265	2.317		2.3	20
tert-Butylbenzene	2.402	2.538		5.66	20
1,2,4-Trimethylbenzene	2.803	2.950		5.24	20
sec-Butylbenzene	3.312	3.599		8.66	20
p-Isopropyltoluene	2.795	3.051		9.16	20
1,3-Dichlorobenzene	1.700	1.777		4.53	20
1,4-Dichlorobenzene	1.727	1.774		2.72	20
n-Butylbenzene	2.468	2.620		6.2	20
1,2-Dichlorobenzene	1.647	1.685		2.31	20
1,2-Dibromo-3-Chloropropane	0.143	0.152		6.29	20
1,2,4-Trichlorobenzene	0.964	1.115		15.66	20
Hexachlorobutadiene	0.440	0.481		9.32	20
Naphthalene	2.196	2.611		18.9	20
1,2,3-Trichlorobenzene	0.895	1.025		14.52	20
1,2-Dichloroethane-d4	0.524	0.454		-13.36	20
Dibromofluoromethane	0.310	0.315		1.61	20
Toluene-d8	1.078	1.042		-3.34	20
4-Bromofluorobenzene	0.374	0.401		7.22	20
N-amyl acetate	0.810	0.861		6.3	20
Methyl Iodide	0.497	0.544		9.46	20

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: MSVOA_N Calibration Date/Time: 09/27/2013 11:55

Lab File ID: VN009182.D Init. Calib. Date(s): 09/23/2013 09/23/2013

Heated Purge: (Y/N) N Init. Calib. Time(s): 20:01 22:21

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Allyl chloride	0.513	0.477		-7.02	20
trans-1,4-Dichloro-2-butene	0.262	0.277		5.72	20
Methacrylonitrile	0.138	0.143		3.62	20
Ethyl methacrylate	0.362	0.415		14.64	20

All other compounds must meet a minimum RRF of 0.010.

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: MSVOA_N Calibration Date/Time: 09/30/2013 16:32

Lab File ID: VN009226.D Init. Calib. Date(s): 09/23/2013 09/23/2013

Heated Purge: (Y/N) N Init. Calib. Time(s): 20:01 22:21

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.541	0.503		-7.02	20
Chloromethane	0.545	0.482	0.1	-11.56	20
Vinyl Chloride	0.687	0.629		-8.44	20
Ethyl Acetate	0.257	0.242		-5.84	20
Isopropyl Acetate	0.440	0.433		-1.59	20
Bromomethane	0.406	0.330		-18.72	20
Chloroethane	0.338	0.304		-10.06	20
Trichlorofluoromethane	0.845	0.788		-6.75	20
1,1,2-Trichlorotrifluoroethane	0.486	0.444		-8.64	20
Tert butyl alcohol	0.044	0.035		-20.45	20
Diethyl Ether	0.284	0.257		-9.51	20
1,1-Dichloroethene	0.481	0.413		-14.14	20
Acrolein	0.070	0.070		0	20
Acrylonitrile	0.163	0.148		-9.2	20
Acetone	0.137	0.132		-3.65	20
Carbon Disulfide	1.345	1.123		-16.51	20
Methyl tert-butyl Ether	1.383	1.242		-10.19	20
Methyl Acetate	0.388	0.337		-13.14	20
Methylene Chloride	0.542	0.480		-11.44	20
trans-1,2-Dichloroethene	0.526	0.458		-12.93	20
Vinyl Acetate	0.796	0.730		-8.29	20
1,1-Dichloroethane	0.853	0.735	0.1	-13.83	20
Cyclohexane	0.882	0.642		-27.21	20
2-Butanone	0.181	0.168		-7.18	20
Carbon Tetrachloride	0.445	0.451		1.35	20
2,2-Dichloropropane	0.728	0.684		-6.04	20
cis-1,2-Dichloroethene	0.599	0.534		-10.85	20
Bromochloromethane	0.358	0.327		-8.66	20
Chloroform	0.953	0.825		-13.43	20
1,1,1-Trichloroethane	0.842	0.737		-12.47	20
Methylcyclohexane	0.507	0.538		6.11	20
1,1-Dichloropropene	0.427	0.428		0.23	20
Benzene	1.246	1.225		-1.68	20
1,2-Dichloroethane	0.416	0.389		-6.49	20
Trichloroethene	0.383	0.386		0.78	20
1,2-Dichloropropane	0.314	0.312		-0.64	20
Dibromomethane	0.224	0.220		-1.79	20
Bromodichloromethane	0.427	0.430		0.7	20
4-Methyl-2-Pentanone	0.238	0.239		0.42	20
Toluene	0.793	0.813		2.52	20
t-1,3-Dichloropropene	0.451	0.482		6.87	20
cis-1,3-Dichloropropene	0.497	0.519		4.43	20

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: MSVOA_N Calibration Date/Time: 09/30/2013 16:32

Lab File ID: VN009226.D Init. Calib. Date(s): 09/23/2013 09/23/2013

Heated Purge: (Y/N) N Init. Calib. Time(s): 20:01 22:21

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
1,1,2-Trichloroethane	0.324	0.326		0.93	20
1,3-Dichloropropane	0.520	0.516		-0.77	20
2-Chloroethyl Vinyl ether	0.128	0.170		32.81	20
2-Hexanone	0.154	0.169		9.74	20
Dibromochloromethane	0.365	0.387		6.03	20
1,2-Dibromoethane	0.338	0.342		1.18	20
Tetrachloroethene	0.377	0.388		2.92	20
Chlorobenzene	1.063	1.081	0.3	1.69	20
1,1,1,2-Tetrachloroethane	0.376	0.393		4.52	20
Hexachloroethane	0.573	0.593		3.49	20
Ethyl Benzene	1.614	1.660		2.85	20
m/p-Xylenes	0.637	0.665		4.4	20
o-Xylene	0.614	0.654		6.51	20
Styrene	0.963	1.049		8.93	20
Bromoform	0.267	0.312	0.1	16.85	20
Isopropylbenzene	3.483	3.409		-2.13	20
1,1,2,2-Tetrachloroethane	0.965	0.873	0.3	-9.53	20
1,2,3-Trichloropropane	0.735	0.695		-5.44	20
Bromobenzene	0.933	0.936		0.32	20
n-propylbenzene	3.850	3.798		-1.35	20
2-Chlorotoluene	2.323	2.224		-4.26	20
1,3,5-Trimethylbenzene	2.714	2.715		0.04	20
4-Chlorotoluene	2.265	2.201		-2.83	20
tert-Butylbenzene	2.402	2.442		1.66	20
1,2,4-Trimethylbenzene	2.803	2.828		0.89	20
sec-Butylbenzene	3.312	3.402		2.72	20
p-Isopropyltoluene	2.795	2.924		4.61	20
1,3-Dichlorobenzene	1.700	1.705		0.29	20
1,4-Dichlorobenzene	1.727	1.693		-1.97	20
n-Butylbenzene	2.468	2.525		2.35	20
1,2-Dichlorobenzene	1.647	1.626		-1.27	20
1,2-Dibromo-3-Chloropropane	0.143	0.140		-2.1	20
1,2,4-Trichlorobenzene	0.964	1.116		15.77	20
Hexachlorobutadiene	0.440	0.504		14.55	20
Naphthalene	2.196	2.485		13.16	20
1,2,3-Trichlorobenzene	0.895	1.024		14.41	20
1,2-Dichloroethane-d4	0.524	0.413		-21.18	20
Dibromofluoromethane	0.310	0.292		-5.81	20
Toluene-d8	1.078	0.978		-9.28	20
4-Bromofluorobenzene	0.374	0.370		-1.07	20
N-amyl acetate	0.810	0.806		-0.49	20
Methyl Iodide	0.497	0.519		4.43	20

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: MSVOA_N Calibration Date/Time: 09/30/2013 16:32

Lab File ID: VN009226.D Init. Calib. Date(s): 09/23/2013 09/23/2013

Heated Purge: (Y/N) N Init. Calib. Time(s): 20:01 22:21

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Allyl chloride	0.513	0.459		-10.53	20
trans-1,4-Dichloro-2-butene	0.262	0.272		3.82	20
Methacrylonitrile	0.138	0.140		1.45	20
Ethyl methacrylate	0.362	0.396		9.39	20

All other compounds must meet a minimum RRF of 0.010.

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: MSVOA_N Calibration Date/Time: 10/01/2013 10:13

Lab File ID: VN009249.D Init. Calib. Date(s): 09/23/2013 09/23/2013

Heated Purge: (Y/N) N Init. Calib. Time(s): 20:01 22:21

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.541	0.521		-3.7	20
Chloromethane	0.545	0.528	0.1	-3.12	20
Vinyl Chloride	0.687	0.665		-3.2	20
Ethyl Acetate	0.257	0.238		-7.39	20
Isopropyl Acetate	0.440	0.438		-0.46	20
Bromomethane	0.406	0.355		-12.56	20
Chloroethane	0.338	0.332		-1.77	20
Trichlorofluoromethane	0.845	0.853		0.95	20
1,1,2-Trichlorotrifluoroethane	0.486	0.452		-7	20
Tert butyl alcohol	0.044	0.038		-13.64	20
Diethyl Ether	0.284	0.260		-8.45	20
1,1-Dichloroethene	0.481	0.415		-13.72	20
Acrolein	0.070	0.070		0	20
Acrylonitrile	0.163	0.148		-9.2	20
Acetone	0.137	0.149		8.76	20
Carbon Disulfide	1.345	1.111		-17.4	20
Methyl tert-butyl Ether	1.383	1.267		-8.39	20
Methyl Acetate	0.388	0.345		-11.08	20
Methylene Chloride	0.542	0.471		-13.1	20
trans-1,2-Dichloroethene	0.526	0.460		-12.55	20
Vinyl Acetate	0.796	0.758		-4.77	20
1,1-Dichloroethane	0.853	0.746	0.1	-12.54	20
Cyclohexane	0.882	0.637		-27.78	20
2-Butanone	0.181	0.176		-2.76	20
Carbon Tetrachloride	0.445	0.450		1.12	20
2,2-Dichloropropane	0.728	0.697		-4.26	20
cis-1,2-Dichloroethene	0.599	0.531		-11.35	20
Bromochloromethane	0.358	0.337		-5.87	20
Chloroform	0.953	0.830		-12.91	20
1,1,1-Trichloroethane	0.842	0.738		-12.35	20
Methylcyclohexane	0.507	0.531		4.73	20
1,1-Dichloropropene	0.427	0.421		-1.4	20
Benzene	1.246	1.222		-1.93	20
1,2-Dichloroethane	0.416	0.395		-5.05	20
Trichloroethene	0.383	0.386		0.78	20
1,2-Dichloropropane	0.314	0.314		0	20
Dibromomethane	0.224	0.221		-1.34	20
Bromodichloromethane	0.427	0.432		1.17	20
4-Methyl-2-Pentanone	0.238	0.244		2.52	20
Toluene	0.793	0.812		2.4	20
t-1,3-Dichloropropene	0.451	0.480		6.43	20
cis-1,3-Dichloropropene	0.497	0.522		5.03	20

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: MSVOA_N Calibration Date/Time: 10/01/2013 10:13

Lab File ID: VN009249.D Init. Calib. Date(s): 09/23/2013 09/23/2013

Heated Purge: (Y/N) N Init. Calib. Time(s): 20:01 22:21

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
1,1,2-Trichloroethane	0.324	0.323		-0.31	20
1,3-Dichloropropane	0.520	0.512		-1.54	20
2-Chloroethyl Vinyl ether	0.128	0.130		1.56	20
2-Hexanone	0.154	0.174		12.99	20
Dibromochloromethane	0.365	0.387		6.03	20
1,2-Dibromoethane	0.338	0.339		0.3	20
Tetrachloroethene	0.377	0.381		1.06	20
Chlorobenzene	1.063	1.087	0.3	2.26	20
1,1,1,2-Tetrachloroethane	0.376	0.401		6.65	20
Hexachloroethane	0.573	0.585		2.09	20
Ethyl Benzene	1.614	1.684		4.34	20
m/p-Xylenes	0.637	0.678		6.44	20
o-Xylene	0.614	0.667		8.63	20
Styrene	0.963	1.066		10.7	20
Bromoform	0.267	0.315	0.1	17.98	20
Isopropylbenzene	3.483	3.409		-2.13	20
1,1,2,2-Tetrachloroethane	0.965	0.875	0.3	-9.33	20
1,2,3-Trichloropropane	0.735	0.691		-5.99	20
Bromobenzene	0.933	0.946		1.39	20
n-propylbenzene	3.850	3.807		-1.12	20
2-Chlorotoluene	2.323	2.251		-3.1	20
1,3,5-Trimethylbenzene	2.714	2.722		0.29	20
4-Chlorotoluene	2.265	2.216		-2.16	20
tert-Butylbenzene	2.402	2.472		2.91	20
1,2,4-Trimethylbenzene	2.803	2.850		1.68	20
sec-Butylbenzene	3.312	3.422		3.32	20
p-Isopropyltoluene	2.795	2.939		5.15	20
1,3-Dichlorobenzene	1.700	1.715		0.88	20
1,4-Dichlorobenzene	1.727	1.699		-1.62	20
n-Butylbenzene	2.468	2.517		2.03	20
1,2-Dichlorobenzene	1.647	1.629		-1.09	20
1,2-Dibromo-3-Chloropropane	0.143	0.140		-2.1	20
1,2,4-Trichlorobenzene	0.964	1.115		15.66	20
Hexachlorobutadiene	0.440	0.504		14.55	20
Naphthalene	2.196	2.469		12.43	20
1,2,3-Trichlorobenzene	0.895	1.001		11.84	20
1,2-Dichloroethane-d4	0.524	0.405		-22.71	20
Dibromofluoromethane	0.310	0.290		-6.45	20
Toluene-d8	1.078	0.954		-11.5	20
4-Bromofluorobenzene	0.374	0.369		-1.34	20
N-amyl acetate	0.810	0.820		1.24	20
Methyl Iodide	0.497	0.543		9.26	20

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: MSVOA_N Calibration Date/Time: 10/01/2013 10:13

Lab File ID: VN009249.D Init. Calib. Date(s): 09/23/2013 09/23/2013

Heated Purge: (Y/N) N Init. Calib. Time(s): 20:01 22:21

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Allyl chloride	0.513	0.465		-9.36	20
trans-1,4-Dichloro-2-butene	0.262	0.279		6.49	20
Methacrylonitrile	0.138	0.139		0.73	20
Ethyl methacrylate	0.362	0.398		9.94	20

All other compounds must meet a minimum RRF of 0.010.

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LAB CHRONICLE

OrderID:	E3854	**OrderDate:**	9/25/2013 5:28:00 PM
Client:	Cardno ATC	**Project:**	Avalon- WP9
Contact:	John Mascioli	**Location:**	Extraction Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
E3854-01	**MW-2-Q3-2013**	**Water**			**09/24/13**			**09/25/13**
			SVOC- Chemtech Full	625		09/26/13	09/27/13	
E3854-01DL	**MW-2-Q3-2013DL**	**Water**			**09/24/13**			**09/25/13**
			SVOC- Chemtech Full	625		09/26/13	09/28/13	
E3854-02	**MW-8-Q3-2013**	**Water**			**09/24/13**			**09/25/13**
			SVOC- Chemtech Full	625		09/26/13	09/27/13	
E3854-02DL	**MW-8-Q3-2013DL**	**Water**			**09/24/13**			**09/25/13**
			SVOC- Chemtech Full	625		09/26/13	09/28/13	
E3854-02DL2	**MW-8-Q3-2013DL2**	**Water**			**09/24/13**			**09/25/13**
			SVOC- Chemtech Full	625		09/26/13	09/28/13	
E3854-03	**MW-11R-Q3-2013**	**Water**			**09/24/13**			**09/25/13**
			SVOC- Chemtech Full	625		09/26/13	09/27/13	
E3854-06	**MW-12R-Q3-2013**	**Water**			**09/24/13**			**09/25/13**
			SVOC- Chemtech Full	625		09/26/13	09/27/13	
E3854-07	**MW-14-Q3-2013**	**Water**			**09/24/13**			**09/25/13**
			SVOC- Chemtech Full	625		09/26/13	09/27/13	
E3854-08	**MW-15-Q3-2013**	**Water**			**09/24/13**			**09/25/13**
			SVOC- Chemtech Full	625		09/26/13	09/27/13	
E3854-09	**MW-16-Q3-2013**	**Water**			**09/24/13**			**09/25/13**
			SVOC- Chemtech Full	625		09/26/13	09/28/13	
E3854-10	**FBQ3-2013**	**Water**			**09/24/13**			**09/25/13**
			SVOC- Chemtech Full	625		09/26/13	09/28/13	
E3854-11	**DUPQ3-2013**	**Water**			**09/24/13**			**09/25/13**

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LAB CHRONICLE

SVOC- Chemtech Full	625	09/26/13	09/28/13

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Hit Summary Sheet
SW-846

SDG No.: E3854

Client: Cardno ATC

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : DUPQ3-2013									
E3854-11	DUPQ3-2013	WATER	Naphthalene	1.400	J	0.19	1.3	2.5	ug/L
E3854-11	DUPQ3-2013	WATER	Caprolactam	3.600	J	2	5	10	ug/L
E3854-11	DUPQ3-2013	WATER	Dimethylphthalate	5.600		0.17	1.3	2.5	ug/L
E3854-11	DUPQ3-2013	WATER	Acenaphthene	25.700		0.17	1.3	2.5	ug/L
E3854-11	DUPQ3-2013	WATER	Dibenzofuran	17.600		2.1	5	10	ug/L
E3854-11	DUPQ3-2013	WATER	Carbazole	6.500	Q	0.47	1.3	2.5	ug/L
E3854-11	DUPQ3-2013	WATER	Bis(2-ethylhexyl)phthalate	1.200	J	0.29	1.3	2.5	ug/L
			Total Svoc :		**61.60**				
			Total Concentration:		**61.60**				
Client ID : MW-14-Q3-2013									
E3854-07	MW-14-Q3-2013	WATER	Naphthalene	2.100	J	0.19	1.3	2.5	ug/L
E3854-07	MW-14-Q3-2013	WATER	2-Methylnaphthalene	3.200		0.19	1.3	2.5	ug/L
E3854-07	MW-14-Q3-2013	WATER	Acenaphthene	24.600		0.17	1.3	2.5	ug/L
E3854-07	MW-14-Q3-2013	WATER	Fluorene	6.800	Q	0.15	1.3	2.5	ug/L
E3854-07	MW-14-Q3-2013	WATER	Phenanthrene	3.600		0.11	1.3	2.5	ug/L
E3854-07	MW-14-Q3-2013	WATER	Carbazole	1.600	JQ	0.47	1.3	2.5	ug/L
			Total Svoc :		**41.90**				
			Total Concentration:		**41.90**				
Client ID : MW-15-Q3-2013									
E3854-08	MW-15-Q3-2013	WATER	Caprolactam	3.400	J	2	5.1	10.2	ug/L
E3854-08	MW-15-Q3-2013	WATER	Dimethylphthalate	4.400		0.17	1.3	2.6	ug/L
E3854-08	MW-15-Q3-2013	WATER	Acenaphthene	22.100		0.17	1.3	2.6	ug/L
E3854-08	MW-15-Q3-2013	WATER	Dibenzofuran	15.200		2.2	5.1	10.2	ug/L
E3854-08	MW-15-Q3-2013	WATER	Carbazole	5.600	Q	0.48	1.3	2.6	ug/L
			Total Svoc :		**50.70**				
			Total Concentration:		**50.70**				
Client ID : MW-16-Q3-2013									
E3854-09	MW-16-Q3-2013	WATER	Caprolactam	2.400	J	2.1	5.2	10.3	ug/L
E3854-09	MW-16-Q3-2013	WATER	Dimethylphthalate	3.400		0.18	1.3	2.6	ug/L
			Total Svoc :		**5.80**				
			Total Concentration:		**5.80**				
Client ID : MW-2-Q3-2013									
E3854-01	MW-2-Q3-2013	WATER	Naphthalene	8.600		0.19	1.3	2.5	ug/L
E3854-01	MW-2-Q3-2013	WATER	1,1-Biphenyl	1.300	J	0.26	1.3	2.5	ug/L
E3854-01	MW-2-Q3-2013	WATER	Dimethylphthalate	5.200		0.17	1.3	2.5	ug/L
E3854-01	MW-2-Q3-2013	WATER	Acenaphthene	47.700		0.17	1.3	2.5	ug/L
E3854-01	MW-2-Q3-2013	WATER	Dibenzofuran	25.200		2.1	5.1	10.1	ug/L

