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DRAFT REPORT

SUPPLEMENTAL INVESTIGATIONS AND ENGINEERING EVALUATION FOR REMEDIATION OF PETROLEUM-IMPACTED SOIL AREA E – BUILDING 11 TANK EXCAVATION AREA REMEDIAL ACTION

Prepared for

FAA William J. Hughes Technical Center

Atlantic City International Airport, New Jersey

Prepared by

TRC Environmental Corporation

Windsor, Connecticut

APRIL 2014

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ABSTRACT

Based on supplemental field investigations conducted at Area E (December 2013), a weathered, petroleum hydrocarbon-impacted, stained soil is present in an irregularly shaped area approximately 80 feet long (east to west) by 60 feet wide (north to south). The lower extent of contamination is generally above the water table (except during periods of exceptionally high water tables). Based on the limits of contamination, the estimated volume of impacted soil is 2,000 cubic yards.

The weathered No. 6 fuel oil has been characterized as a "Tar-like" material, or an "asphalt-like" substance.

It is considered appropriate to remediate petroleum-impacted soils both above and below the water table to eliminate the potential long-term leachability of associated contaminants and thereby meet the remedial goals. Excavation and off-site disposal and/or reuse of the petroleum hydrocarbon-impacted soil is the recommended remedial approach. This approach will meet specified project goals in a relatively short time frame. This approach also meets the specified requirements of the Area E Record of Decision (August 2003). It has been reported that the FAA has a suitable stockpile of clean fill available on-site to backfill the excavation.

Important factors that will be addressed during the design phase will include the following:

- Establishing suitable staging and stockpiling areas;
- Utility clearances;
- Utility decommissioning and/or re-location;
- Protection and demolition of structures;
- Efficient sequencing of operations;
- Routing of trucks and vehicular traffic;
- Mitigation of dust;
- Odor control/abatement;
- Site preparations (e.g., removal of old foundations, as needed);
- Site control measures;
- Decontamination of equipment and personnel;
- General health and safety measures;
- Efficient handling and loading of contaminated soil (most likely direct loading);
- Offsite disposal/reuse of contaminated soil;
- Backfilling and compaction;
- Confirmatory sampling and analysis;

- Site restoration (including well replacement, if required); and,
- Possibly certain contingency measures such as limited shoring and/or limited dewatering.

In-situ remediation of weathered fuel oil is expected to be very difficult, and successful examples of similar scenarios are not well documented. The most appropriate in-situ approach is potentially in-situ chemical oxidation (ISCO) and/or in-situ solidification/stabilization (ISS) via soil mixing. Bench scale and potentially pilot scale testing would be required for this option. Only if it is determined that the excavation option cannot be implemented should the in-istu approach be considered further.

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1.0 INTRODUCTION

1.1 Project Description and Goals

Area of Concern (AOC) E, located at the Federal Aviation Administration (FAA) William J. Hughes Technical center (Technical Center) in Atlantic County, New Jersey, is known as the Building 11 (Tank Excavation Area) and was the site of a former heating plant and some wooden Naval Air Station structures, reported to be barracks. The 20,000-gallon underground storage tank (UST) that stored No. 6 fuel oil for the heating operation was removed in 1985 and fuel was found to have leaked from the tank impacting subsurface soils and groundwater. The barracks were removed about the same time as the heating plant, and soils and groundwater were found to be impacted with petroleum hydrocarbons, pesticides, VOCs, and metals. Shallow soil and groundwater contamination by various types of contamination have been, or are currently being, addressed under other remedial measures. This proposal focuses on remediation of the total petroleum hydrocarbons (TPH) in subsurface soil at Area E which is associated with the former heating oil UST.

Previous investigative findings at the site indicate that the residual TPH is a weathered No. 6 fuel oil present both above and below the water table in a highly viscous, low mobility form. The exact vertical and horizontal limits of the petroleum impacts were not determined. This weathered fuel oil has been characterized as a “tar-like” material, or an “asphalt-like” substance, as reported by the site Remediation Contractor, or RC (URS). Although relatively immobile as a free phase product/liquid, the residual TPH has the potential to leach contaminants, such as volatile organic compounds (VOCs) and semi-volatile compounds (SVOCs) for an extended period of time. However, due to its low mobility, extraction of the weathered fuel oil via either the groundwater pumping or product skimming technologies currently employed at the site is a comparatively slow process. Implementation of an accelerated and/or enhanced remedial strategy is warranted to better address the residual TPH contamination at Area E and help ensure that associated remedial goals are achieved. In contrast to the excavation strategy that was originally described in the Area E Record of Decision (ROD) dated August 2003 (which was limited to soils above the water table), it may be appropriate to remediate petroleum-impacted soils both above and below the water table, in order to eliminate the potential long-term leachability of associated contaminants and thereby meet remedial goals.

The primary objective of this Supplemental Investigation and Engineering Evaluation (SI & EE) is to identify viable and cost-effective remedial technologies for addressing petroleum

impacts remaining at Area E. To help achieve this objective, the SI & EE includes an initial assessment of baseline site conditions (including the nature and extent of the fuel oil contamination) by performing a comprehensive review of historical data, followed by performance of targeted supplemental field investigations. Based on the information obtained in those tasks, the SI & EE incorporates a technical review and an engineering evaluation of potentially suitable options for remediation of the petroleum-impacted soil at Area E. The Scope of Work associated with this SI & EE was performed in accordance with TRC's project proposal, dated November 5, 2013.

1.2 Report Organization

A brief project overview was provided in the preceding section (Section 1.1) of this SI & EE report. Subsequent text sections of the SI & EE report consist of the following: a summary of relevant historical site characterization data (Section 2.0); a description of the methods, equipment, and results of recently completed supplemental field investigations (Section 3.0); identification of remedial objectives and screening of potentially feasible remedial technologies (Section 4.0); an evaluation of retained remedial alternatives (Section 5.0); and, conclusions and recommendations for remediating the petroleum-impacted soil (Section 6.0). References are included in Section 7.0. Tables and figures are provided at the end of the report, along with appendices containing supporting materials [i.e., boring logs, laboratory analytical data, and safety data sheets (SDS)].

2.0 HISTORICAL SITE CHARACTERIZATION DATA

2.1 Data Review (Purpose and Method)

As indicated in Section 1.1, work associated with this SI & EE included a review of historical data, to help establish baseline conditions at Area E, particularly with regard to the nature and extent of petroleum impacts. TRC's assessment of baseline site conditions was used to help formulate the best approach for conducting supplemental field investigations. Information gathered on baseline conditions at, and adjacent to, Area E and the vicinity also helped address various technical considerations during the screening of remedial technologies and engineering evaluation of alternatives.

As outlined in the project proposal, the types of data reviewed included various types of historic/existing hydrogeologic and environmental data, as available, including:

- UST removal and/or building demolition reports from historic FAA records;
- Site and/or remedial investigation reports from historic TRC records;
- Pumping test reports from historic TRC records;
- Groundwater sampling reports, including more recent O&M reports from historic URS records;
- Soil boring logs and geotechnical data from historic TRC and URS records;
- New Jersey Administrative Codes applicable when the ROD was signed, from TRC's Substantive Requirements document (TRC, 2013); and,
- Technical remediation case studies and related documents from regulatory agencies or remediation/ engineering firms.

References and sources of information utilized by TRC during the historical and technical review are provided in Section 7.0. Specific information obtained during the review is discussed in subsequent sections.

2.2 Site and Area Infrastructure

2.2.1 General Site Information

Area E is located adjacent to the facilities of the 177th Fighter/Interceptor Group of the New Jersey Air National Guard (NJANG) just east of Tilton Road/ Route 563. Area E is bordered to the north by Earhart Drive and to the south by Langley Road. A new NJANG office building was constructed just east of Area E between 2010 and 2012. A Site Plan showing applicable portions of Area E is provided as **Figure 1**. Although not shown on the figure (due to scale) it should be noted that the NJANG facilities include a fuel farm on the south side of

Langley Road, and the South Branch of Absecon Creek (SBAC) is located approximately 1,500 feet south of Area E.

2.2.2 Historical Site Information

As described in Section 1.1, Area E was the site of a former heating plant (previously known as Building 11) and some wooden Naval Air Station structures, reported to be barracks. Figure 1 shows portions of the approximate footprints of the heating plant and the immediately adjacent footprint of the former 20,000-gallon (nominal), No. 6 oil UST, reportedly removed during the same timeframe (mid 1980s). Civil engineering plans for the new NJANG office building show what appear to be terminated branches of underground utilities (water, storm, and sanitary sewer) which presumably would have traversed Area E to reach the heating plant and/or other buildings (Burns & McDonnell, 2007). Although the UST was reportedly removed, limited information was available regarding the specific methods associated with decommissioning and demolition of the heating plant and barracks, or final disposition of various materials. It is possible that Area E may still contain buried demolition debris, remnants of abandoned underground utilities, or other subsurface features. Both historical and recent site investigations performed by TRC have provided evidence of the potential presence of such underground features at Area E. Such evidence has included refusals or recovery of fill materials (tile, wood, concrete, and 'tar') during drilling, as well as anomalies identified during historical electrical or resistivity surveys.