Hit Summary Sheet
SW-846

SDG No.: E3854

Client: Cardno ATC

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
E3854-01	MW-2-Q3-2013	WATER	Fluorene	12.400	Q	0.15	1.3	2.5	ug/L
E3854-01	MW-2-Q3-2013	WATER	Phenanthrene	2.400	J	0.11	1.3	2.5	ug/L
E3854-01	MW-2-Q3-2013	WATER	Anthracene	1.200	J	0.3	1.3	2.5	ug/L
E3854-01	MW-2-Q3-2013	WATER	Carbazole	100.000	EQ	0.47	1.3	2.5	ug/L
			Total Svoc :	**204.00**					
			Total Concentration:	**204.00**					
Client ID :	**MW-2-Q3-2013DL**								
E3854-01DL	MW-2-Q3-2013DL	WATER	Naphthalene	9.000	JD	0.96	6.3	12.6	ug/L
E3854-01DL	MW-2-Q3-2013DL	WATER	Dimethylphthalate	5.200	JD	0.86	6.3	12.6	ug/L
E3854-01DL	MW-2-Q3-2013DL	WATER	Acenaphthene	49.100	D	0.86	6.3	12.6	ug/L
E3854-01DL	MW-2-Q3-2013DL	WATER	Dibenzofuran	25.100	JD	10.7	25.3	50.5	ug/L
E3854-01DL	MW-2-Q3-2013DL	WATER	Fluorene	12.100	JDQ	0.76	6.3	12.6	ug/L
E3854-01DL	MW-2-Q3-2013DL	WATER	Carbazole	100.000	DQ	2.4	6.3	12.6	ug/L
			Total Svoc :	**200.50**					
			Total Concentration:	**200.50**					
Client ID :	**MW-8-Q3-2013**								
E3854-02	MW-8-Q3-2013	WATER	Phenol	2.100	J	0.46	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	2-Methylphenol	5.700	J	1.8	5.1	10.1	ug/L
E3854-02	MW-8-Q3-2013	WATER	Acetophenone	9.900		0.2	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	3+4-Methylphenols	2.900		0.59	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	2,4-Dimethylphenol	7.200		0.71	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	Naphthalene	820.000	E	0.19	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	2-Methylnaphthalene	7.400		0.19	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	1,1-Biphenyl	97.400	E	0.26	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	Dimethylphthalate	2.600		0.17	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	Acenaphthylene	2.100	J	0.16	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	Acenaphthene	190.000	E	0.17	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	Dibenzofuran	140.000	E	2.1	5.1	10.1	ug/L
E3854-02	MW-8-Q3-2013	WATER	Fluorene	70.800	EQ	0.15	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	Phenanthrene	37.900		0.11	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	Anthracene	6.400		0.3	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	Carbazole	130.000	EQ	0.47	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	Fluoranthene	1.400	J	0.85	1.3	2.5	ug/L
E3854-02	MW-8-Q3-2013	WATER	1,4-Dioxane	10.300	Q	5.1	5.1	10.1	ug/L
			Total Svoc :	**1,544.10**					
			Total Concentration:	**1,544.10**					
Client ID :	**MW-8-Q3-2013DL**								
E3854-02DL	MW-8-Q3-2013DL	WATER	Acetophenone	7.600	JD	1	6.3	12.6	ug/L
E3854-02DL	MW-8-Q3-2013DL	WATER	Naphthalene	1,000.000	ED	0.96	6.3	12.6	ug/L
E3854-02DL	MW-8-Q3-2013DL	WATER	2-Methylnaphthalene	5.400	JD	0.96	6.3	12.6	ug/L
E3854-02DL	MW-8-Q3-2013DL	WATER	1,1-Biphenyl	110.000	D	1.3	6.3	12.6	ug/L

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Hit Summary Sheet
SW-846

SDG No.: E3854

Client: Cardno ATC

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
E3854-02DL	MW-8-Q3-2013DL	WATER	Acenaphthene	230.000	D	0.86	6.3	12.6	ug/L
E3854-02DL	MW-8-Q3-2013DL	WATER	Dibenzofuran	160.000	D	10.7	25.3	50.5	ug/L
E3854-02DL	MW-8-Q3-2013DL	WATER	Fluorene	80.700	DQ	0.76	6.3	12.6	ug/L
E3854-02DL	MW-8-Q3-2013DL	WATER	Phenanthrene	41.400	D	0.56	6.3	12.6	ug/L
E3854-02DL	MW-8-Q3-2013DL	WATER	Anthracene	8.700	JD	1.5	6.3	12.6	ug/L
E3854-02DL	MW-8-Q3-2013DL	WATER	Carbazole	140.000	DQ	2.4	6.3	12.6	ug/L
			Total Svoc :	**1,783.80**					
			Total Concentration:	**1,783.80**					

Client ID : MW-8-Q3-2013DL2

E3854-02DL2	MW-8-Q3-2013DL2	WATER	Naphthalene	1,300.000	D	9.6	63.1	130	ug/L
E3854-02DL2	MW-8-Q3-2013DL2	WATER	1,1-Biphenyl	110.000	JD	13.1	63.1	130	ug/L
E3854-02DL2	MW-8-Q3-2013DL2	WATER	Acenaphthene	240.000	D	8.6	63.1	130	ug/L
E3854-02DL2	MW-8-Q3-2013DL2	WATER	Dibenzofuran	160.000	JD	110	250	510	ug/L
E3854-02DL2	MW-8-Q3-2013DL2	WATER	Fluorene	75.300	JDQ	7.6	63.1	130	ug/L
E3854-02DL2	MW-8-Q3-2013DL2	WATER	Carbazole	130.000	DQ	23.7	63.1	130	ug/L
			Total Svoc :	**2,015.30**					
			Total Concentration:	**2,015.30**					

SAMPLE DATA

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-01	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050743.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.1	ug/L
110-86-1	Pyridine	5.9	UQ	5.9	12.6	25.3	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.1	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.1	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5.1	10.1	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5.1	10.1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.6	25.3	ug/L
91-20-3	Naphthalene	8.6		0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.1	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.1	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5.1	10.1	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-01	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050743.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.1	10.1	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5.1	10.1	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.1	ug/L
92-52-4	1,1-Biphenyl	1.3	J	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	UQ	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.1	ug/L
131-11-3	Dimethylphthalate	5.2		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5.1	10.1	ug/L
83-32-9	Acenaphthene	47.7		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.6	25.3	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.1	ug/L
132-64-9	Dibenzofuran	25.2		2.1	5.1	10.1	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5.1	10.1	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	12.4	Q	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	UQ	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.1	ug/L
86-30-6	n-Nitrosodiphenylamine	0.81	U	0.81	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.1	ug/L
85-01-8	Phenanthrene	2.4	J	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	1.2	J	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	100	EQ	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.85	U	0.85	1.3	2.5	ug/L
92-87-5	Benzidine	8.8	U	8.8	12.6	25.3	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

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Report of Analysis

Client:	Cardno ATC			Date Collected:	09/24/13
Project:	Avalon- WP9			Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013			SDG No.:	E3854
Lab Sample ID:	E3854-01			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050743.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5.1	10.1	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	UQ	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	UQ	5.1	5.1	10.1	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.1	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	33		10 - 160		33%	SPK: 100
13127-88-3	Phenol-d6	19		10 - 161		19%	SPK: 100
4165-60-0	Nitrobenzene-d5	77.1		25 - 124		77%	SPK: 100
321-60-8	2-Fluorobiphenyl	78.8		20 - 129		79%	SPK: 100
118-79-6	2,4,6-Tribromophenol	86.8		10 - 140		87%	SPK: 100
1718-51-0	Terphenyl-d14	80.3		14 - 155		80%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	74477	6.66				
1146-65-2	Naphthalene-d8	289088	8.53				
15067-26-2	Acenaphthene-d10	168369	11.2				
1517-22-2	Phenanthrene-d10	320084	13.95				
1719-03-5	Chrysene-d12	258178	19.52				
1520-96-3	Perylene-d12	132147	22.47				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	09/24/13
Project:	Avalon- WP9			Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013			SDG No.:	E3854
Lab Sample ID:	E3854-01			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050743.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-01DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050754.D	5	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	13.5	UD	13.5	25.3	50.5	ug/L
110-86-1	Pyridine	29.6	UDQ	29.6	63.1	130	ug/L
100-52-7	Benzaldehyde	1.4	UD	1.4	6.3	12.6	ug/L
62-53-3	Aniline	19.5	UDQ	19.5	25.3	50.5	ug/L
108-95-2	Phenol	2.3	UD	2.3	6.3	12.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.8	UD	1.8	6.3	12.6	ug/L
95-57-8	2-Chlorophenol	0.96	UD	0.96	6.3	12.6	ug/L
95-50-1	1,2-Dichlorobenzene	1.3	UD	1.3	6.3	12.6	ug/L
541-73-1	1,3-Dichlorobenzene	0.61	UD	0.61	6.3	12.6	ug/L
106-46-7	1,4-Dichlorobenzene	0.91	UD	0.91	6.3	12.6	ug/L
100-51-6	Benzyl Alcohol	1.6	UD	1.6	6.3	12.6	ug/L
95-48-7	2-Methylphenol	9.1	UD	9.1	25.3	50.5	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.8	UD	1.8	6.3	12.6	ug/L
98-86-2	Acetophenone	1	UD	1	6.3	12.6	ug/L
65794-96-9	3+4-Methylphenols	2.9	UD	2.9	6.3	12.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	1.1	UD	1.1	6.3	12.6	ug/L
67-72-1	Hexachloroethane	1.3	UD	1.3	6.3	12.6	ug/L
98-95-3	Nitrobenzene	3.3	UD	3.3	6.3	12.6	ug/L
78-59-1	Isophorone	2.1	UD	2.1	6.3	12.6	ug/L
88-75-5	2-Nitrophenol	22.2	UD	22.2	25.3	50.5	ug/L
105-67-9	2,4-Dimethylphenol	3.5	UD	3.5	6.3	12.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	5.6	UD	5.6	6.3	12.6	ug/L
120-83-2	2,4-Dichlorophenol	16.2	UD	16.2	25.3	50.5	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.71	UD	0.71	6.3	12.6	ug/L
65-85-0	Benzoic acid	16.3	UD	16.3	63.1	130	ug/L
91-20-3	Naphthalene	9	JD	0.96	6.3	12.6	ug/L
106-47-8	4-Chloroaniline	13.3	UD	13.3	25.3	50.5	ug/L
87-68-3	Hexachlorobutadiene	0.86	UD	0.86	6.3	12.6	ug/L
105-60-2	Caprolactam	10.1	UD	10.1	25.3	50.5	ug/L
59-50-7	4-Chloro-3-methylphenol	8.7	UD	8.7	25.3	50.5	ug/L
91-57-6	2-Methylnaphthalene	0.96	UD	0.96	6.3	12.6	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-01DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050754.D	5	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	7.6	UD	7.6	25.3	50.5	ug/L
88-06-2	2,4,6-Trichlorophenol	10.7	UD	10.7	25.3	50.5	ug/L
95-95-4	2,4,5-Trichlorophenol	11.5	UD	11.5	25.3	50.5	ug/L
92-52-4	1,1-Biphenyl	1.3	UD	1.3	6.3	12.6	ug/L
91-58-7	2-Chloronaphthalene	0.76	UDQ	0.76	6.3	12.6	ug/L
88-74-4	2-Nitroaniline	21.4	UD	21.4	25.3	50.5	ug/L
131-11-3	Dimethylphthalate	5.2	JD	0.86	6.3	12.6	ug/L
208-96-8	Acenaphthylene	0.81	UD	0.81	6.3	12.6	ug/L
606-20-2	2,6-Dinitrotoluene	1.4	UD	1.4	6.3	12.6	ug/L
99-09-2	3-Nitroaniline	10.2	UD	10.2	25.3	50.5	ug/L
83-32-9	Acenaphthene	49.1	D	0.86	6.3	12.6	ug/L
51-28-5	2,4-Dinitrophenol	9.5	UD	9.5	63.1	130	ug/L
100-02-7	4-Nitrophenol	19.5	UD	19.5	25.3	50.5	ug/L
132-64-9	Dibenzofuran	25.1	JD	10.7	25.3	50.5	ug/L
121-14-2	2,4-Dinitrotoluene	10.7	UD	10.7	25.3	50.5	ug/L
84-66-2	Diethylphthalate	0.51	UD	0.51	6.3	12.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1.4	UD	1.4	6.3	12.6	ug/L
86-73-7	Fluorene	12.1	JDQ	0.76	6.3	12.6	ug/L
100-01-6	4-Nitroaniline	12.6	UDQ	12.6	6.3	12.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	9.4	UD	9.4	25.3	50.5	ug/L
86-30-6	n-Nitrosodiphenylamine	4	UD	4	6.3	12.6	ug/L
103-33-3	Azobenzene	1.1	UD	1.1	6.3	12.6	ug/L
101-55-3	4-Bromophenyl-phenylether	2.1	UD	2.1	6.3	12.6	ug/L
118-74-1	Hexachlorobenzene	1.1	UD	1.1	6.3	12.6	ug/L
1912-24-9	Atrazine	2.8	UD	2.8	6.3	12.6	ug/L
87-86-5	Pentachlorophenol	13.6	UD	13.6	25.3	50.5	ug/L
85-01-8	Phenanthrene	0.56	UD	0.56	6.3	12.6	ug/L
120-12-7	Anthracene	1.5	UD	1.5	6.3	12.6	ug/L
86-74-8	Carbazole	100	DQ	2.4	6.3	12.6	ug/L
84-74-2	Di-n-butylphthalate	3	UD	3	6.3	12.6	ug/L
206-44-0	Fluoranthene	4.2	UD	4.2	6.3	12.6	ug/L
92-87-5	Benzidine	43.8	UD	43.8	63.1	130	ug/L
129-00-0	Pyrene	0.66	UD	0.66	6.3	12.6	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-01DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050754.D	5	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1.1	UD	1.1	6.3	12.6	ug/L
91-94-1	3,3-Dichlorobenzidine	18.1	UD	18.1	25.3	50.5	ug/L
56-55-3	Benzo(a)anthracene	0.61	UD	0.61	6.3	12.6	ug/L
218-01-9	Chrysene	1.2	UD	1.2	6.3	12.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.5	UD	1.5	6.3	12.6	ug/L
117-84-0	Di-n-octyl phthalate	1.6	UD	1.6	6.3	12.6	ug/L
205-99-2	Benzo(b)fluoranthene	0.86	UD	0.86	6.3	12.6	ug/L
207-08-9	Benzo(k)fluoranthene	1.4	UD	1.4	6.3	12.6	ug/L
50-32-8	Benzo(a)pyrene	0.86	UD	0.86	6.3	12.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	3.3	UD	3.3	6.3	12.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	1.4	UD	1.4	6.3	12.6	ug/L
191-24-2	Benzo(g,h,i)perylene	0.66	UD	0.66	6.3	12.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	1.9	UDQ	1.9	6.3	12.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	25.3	UDQ	25.3	25.3	50.5	ug/L
123-91-1	1,4-Dioxane	25.3	UDQ	25.3	25.3	50.5	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	32.3		10 - 160		32%	SPK: 100
13127-88-3	Phenol-d6	19.4		10 - 161		19%	SPK: 100
4165-60-0	Nitrobenzene-d5	78.9		25 - 124		79%	SPK: 100
321-60-8	2-Fluorobiphenyl	87.4		20 - 129		87%	SPK: 100
118-79-6	2,4,6-Tribromophenol	83.7		10 - 140		84%	SPK: 100
1718-51-0	Terphenyl-d14	94.2		14 - 155		94%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	109411	6.65				
1146-65-2	Naphthalene-d8	426478	8.54				
15067-26-2	Acenaphthene-d10	244397	11.2				
1517-22-2	Phenanthrene-d10	417423	13.94				
1719-03-5	Chrysene-d12	314566	19.49				
1520-96-3	Perylene-d12	183238	22.47				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-2-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-01DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050754.D	5	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-02	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050744.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.1	ug/L
110-86-1	Pyridine	5.9	UQ	5.9	12.6	25.3	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.1	ug/L
108-95-2	Phenol	2.1	J	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	5.7	J	1.8	5.1	10.1	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	9.9		0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	2.9		0.59	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5.1	10.1	ug/L
105-67-9	2,4-Dimethylphenol	7.2		0.71	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5.1	10.1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.6	25.3	ug/L
91-20-3	Naphthalene	820	E	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.1	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.1	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5.1	10.1	ug/L
91-57-6	2-Methylnaphthalene	7.4		0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-02	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050744.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.1	10.1	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5.1	10.1	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.1	ug/L
92-52-4	1,1-Biphenyl	97.4	E	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	UQ	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.1	ug/L
131-11-3	Dimethylphthalate	2.6		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	2.1	J	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5.1	10.1	ug/L
83-32-9	Acenaphthene	190	E	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.6	25.3	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.1	ug/L
132-64-9	Dibenzofuran	140	E	2.1	5.1	10.1	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5.1	10.1	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	70.8	EQ	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	UQ	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.1	ug/L
86-30-6	n-Nitrosodiphenylamine	0.81	U	0.81	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.1	ug/L
85-01-8	Phenanthrene	37.9		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	6.4		0.3	1.3	2.5	ug/L
86-74-8	Carbazole	130	EQ	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.5	ug/L
206-44-0	Fluoranthene	1.4	J	0.85	1.3	2.5	ug/L
92-87-5	Benzidine	8.8	U	8.8	12.6	25.3	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-02	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050744.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5.1	10.1	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	UQ	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	UQ	5.1	5.1	10.1	ug/L
123-91-1	1,4-Dioxane	10.3	Q	5.1	5.1	10.1	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	35.3		10 - 160		35%	SPK: 100
13127-88-3	Phenol-d6	24.3		10 - 161		24%	SPK: 100
4165-60-0	Nitrobenzene-d5	100		25 - 124		101%	SPK: 100
321-60-8	2-Fluorobiphenyl	79.6		20 - 129		80%	SPK: 100
118-79-6	2,4,6-Tribromophenol	83.7		10 - 140		84%	SPK: 100
1718-51-0	Terphenyl-d14	89.1		14 - 155		89%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	100843	6.67				
1146-65-2	Naphthalene-d8	306371	8.59				
15067-26-2	Acenaphthene-d10	249603	11.22				
1517-22-2	Phenanthrene-d10	432569	13.97				
1719-03-5	Chrysene-d12	298260	19.55				
1520-96-3	Perylene-d12	130122	22.49				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	09/24/13
Project:	Avalon- WP9			Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013			SDG No.:	E3854
Lab Sample ID:	E3854-02			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050744.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-02DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050755.D	5	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	13.5	UD	13.5	25.3	50.5	ug/L
110-86-1	Pyridine	29.6	UDQ	29.6	63.1	130	ug/L
100-52-7	Benzaldehyde	1.4	UD	1.4	6.3	12.6	ug/L
62-53-3	Aniline	19.5	UDQ	19.5	25.3	50.5	ug/L
108-95-2	Phenol	2.3	UD	2.3	6.3	12.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.8	UD	1.8	6.3	12.6	ug/L
95-57-8	2-Chlorophenol	0.96	UD	0.96	6.3	12.6	ug/L
95-50-1	1,2-Dichlorobenzene	1.3	UD	1.3	6.3	12.6	ug/L
541-73-1	1,3-Dichlorobenzene	0.61	UD	0.61	6.3	12.6	ug/L
106-46-7	1,4-Dichlorobenzene	0.91	UD	0.91	6.3	12.6	ug/L
100-51-6	Benzyl Alcohol	1.6	UD	1.6	6.3	12.6	ug/L
95-48-7	2-Methylphenol	9.1	UD	9.1	25.3	50.5	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.8	UD	1.8	6.3	12.6	ug/L
98-86-2	Acetophenone	7.6	JD	1	6.3	12.6	ug/L
65794-96-9	3+4-Methylphenols	2.9	UD	2.9	6.3	12.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	1.1	UD	1.1	6.3	12.6	ug/L
67-72-1	Hexachloroethane	1.3	UD	1.3	6.3	12.6	ug/L
98-95-3	Nitrobenzene	3.3	UD	3.3	6.3	12.6	ug/L
78-59-1	Isophorone	2.1	UD	2.1	6.3	12.6	ug/L
88-75-5	2-Nitrophenol	22.2	UD	22.2	25.3	50.5	ug/L
105-67-9	2,4-Dimethylphenol	3.5	UD	3.5	6.3	12.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	5.6	UD	5.6	6.3	12.6	ug/L
120-83-2	2,4-Dichlorophenol	16.2	UD	16.2	25.3	50.5	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.71	UD	0.71	6.3	12.6	ug/L
65-85-0	Benzoic acid	16.3	UD	16.3	63.1	130	ug/L
91-20-3	Naphthalene	1000	ED	0.96	6.3	12.6	ug/L
106-47-8	4-Chloroaniline	13.3	UD	13.3	25.3	50.5	ug/L
87-68-3	Hexachlorobutadiene	0.86	UD	0.86	6.3	12.6	ug/L
105-60-2	Caprolactam	10.1	UD	10.1	25.3	50.5	ug/L
59-50-7	4-Chloro-3-methylphenol	8.7	UD	8.7	25.3	50.5	ug/L
91-57-6	2-Methylnaphthalene	5.4	JD	0.96	6.3	12.6	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-02DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050755.D	5	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	7.6	UD	7.6	25.3	50.5	ug/L
88-06-2	2,4,6-Trichlorophenol	10.7	UD	10.7	25.3	50.5	ug/L
95-95-4	2,4,5-Trichlorophenol	11.5	UD	11.5	25.3	50.5	ug/L
92-52-4	1,1-Biphenyl	110	D	1.3	6.3	12.6	ug/L
91-58-7	2-Chloronaphthalene	0.76	UDQ	0.76	6.3	12.6	ug/L
88-74-4	2-Nitroaniline	21.4	UD	21.4	25.3	50.5	ug/L
131-11-3	Dimethylphthalate	0.86	UD	0.86	6.3	12.6	ug/L
208-96-8	Acenaphthylene	0.81	UD	0.81	6.3	12.6	ug/L
606-20-2	2,6-Dinitrotoluene	1.4	UD	1.4	6.3	12.6	ug/L
99-09-2	3-Nitroaniline	10.2	UD	10.2	25.3	50.5	ug/L
83-32-9	Acenaphthene	230	D	0.86	6.3	12.6	ug/L
51-28-5	2,4-Dinitrophenol	9.5	UD	9.5	63.1	130	ug/L
100-02-7	4-Nitrophenol	19.5	UD	19.5	25.3	50.5	ug/L
132-64-9	Dibenzofuran	160	D	10.7	25.3	50.5	ug/L
121-14-2	2,4-Dinitrotoluene	10.7	UD	10.7	25.3	50.5	ug/L
84-66-2	Diethylphthalate	0.51	UD	0.51	6.3	12.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1.4	UD	1.4	6.3	12.6	ug/L
86-73-7	Fluorene	80.7	DQ	0.76	6.3	12.6	ug/L
100-01-6	4-Nitroaniline	12.6	UDQ	12.6	6.3	12.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	9.4	UD	9.4	25.3	50.5	ug/L
86-30-6	n-Nitrosodiphenylamine	4	UD	4	6.3	12.6	ug/L
103-33-3	Azobenzene	1.1	UD	1.1	6.3	12.6	ug/L
101-55-3	4-Bromophenyl-phenylether	2.1	UD	2.1	6.3	12.6	ug/L
118-74-1	Hexachlorobenzene	1.1	UD	1.1	6.3	12.6	ug/L
1912-24-9	Atrazine	2.8	UD	2.8	6.3	12.6	ug/L
87-86-5	Pentachlorophenol	13.6	UD	13.6	25.3	50.5	ug/L
85-01-8	Phenanthrene	41.4	D	0.56	6.3	12.6	ug/L
120-12-7	Anthracene	8.7	JD	1.5	6.3	12.6	ug/L
86-74-8	Carbazole	140	DQ	2.4	6.3	12.6	ug/L
84-74-2	Di-n-butylphthalate	3	UD	3	6.3	12.6	ug/L
206-44-0	Fluoranthene	4.2	UD	4.2	6.3	12.6	ug/L
92-87-5	Benzidine	43.8	UD	43.8	63.1	130	ug/L
129-00-0	Pyrene	0.66	UD	0.66	6.3	12.6	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-02DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050755.D	5	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1.1	UD	1.1	6.3	12.6	ug/L
91-94-1	3,3-Dichlorobenzidine	18.1	UD	18.1	25.3	50.5	ug/L
56-55-3	Benzo(a)anthracene	0.61	UD	0.61	6.3	12.6	ug/L
218-01-9	Chrysene	1.2	UD	1.2	6.3	12.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.5	UD	1.5	6.3	12.6	ug/L
117-84-0	Di-n-octyl phthalate	1.6	UD	1.6	6.3	12.6	ug/L
205-99-2	Benzo(b)fluoranthene	0.86	UD	0.86	6.3	12.6	ug/L
207-08-9	Benzo(k)fluoranthene	1.4	UD	1.4	6.3	12.6	ug/L
50-32-8	Benzo(a)pyrene	0.86	UD	0.86	6.3	12.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	3.3	UD	3.3	6.3	12.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	1.4	UD	1.4	6.3	12.6	ug/L
191-24-2	Benzo(g,h,i)perylene	0.66	UD	0.66	6.3	12.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	1.9	UDQ	1.9	6.3	12.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	25.3	UDQ	25.3	25.3	50.5	ug/L
123-91-1	1,4-Dioxane	25.3	UDQ	25.3	25.3	50.5	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	37.2		10 - 160		37%	SPK: 100
13127-88-3	Phenol-d6	23.6		10 - 161		24%	SPK: 100
4165-60-0	Nitrobenzene-d5	84.4		25 - 124		84%	SPK: 100
321-60-8	2-Fluorobiphenyl	93.1		20 - 129		93%	SPK: 100
118-79-6	2,4,6-Tribromophenol	95.9		10 - 140		96%	SPK: 100
1718-51-0	Terphenyl-d14	90.9		14 - 155		91%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	107574	6.66				
1146-65-2	Naphthalene-d8	421722	8.55				
15067-26-2	Acenaphthene-d10	249035	11.21				
1517-22-2	Phenanthrene-d10	426709	13.93				
1719-03-5	Chrysene-d12	325260	19.5				
1520-96-3	Perylene-d12	180695	22.47				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013DL	SDG No.:	E3854
Lab Sample ID:	E3854-02DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050755.D	5	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013DL2	SDG No.:	E3854
Lab Sample ID:	E3854-02DL2	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050756.D	50	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	140	UD	140	250	510	ug/L
110-86-1	Pyridine	300	UDQ	300	630	1300	ug/L
100-52-7	Benzaldehyde	14.1	UD	14.1	63.1	130	ug/L
62-53-3	Aniline	190	UDQ	190	250	510	ug/L
108-95-2	Phenol	23.2	UD	23.2	63.1	130	ug/L
111-44-4	bis(2-Chloroethyl)ether	17.7	UD	17.7	63.1	130	ug/L
95-57-8	2-Chlorophenol	9.6	UD	9.6	63.1	130	ug/L
95-50-1	1,2-Dichlorobenzene	12.6	UD	12.6	63.1	130	ug/L
541-73-1	1,3-Dichlorobenzene	6.1	UD	6.1	63.1	130	ug/L
106-46-7	1,4-Dichlorobenzene	9.1	UD	9.1	63.1	130	ug/L
100-51-6	Benzyl Alcohol	16.2	UD	16.2	63.1	130	ug/L
95-48-7	2-Methylphenol	91.4	UD	91.4	250	510	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	17.7	UD	17.7	63.1	130	ug/L
98-86-2	Acetophenone	10.1	UD	10.1	63.1	130	ug/L
65794-96-9	3+4-Methylphenols	29.3	UD	29.3	63.1	130	ug/L
621-64-7	n-Nitroso-di-n-propylamine	11.1	UD	11.1	63.1	130	ug/L
67-72-1	Hexachloroethane	12.6	UD	12.6	63.1	130	ug/L
98-95-3	Nitrobenzene	32.8	UD	32.8	63.1	130	ug/L
78-59-1	Isophorone	20.7	UD	20.7	63.1	130	ug/L
88-75-5	2-Nitrophenol	220	UD	220	250	510	ug/L
105-67-9	2,4-Dimethylphenol	35.4	UD	35.4	63.1	130	ug/L
111-91-1	bis(2-Chloroethoxy)methane	56.1	UD	56.1	63.1	130	ug/L
120-83-2	2,4-Dichlorophenol	160	UD	160	250	510	ug/L
120-82-1	1,2,4-Trichlorobenzene	7.1	UD	7.1	63.1	130	ug/L
65-85-0	Benzoic acid	160	UD	160	630	1300	ug/L
91-20-3	Naphthalene	1300	D	9.6	63.1	130	ug/L
106-47-8	4-Chloroaniline	130	UD	130	250	510	ug/L
87-68-3	Hexachlorobutadiene	8.6	UD	8.6	63.1	130	ug/L
105-60-2	Caprolactam	100	UD	100	250	510	ug/L
59-50-7	4-Chloro-3-methylphenol	86.9	UD	86.9	250	510	ug/L
91-57-6	2-Methylnaphthalene	9.6	UD	9.6	63.1	130	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013DL2	SDG No.:	E3854
Lab Sample ID:	E3854-02DL2	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050756.D	50	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	75.8	UD	75.8	250	510	ug/L
88-06-2	2,4,6-Trichlorophenol	110	UD	110	250	510	ug/L
95-95-4	2,4,5-Trichlorophenol	110	UD	110	250	510	ug/L
92-52-4	1,1-Biphenyl	110	JD	13.1	63.1	130	ug/L
91-58-7	2-Chloronaphthalene	7.6	UDQ	7.6	63.1	130	ug/L
88-74-4	2-Nitroaniline	210	UD	210	250	510	ug/L
131-11-3	Dimethylphthalate	8.6	UD	8.6	63.1	130	ug/L
208-96-8	Acenaphthylene	8.1	UD	8.1	63.1	130	ug/L
606-20-2	2,6-Dinitrotoluene	13.6	UD	13.6	63.1	130	ug/L
99-09-2	3-Nitroaniline	100	UD	100	250	510	ug/L
83-32-9	Acenaphthene	240	D	8.6	63.1	130	ug/L
51-28-5	2,4-Dinitrophenol	94.9	UD	94.9	630	1300	ug/L
100-02-7	4-Nitrophenol	200	UD	200	250	510	ug/L
132-64-9	Dibenzofuran	160	JD	110	250	510	ug/L
121-14-2	2,4-Dinitrotoluene	110	UD	110	250	510	ug/L
84-66-2	Diethylphthalate	5.1	UD	5.1	63.1	130	ug/L
7005-72-3	4-Chlorophenyl-phenylether	13.6	UD	13.6	63.1	130	ug/L
86-73-7	Fluorene	75.3	JDQ	7.6	63.1	130	ug/L
100-01-6	4-Nitroaniline	130	UDQ	130	63.1	130	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	94.4	UD	94.4	250	510	ug/L
86-30-6	n-Nitrosodiphenylamine	40.4	UD	40.4	63.1	130	ug/L
103-33-3	Azobenzene	11.1	UD	11.1	63.1	130	ug/L
101-55-3	4-Bromophenyl-phenylether	21.2	UD	21.2	63.1	130	ug/L
118-74-1	Hexachlorobenzene	11.1	UD	11.1	63.1	130	ug/L
1912-24-9	Atrazine	28.3	UD	28.3	63.1	130	ug/L
87-86-5	Pentachlorophenol	140	UD	140	250	510	ug/L
85-01-8	Phenanthrene	5.6	UD	5.6	63.1	130	ug/L
120-12-7	Anthracene	15.2	UD	15.2	63.1	130	ug/L
86-74-8	Carbazole	130	DQ	23.7	63.1	130	ug/L
84-74-2	Di-n-butylphthalate	29.8	UD	29.8	63.1	130	ug/L
206-44-0	Fluoranthene	42.4	UD	42.4	63.1	130	ug/L
92-87-5	Benzidine	440	UD	440	630	1300	ug/L
129-00-0	Pyrene	6.6	UD	6.6	63.1	130	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013DL2	SDG No.:	E3854
Lab Sample ID:	E3854-02DL2	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050756.D	50	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	11.1	UD	11.1	63.1	130	ug/L
91-94-1	3,3-Dichlorobenzidine	180	UD	180	250	510	ug/L
56-55-3	Benzo(a)anthracene	6.1	UD	6.1	63.1	130	ug/L
218-01-9	Chrysene	12.1	UD	12.1	63.1	130	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	14.6	UD	14.6	63.1	130	ug/L
117-84-0	Di-n-octyl phthalate	15.7	UD	15.7	63.1	130	ug/L
205-99-2	Benzo(b)fluoranthene	8.6	UD	8.6	63.1	130	ug/L
207-08-9	Benzo(k)fluoranthene	14.1	UD	14.1	63.1	130	ug/L
50-32-8	Benzo(a)pyrene	8.6	UD	8.6	63.1	130	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	33.3	UD	33.3	63.1	130	ug/L
53-70-3	Dibenzo(a,h)anthracene	14.1	UD	14.1	63.1	130	ug/L
191-24-2	Benzo(g,h,i)perylene	6.6	UD	6.6	63.1	130	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	18.7	UDQ	18.7	63.1	130	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	250	UDQ	250	250	510	ug/L
123-91-1	1,4-Dioxane	250	UDQ	250	250	510	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	32		10 - 160		32%	SPK: 100
13127-88-3	Phenol-d6	22.5		10 - 161		22%	SPK: 100
4165-60-0	Nitrobenzene-d5	84		25 - 124		84%	SPK: 100
321-60-8	2-Fluorobiphenyl	92		20 - 129		92%	SPK: 100
118-79-6	2,4,6-Tribromophenol	82		10 - 140		82%	SPK: 100
1718-51-0	Terphenyl-d14	100		14 - 155		102%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	112224	6.66				
1146-65-2	Naphthalene-d8	434920	8.53				
15067-26-2	Acenaphthene-d10	245371	11.2				
1517-22-2	Phenanthrene-d10	406908	13.93				
1719-03-5	Chrysene-d12	263431	19.5				
1520-96-3	Perylene-d12	137306	22.46				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-8-Q3-2013DL2	SDG No.:	E3854
Lab Sample ID:	E3854-02DL2	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050756.D	50	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-03	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050745.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	UQ	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-03	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050745.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	UQ	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	UQ	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	UQ	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	UQ	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-03	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050745.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	UQ	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	UQ	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	UQ	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	37.7		10 - 160		38%	SPK: 100
13127-88-3	Phenol-d6	21.7		10 - 161		22%	SPK: 100
4165-60-0	Nitrobenzene-d5	89.8		25 - 124		90%	SPK: 100
321-60-8	2-Fluorobiphenyl	95		20 - 129		95%	SPK: 100
118-79-6	2,4,6-Tribromophenol	92		10 - 140		92%	SPK: 100
1718-51-0	Terphenyl-d14	110		14 - 155		107%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	103659	6.66				
1146-65-2	Naphthalene-d8	387647	8.53				
15067-26-2	Acenaphthene-d10	205569	11.19				
1517-22-2	Phenanthrene-d10	346664	13.93				
1719-03-5	Chrysene-d12	252665	19.49				
1520-96-3	Perylene-d12	146950	22.46				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-03	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050745.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-12R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-06	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050748.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	UQ	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-12R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-06	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050748.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	UQ	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	UQ	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	UQ	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	UQ	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-12R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-06	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050748.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	UQ	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	UQ	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	UQ	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	40.6		10 - 160		41%	SPK: 100
13127-88-3	Phenol-d6	24.7		10 - 161		25%	SPK: 100
4165-60-0	Nitrobenzene-d5	91.2		25 - 124		91%	SPK: 100
321-60-8	2-Fluorobiphenyl	93.7		20 - 129		94%	SPK: 100
118-79-6	2,4,6-Tribromophenol	96.8		10 - 140		97%	SPK: 100
1718-51-0	Terphenyl-d14	120		14 - 155		116%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	112868	6.66				
1146-65-2	Naphthalene-d8	435550	8.53				
15067-26-2	Acenaphthene-d10	244132	11.2				
1517-22-2	Phenanthrene-d10	397233	13.93				
1719-03-5	Chrysene-d12	260724	19.49				
1520-96-3	Perylene-d12	144783	22.46				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-12R-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-06	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050748.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-14-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-07	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050749.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.1	ug/L
110-86-1	Pyridine	5.9	UQ	5.9	12.6	25.3	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.1	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.1	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5.1	10.1	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5.1	10.1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.6	25.3	ug/L
91-20-3	Naphthalene	2.1	J	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.1	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.1	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5.1	10.1	ug/L
91-57-6	2-Methylnaphthalene	3.2		0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-14-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-07	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050749.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.1	10.1	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5.1	10.1	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.1	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	UQ	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.1	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5.1	10.1	ug/L
83-32-9	Acenaphthene	24.6		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.6	25.3	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.1	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5.1	10.1	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5.1	10.1	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	6.8	Q	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	UQ	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.1	ug/L
86-30-6	n-Nitrosodiphenylamine	0.81	U	0.81	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.1	ug/L
85-01-8	Phenanthrene	3.6		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	1.6	JQ	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.85	U	0.85	1.3	2.5	ug/L
92-87-5	Benzidine	8.8	U	8.8	12.6	25.3	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-14-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-07	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050749.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5.1	10.1	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	UQ	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	UQ	5.1	5.1	10.1	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.1	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	42.4		10 - 160		42%	SPK: 100
13127-88-3	Phenol-d6	26.7		10 - 161		27%	SPK: 100
4165-60-0	Nitrobenzene-d5	90		25 - 124		90%	SPK: 100
321-60-8	2-Fluorobiphenyl	90.8		20 - 129		91%	SPK: 100
118-79-6	2,4,6-Tribromophenol	100		10 - 140		101%	SPK: 100
1718-51-0	Terphenyl-d14	100		14 - 155		101%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	120601	6.66				
1146-65-2	Naphthalene-d8	469901	8.53				
15067-26-2	Acenaphthene-d10	283471	11.21				
1517-22-2	Phenanthrene-d10	459707	13.95				
1719-03-5	Chrysene-d12	341841	19.5				
1520-96-3	Perylene-d12	185503	22.47				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	09/24/13
Project:	Avalon- WP9			Date Received:	09/25/13
Client Sample ID:	MW-14-Q3-2013			SDG No.:	E3854
Lab Sample ID:	E3854-07			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050749.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-15-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-08	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050750.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.2	ug/L
110-86-1	Pyridine	6	UQ	6	12.8	25.5	ug/L
100-52-7	Benzaldehyde	0.29	U	0.29	1.3	2.6	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.2	ug/L
108-95-2	Phenol	0.47	U	0.47	1.3	2.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.36	U	0.36	1.3	2.6	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.6	ug/L
95-50-1	1,2-Dichlorobenzene	0.26	U	0.26	1.3	2.6	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.6	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.6	ug/L
100-51-6	Benzyl Alcohol	0.33	U	0.33	1.3	2.6	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.2	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.36	U	0.36	1.3	2.6	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.6	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.6	ug/L
67-72-1	Hexachloroethane	0.26	U	0.26	1.3	2.6	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.6	ug/L
78-59-1	Isophorone	0.42	U	0.42	1.3	2.6	ug/L
88-75-5	2-Nitrophenol	4.5	U	4.5	5.1	10.2	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.6	ug/L
120-83-2	2,4-Dichlorophenol	3.3	U	3.3	5.1	10.2	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.6	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.8	25.5	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.6	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.2	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.6	ug/L
105-60-2	Caprolactam	3.4	J	2	5.1	10.2	ug/L
59-50-7	4-Chloro-3-methylphenol	1.8	U	1.8	5.1	10.2	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-15-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-08	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050750.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.1	10.2	ug/L
88-06-2	2,4,6-Trichlorophenol	2.2	U	2.2	5.1	10.2	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.2	ug/L
92-52-4	1,1-Biphenyl	0.27	U	0.27	1.3	2.6	ug/L
91-58-7	2-Chloronaphthalene	0.15	UQ	0.15	1.3	2.6	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.2	ug/L
131-11-3	Dimethylphthalate	4.4		0.17	1.3	2.6	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.6	ug/L
606-20-2	2,6-Dinitrotoluene	0.28	U	0.28	1.3	2.6	ug/L
99-09-2	3-Nitroaniline	2.1	U	2.1	5.1	10.2	ug/L
83-32-9	Acenaphthene	22.1		0.17	1.3	2.6	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.8	25.5	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.2	ug/L
132-64-9	Dibenzofuran	15.2		2.2	5.1	10.2	ug/L
121-14-2	2,4-Dinitrotoluene	2.2	U	2.2	5.1	10.2	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.28	U	0.28	1.3	2.6	ug/L
86-73-7	Fluorene	0.15	UQ	0.15	1.3	2.6	ug/L
100-01-6	4-Nitroaniline	2.5	UQ	2.5	1.3	2.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.2	ug/L
86-30-6	n-Nitrosodiphenylamine	0.82	U	0.82	1.3	2.6	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.6	ug/L
101-55-3	4-Bromophenyl-phenylether	0.43	U	0.43	1.3	2.6	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.6	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.6	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.2	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.6	ug/L
120-12-7	Anthracene	0.31	U	0.31	1.3	2.6	ug/L
86-74-8	Carbazole	5.6	Q	0.48	1.3	2.6	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.6	ug/L
206-44-0	Fluoranthene	0.86	U	0.86	1.3	2.6	ug/L
92-87-5	Benzidine	8.9	U	8.9	12.8	25.5	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.6	ug/L