2.2.3 Current Site Conditions

Area E is currently open and mostly grass-covered, with little visible evidence of previous site use. A small telephone switching building (known as Building 11) is currently located on the site, within approximately 75 feet of the former UST location. It appears that this building was part of the original footprint of the former heating plant. As shown on Figure 1, known utilities remaining at Area E include overhead and underground power and/or communication lines, particularly near Langley Road. One of the underground water lines apparently connects to the telephone switching building/Building 11. Underground electrical and water lines also connect to groundwater extraction wells and small pre-engineered metal buildings associated with ongoing remedial efforts at Area E, as further described in Section 2.6. Newly installed underground water and electrical lines associated with recently installed Potable

Well FAA2R traverse the northern portion of Area E (not shown on Figure 1, due to scale). Potable Well FAA2R is upgradient of Area E and is screened in the Deep Cohansey Aquifer, below the aquitard separating it from the shallower, contaminated groundwater interval.

2.3 Site Geology

Historical information concerning the stratrigraphy at Area E is presented in logs of several relatively shallow boring (typically less than 30 feet deep) along with geophysical investigations discussed in reports submitted by TRC. The Quaternary deposits in the vicinity of Area E consist primarily of fine to medium sand and fine to coarse sand. Silt and clay are generally lesser components in the un-stratified sequence. Thin, relatively distinct clay lenses may be present at some locations (e.g. at approximately 14 to 16 feet below ground surface (bgs) in boring E-B4, and at approximately 25.5 to 27 ft bgs and 33.3 to 34.0 at extraction well E-EW6). Based on deeper borings in the vicinity (E-MW7D, FAA-2R) it appears that coarse sands and gravels become more prevalent approximately 50 ft bgs. The Upper Cohansey Clay is absent at Area E, but the Middle Cohansey Clay is present at approximately 105 to 130 ft bgs.

2.4 Site Hydrogeology

2.4.1 Shallow Cohansey Aquifer Characteristics

As summarized in the 2010 pumping test and groundwater flow modeling report, the water table historically has been present at Area E at depths of 16 to 21 ft bgs, depending on the location and season (TRC, 2010). Under static (non-pumping) conditions, the depth to water is typically in the middle end of this range in the vicinity of the former tank excavation area. The Shallow Cohansey Aquifer at Area E is unconfined, and, for reasons described in the pumping test report, is assumed to have a saturated thickness of approximately 35 feet. Based on analyses of the pumping tests performed at monitoring well E-MW2S, the Shallow Aquifer has a hydraulic conductivity of approximately 11 feet/day, and an anisotropy ratio (Kv/Kh) of 0.2. Comparable estimates of hydraulic conductivity of 3.5 to 4.7 feet/day were obtained from earlier slug tests performed at monitoring wells E-MW1S and E-MW2S in a Phase I investigation (TRC, 1989). Assuming a hydraulic conductivity of 11 feet/day, a horizontal flow gradient of 0.015 (TRC, 1990), and a porosity of 0.30, the groundwater flow velocity in the former No. 6 oil UST area under non-pumping conditions would be approximately 200 feet/year. The Shallow

Cohansey groundwater flow direction is generally to the south or southeast. Short term, seasonal, and longer term water level variations in the Shallow Cohansey Aquifer are a direct result of the amount and frequency of precipitation. In addition, discharge of groundwater to the SBAC is a significant influence on the northwest to southeast direction of groundwater flow in the Shallow Cohansey Aquifer. Similar to groundwater beneath much of the FAA Technical Center, the shallow groundwater at Area E has a relatively low pH. For monitoring wells E-MW2S through E-MW9S, the pH is typically between 4 and 5 (URS, 2013a).

The Shallow Cohansey Aquifer is in certain aspects considered to be distinct from the deeper aquifers at Area E. According to the pumping test report (TRC, 2010) the potentiometry of the Shallow Cohansey Aquifer in Area E is distinct from that of the Intermediate Cohansey Aquifer, despite the absence of the Upper Cohansey Clay. This is reportedly partially attributable to the much higher conductivity of the Intermediate Cohansey Aquifer compared to the Shallow Cohansey Aquifer. Similarly, the Deep Cohansey Aquifer is considered to be confined due to the presence of the Middle Cohansey Clay.

However, the Shallow Cohansey Aquifer is not completely hydraulically isolated from the deeper aquifers. In particular, it has been demonstrated that the Middle Cohansey Clay exhibits properties of a leaky aquitard. Vertical gradients are reportedly downward from the unconfined Shallow Cohansey Aquifer into the Deep Cohansey Aquifer, and it has been determined that pumping-induced headlosses in the Deep Cohansey Aquifer propagate through the Middle Cohansey Clay, influencing groundwater flow in the intermediate aquifer.

2.4.2 Shallow Cohansey Aquifer Pumping Conditions

Migration of dissolved phase contaminants such as VOCs, metals, and pesticides, is hydraulically controlled under the influence of the groundwater extraction system installed at Area E. The system consists of six groundwater extraction wells, typically screened from approximately 20 to 35 ft bgs, with submersible electric pumps each producing approximately 3 to 12 gpm. Extraction well E-EW6 is located within the vicinity of the former tank excavation area. Under the indicated pumping conditions, shallow cones of depression are produced, and the horizontal flow gradient at Area E is typically slightly steeper than under static conditions in the Shallow Cohansey Aquifer.

2.5 Historical Contaminants and Distribution

2.5.1 General Information

Historical environmental investigations that have been performed to define the extent of soil and groundwater impacts at Area E are documented in detail in multiple reports and summarized here for convenience. Prior to finalizing the Area E Record of Decision (ROD) in 2003, site investigations completed at Area E have included a Phase I Remedial Investigation (RI), a Phase II RI, and supplemental environmental investigations by TRC. Types of activities performed during these investigations included soil gas surveys, a geophysical survey, surface soil sampling, subsurface soil sampling, monitoring well installation, groundwater sampling, and hydrogeological investigations.

Based on these investigations, semi-volatile organic compounds (SVOCs) and pesticides were detected in surficial soils, subsurface soils, and groundwater. The SVOCs were present in the form of polyaromatic hydrocarbons (PAHs) such as benzo(a)anthracene. Other contaminants of concern detected in one or more of these media included volatile organic compounds (VOCs) such as ethylbenzene, chlorinated volatile organic compounds (CVOCs) such as tetrachloroethene (PCE), inorganics such as zinc and other metals, and total petroleum hydrocarbons (TPH). Of primary concern for Area E were the detection of free product in one monitoring well (E-MW3S), the detection of heavily oil stained soils near the former No. 6 oil UST, and the detection of pesticides (chlordane and heptachlor) exceeding New Jersey cleanup criteria in surficial soil and/or groundwater locations. Free product in the form of a viscous tar-like substance continues to be observed in monitoring well E-MW3S (URS 2012 and 2013). Due to the presence of free product, groundwater in the well is not sampled, and due to the viscosity of the free product its thickness cannot readily be gauged. Despite this difficulty, apparent free product thicknesses of approximately 0.80 feet to 2.02 feet were reported between October 2011 and June 2012 (URS, 2012a,b,c). Remedial actions that have been prescribed and/or performed to address these contaminants are further described below in Section 2.6.

2.5.2 Petroleum Impacts

For purposes of this SI & EE, key considerations are the nature and extent of TPH contamination in subsurface soils. According the Area E ROD, the area of TPH contamination exceeding the associated New Jersey soil cleanup criterion (10,000 parts per million (ppm)) was estimated to be 3,100 square feet, schematically depicted as having a footprint slightly larger

than 70 feet by 40 feet. The average TPH-contaminated zone thickness was estimated to be 11 feet, noting that stained soils were observed at depths ranging from a minimum of approximately 3 ft bgs to a maximum of approximately 20 ft bgs. As a result, the total volume of TPH-contaminated soil was estimated to be 1,300 cubic yards. The nature of the TPH-contamination source is represented by a free product sample collected from monitoring well E-MW3S in 1996. The associated gas chromatographic (GC) fingerprinting results were consistent with weathered No. 6 fuel oil. Due to the presence of PAHs in No. 6 fuel oil, it is likely that areas of soil within or near the TPH-impacted zone exceeds ROD and/or current NJDEP soil cleanup criteria for certain PAHs, as documented by a sample collected from 10 to 12 ft bgs in boring E-B1 that contained benzo(a) anthracene above the non-residential direct exposure criteria of 4 ppm.

Available historical evidence indicates that the pesticides are not directly associated with the No. 6 oil/TPH contamination. In particular, the 1996 product sample exhibited aromatic hydrocarbons, CVOCs, PAHs, and metals, but did not contain pesticides. Similarly, pesticides were below detection limits in a stained soil sample (E-GP16) collected in 1997 from within the estimated TPH impacted zone from a depth of approximately 14 ft bgs. Although low levels of chlordane were detected in a 1997 soil sample (E-GP10) from the same depth (i.e., approximately 14 ft bgs) this boring was just outside the apparent TPH-impacted zones, and chlordane concentrations were below detection limits in a duplicate sample (E-GP7) from the same boring. Concentrations of chlordane (and certain other pesticides) in groundwater appear to be highest to the north of the TPH impacted zone (URS, 2013a,b,c; TRC, 1997) suggesting that, if there is only a single source area of chlordane, it is likely upgradient of the TPH-impacted zone.

2.6 Remediation History

A ROD for Area E was published in August 2003. As detailed in the ROD, the objectives of remedial actions at Area E are to:

- Prevent human exposure due to direct contact with soil contaminants that are present at levels exceeding New Jersey non-residential direct contact soil cleanup criteria;
- Prevent exposure to and migration of free product from the vicinity of the former UST location;

- Prevent existing soil contaminants from adversely impacting groundwater quality (i.e., causing exceedances of state and federal drinking water standards and New Jersey groundwater quality standards) in the future;

- Prevent exposure, due to groundwater ingestion, to contaminants that are present at levels exceeding acceptable state and federal drinking water standards and New Jersey groundwater quality standards; and,

- Prevent the migration of groundwater contaminants from the existing area of groundwater contamination.