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Report of Analysis

Client:	Cardno ATC			Date Collected:	09/24/13
Project:	Avalon- WP9			Date Received:	09/25/13
Client Sample ID:	MW-15-Q3-2013			SDG No.:	E3854
Lab Sample ID:	E3854-08			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050750.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.6	ug/L
91-94-1	3,3-Dichlorobenzidine	3.7	U	3.7	5.1	10.2	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.6	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.3	U	0.3	1.3	2.6	ug/L
117-84-0	Di-n-octyl phthalate	0.32	U	0.32	1.3	2.6	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.6	ug/L
207-08-9	Benzo(k)fluoranthene	0.29	U	0.29	1.3	2.6	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.29	U	0.29	1.3	2.6	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.38	UQ	0.38	1.3	2.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	UQ	5.1	5.1	10.2	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.2	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	42.4		10 - 160		42%	SPK: 100
13127-88-3	Phenol-d6	26.2		10 - 161		26%	SPK: 100
4165-60-0	Nitrobenzene-d5	89.4		25 - 124		89%	SPK: 100
321-60-8	2-Fluorobiphenyl	92.3		20 - 129		92%	SPK: 100
118-79-6	2,4,6-Tribromophenol	100		10 - 140		105%	SPK: 100
1718-51-0	Terphenyl-d14	100		14 - 155		104%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	112063	6.67				
1146-65-2	Naphthalene-d8	429856	8.54				
15067-26-2	Acenaphthene-d10	241711	11.2				
1517-22-2	Phenanthrene-d10	416422	13.94				
1719-03-5	Chrysene-d12	300205	19.49				
1520-96-3	Perylene-d12	167029	22.46				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	09/24/13
Project:	Avalon- WP9			Date Received:	09/25/13
Client Sample ID:	MW-15-Q3-2013			SDG No.:	E3854
Lab Sample ID:	E3854-08			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050750.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-16-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-09	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	970 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050751.D	1	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.8	U	2.8	5.2	10.3	ug/L
110-86-1	Pyridine	6.1	UQ	6.1	12.9	25.8	ug/L
100-52-7	Benzaldehyde	0.29	U	0.29	1.3	2.6	ug/L
62-53-3	Aniline	4	UQ	4	5.2	10.3	ug/L
108-95-2	Phenol	0.47	U	0.47	1.3	2.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.36	U	0.36	1.3	2.6	ug/L
95-57-8	2-Chlorophenol	0.2	U	0.2	1.3	2.6	ug/L
95-50-1	1,2-Dichlorobenzene	0.26	U	0.26	1.3	2.6	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.6	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.3	2.6	ug/L
100-51-6	Benzyl Alcohol	0.33	U	0.33	1.3	2.6	ug/L
95-48-7	2-Methylphenol	1.9	U	1.9	5.2	10.3	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.36	U	0.36	1.3	2.6	ug/L
98-86-2	Acetophenone	0.21	U	0.21	1.3	2.6	ug/L
65794-96-9	3+4-Methylphenols	0.6	U	0.6	1.3	2.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.23	U	0.23	1.3	2.6	ug/L
67-72-1	Hexachloroethane	0.26	U	0.26	1.3	2.6	ug/L
98-95-3	Nitrobenzene	0.67	U	0.67	1.3	2.6	ug/L
78-59-1	Isophorone	0.42	U	0.42	1.3	2.6	ug/L
88-75-5	2-Nitrophenol	4.5	U	4.5	5.2	10.3	ug/L
105-67-9	2,4-Dimethylphenol	0.72	U	0.72	1.3	2.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.6	ug/L
120-83-2	2,4-Dichlorophenol	3.3	U	3.3	5.2	10.3	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.6	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.9	25.8	ug/L
91-20-3	Naphthalene	0.2	U	0.2	1.3	2.6	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.2	10.3	ug/L
87-68-3	Hexachlorobutadiene	0.18	U	0.18	1.3	2.6	ug/L
105-60-2	Caprolactam	2.4	J	2.1	5.2	10.3	ug/L
59-50-7	4-Chloro-3-methylphenol	1.8	U	1.8	5.2	10.3	ug/L
91-57-6	2-Methylnaphthalene	0.2	U	0.2	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-16-Q3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-09	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	970 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050751.D	1	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.2	10.3	ug/L
88-06-2	2,4,6-Trichlorophenol	2.2	U	2.2	5.2	10.3	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.2	10.3	ug/L
92-52-4	1,1-Biphenyl	0.27	U	0.27	1.3	2.6	ug/L
91-58-7	2-Chloronaphthalene	0.15	UQ	0.15	1.3	2.6	ug/L
88-74-4	2-Nitroaniline	4.4	U	4.4	5.2	10.3	ug/L
131-11-3	Dimethylphthalate	3.4		0.18	1.3	2.6	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.6	ug/L
606-20-2	2,6-Dinitrotoluene	0.28	U	0.28	1.3	2.6	ug/L
99-09-2	3-Nitroaniline	2.1	U	2.1	5.2	10.3	ug/L
83-32-9	Acenaphthene	0.18	U	0.18	1.3	2.6	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.9	25.8	ug/L
100-02-7	4-Nitrophenol	4	U	4	5.2	10.3	ug/L
132-64-9	Dibenzofuran	2.2	U	2.2	5.2	10.3	ug/L
121-14-2	2,4-Dinitrotoluene	2.2	U	2.2	5.2	10.3	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.28	U	0.28	1.3	2.6	ug/L
86-73-7	Fluorene	0.15	UQ	0.15	1.3	2.6	ug/L
100-01-6	4-Nitroaniline	2.6	UQ	2.6	1.3	2.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.2	10.3	ug/L
86-30-6	n-Nitrosodiphenylamine	0.82	U	0.82	1.3	2.6	ug/L
103-33-3	Azobenzene	0.23	U	0.23	1.3	2.6	ug/L
101-55-3	4-Bromophenyl-phenylether	0.43	U	0.43	1.3	2.6	ug/L
118-74-1	Hexachlorobenzene	0.23	U	0.23	1.3	2.6	ug/L
1912-24-9	Atrazine	0.58	U	0.58	1.3	2.6	ug/L
87-86-5	Pentachlorophenol	2.8	U	2.8	5.2	10.3	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.6	ug/L
120-12-7	Anthracene	0.31	U	0.31	1.3	2.6	ug/L
86-74-8	Carbazole	0.48	UQ	0.48	1.3	2.6	ug/L
84-74-2	Di-n-butylphthalate	0.61	U	0.61	1.3	2.6	ug/L
206-44-0	Fluoranthene	0.87	U	0.87	1.3	2.6	ug/L
92-87-5	Benzidine	8.9	U	8.9	12.9	25.8	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.6	ug/L

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Report of Analysis

Client:	Cardno ATC			Date Collected:	09/24/13
Project:	Avalon- WP9			Date Received:	09/25/13
Client Sample ID:	MW-16-Q3-2013			SDG No.:	E3854
Lab Sample ID:	E3854-09			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	970	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050751.D	1	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.23	U	0.23	1.3	2.6	ug/L
91-94-1	3,3-Dichlorobenzidine	3.7	U	3.7	5.2	10.3	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.6	ug/L
218-01-9	Chrysene	0.25	U	0.25	1.3	2.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.3	U	0.3	1.3	2.6	ug/L
117-84-0	Di-n-octyl phthalate	0.32	U	0.32	1.3	2.6	ug/L
205-99-2	Benzo(b)fluoranthene	0.18	U	0.18	1.3	2.6	ug/L
207-08-9	Benzo(k)fluoranthene	0.29	U	0.29	1.3	2.6	ug/L
50-32-8	Benzo(a)pyrene	0.18	U	0.18	1.3	2.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.68	U	0.68	1.3	2.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.29	U	0.29	1.3	2.6	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.38	UQ	0.38	1.3	2.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.2	UQ	5.2	5.2	10.3	ug/L
123-91-1	1,4-Dioxane	5.2	UQ	5.2	5.2	10.3	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	42.5		10 - 160		42%	SPK: 100
13127-88-3	Phenol-d6	26		10 - 161		26%	SPK: 100
4165-60-0	Nitrobenzene-d5	88.1		25 - 124		88%	SPK: 100
321-60-8	2-Fluorobiphenyl	95.2		20 - 129		95%	SPK: 100
118-79-6	2,4,6-Tribromophenol	90.5		10 - 140		91%	SPK: 100
1718-51-0	Terphenyl-d14	110		14 - 155		109%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	114672	6.67				
1146-65-2	Naphthalene-d8	424524	8.54				
15067-26-2	Acenaphthene-d10	219663	11.2				
1517-22-2	Phenanthrene-d10	340692	13.94				
1719-03-5	Chrysene-d12	238666	19.49				
1520-96-3	Perylene-d12	146972	22.46				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	09/24/13
Project:	Avalon- WP9			Date Received:	09/25/13
Client Sample ID:	MW-16-Q3-2013			SDG No.:	E3854
Lab Sample ID:	E3854-09			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	970	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050751.D	1	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	FBQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-10	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050752.D	1	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	UQ	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	FBQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-10	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050752.D	1	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	UQ	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	UQ	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	UQ	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	UQ	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	FBQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-10	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050752.D	1	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	UQ	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	UQ	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	UQ	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	40.7		10 - 160		41%	SPK: 100
13127-88-3	Phenol-d6	23.5		10 - 161		23%	SPK: 100
4165-60-0	Nitrobenzene-d5	91.1		25 - 124		91%	SPK: 100
321-60-8	2-Fluorobiphenyl	99.7		20 - 129		100%	SPK: 100
118-79-6	2,4,6-Tribromophenol	91		10 - 140		91%	SPK: 100
1718-51-0	Terphenyl-d14	120		14 - 155		120%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	107686	6.66				
1146-65-2	Naphthalene-d8	402038	8.54				
15067-26-2	Acenaphthene-d10	210547	11.2				
1517-22-2	Phenanthrene-d10	327015	13.94				
1719-03-5	Chrysene-d12	221898	19.49				
1520-96-3	Perylene-d12	121134	22.46				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	09/24/13
Project:	Avalon- WP9			Date Received:	09/25/13
Client Sample ID:	FBQ3-2013			SDG No.:	E3854
Lab Sample ID:	E3854-10			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050752.D	1	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	DUPQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-11	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050753.D	1	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	UQ	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	1.4	J	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	3.6	J	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	DUPQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-11	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050753.D	1	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	UQ	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	5.6		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	25.7		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	17.6		2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	UQ	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	UQ	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	6.5	Q	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	DUPQ3-2013	SDG No.:	E3854
Lab Sample ID:	E3854-11	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050753.D	1	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.2	J	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	UQ	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	UQ	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	UQ	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	42.6		10 - 160		43%	SPK: 100
13127-88-3	Phenol-d6	25.8		10 - 161		26%	SPK: 100
4165-60-0	Nitrobenzene-d5	90.9		25 - 124		91%	SPK: 100
321-60-8	2-Fluorobiphenyl	98.3		20 - 129		98%	SPK: 100
118-79-6	2,4,6-Tribromophenol	100		10 - 140		100%	SPK: 100
1718-51-0	Terphenyl-d14	100		14 - 155		105%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	106861	6.65				
1146-65-2	Naphthalene-d8	401662	8.53				
15067-26-2	Acenaphthene-d10	216683	11.2				
1517-22-2	Phenanthrene-d10	351944	13.94				
1719-03-5	Chrysene-d12	268849	19.49				
1520-96-3	Perylene-d12	163533	22.46				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	09/24/13
Project:	Avalon- WP9			Date Received:	09/25/13
Client Sample ID:	DUPQ3-2013			SDG No.:	E3854
Lab Sample ID:	E3854-11			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050753.D	1	09/26/13	09/28/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

QC SUMMARY

Surrogate Summary

SW-846

SDG No.: E3854

Client: Cardno ATC

Analytical Method: 625

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
E3854-01	MW-2-Q3-2013	2-Fluorophenol	100	32.98	33		10	160
		Phenol-d6	100	19.04	19		10	161
		Nitrobenzene-d5	100	77.12	77		25	124
		2-Fluorobiphenyl	100	78.80	79		20	129
		2,4,6-Tribromophenol	100	86.82	87		10	140
		Terphenyl-d14	100	80.33	80		14	155
E3854-01DL	MW-2-Q3-2013DL	2-Fluorophenol	100	32.30	32		10	160
		Phenol-d6	100	19.40	19		10	161
		Nitrobenzene-d5	100	78.85	79		25	124
		2-Fluorobiphenyl	100	87.40	87		20	129
		2,4,6-Tribromophenol	100	83.65	84		10	140
		Terphenyl-d14	100	94.20	94		14	155
E3854-02	MW-8-Q3-2013	2-Fluorophenol	100	35.26	35		10	160
		Phenol-d6	100	24.31	24		10	161
		Nitrobenzene-d5	100	100.64	101		25	124
		2-Fluorobiphenyl	100	79.58	80		20	129
		2,4,6-Tribromophenol	100	83.74	84		10	140
		Terphenyl-d14	100	89.13	89		14	155
E3854-02DL	MW-8-Q3-2013DL	2-Fluorophenol	100	37.15	37		10	160
		Phenol-d6	100	23.60	24		10	161
		Nitrobenzene-d5	100	84.35	84		25	124
		2-Fluorobiphenyl	100	93.10	93		20	129
		2,4,6-Tribromophenol	100	95.90	96		10	140
		Terphenyl-d14	100	90.90	91		14	155
E3854-02DL2	MW-8-Q3-2013DL2	2-Fluorophenol	100	32.00	32		10	160
		Phenol-d6	100	22.50	22		10	161
		Nitrobenzene-d5	100	84.00	84		25	124
		2-Fluorobiphenyl	100	92.00	92		20	129
		2,4,6-Tribromophenol	100	82.00	82		10	140
		Terphenyl-d14	100	102.50	102		14	155
E3854-03	MW-11R-Q3-2013	2-Fluorophenol	100	37.67	38		10	160
		Phenol-d6	100	21.72	22		10	161
		Nitrobenzene-d5	100	89.80	90		25	124
		2-Fluorobiphenyl	100	94.95	95		20	129
		2,4,6-Tribromophenol	100	92.04	92		10	140
		Terphenyl-d14	100	106.73	107		14	155
E3854-04MS	MW-11R-Q3-2013MS	2-Fluorophenol	100	38.69	39		10	160
		Phenol-d6	100	23.68	24		10	161
		Nitrobenzene-d5	100	84.96	85		25	124
		2-Fluorobiphenyl	100	91.13	91		20	129
		2,4,6-Tribromophenol	100	96.18	96		10	140
		Terphenyl-d14	100	84.61	85		14	155
E3854-05MSD	MW-11R-Q3-2013MSD	2-Fluorophenol	100	37.33	37		10	160
		Phenol-d6	100	23.00	23		10	161
		Nitrobenzene-d5	100	87.63	88		25	124
		2-Fluorobiphenyl	100	89.88	90		20	129
		2,4,6-Tribromophenol	100	96.96	97		10	140
		Terphenyl-d14	100	91.60	92		14	155
E3854-06	MW-12R-Q3-2013	2-Fluorophenol	100	40.63	41		10	160
		Phenol-d6	100	24.67	25		10	161
		Nitrobenzene-d5	100	91.19	91		25	124
		2-Fluorobiphenyl	100	93.69	94		20	129

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Surrogate Summary

SW-846

SDG No.: E3854

Client: Cardno ATC

Analytical Method: 625

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	High
E3854-06	MW-12R-Q3-2013	2,4,6-Tribromophenol	100	96.78	97		10	140
		Terphenyl-d14	100	116.19	116		14	155
E3854-07	MW-14-Q3-2013	2-Fluorophenol	100	42.44	42		10	160
		Phenol-d6	100	26.73	27		10	161
		Nitrobenzene-d5	100	89.98	90		25	124
		2-Fluorobiphenyl	100	90.80	91		20	129
		2,4,6-Tribromophenol	100	101.04	101		10	140
		Terphenyl-d14	100	100.74	101		14	155
E3854-08	MW-15-Q3-2013	2-Fluorophenol	100	42.39	42		10	160
		Phenol-d6	100	26.19	26		10	161
		Nitrobenzene-d5	100	89.40	89		25	124
		2-Fluorobiphenyl	100	92.33	92		20	129
		2,4,6-Tribromophenol	100	104.66	105		10	140
		Terphenyl-d14	100	104.27	104		14	155
E3854-09	MW-16-Q3-2013	2-Fluorophenol	100	42.48	42		10	160
		Phenol-d6	100	26.03	26		10	161
		Nitrobenzene-d5	100	88.14	88		25	124
		2-Fluorobiphenyl	100	95.16	95		20	129
		2,4,6-Tribromophenol	100	90.52	91		10	140
		Terphenyl-d14	100	108.69	109		14	155
E3854-10	FBQ3-2013	2-Fluorophenol	100	40.69	41		10	160
		Phenol-d6	100	23.48	23		10	161
		Nitrobenzene-d5	100	91.06	91		25	124
		2-Fluorobiphenyl	100	99.67	100		20	129
		2,4,6-Tribromophenol	100	91.02	91		10	140
		Terphenyl-d14	100	119.95	120		14	155
E3854-11	DUPQ3-2013	2-Fluorophenol	100	42.64	43		10	160
		Phenol-d6	100	25.78	26		10	161
		Nitrobenzene-d5	100	90.88	91		25	124
		2-Fluorobiphenyl	100	98.32	98		20	129
		2,4,6-Tribromophenol	100	100.38	100		10	140
		Terphenyl-d14	100	104.80	105		14	155
PB72483BL	PB72483BL	2-Fluorophenol	100	85.78	86		10	160
		Phenol-d6	100	84.41	84		10	161
		Nitrobenzene-d5	100	84.02	84		25	124
		2-Fluorobiphenyl	100	90.50	90		20	129
		2,4,6-Tribromophenol	100	85.53	86		10	140
		Terphenyl-d14	100	102.59	103		14	155
PB72483BS	PB72483BS	2-Fluorophenol	100	54.77	55		10	160
		Phenol-d6	100	52.90	53		10	161
		Nitrobenzene-d5	100	53.29	53		25	124
		2-Fluorobiphenyl	100	59.56	60		20	129
		2,4,6-Tribromophenol	100	65.53	66		10	140
		Terphenyl-d14	100	61.93	62		14	155