Based on the historical site investigations discussed in Section 2.5, remedial technologies were screened and selected from among various alternatives. The selected remedies included free product extraction and off-site treatment; excavation and off-site disposal of TPH-impacted subsurface soils (above the seasonal water table only) and pesticide-contaminated surface soils exceeding New Jersey non-residential direct contact soil cleanup criteria; groundwater extraction and on-site treatment; and, continued groundwater monitoring. These remedies are described in various other documents cited in **Section 7.0.**

To date, each of the aforementioned remedies has been implemented by the RC at the site, with the exception of excavation of the TPH-impacted soil (which is the focus of this SI & EE). A limited amount of free product has been recovered by the belt skimmer system installed at extraction well E-EW6. As proactive measures to ensure remediation, TRC has designed applications of in situ chemical reduction (ISCR) to further address pesticides in groundwater, and surfactant enhanced remediation (SER) to better address TPH contamination both above and below the water table. ISCR amendments were injected via Geoprobe into the subsurface at Area E in May 2012. A portion of the associated total mass of ISCR amendments was injected within the footprint of the TPH-impacted area; however, the amendments were primarily injected below the known depth of the TPH contamination. TRC's SER design has not yet been implemented, and the use of surfactant applications for addressing the TPH-impacted soil is subject to further analysis as part of this SI & EE.

3.0 SUPPLEMENTAL FIELD INVESTIGATIONS

3.1 Procedures and Methods

During the first week of December 2013, TRC performed supplemental field investigations to more fully delineate the horizontal and vertical extent of the residual TPH contamination (above and below the water table). Additionally, subsurface geotechnical investigations were conducted as part of this task, since such data would potentially be needed to determine structural requirements for sheeting and shoring for a potential deep excavation scenario. Drilling was performed by East Coast Drilling Inc. (ECDI) of Moorestown, New Jersey, and was overseen by a TRC senior project geologist. Additionally, a TRC professional structural engineer provided assistance with the interpretation of soil conditions and selection of soil samples for laboratory analysis during the geotechnical investigations. Borings were completed by grouting to grade as required.

The environmental soil sampling program performed for purposes of contaminant delineation consisted of a total of 32 grid-based, Direct Push (Geoprobe®) borings advanced to a typical maximum depth of approximately 20 feet. The TRC geologist screened each Macro-core® soil sample with a photo-ionization detector (PID) for evidence of contamination (primarily visual evidence) and submitted select soil samples from two of the borings to TestAmerica of Edison, New Jersey for analysis of contaminants of concern (i.e., TPH/extractable petroleum hydrocarbons (EPH), SVOCs, VOCs, and pesticides) by specified methodologies.

The geotechnical soil boring program consisted of installation of two soil borings to specified depths (up to a maximum of 50 ft bgs) using hollow stem auger techniques and standard penetration tests (SPT). Each geotechnical borings was drilled adjacent to a previously installed environmental boring just outside the footprint of the area identified as having petroleum-impacted soil. Select soil samples were submitted to TRC's geotechnical laboratory in Mount Laurel, New Jersey, for analysis of grain size, soil index properties, and other geotechnical parameters, as required.

3.2 Results

3.2.1 Environmental Sampling Program Results

3.2.1.1 Limits and Extent of Contamination

As illustrated in **Figure 2**, TPH-impacted, stained soil exists in an irregularly shaped area approximately 80 feet long (east to west) by 60 feet wide (north to south). This area is reasonably similar to what was estimated in the Area E ROD, but notably wider in the north-south direction (i.e., a footprint of 70 by 40 was estimated in the ROD). As shown utilizing cross-section diagrams in **Figure 3**, the maximum vertical limits are also similar to what was estimated in the Area E ROD (i.e., up to approximately 18 to 19 ft bgs) and a maximum thickness of approximately 16 feet. In certain areas, most notably near the southern limits of contamination, Geoprobe® refusal was encountered at relatively shallow depths (i.e., approximately 7 to 7.5 ft bgs) which is consistent with buried debris as described in the site background information (Section 2.2). Available information suggests that the lower limits of contamination are generally above the water table; however, it appears that under conditions leading to an exceptionally high water table, lower portions of the impacted zone may be submerged (see Figure 3). Based on the limits of contamination shown in Figures 2 and 3, the estimated volume of impacted soil is approximately 2,000 cubic yards (CY), which exceeds the ROD estimate of 1,300 CY.

3.2.1.2 Contaminant Concentrations

Based on visual soil screening, soil is stained fairly uniformly throughout the identified limits of the impacted zone. As shown in **Table 1**, EPH concentrations in sampled soils ranged from 23,000 milligrams per kilogram (mg/kg) at E-GP-C4 (15-17.5 ft bgs) to 42,000 mg/kg in the former tank grave at E-GP-E3 (10-15 ft bgs).

It should be noted that while these petroleum concentrations exceed the TPH remedial goal of 10,000 mg/kg (i.e., 10,000 ppm) discussed in Section 4.1, they are significantly lower than the value of 140,000 mg/kg reported for E-B2 (10-12 ft bgs) in 1987. The comparatively lower values associated with samples collected from E-GP-E3 and E-GP-C4 likely reflect differences in the analytical methodology between the historical EPA 418.1 Methodology, which was reportedly prone to interferences/false-positives, and the current NJ EPH method. Other possible reasons include inherent analytical and sample location variability, and limited contaminant dispersion/migration over time. Although biodegradation and/or volatilization may

also have reduced contaminant levels to a limited extent, these mechanisms are not expected to be major factors in further reducing petroleum contaminant levels. In particular, Table 1 shows that the residual petroleum compounds in soil consist primarily of PAHs and long-chain aliphatics/alkanes, which are neither volatile nor readily amenable to biodegradation, even under optimal conditions.

Individual petroleum-based and non-petroleum-based soil contaminants were also detected in the area investigated, but were below the ROD-based cleanup levels for constituents of concern. For example, benzo(a)anthracene was below the 4 mg/kg criterion identified in the ROD in the soil samples from both E-GP-C4 and E-GP-E3.

The absence of detectable levels of pesticides in subsurface soil samples from the investigated area further supports evidence, described in Section 2.5.2, that the TPH-impacted soil is not likely acting as a source of chlordane or other pesticides in groundwater.

It should be noted that tetrachloroethene (PCE), benzo(a)anthracene, and benzo(a)pyrene were detected at levels above 2012 NJDEP Residential and/or Non-Residential Direct Contact Soil Remediation Standards in the sample from E-GP-E3. The detection of such compounds, including TCE, in the vicinity of the former tank grave is consistent with site background information and is not expected to significantly impact remedial strategy. Although such contaminants may be addressed individually/concurrently during remediation of petroleum hydrocarbons, the associated 2012 criteria were not identified as applicable (ROD-based) remedial goals for this project (see Section 4.1).

3.2.2 Geotechnical Program Results

Consistent with information regarding the geology in the area (see Section 2.3), subsurface soils logged in both geotechnical borings (E-SPGT-01 and -02) consisted primarily of fine to medium sand, with varying amounts of gravel and/or silt, and with a comparatively distinct layer of silty clay/clayey silt (the exact thickness of which was not determined) just below the water table **(Appendix A)**. The sandy soil just above this layer of silty clay/clayey silt exhibited a low permeability (4.0×10^{-6} cm/s) as measured by a rigid wall permeameter falling head test (**Appendix A**). For possible use in evaluating future structural engineering requirements of the project (e.g., design of benching, sloping, sheeting and/or shoring, as needed), Atterberg limits and shear strength properties, including angle of internal friction, were reported for select soil samples.

4.0 IDENTIFICATION AND SCREENING OF REMEDIAL TECHNOLOGIES

4.1 Determination of Remedial Cleanup Criteria

4.1.1 Remedial Goals

For purposes of this SI & EE, remedial cleanup goals and cleanup criteria are the chemical-specific Applicable or Relevant and Appropriate Requirements (ARARs) defined within the Area E ROD as they pertain to TPH-impacted subsurface soil. As a result, three cleanup criteria are considered to be primary remedial endpoints for this project: 10,000 ppm TPH in soil (whether measured as TPH or NJDEP EPH), 4 ppm benzo(a)anthracene in soil, and removal of free product from the vicinity of the former UST location. In keeping with previous soil remediation projects at the Technical Center, reliance on compliance averaging and/or extrapolation of data to achieve remedial goals will be minimized or avoided.

New Jersey does not limit the depth at which direct exposure criteria are applied, therefore the second of these two criteria (i.e., 4 ppm benzo(a)anthracene applies to Area E regardless of the depth of the soil contamination. It is assumed that both criteria (along with free product removal) must be met as part of site closure. Secondary benefits associated with the potential remediation of other potential soil contaminants not targeted for remediation in the ROD (e.g., tetrachlorothylene), further remediating contaminants that are present in the groundwater (e.g., chlordane), and/or helping eliminate the requirement for a deed restriction notice by meeting certain *residential direct exposure criter*ia in soil. A detailed discussion of this last benefit is included in the Area E ROD. The various possible secondary benefits would only occur within the zone of influence of the selected remedial technology to be implemented.