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3854

Client: Cardno ATC

Analytical Method: SW625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: E3854-04MS	**Client Sample ID: MW-11R-Q3-2013MS**						**DataFile: BA050746.D**				
n-Nitrosodimethylamine	51	0	21.7	ug/L	43				10	160	
Pyridine	51	0	18.9	ug/L	37				10	145	
Benzaldehyde	51	0	34.1	ug/L	67				10	160	
Aniline	51	0	19.1	ug/L	37	*			50	150	
Phenol	51	0	13.1	ug/L	26				5	112	
bis(2-Chloroethyl)ether	51	0	44.4	ug/L	87				12	158	
2-Chlorophenol	51	0	31.4	ug/L	62				23	134	
1,2-Dichlorobenzene	51	0	41.1	ug/L	81				32	129	
1,3-Dichlorobenzene	51	0	40.4	ug/L	79				1	172	
1,4-Dichlorobenzene	51	0	40.6	ug/L	80				20	124	
Benzyl Alcohol	51	0	29.8	ug/L	58				10	145	
2-Methylphenol	51	0	29	ug/L	57				10	152	
2,2-oxybis(1-Chloropropane)	51	0	48	ug/L	94				36	166	
Acetophenone	51	0	47.1	ug/L	92				50	135	
3+4-Methylphenols	51	0	26.1	ug/L	51				10	152	
N-Nitroso-di-n-propylamine	51	0	45.8	ug/L	90				1	230	
Hexachloroethane	51	0	41.1	ug/L	81				40	113	
Nitrobenzene	51	0	41.8	ug/L	82				35	180	
Isophorone	51	0	41.2	ug/L	81				21	196	
2-Nitrophenol	51	0	41.1	ug/L	81				29	182	
2,4-Dimethylphenol	51	0	30.2	ug/L	59				32	119	
bis(2-Chloroethoxy)methane	51	0	46.5	ug/L	91				33	184	
2,4-Dichlorophenol	51	0	40.5	ug/L	79				39	135	
1,2,4-Trichlorobenzene	51	0	44.7	ug/L	88				44	142	
Benzoic acid	51	0	8.3	ug/L	16				10	145	
Naphthalene	51	0	41.2	ug/L	81				21	133	
4-Chloroaniline	51	0	11.4	ug/L	22				10	157	
Hexachlorobutadiene	51	0	43.5	ug/L	85				24	116	
Caprolactam	51	0	9.8	ug/L	19				10	161	
4-Chloro-3-methylphenol	51	0	35.6	ug/L	70				22	147	
2-Methylnaphthalene	51	0	43	ug/L	84				41	130	
Hexachlorocyclopentadiene	100	0	140	ug/L	140				10	218	
2,4,6-Trichlorophenol	51	0	43.8	ug/L	86				37	144	
2,4,5-Trichlorophenol	51	0	46.8	ug/L	92				10	136	
1,1-Biphenyl	51	0	47	ug/L	92				51	126	
2-Chloronaphthalene	51	0	47.2	ug/L	93				60	118	
2-Nitroaniline	51	0	49.4	ug/L	97				46	154	
Dimethylphthalate	51	0	52.4	ug/L	103				1	112	
Acenaphthylene	51	0	45.4	ug/L	89				33	145	
2,6-Dinitrotoluene	51	0	47.3	ug/L	93				50	158	
3-Nitroaniline	51	0	25.9	ug/L	51				10	152	
Acenaphthene	51	0	44.2	ug/L	87				47	145	
2,4-Dinitrophenol	100	0	93.3	ug/L	93				1	191	
4-Nitrophenol	100	0	25.1	ug/L	25				1	132	
Dibenzofuran	51	0	46.6	ug/L	91				44	140	
2,4-Dinitrotoluene	51	0	48.7	ug/L	95				39	139	
Diethylphthalate	51	0	50.7	ug/L	99				1	114	

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3854

Client: Cardno ATC

Analytical Method: SW625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
4-Chlorophenyl-phenylether	51	0	48.5	ug/L	95				25	158	
Fluorene	51	0	47	ug/L	92				59	121	
4-Nitroaniline	51	0	46.2	ug/L	91				45	160	
4,6-Dinitro-2-methylphenol	51	0	39.8	ug/L	78				1	181	
N-Nitrosodiphenylamine	51	0	42.4	ug/L	83				59	137	
Azobenzene	51	0	46.1	ug/L	90				70	124	
4-Bromophenyl-phenylether	51	0	46.3	ug/L	91				53	127	
Hexachlorobenzene	51	0	48.6	ug/L	95				1	152	
Atrazine	51	0	52	ug/L	102				59	152	
Pentachlorophenol	100	0	86.4	ug/L	86				14	176	
Phenanthrene	51	0	45.4	ug/L	89				54	120	
Anthracene	51	0	46.3	ug/L	91				27	133	
Carbazole	51	0	48.4	ug/L	95				51	160	
Di-n-butylphthalate	51	0	48.1	ug/L	94				1	118	
Fluoranthene	51	0	46.4	ug/L	91				26	137	
Benzidine	100	0	0	ug/L	0	*			10	159	
Pyrene	51	0	43.9	ug/L	86				52	115	
Butylbenzylphthalate	51	0	47.5	ug/L	93				1	152	
3,3-Dichlorobenzidine	51	0	18.2	ug/L	36				1	262	
Benzo(a)anthracene	51	0	46.4	ug/L	91				33	143	
Chrysene	51	0	45.7	ug/L	90				17	168	
bis(2-Ethylhexyl)phthalate	51	0	46.3	ug/L	91				8	158	
Di-n-octyl phthalate	51	0	48.5	ug/L	95				4	146	
Benzo(b)fluoranthene	51	0	53.4	ug/L	105				24	159	
Benzo(k)fluoranthene	51	0	41.8	ug/L	82				11	162	
Benzo(a)pyrene	51	0	48.9	ug/L	96				17	163	
Indeno(1,2,3-cd)pyrene	51	0	53.5	ug/L	105				1	171	
Dibenz(a,h)anthracene	51	0	54.2	ug/L	106				1	227	
Benzo(g,h,i)perylene	51	0	49	ug/L	96				1	219	
1,2,4,5-Tetrachlorobenzene	51	0	23.6	ug/L	46	*			70	130	
2,3,4,6-Tetrachlorophenol	51	0	52.3	ug/L	103				70	130	
1,4-Dioxane	51	0	18.5	ug/L	36	*			70	130	

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3854

Client: Cardno ATC

Analytical Method: SW625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: E3854-05MSD	**Client Sample ID: MW-11R-Q3-2013MSD**						**DataFile: BA050747.D**				
n-Nitrosodimethylamine	50.5	0	22.6	ug/L	45		5		10	160	20
Pyridine	50.5	0	20.4	ug/L	40		8		10	145	20
Benzaldehyde	50.5	0	34.1	ug/L	68		1		10	160	20
Aniline	50.5	0	20.1	ug/L	40	*	8		50	150	20
Phenol	50.5	0	13	ug/L	26		0		5	112	20
bis(2-Chloroethyl)ether	50.5	0	47.5	ug/L	94		8		12	158	20
2-Chlorophenol	50.5	0	33.5	ug/L	66		6		23	134	20
1,2-Dichlorobenzene	50.5	0	44.7	ug/L	89		9		32	129	20
1,3-Dichlorobenzene	50.5	0	43.8	ug/L	87		10		1	172	20
1,4-Dichlorobenzene	50.5	0	43.8	ug/L	87		8		20	124	20
Benzyl Alcohol	50.5	0	32.3	ug/L	64		10		10	145	20
2-Methylphenol	50.5	0	30.5	ug/L	60		5		10	152	20
2,2-oxybis(1-Chloropropane)	50.5	0	51.1	ug/L	101		7		36	166	20
Acetophenone	50.5	0	49.3	ug/L	98		6		50	135	20
3+4-Methylphenols	50.5	0	27.6	ug/L	55		8		10	152	20
N-Nitroso-di-n-propylamine	50.5	0	50.7	ug/L	100		11		1	230	20
Hexachloroethane	50.5	0	44.7	ug/L	89		9		40	113	20
Nitrobenzene	50.5	0	45.1	ug/L	89		8		35	180	20
Isophorone	50.5	0	44	ug/L	87		7		21	196	20
2-Nitrophenol	50.5	0	42.7	ug/L	85		5		29	182	20
2,4-Dimethylphenol	50.5	0	32.4	ug/L	64		8		32	119	20
bis(2-Chloroethoxy)methane	50.5	0	48.7	ug/L	96		5		33	184	20
2,4-Dichlorophenol	50.5	0	43.3	ug/L	86		8		39	135	20
1,2,4-Trichlorobenzene	50.5	0	46.7	ug/L	92		4		44	142	20
Benzoic acid	50.5	0	11.1	ug/L	22		32	*	10	145	20
Naphthalene	50.5	0	44.2	ug/L	88		8		21	133	20
4-Chloroaniline	50.5	0	9.5	ug/L	19		15		10	157	20
Hexachlorobutadiene	50.5	0	45.3	ug/L	90		6		24	116	20
Caprolactam	50.5	0	8.4	ug/L	17		11		10	161	20
4-Chloro-3-methylphenol	50.5	0	39.4	ug/L	78		11		22	147	20
2-Methylnaphthalene	50.5	0	46.3	ug/L	92		9		41	130	20
Hexachlorocyclopentadiene	100	0	160	ug/L	160		13		10	218	20
2,4,6-Trichlorophenol	50.5	0	45.6	ug/L	90		5		37	144	20
2,4,5-Trichlorophenol	50.5	0	52.6	ug/L	104		12		10	136	20
1,1-Biphenyl	50.5	0	47.5	ug/L	94		2		51	126	20
2-Chloronaphthalene	50.5	0	48.5	ug/L	96		3		60	118	20
2-Nitroaniline	50.5	0	51.3	ug/L	102		5		46	154	20
Dimethylphthalate	50.5	0	53.3	ug/L	106		3		1	112	20
Acenaphthylene	50.5	0	46.7	ug/L	92		3		33	145	20
2,6-Dinitrotoluene	50.5	0	50.5	ug/L	100		7		50	158	20
3-Nitroaniline	50.5	0	23.4	ug/L	46		10		10	152	20
Acenaphthene	50.5	0	45.4	ug/L	90		3		47	145	20
2,4-Dinitrophenol	100	0	110	ug/L	110		17		1	191	20
4-Nitrophenol	100	0	25.4	ug/L	25		0		1	132	20
Dibenzofuran	50.5	0	48.5	ug/L	96		5		44	140	20
2,4-Dinitrotoluene	50.5	0	51.2	ug/L	101		6		39	139	20
Diethylphthalate	50.5	0	53.8	ug/L	107		8		1	114	20

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: E3854

Client: Cardno ATC

Analytical Method: SW625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
4-Chlorophenyl-phenylether	50.5	0	50.1	ug/L	99		4		25	158	20
Fluorene	50.5	0	48.1	ug/L	95		3		59	121	20
4-Nitroaniline	50.5	0	45.8	ug/L	91		0		45	160	20
4,6-Dinitro-2-methylphenol	50.5	0	44.8	ug/L	89		13		1	181	20
N-Nitrosodiphenylamine	50.5	0	46.3	ug/L	92		10		59	137	20
Azobenzene	50.5	0	52.4	ug/L	104		14		70	124	20
4-Bromophenyl-phenylether	50.5	0	50	ug/L	99		8		53	127	20
Hexachlorobenzene	50.5	0	52.1	ug/L	103		8		1	152	20
Atrazine	50.5	0	53.6	ug/L	106		4		59	152	20
Pentachlorophenol	100	0	97.7	ug/L	98		13		14	176	20
Phenanthrene	50.5	0	47.8	ug/L	95		7		54	120	20
Anthracene	50.5	0	49.7	ug/L	98		7		27	133	20
Carbazole	50.5	0	50	ug/L	99		4		51	160	20
Di-n-butylphthalate	50.5	0	50.6	ug/L	100		6		1	118	20
Fluoranthene	50.5	0	47.6	ug/L	94		3		26	137	20
Benzidine	100	0	0	ug/L	0	*	0		10	159	20
Pyrene	50.5	0	47.5	ug/L	94		9		52	115	20
Butylbenzylphthalate	50.5	0	50.8	ug/L	101		8		1	152	20
3,3-Dichlorobenzidine	50.5	0	18.9	ug/L	37		3		1	262	20
Benzo(a)anthracene	50.5	0	49.3	ug/L	98		7		33	143	20
Chrysene	50.5	0	49.7	ug/L	98		9		17	168	20
bis(2-Ethylhexyl)phthalate	50.5	0	49.8	ug/L	99		8		8	158	20
Di-n-octyl phthalate	50.5	0	51.3	ug/L	102		7		4	146	20
Benzo(b)fluoranthene	50.5	0	55.4	ug/L	110		5		24	159	20
Benzo(k)fluoranthene	50.5	0	50.9	ug/L	101		21	*	11	162	20
Benzo(a)pyrene	50.5	0	53.8	ug/L	107		11		17	163	20
Indeno(1,2,3-cd)pyrene	50.5	0	50.7	ug/L	100		5		1	171	20
Dibenz(a,h)anthracene	50.5	0	55.8	ug/L	110		4		1	227	20
Benzo(g,h,i)perylene	50.5	0	49.4	ug/L	98		2		1	219	20
1,2,4,5-Tetrachlorobenzene	50.5	0	46.3	ug/L	92		67	*	70	130	20
2,3,4,6-Tetrachlorophenol	50.5	0	37.4	ug/L	74		33	*	70	130	20
1,4-Dioxane	50.5	0	18.9	ug/L	37	*	3		70	130	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3854

Client: Cardno ATC

Analytical Method: 625 **DataFile:** BA050765.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	RPD Qual	Qual	Limits Low	Limits High	RPD
PB72483BS	n-Nitrosodimethylamine	50	28.3	ug/L	57				10	156	
	Pyridine	50	27.2	ug/L	54			*	55	145	
	Benzaldehyde	50	20.7	ug/L	41				10	161	
	Aniline	50	17	ug/L	34			*	50	150	
	Phenol	50	25.8	ug/L	52				5	112	
	bis(2-Chloroethyl)ether	50	29.9	ug/L	60				12	158	
	2-Chlorophenol	50	25	ug/L	50				23	134	
	1,2-Dichlorobenzene	50	27.9	ug/L	56				32	129	
	1,3-Dichlorobenzene	50	27.4	ug/L	55				1	172	
	1,4-Dichlorobenzene	50	27.1	ug/L	54				20	124	
	Benzyl Alcohol	50	28.2	ug/L	56				10	156	
	2-Methylphenol	50	26.5	ug/L	53				15	153	
	2,2-oxybis(1-Chloropropane)	50	29.1	ug/L	58				36	166	
	Acetophenone	50	28.8	ug/L	58				21	128	
	3+4-Methylphenols	50	27.9	ug/L	56				10	156	
	N-Nitroso-di-n-propylamine	50	27.2	ug/L	54				1	230	
	Hexachloroethane	50	27.7	ug/L	55				40	113	
	Nitrobenzene	50	26	ug/L	52				35	180	
	Isophorone	50	24.2	ug/L	48				21	196	
	2-Nitrophenol	50	25	ug/L	50				29	182	
	2,4-Dimethylphenol	50	25.9	ug/L	52				32	119	
	bis(2-Chloroethoxy)methane	50	27.8	ug/L	56				33	184	
	2,4-Dichlorophenol	50	27.2	ug/L	54				39	135	
	1,2,4-Trichlorobenzene	50	28.8	ug/L	58				44	142	
	Benzoic acid	50	24.6	ug/L	49				10	159	
	Naphthalene	50	26.7	ug/L	53				21	133	
	4-Chloroaniline	50	12.2	ug/L	24				10	156	
	Hexachlorobutadiene	50	28.2	ug/L	56				24	116	
	Caprolactam	50	28.7	ug/L	57				10	160	
	4-Chloro-3-methylphenol	50	24.6	ug/L	49				22	147	
	2-Methylnaphthalene	50	26.5	ug/L	53				25	124	
	Hexachlorocyclopentadiene	100	90	ug/L	90				10	143	
	2,4,6-Trichlorophenol	50	27.7	ug/L	55				37	144	
	2,4,5-Trichlorophenol	50	29.5	ug/L	59				41	120	
	1,1-Biphenyl	50	29.4	ug/L	59				20	125	
	2-Chloronaphthalene	50	28.7	ug/L	57			*	60	118	
	2-Nitroaniline	50	28.2	ug/L	56				38	131	
	Dimethylphthalate	50	29	ug/L	58				1	112	
	Acenaphthylene	50	27.1	ug/L	54				33	145	
	2,6-Dinitrotoluene	50	26	ug/L	52				50	158	
	3-Nitroaniline	50	20.5	ug/L	41				24	126	
	Acenaphthene	50	26.4	ug/L	53				47	145	
	2,4-Dinitrophenol	100	58.5	ug/L	58				1	191	
	4-Nitrophenol	100	49.8	ug/L	50				1	132	
	Dibenzofuran	50	27.5	ug/L	55				29	125	
	2,4-Dinitrotoluene	50	26.3	ug/L	53				39	139	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: E3854

Client: Cardno ATC

Analytical Method: 625 **DataFile:** BA050765.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB72483BS	Diethylphthalate	50	28.6	ug/L	57				1	114	
	4-Chlorophenyl-phenylether	50	29.5	ug/L	59				25	158	
	Fluorene	50	27.9	ug/L	56		*		59	121	
	4-Nitroaniline	50	24.5	ug/L	49		*		50	137	
	4,6-Dinitro-2-methylphenol	50	23.2	ug/L	46				1	181	
	N-Nitrosodiphenylamine	50	29.3	ug/L	59				37	139	
	Azobenzene	50	26.7	ug/L	53				45	134	
	4-Bromophenyl-phenylether	50	29.3	ug/L	59				53	127	
	Hexachlorobenzene	50	28.6	ug/L	57				1	152	
	Atrazine	50	31.9	ug/L	64				51	130	
	Pentachlorophenol	100	53.4	ug/L	53				14	176	
	Phenanthrene	50	27.6	ug/L	55				54	120	
	Anthracene	50	28.3	ug/L	57				27	133	
	Carbazole	50	27.1	ug/L	54		*		60	125	
	Di-n-butylphthalate	50	29.5	ug/L	59				1	118	
	Fluoranthene	50	27.6	ug/L	55				26	137	
	Benzidine	100	29	ug/L	29				10	158	
	Pyrene	50	29	ug/L	58				52	115	
	Butylbenzylphthalate	50	30.6	ug/L	61				1	152	
	3,3-Dichlorobenzidine	50	19.2	ug/L	38				1	262	
	Benzo(a)anthracene	50	27.9	ug/L	56				33	143	
	Chrysene	50	27.9	ug/L	56				17	168	
	bis(2-Ethylhexyl)phthalate	50	30	ug/L	60				8	158	
	Di-n-octyl phthalate	50	30	ug/L	60				4	146	
	Benzo(b)fluoranthene	50	27.8	ug/L	56				24	159	
	Benzo(k)fluoranthene	50	31.8	ug/L	64				11	162	
	Benzo(a)pyrene	50	29.8	ug/L	60				17	163	
	Indeno(1,2,3-cd)pyrene	50	28.7	ug/L	57				1	171	
	Dibenz(a,h)anthracene	50	30.7	ug/L	61				1	227	
	Benzo(g,h,i)perylene	50	30.8	ug/L	62				1	219	
	1,2,4,5-Tetrachlorobenzene	50	28.9	ug/L	58		*		70	130	
	2,3,4,6-Tetrachlorophenol	50	29.9	ug/L	60		*		70	130	
	1,4-Dioxane	50	21.6	ug/L	43		*		70	130	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB72483BL