The selected remedy must also meet the requirements of the location-specific and action-specific ARARs defined in the ROD.

4.1.2 ROD-Defined Remedy

The remedy for the petroleum-contaminated soils currently defined in the ROD consists of removal of the soil by excavation, with off-site and/or beneficial reuse of the contaminated soil. Beneficial reuse of soil, to the extent utilized, will comply with New Jersey's recycling rules (NJAC 7:26A) that were in effect at the time the ROD was memorialized.

In cases where a modification or change to one or more of these measures is proposed (e.g., if site closure is being pursued by using an alternative to excavation of the TPH-impacted soil), then the U.S. Environmental Protection Agency (EPA) would have to be consulted

regarding the best means of documenting the modification. A significant change, such as a modification or enhancement to an existing remedy, can be documented using an Explanation of Significant Differences (ESD), whereas a fundamental change, such as a change to the primary treatment method, requires a ROD amendment and associated revised Proposed Plan and public comment period. Furthermore, if an alternate remedial technology is proposed, the documentation of the change in the ROD would require the consideration of any ARARs that apply to the new components of the remedy, some of which may be onerous. One such requirement might be the confirmatory sampling protocol required by the NJDEP for *in situ* remediation, found in NJAC 7:26E-6.4. This cited paragraph requires that confirmatory samples be collected every 900 square feet of impacted area, or for each two feet of impacted depth.

4.2 Identification of Remedial Technologies

Based on TRC's technical review mentioned in Section 1.1, alternative and/or supplemental remedial technologies identified as having the potential to meet remedial cleanup criteria specified in Section 4.1 are listed in **Table 2.** The listed technologies (and remedial technologies in general) rely to varying degrees on chemically or biologically mediated conversion, destruction, or stabilization of soil and groundwater contaminants. These processes may either occur after physical removal of the contaminated media (solid, liquid, or gas phase) (i.e., *ex situ* treatment) or they may occur without physical removal of the contaminated media (i.e., *in situ* treatment). A brief overview of important aspects specific to each of the technologies listed in Table 2 is provided below. It should be noted that those technologies are often utilized in various combinations in order to meet remedial goals. Although relatively few published case studies appear to be available for remediation of No. 6 fuel oil, remediation of other types of viscous petroleum hydrocarbons, such as coal tar and creosote, using several of the listed technologies, appears to be comparatively and increasingly widespread.

4.2.1 Excavation with Offsite Disposal and/or Reuse of Soil

Excavation of contaminated soil (above the water table) with offsite disposal/reuse of soil was the technology selected in the Area E ROD for remediation of petroleum impacted soil (in conjunction with free phase product removal). The selection of this remedy was based in part on analyses performed as part of the Area E Feasibility Study (TRC, 2001).

Excavation is a conventional, well-established technology for remediation of petroleum impacted soil, and has the major advantage of allowing direct access to, and removal of, the contaminated soil. However, excavation typically becomes more complicated as the required excavation depth increases and/or approaches the water table. Depending on conditions, long-reach excavators, sloping and benching, sheeting and shoring, odor controls, and dewatering with treatment may be required. Examples of sheeting and shoring systems include cantilevered sheet pile walls, anchored sheet pile walls, braced excavations, diaphragm walls and cutoffs, reinforced soil walls with or without tie backs, and soil nailing.

Offsite transportation disposal/reuse options vary for contaminated soil depending on how the material is classified. After it has been confirmed on the basis of laboratory analytical results and/or other information that the petroleum-impacted soil is not classified as hazardous, the material is typically trucked offsite for either use as landfill cover material, landfilling as ID-27 waste, or treatment as necessary for use in the production of asphalt. A number of potentially suitable disposal/re-use facilities are located in New Jersey, in reasonable proximity to the FAA Technical Center (TRC, 2001; Horne Engineering, 2003). In the event that petroleum-impacted soils are determined to be hazardous (not expected to be the case for Area E) it is likely that such soils would require treatment and/or landfilling at a RCRA treatment and disposal facility.

4.2.2 *In Situ* Chemical Oxidation (ISCO) and/or *In Situ* Solidification/Stabilization (ISS) via Soil Mixing

This category of remedial technologies includes both ISCO and ISS technologies, specifically when implemented via soil mixing, as further described below.

ISCO utilizes oxidant chemicals, potentially in conjunction with catalysts, surfactants, or other amendments, to chemically convert contaminants to other less hazardous and/or less mobile forms. Typical oxidants include ozone, peroxides, permanganate, persulfate, and Fenton's reagent (hydrogen peroxide plus ferrous sulfate). Of these relatively common oxidants, only sodium persulfate is characterized as having a high reactivity with TPH (and incidentally, pesticides, PAHs, and all CVOCs) but specifically in the presence of heat and highly alkaline conditions (USEPA, 2013). This may in part reflect a limited amount of data on ISCO specifically targeting TPH. Other types of oxidants potentially suitable for remediating TPH are available from vendors such as Regenesis, as further discussed in Section 5.0.

ISS, in contrast with ISCO, involves the use of chemicals or materials to solidify, bind, encapsulate, or otherwise stabilize contaminants without necessarily chemically converting them.

Cement is a commonly used stabilizing agent. For stabilizing organic contaminants in particular, organophilic materials such as bentonite or granular activated carbon are sometimes utilized as part of the stabilizing mixture.

ISCO and ISS are sometimes combined in a single implementation if this is determined to be beneficial for achieving the particular remedial goals. In any case, a key criterion for consideration is the method of implementation of ISCO and/or ISS. In soil mixing scenarios, the oxidants and/or other amendments are typically injected and mixed into the impacted zone using specialty vertical auger mixing equipment, which has the distinct benefit of potentially maximizing contact between the contaminants and the amendments. The auger mixing equipment often consists of large diameter rotary augers capable of injecting fluids or slurries through the auger flights. A hood may be provided at the top of the auger to facilitate vapor recovery as needed for subsequent vapor or odor control.

4.2.3 *In Situ* Chemical Oxidation (ISCO) and/or *In Situ* Solidification/Stabilization (ISS) via Injection

This category of remedial technologies is similar to the previous ISCO/ISS-based category, except that the method of implementation is injection via direct push, rigs, or other types of drill rigs, equipped with pressure injection capabilities (instead of specialty mixing augers). Due to the absence of direct mixing in this case, it is often considered especially important to incorporate surfactant enhanced remediation with this approach (using a non-reactive surfactant) in order to better desorb contaminants into the liquid phase and thereby reduce the overall oxidant/amendment demand. Additionally, the drill rig may utilize certain types of pressure pulsing measures to momentarily increase the soil permeability and thereby improve contact between the oxidants/amendments and contaminants.

4.2.4 Excavation with Onsite Treatment and/or Reuse of Soil

This category of remedial technologies is similar to the previous excavation-based category, except that contaminated soil is both treated and reused on site (as opposed to offsite transportation and disposal/reuse). Where on-site treatment of petroleum impacted soil is utilized for remedial activities, it typically involves setting up and operating soil washing or thermal desorption systems, which transfer volatilized contaminants to the liquid or vapor phase, respectively, for collection and treatment. This option was previously evaluated by TRC in the

Area E Feasibility Study, but was determined to be less implementable than offsite disposal/reuse (TRC, 2001).

Due to considerations such as air discharge permitting, mobilization and set up, and operational costs (fuel and operator labor) associated with temporary treatment systems, on site treatment of contaminated soil tends to be economically and/or politically favorable for excavations of large areas of moderately to highly contaminated soil in relatively remote locations.

4.2.5 *In Situ* Thermal Desorption/Destruction (ISTD)

ISTD involves the application of heat to desorb and/or degrade certain types of contaminants, including viscous petroleum hydrocarbons in situ. Subcategories of ISTD include conductive heating, electrical resistance heating, radio frequency heating, vitrification, hot water injection, steam injection, and an emerging technology known as self-sustaining smoldering. Radio frequency heating was evaluated by TRC in the Area E Feasibility Study, but was not recommended for further consideration at that time due to high estimated costs and other considerations (TRC, 2001).

In general, ISTD technologies are energy-intensive and require the installation of specialized wells and/or heating elements to introduce energy, heat, or heated fluids into the subsurface and/or recover desorbed vapor- and/or liquid-phase VOCs and SVOCs for subsequent treatment. Certain exceptions to some of these common ISTD requirements exist. For example, an exception to the reliance on the installation of wells or heater elements is a version of steam heating that utilizes a specialty auger system to deliver steam while mixing the soil (USEPA, 2006). Another technology which may offer exceptions to some of the general requirements associated with ISTD is the previously mentioned self-sustaining smoldering. Since contaminants are reportedly destroyed or degraded via a self-propagating controlled-combustion reaction (NRC/NAS, 2013) self-sustaining smoldering is potentially less energy intensive (and slower) than other ISTD technologies, and may not require recovery of desorbed contaminants. However, at a minimum, heating elements and wells (to introduce combustion air) are apparently required with this technology, which is currently in the research and development phase (i.e., bench scale and pilot scale testing are ongoing).