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

Lab File ID: BA050766.D Lab Sample ID: PB72483BL

Instrument ID: BNA_A Date Extracted: 09/26/2013

Matrix: (soil/water) Water Date Analyzed: 10/01/2013

Level: (low/med) LOW Time Analyzed: 17:57

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
MW-2-Q3-2013	E3854-01	BA050743.D	09/27/2013
MW-8-Q3-2013	E3854-02	BA050744.D	09/27/2013
MW-11R-Q3-2013	E3854-03	BA050745.D	09/27/2013
MW-11R-Q3-2013MS	E3854-04MS	BA050746.D	09/27/2013
MW-11R-Q3-2013MSD	E3854-05MSD	BA050747.D	09/27/2013
MW-12R-Q3-2013	E3854-06	BA050748.D	09/27/2013
MW-14-Q3-2013	E3854-07	BA050749.D	09/27/2013
MW-15-Q3-2013	E3854-08	BA050750.D	09/27/2013
MW-16-Q3-2013	E3854-09	BA050751.D	09/28/2013
FBQ3-2013	E3854-10	BA050752.D	09/28/2013
DUPQ3-2013	E3854-11	BA050753.D	09/28/2013
PB72483BS	PB72483BS	BA050765.D	10/01/2013

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM SAS No.: E3854 SDG NO.: E3854

Lab File ID: BA050734.D DFTPP Injection Date: 09/27/2013

Instrument ID: BNA_A DFTPP Injection Time: 12:21

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	43.3
68	Less than 2.0% of mass 69	0.3 (0.5) 1
69	Mass 69 relative abundance	56.2
70	Less than 2.0% of mass 69	0.0 (0.0) 1
127	10.0 - 80.0% of mass 198	45.3
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.1
275	10.0 - 60.0% of mass 198	19.4
365	Greater than 1% of mass 198	1.3
441	Present, but less than mass 443	6.6
442	Greater than 50% of mass 198	46.7
443	15.0 - 24.0% of mass 442	9.4 (20.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC060	SSTDICC060	BA050735.D	09/27/2013	13:05
SSTDICC040	SSTDICC040	BA050736.D	09/27/2013	13:44
SSTDICCC025	SSTDICCC025	BA050737.D	09/27/2013	14:22
SSTDICC010	SSTDICC010	BA050738.D	09/27/2013	15:00
SSTDICC2.5	SSTDICC2.5	BA050739.D	09/27/2013	15:38
MW-2-Q3-2013	E3854-01	BA050743.D	09/27/2013	19:27
MW-8-Q3-2013	E3854-02	BA050744.D	09/27/2013	20:04
MW-11R-Q3-2013	E3854-03	BA050745.D	09/27/2013	20:42
MW-11R-Q3-2013MS	E3854-04MS	BA050746.D	09/27/2013	21:19
MW-11R-Q3-2013MSD	E3854-05MSD	BA050747.D	09/27/2013	21:57
MW-12R-Q3-2013	E3854-06	BA050748.D	09/27/2013	22:34
MW-14-Q3-2013	E3854-07	BA050749.D	09/27/2013	23:12
MW-15-Q3-2013	E3854-08	BA050750.D	09/27/2013	23:49
MW-16-Q3-2013	E3854-09	BA050751.D	09/28/2013	00:27
FBQ3-2013	E3854-10	BA050752.D	09/28/2013	01:04
DUPQ3-2013	E3854-11	BA050753.D	09/28/2013	01:41
MW-2-Q3-2013DL	E3854-01DL	BA050754.D	09/28/2013	02:20
MW-8-Q3-2013DL	E3854-02DL	BA050755.D	09/28/2013	02:57
MW-8-Q3-2013DL2	E3854-02DL2	BA050756.D	09/28/2013	03:35

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM SAS No.: E3854 SDG NO.: E3854

Lab File ID: BA050757.D DFTPP Injection Date: 10/01/2013

Instrument ID: BNA_A DFTPP Injection Time: 09:59

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	42.8
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	54.3
70	Less than 2.0% of mass 69	0.2 (0.4) 1
127	10.0 - 80.0% of mass 198	44.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	20
365	Greater than 1% of mass 198	1.6
441	Present, but less than mass 443	8.4
442	Greater than 50% of mass 198	57.1
443	15.0 - 24.0% of mass 442	11.1 (19.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC040	SSTDICC040	BA050759.D	10/01/2013	11:34
SSTDICCC025	SSTDICCC025	BA050760.D	10/01/2013	12:12
SSTDICC010	SSTDICC010	BA050761.D	10/01/2013	12:50
SSTDICC2.5	SSTDICC2.5	BA050762.D	10/01/2013	13:28
SSTDICC060	SSTDICC060	BA050763.D	10/01/2013	14:45
PB72483BS	PB72483BS	BA050765.D	10/01/2013	17:19
PB72483BL	PB72483BL	BA050766.D	10/01/2013	17:57

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

EPA Sample No.: SSTDICCC025 Date Analyzed: 09/27/2013

Lab File ID: BA050737.D Time Analyzed: 14:22

Instrument ID: BNA_A GC Column: RTX-5 ID: 0.32 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	120431	6.67	457677	8.54	258637	11.21
	UPPER LIMIT	240862	7.17	915354	9.04	517274	11.71
	LOWER LIMIT	60215.5	6.17	228839	8.04	129319	10.71
	EPA SAMPLE NO.						
01	MW-2-Q3-2013	74477	6.66	289088	8.53	168369	11.2
02	MW-2-Q3-2013DL	109411	6.65	426478	8.54	244397	11.2
03	MW-8-Q3-2013	100843	6.67	306371	8.59	249603	11.22
04	MW-8-Q3-2013DL	107574	6.66	421722	8.55	249035	11.21
05	MW-8-Q3-2013DL2	112224	6.66	434920	8.53	245371	11.2
06	MW-11R-Q3-2013	103659	6.66	387647	8.53	205569	11.19
07	MW-11R-Q3-2013MS	108144	6.67	415323	8.54	223122	11.21
08	MW-11R-Q3-2013MSD	107857	6.68	432220	8.55	251512	11.21
09	MW-12R-Q3-2013	112868	6.66	435550	8.53	244132	11.2
10	MW-14-Q3-2013	120601	6.66	469901	8.53	283471	11.21
11	MW-15-Q3-2013	112063	6.67	429856	8.54	241711	11.2
12	MW-16-Q3-2013	114672	6.67	424524	8.54	219663	11.2
13	FBQ3-2013	107686	6.66	402038	8.54	210547	11.2
14	DUPQ3-2013	106861	6.65	401662	8.53	216683	11.2

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

EPA Sample No.: SSTDICCC025 Date Analyzed: 09/27/2013

Lab File ID: BA050737.D Time Analyzed: 14:22

Instrument ID: BNA_A GC Column: RTX-5 ID: 0.32 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	446217	13.94	368100	19.52	215153	22.47
	UPPER LIMIT	892434	14.44	736200	20.02	430306	22.97
	LOWER LIMIT	223109	13.44	184050	19.02	107577	21.97
	EPA SAMPLE NO.						
01	MW-2-Q3-2013	320084	13.95	258178	19.52	132147	22.47
02	MW-2-Q3-2013DL	417423	13.94	314566	19.49	183238	22.47
03	MW-8-Q3-2013	432569	13.97	298260	19.55	130122	22.49
04	MW-8-Q3-2013DL	426709	13.93	325260	19.50	180695	22.47
05	MW-8-Q3-2013DL2	406908	13.93	263431	19.50	137306	22.46
06	MW-11R-Q3-2013	346664	13.93	252665	19.49	146950	22.46
07	MW-11R-Q3-2013MS	386418	13.95	331653	19.53	208757	22.49
08	MW-11R-Q3-2013MSD	420294	13.95	334884	19.54	193669	22.48
09	MW-12R-Q3-2013	397233	13.93	260724	19.49	144783	22.46
10	MW-14-Q3-2013	459707	13.95	341841	19.50	185503	22.47
11	MW-15-Q3-2013	416422	13.94	300205	19.49	167029	22.46
12	MW-16-Q3-2013	340692	13.94	238666	19.49	146972	22.46
13	FBQ3-2013	327015	13.94	221898	19.49	121134	22.46
14	DUPQ3-2013	351944	13.94	268849	19.49	163533	22.46

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

EPA Sample No.: SSTDICCC025 Date Analyzed: 10/01/2013

Lab File ID: BA050760.D Time Analyzed: 12:12

Instrument ID: BNA_A GC Column: RTX-5 ID: 0.32 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	195746	6.69	781844	8.56	438939	11.23
	UPPER LIMIT	391492	7.19	1563690	9.06	877878	11.73
	LOWER LIMIT	97873	6.19	390922	8.06	219470	10.73
	EPA SAMPLE NO.						
01	PB72483BL	139926	6.69	523720	8.55	280711	11.22
02	PB72483BS	129929	6.70	505621	8.56	272544	11.23

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG NO.: E3854

EPA Sample No.: SSTDICCC025 Date Analyzed: 10/01/2013

Lab File ID: BA050760.D Time Analyzed: 12:12

Instrument ID: BNA_A GC Column: RTX-5 ID: 0.32 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	714848	13.97	617743	19.55	454983	22.52
	UPPER LIMIT	1429700	14.47	1235490	20.05	909966	23.02
	LOWER LIMIT	357424	13.47	308872	19.05	227492	22.02
	EPA SAMPLE NO.						
01	PB72483BL	449620	13.96	346010	19.53	231136	22.51
02	PB72483BS	435345	13.97	348906	19.55	236091	22.50

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB72483BL	SDG No.:	E3854
Lab Sample ID:	PB72483BL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050766.D	1	09/26/13	10/01/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	U	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB72483BL	SDG No.:	E3854
Lab Sample ID:	PB72483BL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050766.D	1	09/26/13	10/01/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB72483BL	SDG No.:	E3854
Lab Sample ID:	PB72483BL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050766.D	1	09/26/13	10/01/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	U	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	U	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	85.8		10 - 160		86%	SPK: 100
13127-88-3	Phenol-d6	84.4		10 - 161		84%	SPK: 100
4165-60-0	Nitrobenzene-d5	84		25 - 124		84%	SPK: 100
321-60-8	2-Fluorobiphenyl	90.5		20 - 129		90%	SPK: 100
118-79-6	2,4,6-Tribromophenol	85.5		10 - 140		86%	SPK: 100
1718-51-0	Terphenyl-d14	100		14 - 155		103%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	139926	6.69				
1146-65-2	Naphthalene-d8	523720	8.55				
15067-26-2	Acenaphthene-d10	280711	11.22				
1517-22-2	Phenanthrene-d10	449620	13.96				
1719-03-5	Chrysene-d12	346010	19.53				
1520-96-3	Perylene-d12	231136	22.51				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	
Project:	Avalon- WP9			Date Received:	
Client Sample ID:	PB72483BL			SDG No.:	E3854
Lab Sample ID:	PB72483BL			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050766.D	1	09/26/13	10/01/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB72483BS	SDG No.:	E3854
Lab Sample ID:	PB72483BS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050765.D	1	09/26/13	10/01/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	28.3		2.7	5	10	ug/L
110-86-1	Pyridine	27.2		5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	20.7		0.28	1.3	2.5	ug/L
62-53-3	Aniline	17		3.9	5	10	ug/L
108-95-2	Phenol	25.8		0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	29.9		0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	25		0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	27.9		0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	27.4		0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	27.1		0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	28.2		0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	26.5		1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	29.1		0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	28.8		0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	27.9		0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	27.2		0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	27.7		0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	26		0.65	1.3	2.5	ug/L
78-59-1	Isophorone	24.2		0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	25		4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	25.9		0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	27.8		1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	27.2		3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	28.8		0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	24.6	J	3.2	12.5	25	ug/L
91-20-3	Naphthalene	26.7		0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	12.2		2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	28.2		0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	28.7		2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	24.6		1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	26.5		0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB72483BS	SDG No.:	E3854
Lab Sample ID:	PB72483BS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050765.D	1	09/26/13	10/01/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	90	E	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	27.7		2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	29.5		2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	29.4		0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	28.7		0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	28.2		4.2	5	10	ug/L
131-11-3	Dimethylphthalate	29		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	27.1		0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	26		0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	20.5		2	5	10	ug/L
83-32-9	Acenaphthene	26.4		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	58.5		1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	49.8		3.9	5	10	ug/L
132-64-9	Dibenzofuran	27.5		2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	26.3		2.1	5	10	ug/L
84-66-2	Diethylphthalate	28.6		0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	29.5		0.27	1.3	2.5	ug/L
86-73-7	Fluorene	27.9		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	24.5		2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	23.2		1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	29.3		0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	26.7		0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	29.3		0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	28.6		0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	31.9		0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	53.4		2.7	5	10	ug/L
85-01-8	Phenanthrene	27.6		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	28.3		0.3	1.3	2.5	ug/L
86-74-8	Carbazole	27.1		0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	29.5		0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	27.6		0.84	1.3	2.5	ug/L
92-87-5	Benzidine	29		8.7	12.5	25	ug/L
129-00-0	Pyrene	29		0.13	1.3	2.5	ug/L

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Report of Analysis

Client:	Cardno ATC			Date Collected:	
Project:	Avalon- WP9			Date Received:	
Client Sample ID:	PB72483BS			SDG No.:	E3854
Lab Sample ID:	PB72483BS			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050765.D	1	09/26/13	10/01/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	30.6		0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	19.2		3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	27.9		0.12	1.3	2.5	ug/L
218-01-9	Chrysene	27.9		0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	30		0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	30		0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	27.8		0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	31.8		0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	29.8		0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	28.7		0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	30.7		0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	30.8		0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	28.9		0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	29.9		5	5	10	ug/L
123-91-1	1,4-Dioxane	21.6		5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	54.8		10 - 160		55%	SPK: 100
13127-88-3	Phenol-d6	52.9		10 - 161		53%	SPK: 100
4165-60-0	Nitrobenzene-d5	53.3		25 - 124		53%	SPK: 100
321-60-8	2-Fluorobiphenyl	59.6		20 - 129		60%	SPK: 100
118-79-6	2,4,6-Tribromophenol	65.5		10 - 140		66%	SPK: 100
1718-51-0	Terphenyl-d14	61.9		14 - 155		62%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	129929	6.7				
1146-65-2	Naphthalene-d8	505621	8.56				
15067-26-2	Acenaphthene-d10	272544	11.23				
1517-22-2	Phenanthrene-d10	435345	13.97				
1719-03-5	Chrysene-d12	348906	19.55				
1520-96-3	Perylene-d12	236091	22.5				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	
Project:	Avalon- WP9			Date Received:	
Client Sample ID:	PB72483BS			SDG No.:	E3854
Lab Sample ID:	PB72483BS			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050765.D	1	09/26/13	10/01/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MS	SDG No.:	E3854
Lab Sample ID:	E3854-04MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050746.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	21.7		2.7	5.1	10.2	ug/L
110-86-1	Pyridine	18.9	J	6	12.8	25.5	ug/L
100-52-7	Benzaldehyde	34.1		0.29	1.3	2.6	ug/L
62-53-3	Aniline	19.1		3.9	5.1	10.2	ug/L
108-95-2	Phenol	13.1		0.47	1.3	2.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	44.4		0.36	1.3	2.6	ug/L
95-57-8	2-Chlorophenol	31.4		0.19	1.3	2.6	ug/L
95-50-1	1,2-Dichlorobenzene	41.1		0.26	1.3	2.6	ug/L
541-73-1	1,3-Dichlorobenzene	40.4		0.12	1.3	2.6	ug/L
106-46-7	1,4-Dichlorobenzene	40.6		0.18	1.3	2.6	ug/L
100-51-6	Benzyl Alcohol	29.8		0.33	1.3	2.6	ug/L
95-48-7	2-Methylphenol	29		1.8	5.1	10.2	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	48		0.36	1.3	2.6	ug/L
98-86-2	Acetophenone	47.1		0.2	1.3	2.6	ug/L
65794-96-9	3+4-Methylphenols	26.1		0.59	1.3	2.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	45.8		0.22	1.3	2.6	ug/L
67-72-1	Hexachloroethane	41.1		0.26	1.3	2.6	ug/L
98-95-3	Nitrobenzene	41.8		0.66	1.3	2.6	ug/L
78-59-1	Isophorone	41.2		0.42	1.3	2.6	ug/L
88-75-5	2-Nitrophenol	41.1		4.5	5.1	10.2	ug/L
105-67-9	2,4-Dimethylphenol	30.2		0.71	1.3	2.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	46.5		1.1	1.3	2.6	ug/L
120-83-2	2,4-Dichlorophenol	40.5		3.3	5.1	10.2	ug/L
120-82-1	1,2,4-Trichlorobenzene	44.7		0.14	1.3	2.6	ug/L
65-85-0	Benzoic acid	8.3	J	3.3	12.8	25.5	ug/L
91-20-3	Naphthalene	41.2		0.19	1.3	2.6	ug/L
106-47-8	4-Chloroaniline	11.4		2.7	5.1	10.2	ug/L
87-68-3	Hexachlorobutadiene	43.5		0.17	1.3	2.6	ug/L
105-60-2	Caprolactam	9.8	J	2	5.1	10.2	ug/L
59-50-7	4-Chloro-3-methylphenol	35.6		1.8	5.1	10.2	ug/L
91-57-6	2-Methylnaphthalene	43		0.19	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MS	SDG No.:	E3854
Lab Sample ID:	E3854-04MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050746.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	140	E	1.5	5.1	10.2	ug/L
88-06-2	2,4,6-Trichlorophenol	43.8		2.2	5.1	10.2	ug/L
95-95-4	2,4,5-Trichlorophenol	46.8		2.3	5.1	10.2	ug/L
92-52-4	1,1-Biphenyl	47		0.27	1.3	2.6	ug/L
91-58-7	2-Chloronaphthalene	47.2		0.15	1.3	2.6	ug/L
88-74-4	2-Nitroaniline	49.4		4.3	5.1	10.2	ug/L
131-11-3	Dimethylphthalate	52.4		0.17	1.3	2.6	ug/L
208-96-8	Acenaphthylene	45.4		0.16	1.3	2.6	ug/L
606-20-2	2,6-Dinitrotoluene	47.3		0.28	1.3	2.6	ug/L
99-09-2	3-Nitroaniline	25.9		2.1	5.1	10.2	ug/L
83-32-9	Acenaphthene	44.2		0.17	1.3	2.6	ug/L
51-28-5	2,4-Dinitrophenol	93.3	E	1.9	12.8	25.5	ug/L
100-02-7	4-Nitrophenol	25.1		3.9	5.1	10.2	ug/L
132-64-9	Dibenzofuran	46.6		2.2	5.1	10.2	ug/L
121-14-2	2,4-Dinitrotoluene	48.7		2.2	5.1	10.2	ug/L
84-66-2	Diethylphthalate	50.7		0.1	1.3	2.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	48.5		0.28	1.3	2.6	ug/L
86-73-7	Fluorene	47		0.15	1.3	2.6	ug/L
100-01-6	4-Nitroaniline	46.2		2.5	1.3	2.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	39.8		1.9	5.1	10.2	ug/L
86-30-6	n-Nitrosodiphenylamine	42.4		0.82	1.3	2.6	ug/L
103-33-3	Azobenzene	46.1		0.22	1.3	2.6	ug/L
101-55-3	4-Bromophenyl-phenylether	46.3		0.43	1.3	2.6	ug/L
118-74-1	Hexachlorobenzene	48.6		0.22	1.3	2.6	ug/L
1912-24-9	Atrazine	52		0.57	1.3	2.6	ug/L
87-86-5	Pentachlorophenol	86.4	E	2.7	5.1	10.2	ug/L
85-01-8	Phenanthrene	45.4		0.11	1.3	2.6	ug/L
120-12-7	Anthracene	46.3		0.31	1.3	2.6	ug/L
86-74-8	Carbazole	48.4		0.48	1.3	2.6	ug/L
84-74-2	Di-n-butylphthalate	48.1		0.6	1.3	2.6	ug/L
206-44-0	Fluoranthene	46.4		0.86	1.3	2.6	ug/L
92-87-5	Benzidine	8.9	U	8.9	12.8	25.5	ug/L
129-00-0	Pyrene	43.9		0.13	1.3	2.6	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MS	SDG No.:	E3854
Lab Sample ID:	E3854-04MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050746.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	47.5		0.22	1.3	2.6	ug/L
91-94-1	3,3-Dichlorobenzidine	18.2		3.7	5.1	10.2	ug/L
56-55-3	Benzo(a)anthracene	46.4		0.12	1.3	2.6	ug/L
218-01-9	Chrysene	45.7		0.24	1.3	2.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	46.3		0.3	1.3	2.6	ug/L
117-84-0	Di-n-octyl phthalate	48.5		0.32	1.3	2.6	ug/L
205-99-2	Benzo(b)fluoranthene	53.4		0.17	1.3	2.6	ug/L
207-08-9	Benzo(k)fluoranthene	41.8		0.29	1.3	2.6	ug/L
50-32-8	Benzo(a)pyrene	48.9		0.17	1.3	2.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	53.5		0.67	1.3	2.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	54.2		0.29	1.3	2.6	ug/L
191-24-2	Benzo(g,h,i)perylene	49		0.13	1.3	2.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	23.6		0.38	1.3	2.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	52.3		5.1	5.1	10.2	ug/L
123-91-1	1,4-Dioxane	18.5		5.1	5.1	10.2	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	38.7		10 - 160		39%	SPK: 100
13127-88-3	Phenol-d6	23.7		10 - 161		24%	SPK: 100
4165-60-0	Nitrobenzene-d5	85		25 - 124		85%	SPK: 100
321-60-8	2-Fluorobiphenyl	91.1		20 - 129		91%	SPK: 100
118-79-6	2,4,6-Tribromophenol	96.2		10 - 140		96%	SPK: 100
1718-51-0	Terphenyl-d14	84.6		14 - 155		85%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	108144	6.67				
1146-65-2	Naphthalene-d8	415323	8.54				
15067-26-2	Acenaphthene-d10	223122	11.21				
1517-22-2	Phenanthrene-d10	386418	13.95				
1719-03-5	Chrysene-d12	331653	19.53				
1520-96-3	Perylene-d12	208757	22.49				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MS	SDG No.:	E3854
Lab Sample ID:	E3854-04MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050746.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MSD	SDG No.:	E3854
Lab Sample ID:	E3854-05MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050747.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	22.6		2.7	5.1	10.1	ug/L
110-86-1	Pyridine	20.4	J	5.9	12.6	25.3	ug/L
100-52-7	Benzaldehyde	34.1		0.28	1.3	2.5	ug/L
62-53-3	Aniline	20.1		3.9	5.1	10.1	ug/L
108-95-2	Phenol	13		0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	47.5		0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	33.5		0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	44.7		0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	43.8		0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	43.8		0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	32.3		0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	30.5		1.8	5.1	10.1	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	51.1		0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	49.3		0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	27.6		0.59	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	50.7		0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	44.7		0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	45.1		0.66	1.3	2.5	ug/L
78-59-1	Isophorone	44		0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	42.7		4.4	5.1	10.1	ug/L
105-67-9	2,4-Dimethylphenol	32.4		0.71	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	48.7		1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	43.3		3.2	5.1	10.1	ug/L
120-82-1	1,2,4-Trichlorobenzene	46.7		0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	11.1	J	3.3	12.6	25.3	ug/L
91-20-3	Naphthalene	44.2		0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	9.5	J	2.7	5.1	10.1	ug/L
87-68-3	Hexachlorobutadiene	45.3		0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	8.4	J	2	5.1	10.1	ug/L
59-50-7	4-Chloro-3-methylphenol	39.4		1.7	5.1	10.1	ug/L
91-57-6	2-Methylnaphthalene	46.3		0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MSD	SDG No.:	E3854
Lab Sample ID:	E3854-05MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050747.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	160	E	1.5	5.1	10.1	ug/L
88-06-2	2,4,6-Trichlorophenol	45.6		2.1	5.1	10.1	ug/L
95-95-4	2,4,5-Trichlorophenol	52.6		2.3	5.1	10.1	ug/L
92-52-4	1,1-Biphenyl	47.5		0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	48.5		0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	51.3		4.3	5.1	10.1	ug/L
131-11-3	Dimethylphthalate	53.3		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	46.7		0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	50.5		0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	23.4		2	5.1	10.1	ug/L
83-32-9	Acenaphthene	45.4		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	110	E	1.9	12.6	25.3	ug/L
100-02-7	4-Nitrophenol	25.4		3.9	5.1	10.1	ug/L
132-64-9	Dibenzofuran	48.5		2.1	5.1	10.1	ug/L
121-14-2	2,4-Dinitrotoluene	51.2		2.1	5.1	10.1	ug/L
84-66-2	Diethylphthalate	53.8		0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	50.1		0.27	1.3	2.5	ug/L
86-73-7	Fluorene	48.1		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	45.8		2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	44.8		1.9	5.1	10.1	ug/L
86-30-6	n-Nitrosodiphenylamine	46.3		0.81	1.3	2.5	ug/L
103-33-3	Azobenzene	52.4		0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	50		0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	52.1		0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	53.6		0.57	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	97.7	E	2.7	5.1	10.1	ug/L
85-01-8	Phenanthrene	47.8		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	49.7		0.3	1.3	2.5	ug/L
86-74-8	Carbazole	50		0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	50.6		0.6	1.3	2.5	ug/L
206-44-0	Fluoranthene	47.6		0.85	1.3	2.5	ug/L
92-87-5	Benzidine	8.8	U	8.8	12.6	25.3	ug/L
129-00-0	Pyrene	47.5		0.13	1.3	2.5	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MSD	SDG No.:	E3854
Lab Sample ID:	E3854-05MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050747.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	50.8		0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	18.9		3.6	5.1	10.1	ug/L
56-55-3	Benzo(a)anthracene	49.3		0.12	1.3	2.5	ug/L
218-01-9	Chrysene	49.7		0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	49.8		0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	51.3		0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	55.4		0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	50.9		0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	53.8		0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	50.7		0.67	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	55.8		0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	49.4		0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	46.3		0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	37.4		5.1	5.1	10.1	ug/L
123-91-1	1,4-Dioxane	18.9		5.1	5.1	10.1	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	37.3		10 - 160		37%	SPK: 100
13127-88-3	Phenol-d6	23		10 - 161		23%	SPK: 100
4165-60-0	Nitrobenzene-d5	87.6		25 - 124		88%	SPK: 100
321-60-8	2-Fluorobiphenyl	89.9		20 - 129		90%	SPK: 100
118-79-6	2,4,6-Tribromophenol	97		10 - 140		97%	SPK: 100
1718-51-0	Terphenyl-d14	91.6		14 - 155		92%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	107857	6.68				
1146-65-2	Naphthalene-d8	432220	8.55				
15067-26-2	Acenaphthene-d10	251512	11.21				
1517-22-2	Phenanthrene-d10	420294	13.95				
1719-03-5	Chrysene-d12	334884	19.54				
1520-96-3	Perylene-d12	193669	22.48				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	09/24/13
Project:	Avalon- WP9	Date Received:	09/25/13
Client Sample ID:	MW-11R-Q3-2013MSD	SDG No.:	E3854
Lab Sample ID:	E3854-05MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BA050747.D	1	09/26/13	09/27/13	PB72483

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: BNA_A Calibration Date(s): 09/27/2013 09/27/2013

Calibration Time(s): 13:05 15:38

LAB FILE ID: RRF060 = BA050735.D RRF040 = BA050736.D RRF025 = BA050737.D
RRF010 = BA050738.D RRF2.5 = BA050739.D RRF =

COMPOUND	RRF060	RRF040	RRF025	RRF010	RRF2.5	RRF	RRF	% RSD
n-Nitrosodimethylamine	0.686	0.748	0.758	0.782	0.785		0.752	5.3
Pyridine	1.482	1.640	1.640	1.667	1.695		1.625	5.1
2-Fluorophenol	1.405	1.512	1.492	1.511	1.442		1.472	3.2
Benzaldehyde	0.560	0.717	0.820	0.961	0.993		0.810	22.1
Aniline	1.962	2.090	2.070	2.049	1.987		2.032	2.7
Phenol-d6	1.725	1.836	1.859	1.846	1.813		1.816	2.9
Phenol	1.962	2.126	2.102	2.126	2.005		2.064	3.7
bis(2-Chloroethyl)ether	1.535	1.609	1.610	1.569	1.610		1.586	2.1
2-Chlorophenol	1.794	1.877	1.847	1.803	1.755		1.815	2.6
1,2-Dichlorobenzene	1.593	1.702	1.671	1.649	1.671		1.657	2.5
1,3-Dichlorobenzene	1.693	1.770	1.743	1.724	1.715		1.729	1.7
1,4-Dichlorobenzene	1.729	1.798	1.764	1.780	1.775		1.769	1.4
Benzyl Alcohol	1.052	1.135	1.157	1.117	1.056		1.103	4.3
2-Methylphenol	1.272	1.298	1.222	1.200	1.146		1.228	4.9
2,2-oxybis(1-Chloropropane)	2.524	2.623	2.617	2.597	2.622		2.596	1.6
Acetophenone	0.465	0.484	0.490	0.485	0.480		0.481	2.0
3+4-Methylphenols	1.569	1.614	1.633	1.558	1.467		1.568	4.1
n-Nitroso-di-n-propylamine	1.080	1.085	1.100	1.093	1.063		1.084	1.3
Nitrobenzene-d5	0.368	0.389	0.389	0.391	0.379		0.383	2.5
Hexachloroethane	0.688	0.697	0.689	0.668	0.617		0.672	4.8
Nitrobenzene	0.394	0.418	0.414	0.411	0.404		0.408	2.3
Isophorone	0.798	0.816	0.823	0.818	0.806		0.812	1.3
2-Nitrophenol	0.283	0.271	0.267	0.247	0.223		0.258	9.2
2,4-Dimethylphenol	0.361	0.370	0.375	0.362	0.352		0.364	2.5
bis(2-Chloroethoxy)methane	0.454	0.477	0.483	0.482	0.449		0.469	3.5
2,4-Dichlorophenol	0.349	0.361	0.365	0.339	0.298		0.342	7.9
1,2,4-Trichlorobenzene	0.342	0.358	0.358	0.349	0.331		0.348	3.4
Benzoic acid	0.219	0.192	0.160				0.190	15.5
Naphthalene	1.019	1.100	1.131	1.151	1.120		1.104	4.6
4-Chloroaniline	0.442	0.459	0.463	0.438	0.396		0.439	6.0
Hexachlorobutadiene	0.176	0.180	0.181	0.182	0.166		0.177	3.8
Caprolactam	0.108	0.106	0.114	0.128	0.105		0.112	8.5
4-Chloro-3-methylphenol	0.337	0.335	0.336	0.314	0.283		0.321	7.2
2-Methylnaphthalene	0.657	0.689	0.711	0.722	0.697		0.695	3.6
Hexachlorocyclopentadiene	0.150	0.143	0.127	0.083			0.126	24.0
2,4,6-Trichlorophenol	0.423	0.450	0.431	0.420	0.372		0.419	6.9

All other compounds must meet a minimum RRF of 0.010.

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6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: BNA_A Calibration Date(s): 09/27/2013 09/27/2013

Calibration Time(s): 13:05 15:38

LAB FILE ID: RRF060 = BA050735.D RRF040 = BA050736.D RRF025 = BA050737.D
RRF010 = BA050738.D RRF2.5 = BA050739.D RRF =

COMPOUND	RRF060	RRF040	RRF025	RRF010	RRF2.5	RRF	RRF	% RSD
2-Fluorobiphenyl	1.130	1.268	1.284	1.381	1.336		1.280	7.4
2,4,5-Trichlorophenol	0.427	0.447	0.436	0.392	0.360		0.412	8.6
1,1-Biphenyl	1.329	1.473	1.483	1.512	1.477		1.455	5.0
2-Chloronaphthalene	1.143	1.228	1.210	1.230	1.158		1.194	3.4
2-Nitroaniline	0.350	0.352	0.362	0.349	0.329		0.349	3.4
Dimethylphthalate	1.320	1.357	1.369	1.339	1.265		1.330	3.1
Acenaphthylene	1.807	1.942	1.986	2.001	1.917		1.931	4.0
2,6-Dinitrotoluene	0.400	0.389	0.403	0.370	0.328		0.378	8.2
3-Nitroaniline	0.380	0.383	0.383	0.347	0.312		0.361	8.7
Acenaphthene	1.089	1.150	1.172	1.188	1.200		1.160	3.8
2,4-Dinitrophenol	0.185	0.141	0.124				0.150	21.0
4-Nitrophenol	0.381	0.295	0.292	0.202			0.293	25.0
Dibenzofuran	1.627	1.715	1.760	1.769	1.689		1.712	3.4
2,4-Dinitrotoluene	0.519	0.510	0.526	0.476	0.406		0.487	10.2
Diethylphthalate	1.298	1.330	1.388	1.323	1.253		1.319	3.7
4-Chlorophenyl-phenylether	0.591	0.636	0.662	0.632	0.597		0.623	4.7
Fluorene	1.295	1.360	1.408	1.394	1.297		1.351	3.9
4-Nitroaniline	0.348	0.325	0.335	0.331	0.301		0.328	5.3
4,6-Dinitro-2-methylphenol	0.192	0.172	0.158	0.105			0.157	23.8
n-Nitrosodiphenylamine	0.660	0.684	0.673	0.685	0.661		0.673	1.8
Azobenzene	1.501	1.415	1.459	1.434	1.419		1.446	2.4
2,4,6-Tribromophenol	0.173	0.179	0.184	0.159	0.122		0.163	15.4
4-Bromophenyl-phenylether	0.206	0.216	0.210	0.213	0.195		0.208	3.9
Hexachlorobenzene	0.220	0.226	0.221	0.219	0.206		0.218	3.3
Atrazine	0.144	0.187	0.206	0.204	0.193		0.187	13.4
Pentachlorophenol	0.166	0.172	0.164	0.112			0.154	18.2
Phenanthrene	1.088	1.138	1.146	1.166	1.141		1.136	2.5
Anthracene	1.121	1.167	1.174	1.178	1.098		1.148	3.1
Carbazole	1.032	1.047	1.029	1.039	0.976		1.025	2.7
Di-n-butylphthalate	1.400	1.475	1.472	1.457	1.398		1.440	2.7
Fluoranthene	1.132	1.223	1.214	1.191	1.106		1.173	4.4
Benzidine	0.280	0.318	0.334	0.295	0.232		0.292	13.5
Pyrene	1.320	1.377	1.465	1.553	1.646		1.472	8.9
Terphenyl-d14	0.790	0.881	0.945	1.003	1.053		0.934	11.0
Butylbenzylphthalate	0.730	0.757	0.798	0.829	0.859		0.795	6.6
3,3-Dichlorobenzidine	0.308	0.330	0.319	0.295	0.227		0.296	13.7

All other compounds must meet a minimum RRF of 0.010.

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6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: BNA_A Calibration Date(s): 09/27/2013 09/27/2013

Calibration Time(s): 13:05 15:38

LAB FILE ID: RRF060 = BA050735.D RRF040 = BA050736.D RRF025 = BA050737.D
RRF010 = BA050738.D RRF2.5 = BA050739.D RRF =

COMPOUND	RRF060	RRF040	RRF025	RRF010	RRF2.5	RRF	RRF	% RSD
Benzo(a)anthracene	1.117	1.172	1.191	1.163	1.144		1.157	2.5
Chrysene	1.030	1.076	1.093	1.078	1.066		1.068	2.2
Bis(2-ethylhexyl)phthalate	1.074	1.148	1.193	1.243	1.313		1.194	7.6
Di-n-octyl phthalate	1.682	1.793	1.884	1.943	1.969		1.854	6.3
Benzo(b)fluoranthene	1.727	1.487	1.463	1.370	1.267		1.463	11.7
Benzo(k)fluoranthene	1.023	1.312	1.417	1.354	1.325		1.286	11.9
Benzo(a)pyrene	1.165	1.177	1.169	1.085	0.992		1.118	7.1
Indeno(1,2,3-cd)pyrene	0.475	0.484	0.419	0.391	0.317		0.417	16.3
Dibenzo(a,h)anthracene	0.632	0.625	0.572	0.495	0.380		0.541	19.5
Benzo(g,h,i)perylene	0.568	0.593	0.574	0.583	0.540		0.572	3.6
1,2,4,5-Tetrachlorobenzene	0.546	0.593	0.570	0.505	0.485		0.540	8.3
2,3,4,6-Tetrachlorophenol	0.325	0.332	0.328	0.265	0.158		0.281	26.5
1,4-Dioxane	0.576	0.639	0.636	0.676	0.800		0.666	12.5

All other compounds must meet a minimum RRF of 0.010.

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6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: BNA_A Calibration Date(s): 10/01/2013 10/01/2013

Calibration Time(s): 11:34 14:45

LAB FILE ID: RRF040 = BA050759.D RRF025 = BA050760.D RRF010 = BA050761.D
RRF2.5 = BA050762.D RRF060 = BA050763.D RRF =

COMPOUND	RRF040	RRF025	RRF010	RRF2.5	RRF060	RRF	RRF	% RSD
n-Nitrosodimethylamine	0.737	0.781	0.806	0.878	0.701		0.780	8.7
Pyridine	1.613	1.629	1.633	1.596	1.529		1.600	2.6
2-Fluorophenol	1.450	1.475	1.498	1.431	1.389		1.449	2.9
Benzaldehyde	0.705	0.825	0.994	1.024	0.519		0.813	25.8
Aniline	2.058	2.094	1.989	1.857	2.057		2.011	4.7
Phenol-d6	1.780	1.833	1.843	1.770	1.713		1.788	2.9
Phenol	2.069	2.100	2.121	2.002	1.955		2.050	3.4
bis(2-Chloroethyl)ether	1.610	1.635	1.685	1.572	1.464		1.593	5.2
2-Chlorophenol	1.833	1.861	1.828	1.686	1.772		1.796	3.9
1,2-Dichlorobenzene	1.620	1.671	1.680	1.648	1.527		1.629	3.8
1,3-Dichlorobenzene	1.740	1.762	1.762	1.698	1.702		1.733	1.8
1,4-Dichlorobenzene	1.778	1.822	1.819	1.761	1.734		1.783	2.1
Benzyl Alcohol	1.131	1.173	1.154	1.087	1.064		1.122	4.0
2-Methylphenol	1.313	1.333	1.233	1.164	1.295		1.268	5.5
2,2-oxybis(1-Chloropropane)	2.743	2.788	2.748	2.667	2.643		2.718	2.2
Acetophenone	0.480	0.494	0.488	0.483	0.471		0.483	1.8
3+4-Methylphenols	1.598	1.623	1.569	1.476	1.576		1.568	3.6
n-Nitroso-di-n-propylamine	1.144	1.167	1.161	1.107	1.135		1.143	2.1
Nitrobenzene-d5	0.382	0.394	0.391	0.391	0.369		0.385	2.6
Hexachloroethane	0.699	0.703	0.674	0.638	0.689		0.681	3.9
Nitrobenzene	0.399	0.410	0.409	0.412	0.388		0.403	2.5
Isophorone	0.840	0.837	0.849	0.837	0.824		0.837	1.1
2-Nitrophenol	0.260	0.261	0.249	0.218	0.264		0.250	7.6
2,4-Dimethylphenol	0.360	0.367	0.360	0.351	0.355		0.359	1.7
bis(2-Chloroethoxy)methane	0.463	0.483	0.479	0.480	0.462		0.473	2.1
2,4-Dichlorophenol	0.344	0.356	0.345	0.302	0.345		0.338	6.2
1,2,4-Trichlorobenzene	0.343	0.351	0.345	0.343	0.337		0.344	1.4
Benzoic acid	0.088	0.074			0.125		0.095	27.6
Naphthalene	1.052	1.100	1.114	1.129	0.982		1.075	5.6
4-Chloroaniline	0.439	0.440	0.425	0.384	0.425		0.423	5.4
Hexachlorobutadiene	0.174	0.180	0.178	0.172	0.168		0.175	2.8
Caprolactam	0.108	0.111	0.128	0.114	0.116		0.115	6.8
4-Chloro-3-methylphenol	0.330	0.342	0.332	0.302	0.332		0.328	4.5
2-Methylnaphthalene	0.664	0.692	0.721	0.722	0.629		0.686	5.8
Hexachlorocyclopentadiene	0.135	0.127	0.085		0.147		0.124	21.6
2,4,6-Trichlorophenol	0.437	0.437	0.401	0.327	0.429		0.406	11.4

All other compounds must meet a minimum RRF of 0.010.