4.2.6 Surfactant Enhanced Remediation (SER)

Surfactants and/or biosolvents are used to enhance other remedial processes, such as soil flushing, groundwater recovery, ISCO, and/or natural attenuation by bioremediation. Surfactants and/or biosolvents typically work by helping to solubilize or emulsify a contaminant, and/or reducing interfacial surface tension. This type of remedial surfactant application, which is currently being employed at Area 29 for petroleum-impacted soil, is intended to increase the mobility and/or availability of the contaminant for enhanced biodegradation, or recovery and treatment. Gravity-driven infiltration or direct push injection are options for SER application. If determined to be beneficial, techniques such as pulsed pressure injection or soil mixing may be utilized to deliver the surfactants into the subsurface, in order to help ensure optimal surfactant/biosolvent dispersion and contact with the contaminants.

4.2.7 Soil Vapor Extraction (SVE)/Bioventing/Bioslurping

SVE/bioventing/bioslupring utilizes vacuum wells to physically recover volatile contaminants and/or promote the biodegradation of certain contaminants. Treatment of recovered volatile contaminants, primarily in the vapor-phase, is often required. Although these technologies may be considered potentially aggressive for remediating LNAPL and light-end fuel contaminants, they are considered to be less effective for remediating viscous, heavy-end fuels such as No. 6 fuel oil. These technologies will readily remove the fuel components that tend to be more toxic and that are highly volatile, such as benzene, but are not generally considered effective to address certain recalcitrant compounds, such as long-chain aliphatic hydrocarbons.

4.2.8 Monitored Natural Attenuation (MNA)

MNA of contaminants such as petroleum hydrocarbons, which typically involves the use of risk assessment, institutional controls, and a long-term monitoring program, is sometimes allowed by regulators. Under an MNA scenario, contamination may be left in place essentially in perpetuity, until natural processes reduce the contaminants to acceptable levels. Where allowed as a site-specific alternative by regulators, MNA frequently offers the lowest cost solution, at least in terms of short-term capital costs. Although MNA as a primary alternative for Area E is inherently prohibited by the Area E ROD (as well as general remediation requirements contained in NJAC 7:26E-6.1) it appears that the ROD contains an allowance to leave

petroleum-impacted soil below the water table (if encountered) in place, even if it exceeds the TPH cleanup criterion of 10,000 ppm. In any case, natural attenuation by itself is unlikely to achieve remedial goals at Area E in a reasonable timeframe, due to the viscous, recalcitrant compounds associated with No. 6 fuel. Bioremediation of such compounds to levels below 10,000 ppm without incorporating any type of active remediation is likely to be exceedingly slow, especially considering the native soil and groundwater low pH typical at the FAA William J. Hughes Technical Center, which is generally not as conducive to bacterial growth as more neutral pH conditions.

4.3 Screening of Remedial Technologies

TRC performed a screening of the potentially suitable remedial technologies identified in Section 4.2, which included a detailed evaluation of the expected advantages and disadvantages of each technology (see Table 2). Based on the results screening, which is further described below, almost all of the technologies were eliminated from further consideration. Technologies retained for further consideration are further evaluated in Section 5.0.

4.3.1 Excavation with Offsite Disposal and/or Reuse of Soil

Screening Analysis: Based on TRC's review, excavation is an established and appropriate technology for remediation of petroleum-impacted soil, including soil contaminated with heavy-end fuel. Excavation likely offers the highest probability of success in meeting or exceeding the remedial goals, and, in fact is part of the overall solution specified in the Area E ROD. Although the depth of the impacts at Area E, and proximity to the water table, will add to the complexity of an excavation-based remedial strategy, these factors can be mitigated by design features. Based on the contaminant levels and distribution discussed in Section 3.0, it is not expected that costs for soil handling and offsite disposal, or dewatering and treatment (if required) will be prohibitive. Some of the biggest engineering challenges for an excavation-based strategy will likely include identifying the most efficient, cost-effective means and methods, addressing equipment decontamination requirements, and addressing health, safety, and/or aesthetic considerations related to noise, odors, and dust. It should be noted that the FAA currently has excess soil stockpiled nearby (Area 41) that has been designated, in part, as potential backfill material for Area E.

Result of Technology Screening: Excavation with Offsite Disposal and/or Reuse of Soil has been retained as a potentially suitable option for further consideration at Area E.

4.3.2 *In Situ* Chemical Oxidation (ISCO) and/or *In Situ* Solidification/Stabilization (ISS) via Soil Mixing

Screening Analysis: Based on TRC's review of case studies and additional discussions with vendors, one of the critical factors for ISCO applications is oxidant demand. According to vendor-supplied estimates of oxidant quantities needed to completely mineralize TPH contaminants to carbon dioxide and water (under best case conditions for the most suitable oxidants), the projected oxidant quantities are extremely large (on the order of millions of pounds). Such quantities are unacceptably high from a cost standpoint, and in addition vastly exceed the available soil pore space in the impacted zone. However, information obtained by TRC from Regenesis suggests that much more reasonable quantities of oxidants may be sufficient to convert enough TPH/EPH into intermediate compounds not detected by the EPH procedure, and thereby meet the ROD-based objective of 10,000 ppm TPH in soil. Such intermediate compounds may consist primarily of unregulated compounds, and, in any case, such compounds may be somewhat more soluble and mobile than the original TPH/EPH compounds, making them potentially amenable to recovery and treatment in the existing groundwater remediation system over time.

With regard to ISS, case studies on the stabilization of heavy-end petroleum contaminants such as coal tar suggest that it may be possible to stabilize or encapsulate No. 6 fuel oil. Practically speaking, however, stabilized TPH is still TPH, and therefore it is not clear whether the ROD-based goal would be met from a regulatory standpoint through ISS alone. A disadvantage of ISS is that stabilization reactions are rarely completely irreversible, and a stabilized matrix (e.g., cement-based) may degrade over time. For example, concrete and cement-based materials have the potential to disintegrate over a period of 50 to 100 years (US EPA, 2013), and this timeline may be further reduced under the acidic conditions encountered at the Technical Center. Based on TRC's review, it is expected to be difficult, if not impossible, to obtain a performance-based guarantee of the longevity of a stabilized matrix of No. 6 fuel oil in the subsurface. Without such a guarantee, and given that the mobility of the No. 6 fuel oil is already low, it does not seem warranted to further stabilize or solidify the TPH in place.

As stated in Section 4.2.1, another critical factor (besides dosing) for ISCO applications is contact between the oxidant and the contaminants. Given the heterogeneous subsurface

environment at Area E, the viscous nature of the weathered No. 6 fuel oil, and the primarily vadose zone distribution of the contamination, it would likely be difficult to achieve thorough and uniform contact throughout the impacted zone using an injection methodology. Instead, as indicated in correspondence with Regenesis, and FMC Adventus, soil mixing using a specialty mixing auger system or similar equipment is likely to be a more suitable methodology for uniformly fluidizing the pore spaces, desorbing contaminants, and maximizing contact between the oxidant(s) and contaminants. Depending on the oxidant to be used, certain types of surfactants may be useful for increasing contaminant desorption and contact with the oxidant.

Combining ISCO with ISS could theoretically reduce the TPH below the applicable criterion (10,000 ppm) and stabilize the intermediate compounds for an extended period of time (assuming acceptable from a regulatory standpoint). Such a combined ISCO/ISS application may be beneficial in cases where addition of soil stabilizers is needed to counteract the reduction of soil bearing capacity, which may be caused by soil mixing. It is likely that surfactants would inhibit the ISS process and would not be suitable for an ISCO/ISS combination.

An additional consideration for an ISCO, ISS, or ISCO/ISS combination, is post-remedial confirmatory sampling. The likely required confirmatory sampling program would be similar to the horizontal and vertical sampling frequencies required in NJAC 7:26E-6.4. Due to the heterogeneous nature of the Area E soils, multiple ISCO and ISS vendors have indicated that meeting the cleanup goals at all sampled locations would be exceedingly difficult.

Result of Technology Screening: Based on the above analyses, ISCO, ISCO with surfactants, or an ISCO/ISS combination, via soil mixing has been retained for further consideration, but ISS by itself (i.e., stabilization of TPH in place) via soil mixing has been eliminated as a potentially suitable option for further consideration at Area E.

4.3.3 *In Situ* Chemical Oxidation (ISCO) and/or *In Situ* Solidification/Stabilization (ISS) via Injection

Screening Analysis*:* Given the subsurface environment, and the nature and distribution of the TPH contamination at Area E, available information indicates that it will be very difficult to achieve thorough and uniform contact throughout the impacted zone using injection methodology. Even if pulsed injections are used to temporarily increase porosity and/or permeability, significant preferential flow pathways are likely to remain, resulting in areas of incomplete and inadequate treatment. Although performing repeated injection events at slightly offset locations may help (while also adding to total project costs) it is likely that uneven

treatment areas will remain due to differences in permeability between different soil layers or lenses.

Result of Technology Screening: ISCO/ISS via Injection has been eliminated as a potentially suitable option for further consideration at Area E.

4.3.4 Excavation with Onsite Treatment and/or Reuse of Soil

Screening Analysis: Although excavation appears to be a viable remedial strategy, as discussed in Section 4.3.3, on-site treatment (via thermal desorption or soil washing) does not appear to be the most economically or politically favorable method for dealing with the contaminated soil. This is due to the requirement to essentially set up and operate a treatment system at the site for an extended period of time.

Result of Technology Screening: Excavation with Onsite Treatment and/or Reuse of Soil has been eliminated as a potentially suitable option for further consideration at Area E

4.3.5 *In Situ* Thermal Desorption/Destruction (ISTD)

Screening Analysis: As discussed in Section 4.2.5, ISTD technologies are generally energy-intensive, and require the installation of specialized wells and/or heating elements. Conventional, fluid-based versions of ISTD (e.g., hot water or steam injection) are susceptible to some of the same types of issues as chemical amendment injections discussed in Section 4.3.2 (i.e., difficulty achieving thorough and uniform contact throughout the impacted zone). Such fluid-based ISTD technologies typically consume large amounts of energy/fuel and water, and generate large volumes of contaminated water to be collected and treated.

For heat- or energy-based versions of ISTD, the limited existing case studies for remediation of heavy-end fuel contamination suggest that the spacing of heater elements and/or vacuum wells needs to be fairly tight to ensure uniform heat distribution and thereby overcome the effects of soil heterogeneity. To begin removing/destroying high boiling point components such as even some of the lower molecular weight SVOCs/PAHs found in petroleum compounds, the soil temperature needs to be raised above 600°F at a minimum, and well spacing needs to be on the order of 6 to 7.5 feet (USEPA, 2013). Air infiltration and/or vapor recovery and treatment systems are usually required and, in the case of SVOCs/PAHs, liquid recovery and treatment may also be required. Dewatering with treatment may be required if contamination below the water table needs to be addressed.

With regard to the emerging technology of self-sustaining smoldering, it appears that energy requirements are somewhat reduced, well and/or heater element density can be reduced, and recovery of vapor phase contaminants may not be required. However, this technology is currently in the pilot testing phases and has not been demonstrated for full scale remediation. It is not clear whether soil heterogeneity or other factors may limit effectiveness in the field (noting that sheeting around the contaminated area was used in the Newark, NJ pilot test listed in Table 2 to provide controlled conditions). In any case, self-sustaining smoldering, similar to some of the other ISTD technologies, involves creating a combustion reaction, at temperatures as high as 2,000°F, which must be monitored and controlled and ultimately will create a highly modified, sterile soil environment (Switzer, 2013).

Based on a feasibility level assessment, costs of proven-ISTD technologies are expected to be prohibitively high when all components and relevant factors are considered. Additionally, obtaining the acceptance of regulators and appeasing community members such at the New Jersey Air National Guard in order to allow the use of ISTD may be very challenging compared to other options.

Result of Technology Screening: ISTD via has been eliminated as a potentially suitable option for further consideration at Area E.

4.3.6 Surfactant Enhanced Remediation (SER)

Screening Analysis: For remediating the weathered, viscous No. 6 fuel oil at Area E, SER will be susceptible to some of the same types of issues as chemical amendment injections discussed in Section 4.3.2 (i.e., difficulty achieving thorough and uniform contact throughout the impacted zone). Information from case studies and/or correspondence with vendors such as Verutek and ETEC indicate that large quantities of injectate (surfactant-containing solution) would be needed to address heavy-end fuel contamination if using a gravity-based or direct push injection approach. Available information indicates that only a solvent-based and/or customized surfactant would be suitable for addressing the heavier-end hydrocarbons contained in weathered No. 6 fuel oil, which have a solubility that is many orders of magnitude lower than the volatile constituents like benzene and hexane. In any case, the injectate and dissolved/emulsified oil would need to be captured for treatment, which may need to include a suitability sized organoclay unit. Based on these considerations, the project costs are likely to be very high, with limited assurance that remedial goals will be met without resorting to other technologies. On the

other hand, information obtained by TRC suggests that the injectate volume, and the need for supplemental treatment of recovered fluids may be reduced if SER is used in conjunction with an ISCO-based soil mixing approach.

Result of Technology Screening: SER via direct push injections and/or as an enhancement to groundwater recovery has been eliminated as a potentially suitable option for further consideration at Area E.

4.3.7 Soil Vapor Extraction (SVE)/Bioventing/Bioslurping

Screening Analysis: SVE may be used as a component of other remedial strategies where vapor recovery is needed for vapor and/or odor control. However, based on TRC's technical review, there is no known precedent for using SVE/Bioventing/Bioslurping to target heavy-end fuel oil contamination. This is likely because the vapor pressure and solubility of heavy-end petroleum components such as PAHs are each many orders of magnitude lower than the vapor pressure and solubility of volatile constituents such as benzene, and components such as PAHs biodegrade relatively slowly, if at all.

Result of Technology Screening: SVE/bioventing/bioslurping have been eliminated as a potentially suitable option for further consideration at Area E

4.3.8 Monitored Natural Attenuation (MNA)

Screening Analysis: Based on TRC's technical review, there are few case studies for MNA of heavy-end fuel oil releases, at least for areas of concern at listed Superfund sites such as the FAA Technical Center. An MNA approach would not comply with the more proactive remedial strategies specified in the Area E ROD. Certainly, it is expected that MNA would be one of the more difficult alternatives to pursue via an Explanation of Significant Differences (ESD), or potentially a new ROD would be required. In any case, due to the viscous, recalcitrant nature of many of the No. 6 fuel constituents and the acidic subsurface environment at the FAA Technical Center, MNA relying on natural dispersion and/or biodegradation will probably not meet remedial goals in an acceptable timeframe.

Result of Technology Screening: MNA has been eliminated as a potentially suitable option for further consideration at Area E

5.0 EVALUATION OF RETAINED ALTERNATIVES

As a result of the screening process described in Section 4.3, only two remedial alternatives were retained for further evaluation. In particular, one in situ alternative, and one ex situ alternative, were retained for subsequent consideration. ISCO via Soil Mixing (either with or without ISS) was selected as the most promising of the in situ remedial alternatives, and Excavation with Offsite Disposal and/or Reuse of Soil was selected as the most promising of the ex situ remedial alternatives. As will be evident from the engineering evaluation below, excavation is ultimately the more promising of the two alternatives, whereas an ISCO-based approach (via soil mixing) may be considered as a secondary option if excavation is not considered appropriate by the FAA or accepted by applicable stakeholders.

5.1 Evaluation of Excavation with Offsite Disposal and/or Reuse of Soil

5.1.1 Considerations Associated with the Area E ROD

As the remedial action specified in the Area E ROD, this alternative has the major benefit of not requiring any special approval from the USEPA. Furthermore, excavation offers a very high probability of meeting or exceeding the remedial goal of less than 10,000 ppm TPH/EPH in soil. A primary concern with the excavation strategy originally identified in the Area E ROD is that it did not address petroleum impacts in soil below the water table. To the extent that such submerged contamination existed (which had not been determined at the time the Area E ROD was finalized) such contamination would be subject to remediation by MNA, which would probably not occur in a reasonable timeframe, if at all, given the nature of the residual contamination and site-specific conditions. The excavation proposed would remove all TPH/EPH impacts both above and below the water table.

5.1.2 Selection of Open Cut Approach

Prior to completion of the supplemental investigations described in Section 3.0, it was anticipated that some type of sheeting and shoring system may be needed to perform the excavation, such as a heavy-duty sheet pile wall system driven to at least 50 ft bgs, or lighter-grade, shallower sheeting installed with tie-backs, both of which are relatively expensive to design and install. It was also expected that reliance on trench boxes would be problematic, since it would be difficult to precisely excavate all of the contaminated soil without cross-contaminating clean areas. Lastly, it was anticipated that significant dewatering and subsequent

treatment may be required to ensure complete removal of the impacted source area. As discussed in Section 3.0, however, it has now been determined that the lower limits of petroleum-impacted soil are situated at a maximum depth of approximately 18 to 19 ft bgs, which is just above the water table most of the time (except under unusually high water table conditions). Furthermore, the footprint of the petroleum impacts, as determined by the limits of soil staining (see Figures 2 and 3) is widest at approximately 14 ft bgs, and then begins to decrease closer to the water table. This information suggests that the excavation can be performed partially or completely as an open cut with a manageable footprint **(Figure 4)**, and that dewatering requirements may be less rigorous and/or more manageable than otherwise expected, if required at all. In any case, although soil handling quantities are considerable for an open cut scenario, the associated project costs are nevertheless expected to be similar to those estimated for a full sheeting and/or shoring scenario, as further discussed below.

Given the granular, cohesionless soils documented in the vicinity of the petroleum impacted area, and based on prior experience with large open excavations at the William J. Hughes FAA Technical Center (e.g., the nearby Recharge Bed) it is expected that the majority of the excavation would be sloped at a 2:1 horizontal to vertical (H:V) cut. Compared to steeper slopes, a 2:1 slope helps limit stormwater-induced erosion during the performance of the excavation. Exceptions to the overall/default 2:1 slope would potentially include shallower sloped equipment access ramps and benched areas (e.g., from flat to 5:1) and steeper sloped areas (e.g., OSHA allows 1.5:1 for Type C soils) as determined by a qualified geotechnical engineer. In any case, at an overall slope of 2:1, the amount of additional excavation (clean soil) beyond that which would be required if the excavation was sheeted to the maximum extent practical is approximately 10,000 cubic yards (CY). Based on typical unit costs to excavate, stockpile, stage, backfill, and re-compact this soil, the estimated cost of additional excavation (clean soil) is comparable to, or less than, sheeting system installation costs. However, an open cut allows for more precise excavation of contaminated soil, and better access for monitoring excavation progress, thereby greatly reducing the chances for creating cross-contamination, or leaving residual contamination behind. In the event that an unexpected lobe of contaminated soil, or an otherwise unforeseen condition, is discovered during the excavation, field adjustments can be made much more easily and cost-effectively with an open cut solution verses sheeted areas. Open cuts also allow better access for subsequent backfilling and compaction of clean soil. In any case, detailed, site-specific analysis by a qualified P.E. specializing in geotechnical

engineering may ultimately demonstrate that overall safe slopes may be steeper than 2:1, further reducing project costs for an open cut scenario.