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6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: BNA_A Calibration Date(s): 10/01/2013 10/01/2013

Calibration Time(s): 11:34 14:45

LAB FILE ID: RRF040 = BA050759.D RRF025 = BA050760.D RRF010 = BA050761.D
RRF2.5 = BA050762.D RRF060 = BA050763.D RRF =

COMPOUND	RRF040	RRF025	RRF010	RRF2.5	RRF060	RRF	RRF	% RSD
2-Fluorobiphenyl	1.203	1.263	1.345	1.355	1.103		1.254	8.4
2,4,5-Trichlorophenol	0.427	0.431	0.405	0.311	0.419		0.399	12.5
1,1-Biphenyl	1.415	1.482	1.537	1.480	1.301		1.443	6.2
2-Chloronaphthalene	1.229	1.242	1.238	1.191	1.150		1.210	3.2
2-Nitroaniline	0.368	0.367	0.360	0.339	0.356		0.358	3.3
Dimethylphthalate	1.377	1.386	1.387	1.329	1.355		1.367	1.8
Acenaphthylene	1.882	1.934	2.017	1.987	1.775		1.919	5.0
2,6-Dinitrotoluene	0.394	0.400	0.386	0.352	0.409		0.388	5.7
3-Nitroaniline	0.353	0.343	0.323	0.311	0.360		0.338	6.0
Acenaphthene	1.157	1.174	1.231	1.232	1.059		1.171	6.1
2,4-Dinitrophenol	0.096	0.080			0.127		0.101	23.5
4-Nitrophenol	0.321	0.310	0.238		0.186		0.264	24.2
Dibenzofuran	1.675	1.712	1.769	1.757	1.569		1.696	4.7
2,4-Dinitrotoluene	0.512	0.507	0.491	0.450	0.510		0.494	5.2
Diethylphthalate	1.324	1.336	1.359	1.340	1.236		1.319	3.6
4-Chlorophenyl-phenylether	0.626	0.651	0.660	0.639	0.572		0.630	5.5
Fluorene	1.309	1.363	1.412	1.356	1.236		1.335	5.0
4-Nitroaniline	0.303	0.297	0.291	0.291	0.320		0.300	4.0
4,6-Dinitro-2-methylphenol	0.147	0.134	0.084		0.172		0.134	27.8
n-Nitrosodiphenylamine	0.697	0.691	0.694	0.663	0.668		0.682	2.3
Azobenzene	1.525	1.411	1.438	1.397	1.435		1.441	3.5
2,4,6-Tribromophenol	0.108	0.172	0.155	0.117	0.162		0.143	19.9
4-Bromophenyl-phenylether	0.217	0.218	0.213	0.196	0.213		0.212	4.3
Hexachlorobenzene	0.229	0.229	0.229	0.222	0.223		0.227	1.5
Atrazine	0.180	0.202	0.207	0.191	0.127		0.181	17.6
Pentachlorophenol	0.127	0.119	0.079		0.133		0.114	21.5
Phenanthrene	1.099	1.117	1.148	1.127	1.047		1.108	3.5
Anthracene	1.132	1.157	1.160	1.103	1.067		1.124	3.5
Carbazole	0.883	0.870	0.919	0.997	0.919		0.917	5.4
Di-n-butylphthalate	1.303	1.349	1.401	1.393	1.230		1.335	5.3
Fluoranthene	1.094	1.140	1.159	1.130	1.064		1.117	3.4
Benzidine	0.350	0.390	0.367	0.229	0.289		0.325	20.2
Pyrene	1.290	1.315	1.400	1.391	1.249		1.329	4.9
Terphenyl-d14	0.806	0.828	0.885	0.889	0.746		0.831	7.2
Butylbenzylphthalate	0.681	0.686	0.706	0.694	0.670		0.687	2.0
3,3-Dichlorobenzidine	0.367	0.380	0.353	0.340	0.331		0.354	5.6

All other compounds must meet a minimum RRF of 0.010.

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6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: E3854 SAS No.: E3854 SDG No.: E3854

Instrument ID: BNA_A Calibration Date(s): 10/01/2013 10/01/2013

Calibration Time(s): 11:34 14:45

LAB FILE ID: RRF040 = BA050759.D RRF025 = BA050760.D RRF010 = BA050761.D
RRF2.5 = BA050762.D RRF060 = BA050763.D RRF =

COMPOUND	RRF040	RRF025	RRF010	RRF2.5	RRF060	RRF	RRF	% RSD
Benzo(a)anthracene	1.149	1.161	1.208	1.171	1.095		1.156	3.5
Chrysene	1.072	1.071	1.093	1.079	1.042		1.071	1.7
Bis(2-ethylhexyl)phthalate	0.997	1.013	1.036	0.994	0.984		1.005	2.0
Di-n-octyl phthalate	1.650	1.696	1.686	1.570	1.602		1.641	3.3
Benzo(b)fluoranthene	1.605	1.406	1.343	1.300	1.770		1.485	13.3
Benzo(k)fluoranthene	1.087	1.323	1.298	1.212	0.909		1.166	14.6
Benzo(a)pyrene	1.192	1.204	1.154	1.094	1.162		1.161	3.7
Indeno(1,2,3-cd)pyrene	0.573	0.580	0.563	0.480	0.463		0.532	10.4
Dibenzo(a,h)anthracene	0.648	0.660	0.628	0.542	0.567		0.609	8.5
Benzo(g,h,i)perylene	0.567	0.581	0.583	0.525	0.470		0.545	8.9
1,2,4,5-Tetrachlorobenzene	0.596	0.603	0.598	0.585	0.576		0.592	1.9
2,3,4,6-Tetrachlorophenol	0.320	0.313	0.266	0.191	0.316		0.281	19.5
1,4-Dioxane	0.616	0.629	0.689	0.837	0.566		0.667	15.7

All other compounds must meet a minimum RRF of 0.010.

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number: E3854
COC Number:

6.1

CLIENT INFORMATION

Report to be sent to
COMPANY: CARANO ATC
ADDRESS: 104 EAST 25 Street
CITY: New York STATE: NY ZIP: 10010
ATTENTION: John Masciolli
PHONE: FAX:

PROJECT INFORMATION

PROJECT NAME: Avalon Bay WP9
PROJECT #: 15739420-0016 LOCATION: LIC
PROJECT MANAGER: JT MASCIOLI
E-MAIL: John.masciolli@carano.com
PHONE: FAX:

BILLING INFORMATION

BILL TO: Carano ATC PO#
ADDRESS:
CITY: STATE: ZIP:
ATTENTION:
PHONE:

DATA TURNAROUND INFORMATION

FAX: STD DAYS*
HARD COPY: STD DAYS*
EDD STD DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESEULTS ONLY
- ☐ RESULTS * QC
- ☐ New Jersey REDUCED
- ✈ New Jersey CLP
- ☐ USEPA CLP
- ☒ New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☒ EDD FORMAT NYSDEC

ANALYSIS

1 VOCs Low Level 2 SVOCs 3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
								A/E	E								<-- Specify Preservatives A-HCl B-HNO4 C-H2SO13 D-NaOH E-ICE F-OTHER
1.	MW-2 Q3 2013	GW		X	9/24/13	14:20	3	X	X								
2.	MW-8 Q3 2013			X		13:40	3	X	X								
3.	MW-11R Q3 2013			X		10:55	9	X	X								MS/MSD
4.	MW-12R Q3 2013			X		9:40	3	X	X								
5.	MW-14 Q3 2013			X		12:05	3	X	X								
6.	MW-15 Q3 2013			X		13:10	3	X	X								
7.	MW-16 Q3 2013			X		08:40	3	X	X								
8.	FB Q3 2013			X		12:00	3	X	X								
9.	DUP Q3 2013			X		12:00	3	X	X								
10.	TB Q3 2013					—	2	X									

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

	DATE/TIME		
RELINQUISHED BY SAMPLER 1.	9/25/13 1445	RECEIVED BY 1.	
RELINQUISHED BY 2.	DATE/TIME	RECEIVED BY 2.	
RELINQUISHED BY 3.	DATE/TIME 9.25.13 1645	RECEIVED FOR LAB BY 3.	

Conditions of bottles or coilers at receipt: ✈ COMPLIANT ✈ NON COMPLIANT ✈ COOLER TEMP 5°
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments:

Page 1 of 1

CLIENT: ✈ Hand Delivered ✈ Overnight
CHEMTECH: ✈ Picked Up ✈

Shipment Complete ☐ YES ✈ NO
#

10/18/2004

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

HI John,

Just as a fyi for MW-12R-Q3-2013 & MW-15-Q3-2013 1/2 vial received with crack in bottom thus no sample in one of the vials (we can still run the sample with the one vial). Rest are good

Regards,

Chris Wolski

Phone: 908-728-3149

Fax: 908-789-8514 or 908-789-8922

Description: untitled2

CHEMTECH 284 Sheffield Street Mountainside NJ 07092 Tel. 908-7898900

Laboratory Certification

State	License No.
New Jersey	20012
New York	11376
Connecticut	PH-0649
Florida	E87935
Louisiana	5035
Maryland	296
Massachusetts	M-NJ503
Pennsylvania	68-548
Rhode Island	LAO00259
Virginia	460220
Texas	T10470448-10-1

Other :

DOD ELAP Certified (L-A-B Accredited), ISO/IEC 17025	L2219
Soil Permit	P330-11-00012
CLP Inorganic Contract	EPW09038
CLP Organic Contract	EPW11030

QA Control Code: A2070148

Appendix E - Site-wide Inspection Log

SITE WIDE INSPECTION FORM
QUEENS WEST PARCEL 9
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector: JOHN MASCIOLI

Date: DECEMBER 31, 2013

1. Site Use Restrictions

No on-site vegetable gardens?

NONE

No groundwater withdrawal for potable/non-potable use?

NONE

Restricted residential maintained (single owner, or common ownership)?

YES

2. Site Cap

Note the date that the annual site cap inspection was performed:

12/31/13

Repairs made as noted during inspection?

N/A

3. Soil Management

Note the date(s) of any soil disturbance activities conducted during the past year:

NONE

Proper soil management procedures implemented (cite appropriate close out reports)?

N/A

4. Groundwater Monitoring

Monitoring being conducted on a quarterly basis (note the dates of sampling conducted)?

3/28/13 and 9/24/13

All on-site monitoring wells in working condition (note any repairs/replacement)?

YES

5. Vapor Discharge Monitoring

Monitoring being conducted on a quarterly basis (note the dates of sampling conducted)?

N/A

All vapor monitoring points in working condition (note any repairs/replacement)?

N/A

SITE WIDE INSPECTION FORM
QUEENS WEST PARCEL 9
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

6. Permits

Do vapor emissions meet NYSDEC regulatory standards?

N/A

7. Vapor mitigation system O&M

Are routine system check logs being completed by on-site representative?

YES

Are Periodic Inspections being conducted as scheduled (note the dates of all inspections)?

YES 1/15/13, 2/27/13, 3/28/13, 4/19/13, 5/30/13, 6/26/13, 7/29/13, 8/16/13, 9/24/13, 10/31/13, 11/18/13, 12/12/13

8. Recordkeeping

Check that the following records/reports are being maintained/completed (note report/log dates as appropriate):

1) Annual site cap inspection log

YES, 12/31/13

2) Close-out report(s) for soil disburbance activities (including manifests for soil disposal)

N/A

3) Annual groundwater monitoring reports (including laboratory analytical data reports/groundwater contours)

YES, included in 2013 PRR.

4) Annual vapor discharge monitoring reports

N/A

5) Routine System Check Log for vapor mitigation system

YES

6) Periodic Inspection Log for vapor mitigation system

YES

7) Annual vapor mitigation system O&M reports

YES

9. Comments

(Note any deficiencies and recommendations for corrective actions.)

NONE

Appendix F - Institutional and Engineering Control Certification Form

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **C241049**

Site Name **Queens West (Hunter's Point) Parcel 9**

Site Address: Center Blvd. and 47th Rd. and 48th Ave. Zip Code: 11101
City/Town: Long Island City
County: Queens
Site Acreage: 1.8

Reporting Period: January 01, 2013 to December 31, 2013

	YES	NO
1. Is the information above correct?	☒	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____
Signature of Owner, Remedial Party or Designated Representative Date

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒
If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.		
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐
If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.		

SITE NO. C241049 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
19-1	Queens West Development Corporation	Ground Water Use Restriction Landuse Restriction Site Management Plan

The Controlled Property may be used for restricted residential use as long as the following long-term engineering and institutional controls are employed:

a) All engineering controls (including the site cover and sub-slab vapor depressurization system and active venting system) must be operated and maintained as specified in the NYSDEC-approved Site Management Plan (SMP). No Engineering or Institutional Controls may be discontinued without a NYSDEC-approved amendment or extinguishment of the Environmental Easement;
b) Annual inspections of the Site, certifications of Institutional and Engineering Controls and Site usage of the controlled property, and Site Management Reporting to the Department must be conducted in accordance with the NYSDEC-approved SMP;
c) all future soil disturbance activities on the Site that will impact residual contaminated material, including, but not limited to, building construction or expansion, subgrade utility line construction or repair, must be conducted in accordance with the Soil Management provisions in the NYSDEC-approved SMP;
d) Operation Monitoring and Maintenance (OM&M) of the sub-slab depressurization system must be performed in a manner specified in the NYSDEC-approved SMP;
e) Groundwater and other environmental or public health monitoring required by the NYSDEC-approved SMP must be performed in a manner specified in that Plan;
f) Onsite environmental monitoring devices, including but not limited to, groundwater monitoring wells and soil vapor probes, must be protected and replaced as necessary to ensure continued functioning in the manner specified in the NYSDEC-approved SMP;
g) The use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for intended purpose; and
h) Vegetable gardens are prohibited.

The Controlled Property may not be used for a higher level of use such as unrestricted residential without proper notification of NYSDEC of the change of, approval of that use by the NYSDEC, and an amendment of the SMP approved by NYSDEC.

19-19	Queens West Development Corporation	Ground Water Use Restriction Site Management Plan Landuse Restriction

The Controlled Property may be used for restricted residential use as long as the following long-term engineering and institutional controls are employed:

a) All engineering controls (including the site cover and sub-slab vapor depressurization system and active venting system) must be operated and maintained as specified in the NYSDEC-approved Site Management Plan (SMP). No Engineering or Institutional Controls may be discontinued without a NYSDEC-approved amendment or extinguishment of the Environmental Easement;
b) Annual inspections of the Site, certifications of Institutional and Engineering Controls and Site usage of the controlled property, and Site Management Reporting to the Department must be conducted in accordance with the NYSDEC-approved SMP;
c) all future soil disturbance activities on the Site that will impact residual contaminated material, including, but not limited to, building construction or expansion, subgrade utility line construction or repair, must be conducted in accordance with the Soil Management provisions in the NYSDEC-approved SMP;
d) Operation Monitoring and Maintenance (OM&M) of the sub-slab depressurization system must be performed in a manner specified in the NYSDEC-approved SMP;
e) Groundwater and other environmental or public health monitoring required by the NYSDEC-approved SMP must be performed in a manner specified in that Plan;
f) Onsite environmental monitoring devices, including but not limited to, groundwater monitoring wells and soil vapor probes, must be protected and replaced as necessary to ensure continued functioning in the manner specified in the NYSDEC-approved SMP;
g) The use of the groundwater underlying the Controlled Property is prohibited without treatment

rendering it safe for intended purpose; and
h) Vegetable gardens are prohibited.

The Controlled Property may not be used for a higher level of use such as unrestricted residential without proper notification of NYSDEC of the change of, approval of that use by the NYSDEC, and an amendment of the SMP approved by NYSDEC.

19-5 Queens West Development Corporation

Site Management Plan
Landuse Restriction
Ground Water Use Restriction

The Controlled Property may be used for restricted residential use as long as the following long-term engineering and institutional controls are employed:

a) All engineering controls (including the site cover and sub-slab vapor depressurization system and active venting system) must be operated and maintained as specified in the NYSDEC-approved Site Management Plan (SMP). No Engineering or Institutional Controls may be discontinued without a NYSDEC-approved amendment or extinguishment of the Environmental Easement;
b) Annual inspections of the Site, certifications of Institutional and Engineering Controls and Site usage of the controlled property, and Site Management Reporting to the Department must be conducted in accordance with the NYSDEC-approved SMP;
c) all future soil disturbance activities on the Site that will impact residual contaminated material, including, but not limited to, building construction or expansion, subgrade utility line construction or repair, must be conducted in accordance with the Soil Management provisions in the NYSDEC-approved SMP;
d) Operation Monitoring and Maintenance (OM&M) of the sub-slab depressurization system must be performed in a manner specified in the NYSDEC-approved SMP;
e) Groundwater and other environmental or public health monitoring required by the NYSDEC-approved SMP must be performed in a manner specified in that Plan;
f) Onsite environmental monitoring devices, including but not limited to, groundwater monitoring wells and soil vapor probes, must be protected and replaced as necessary to ensure continued functioning in the manner specified in the NYSDEC-approved SMP;
g) The use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for intended purpose; and
h) Vegetable gardens are prohibited.

The Controlled Property may not be used for a higher level of use such as unrestricted residential without proper notification of NYSDEC of the change of, approval of that use by the NYSDEC, and an amendment of the SMP approved by NYSDEC.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
19-1	Vapor Mitigation Cover System Subsurface Barriers
19-19	Vapor Mitigation Cover System Subsurface Barriers
19-5	Vapor Mitigation Cover System Subsurface Barriers

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. C241049

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I DAVID LEWIS at 671 N. GLEBE RD. SUITE 800 ARLINGTON VA 22203,
print name print business address

am certifying as OWNER REPRESENTATIVE (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

4/28/2014
Date

IC/EC CERTIFICATIONS

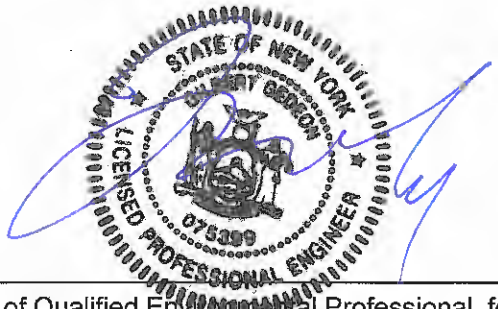
Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Gilbert Geden at 104 E. 25th St, New York, NY 10010
print name print business address

am certifying as a Qualified Environmental Professional for the Avalon Bay Communities
(Owner or Remedial Party)



Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

5/2/14
Date