5.1.3 Open Cut Design Considerations

Important considerations for the proposed open cut excavation, and for handling and disposal of contaminated soil, will be addressed as part of the project engineering design. Important factors will include the following:

- Establishing suitable staging and stockpiling areas;
- Utility clearances;
- Utility decommissioning and/or re-location;
- Protection and demolition of structures;
- Efficient sequencing of operations;
- Routing of trucks and vehicular traffic;
- Mitigation of dust;
- Odor control/abatement;
- Site preparations (e.g., removal of old foundations, as needed);
- Site control measures;
- Decontamination of equipment and personnel;
- General health and safety measures;
- Efficient handling and loading of contaminated soil (most likely direct loading);
- Offsite disposal/reuse of contaminated soil;
- Backfilling and compaction;
- Confirmatory sampling and analysis;
- Site restoration (including well replacement, if required); and,
- Possibly certain contingency measures such as limited shoring and/or limited dewatering.

Special contingency measures may need to be designed by a qualified P.E. in case the excavation needs to be extended vertically beyond 20 ft bgs (in accordance with OSHA regulations). Similarly, although the need for dewatering and odor mitigation measures may be reduced by judicious project scheduling, dewatering and treatment nevertheless may be required to some extent in order to address potential stormwater runoff and/or high capillary fringe areas. It is anticipated that significant dewatering could be achieved using a vacuum truck located in reasonable proximity to the base of the excavation. Odors associated with VOCs and SVOCS may be significant, which may require use of foams or mists, certain types of controls at building air intakes, and/or other methods.

To facilitate the excavation of the contaminated soils, it is anticipated the existing oil skimmer building will be demolished, and extraction well E-EW6 and monitoring well E-MW3S will be abandoned prior to initiating excavation activities. E-EW6 was installed with the sole purpose of providing a well from which to extract free phase petroleum. Therefore, E-EW6 and the associated lateral piping, electrical conduits, and electrical conductors can be removed/abandoned without the need for a long-term shutdown of the remainder or the Area E groundwater extraction system. A replacement well for E-MW3S will be installed in the approximate location of the existing monitoring well.

5.2 Evaluation of ISCO or Combined ISCO/ISS via Soil Mixing

5.2.1 Considerations Associated with the Area E ROD

ISCO or Combined ISCO/ISS via Soil Mixing is the only *in situ* remedial alternative identified as being potentially feasible and/or reasonable from economic and technical standpoints and also having a reasonable likelihood of being accepted by applicable stakeholders. However, success in meeting the remedial goals for this site using this approach is not guaranteed by vendors contacted by TRC. Additionally, since it is not the remedial action specified in the Area E ROD, this alternative has the major disadvantage of requiring special approval from the USEPA in the form of an ESD (especially since injection of amendments is generally prohibited in New Jersey where free product is present). It is therefore likely that a significant effort would be required to both justify the change in remedial strategy, and to establish that it will likely be effective under site-specific conditions. Although bench scale testing of different dosing scenarios can be performed as required for proof-of-concept, bench scale tests are not entirely representative of actual field conditions, and therefore pilot testing is often required. Pilot testing for proving performance under actual soil mixing conditions encountered in the field cannot be performed without the greatly increased expense associated with additional soil mixer mobilization and/or operational time on site. Even with a generally successful remedial effort using ISCO or ISCO/ISS, it may be difficult to achieve complete site closure due to the likely rigorous post-remedial *in situ* sampling requirements (see Section 4.1). Furthermore, any residual contaminants or byproducts resulting from the implementation of ISCO or ISCO/ISS could potentially be subject to more stringent regulations in the future.

5.2.2 Selection of ISCO and/or Combined ISCO/ISS Soil Mixing Approach

In the event that excavation of the contaminated soil is ruled out, and it becomes necessary to adopt an *in situ* approach, one of the first steps would be to establish acceptance of such an alternate approach by EPA by demonstrating proof-of-concept. This will likely involve screening and bench scale testing of different combinations of oxidants, plus activators and/or stabilizers. Oxidizers likely to be tested include percarbonate-based oxidizers (e.g., RegenOx®, a two-part formulation made by Regenesis) or persulfate-based oxidizers (e.g., PersulfOx®, made by Regenesis, or Klozur®, made by FMC Adventus). Such oxidants reportedly have suitable longevity, and, upon activation will generate free radicals, making them among the most potent available oxidants potentially suitable for addressing TPH-based contamination. RegenOx® and PersulfOx® both contain a silicate component which acts as a surfactant and catalyst to further facilitate surface-mediated oxidation reactions. In any case, likely activators for these oxidants include hydrogen peroxide, which is itself a comparatively short-lived oxidant, and which has the benefit of creating modest amounts of heat when reacting with percarbonate or persulfate. Safety Data Sheets (SDS) for these proposed oxidants and activators are included in **Appendix C**. Other possible types of activators include cement or lime, which have been shown to activate persulfate, and which may also provide long-term stabilization of unreacted TPH or byproducts of partial TPH oxidation. Bench scale testing would likely be performed by an independent testing laboratory in accordance with an approved work plan to be generated by TRC. The most suitable oxidant, activator/stabilizer, and associated doses and concentrations will be established based on the results of bench scale testing. A separate pilot testing step will likely be cost prohibitive. Therefore, TRC would work in conjunction with both chemical amendment vendors and experienced soil mixing contractors to determine the most suitable equipment for performing the mixing operations.

5.2.3 Design Considerations for ISCO and/or Combined ISCO/ISS via Soil Mixing Approach

Assuming proof-of-concept can be established, and after the necessary approvals have been obtained, important considerations for the proposed ISCO and/or Combined ISCO/ISS Via Soil Mixing will be addressed as part of the project design. Important factors will include the following:

- Utility clearances;
- Utility decommissioning and/or re-location;
- Other site preparations (e.g., detection and removal of buried rubble);
- Protection and demolition of structures;
- Specification of equipment capabilities and performance requirements;
- Site control measures;
- Decontamination of equipment and personnel;
- Odor mitigation (if required);
- General health and safety measures;
- Chemical dosing requirements;
- Need for supplemental amendments (e.g., surfactants, acids or bases for pH adjustment);
- Monitoring and/or adjustment of oxidation and stabilization parameters (as needed);
- Monitoring of contaminant migration;
- Confirmatory sampling and analysis requirements;
- Soil stability considerations; and
- Site restoration requirements.

Post-remedial monitoring may be required to ensure that contaminant concentrations remain below remedial thresholds.

6.0 CONCLUSIONS AND RECOMMENDATIONS

As part of the Supplemental Investigations and Engineering Evaluation described in this Report, petroleum impacted subsurface soils at Area E were further delineated and found to occupy an area approximately 60 feet by 80 feet, over a depth ranging from approximately 3 to 19 ft bgs (generally expected to be above the seasonal high water table). Based on the visual evidence (i.e., soil staining) and laboratory analyses of associated soil samples, it is estimated that approximately 2,000 CY of soils are impacted with TPH exceeding the ROD-based criterion of 10,000 ppm. As indicated in TRC's screening and analyses of several potentially feasible remedial technologies, TRC identified two of the most promising remedial alternatives, which consist of one *ex situ* remedial technology, and one *in situ* remedial technology. The recommended *ex situ* remedial technology is referred to in this Report as "Excavation with Offsite Disposal and/or Reuse of Soil", whereas the *in situ* technology considered to be most promising is referred to as "*In Situ* Chemical Oxidation (ISCO) and/or *In Situ* Solidification/Stabilization (ISS) via Soil Mixing." To provide further clarification, excavation is recommended to be performed primarily as a sloped/benched open-cut, with direct loading of contaminated soil for offsite disposal. The preferred *in situ* approach would likely consist of either ISCO, or ISCO combined with ISS, implemented using a specialty mixing auger.

As discussed in this Report, the excavation-based option clearly is the most reliable and feasible of these two remedial approaches, both in terms of meeting primary remedial goals and providing secondary benefits such as possibly eliminating the need for a land use restriction, and is therefore the overall recommended remedial option. However, total project costs for an open-cut excavation approach are not expected to be significantly different than the ISCO/ISS soil mixing approach (both are on the order to $1,000,000 to $1,500,000). Therefore, the latter approach is worthy of being retained for further consideration in the event that political or other obstacles to the excavation-based approach are encountered. Additionally, all remedial options, including the recommended excavation-based approach, have inherent advantages and disadvantages. TRC recommends that a presentation/briefing meeting be held with the FAA to present and discuss the relative merits of the various potentially feasible approaches. Based on the results of the initial meeting and any required follow up discussions, TRC could then proceed with the preparation of design documents, or other deliverables, as needed.

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TABLES

TABLE 1
SUMMARY OF ENVIRONMENTAL LABORATORY DATA FOR GRID-BASED SOIL SAMPLES
SUPPLEMENTAL INVESTIGATION AND ENGINEERING EVALUATION FOR REMEDIATION OF PETROLEUM IMPACTED SOILS
AREA E - BUILDING 11 TANK EXCAVATION AREA REMEDIAL ACTION
FAA WILLIAM J. HUGHES TECHNICAL CENTER

SAMPLE ID SAMPLE DEPTH[1] SAMPLE COLLECTION DATE	ROD Cleanup Levels for Constituents of Concern	Residential Direct Contact Soil Remediation Standard*	Non-Residential Direct Contact Soil Remediation Standard*	E-GP-C4 (15-17.5) 15-17.5 12/4/2013		E-GP-E3 (10-15) 10-15 12/4/2013	
TCL Volatile Organic Compounds (µg/kg)							
Benzene	--	2,000	5,000	400		1,100	
Chlorobenzene	--	510,000	7,400,000	59	J	97	J
Cyclohexane	--	--	--	3,800		2,200	
Ethylbenzene	--	7,800,000	110,000,000	3,800		4,800	
Isopropylbenzene	--	--	--	2,900		960	
Methylcyclohexane	--	--	--	16,000		7,100	
Naphthalene	--	6,000	17,000	3,000	J	3,800	J
Tetrachloroethene	--	2,000	5,000			2,700	
Toluene	--	6,300,000	91,000,000	500		10,000	
Total Xylenes	--	12,000,000	170,000,000	21,000		29,000	
TCL Semi-Volatile Organic Compounds (µg/kg)							
Acenaphthene	--	3,400,000	37,000,000			3,400	J
Anthracene	--	17,000,000	30,000,000			1,800	
Benzo(a)anthracene	4,000	600	2,000			1,400	
Benzo(a)pyrene	--	200	200			680	J
Chrysene	--	62,000	230,000			3,200	J
Fluorene	--	2,300,000	24,000,000			5,100	J
Diphenyl	--	--	--	3,500	J	2,900	J
2-Methylnaphthalene	--	230,000	2,400,000	18,000		52,000	
Phenanthrene	--	--	300,000,000	7,800		21,000	
Pyrene	--	1,700,000	18,000,000	1,800	J	3,600	J
NJDEP EPH (mg/kg)							
C12-C16 Aliphatics	--	--	--	2,400		4,200	
C9-C-12 Aliphatics	--	--	--	250		390	
C16-C21 Aliphatics	--	--	--	4,100		5,100	
C21-C40 Aliphatics	--	--	--	11,000		19,000	
C16-C21 Aromatics	--	--	--	1,600		4,900	
C10-C12 Aromatics	--	--	--	53			
C12-C16 Aromatics	--	--	--	450		1,600	
C21-C36 Aromatics	--	--	--	3,100		6,400	
Total Aliphatics	--	--	--	18,000		29,000	
Total Aromatics	--	--	--	5,200		13,000	
Total EPH	10,000	--	--	23,000		42,000	
TCL Pesticides (mg/kg)[2]							
General Chemistry							
Percent Moisture	--	--	--	11.2		10.4	
Percent Solids	--	--	--	88.8		89.6	

Notes
-- Indicates that a Soil Cleanup Criterion has not been established
Blank indicates that the compound was not detected
Highlighted results exceed Area E ROD cleanup criteria
*For remedial actions, Area E ROD cleanup criteria prevail; however, NJDEP Direct Exposure Criteria (2012) are shown for reference purposes.
1 Sample depth in feet below grade
2 No pesticides were detected in soil samples.
TCL VOCs analyzed via Method 8260C
TCL SVOCs analyzed via Method 8270D
NJDEP EPH analyzed via Method NJDEP EPH (fractionated)
TCL Pesticides analyzed via Method 8081B

TABLE 2
IDENTIFICATION AND SCREENING OF REMEDIAL TECHNOLOGIES
SUPPLEMENTAL INVESTIGATION AND ENGINEERING EVALUATION FOR REMEDIATION OF PETROLEUM IMPACTED SOILS
AREA E - BUILDING 11 TANK EXCAVATION AREA REMEDIAL ACTION
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OPTION	TREATMENT TECHNOLOGY	EXAMPLES	ADVANTAGES	DISADVANTAGES	ESTIMATED COSTS
1	- RECOMMENDED - Excavation with Off-Site Disposal and/or Reuse of Soil	- Amended ROD specifies excavation (or ISS) up to 18 ft bgs of certain areas of coal tar contaminated soil (Troy, NY) - NYSDEC-approved plan to excavate coal tar NAPL approximately 10 ft bgs, with dewatering (Clifton, NY) - State-approved plan to excavate creosote-based contaminants across entire site from 18 to 30 ft bgs, with dewatering (Seattle, WA)	- Aggressive and direct; has a very high potential to meet specified remedial goals in a relatively short time frame - Under NJAC 7:26E, post-remedial confirmatory sampling requirements for excavation are considerably less extensive than for in situ remediation methods - Decreases or eliminates the need for pre-design studies and post-remedial monitoring; subsurface investigations to determine the areal and vertical extent of contamination can be considered complete - Area E ROD (August 2003) - selected remedy is "Excavation of Petroleum Contaminated Soils which Exceed New Jersey Non-Residential Direct Contact Soil Cleanup Criteria, with Off-site Beneficial Reuse and/or Disposal" - Formation of hazardous byproducts is not a factor - FAA has stockpiled soil material nearby that can be used as backfill	- Sheeting and shoring may be required - Excavation may need to be implemented in stages - May be difficult to control noise (e.g., due to sheet piling installation and excavation equipment) and odors (e.g., due to large, open excavation) - Design must include noise abatement measures and control of odorous emissions - Decon requirements for handling and transportation equipment expected to be extensive - Need for control/mitigation of traffic and dust - Not able to address contaminants below water table without groundwater cutoff or dewatering with associated treatment - Need for transportation and off-site disposal/beneficial reuse of contaminated soil - Need for excavation and handling of clean soil to access the TPH-contaminated soil	$1 to $1.5 MM
2	*In Situ* Chemical Oxidation and/or *In Situ* Solidification/Stabilization (ISCO/ISS) via Soil Mixing	- Cement-based stabilization of coal tar NAPL and diesel NAPL via specialty mechanical auger system (Cambridge, MA) - Cement/Klozur-based oxidation/stabilization of a mixed waste containing naphthalene (Liberty, TX) - Amended ROD specifies area-dependent use of ISS (or excavation) for coal tar contaminated soil (Troy, NY)	- Potentially aggressive; has the potential to meet specified remedial goals - Potentially suitable for addressing contaminants present both above and below the water table - Little or no need for imported fill material - Soil mixing methodology significantly enhances contact between oxidant and contaminant	- Addition of supplemental chemicals (e.g., catalysts, acids or bases) may be required to facilitate oxidation reactions - High oxidant/chemical amendment doses may be required to address NAPL and/or vadose zone source areas - Pre-design studies required (e.g., bench and/or pilot scale testing) - Site preparation required (e.g., removal of buried rubble, if present) - Potential need to monitor/prevent oxidant and contaminant mobilization/dispersion - Potential for hazardous byproduct formation - Potential affects on hydrogeology or geotechnical conditions - Multiple passes and/or repeated applications may be required to account for rebound (ISCO) or reversibility (ISS) - May require an ESD with associated documentation - Potential need to control/recover/treat odors/offgas - May leave behind non-TPH byproducts due to partial/incomplete oxidation - Rigorous requirements for post-remedial confirmatory sampling may make site closure difficult; potential for isolated pockets of contamination to remain	$1 to $1.5 MM

TABLE 2
IDENTIFICATION AND SCREENING OF REMEDIAL TECHNOLOGIES
SUPPLEMENTAL INVESTIGATION AND ENGINEERING EVALUATION FOR REMEDIATION OF PETROLEUM IMPACTED SOILS
AREA E - BUILDING 11 TANK EXCAVATION AREA REMEDIAL ACTION
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OPTION	TREATMENT TECHNOLOGY	EXAMPLES	ADVANTAGES	DISADVANTAGES	ESTIMATED COSTS
3	*In Situ* Chemical Oxidation and/or *In Situ* Solidification/Stabilization (ISCO/ISS) via Injection	- Oxidation via Klozur plus activated hydrogen peroxide applied via wells to No. 6 oil NAPL and TPH contaminated soil (North Attleboro, MA) - Oxidation of DRO, FS-6 and Bunker C with RegenOx at a FUDs site pilot test (Kodiak, AK)	- Potentially aggressive; has the potential to meet specified remedial goals - Potentially suitable for addressing contaminants present both above and below the water table - Control/recovery of odors/offgas not expected to be a major factor as compared to soil mixing or excavation - Little or no need for imported fill material	- Addition of supplemental chemicals (e.g., catalysts, acids or bases) may be required to facilitate effective oxidation - High oxidant/chemical amendment doses may be required to address NAPL and/or vadose zone source areas - Pre-design studies required (e.g., bench and/or pilot scale testing) - Site preparation required (e.g., removal of buried rubble, if present) - Potential need to monitor/prevent oxidant and contaminant mobilization/dispersion - Potential for hazardous byproduct formation - Need to consider potential affects on hydrogeology or geotechnical conditions - Repeated applications may be required to account for rebound (ISCO) or reversibility (ISS) - May require an ESD with associated documentation - Difficult to uniformly disperse oxidant for optimum contact with contaminants using injection methodologies. especially in non-homogeneous soils - May leave behind non-TPH byproducts due to partial/incomplete oxidation - Rigorous requirements for post-remedial confirmatory sampling may make site closure difficult; potential for isolated pockets of contamination to remain	NA
4	Excavation with On-Site Treatment and Reuse of Soil	- Excavation of creosote-contaminated soil, with on site incineration and reuse of ash as backfill (Winn Parish, LA)	- Aggressive and direct; has a high potential to meet specified remedial goals in a relatively short time frame - Post-remedial confirmatory sampling requirements for excavation are considerably less extensive than for in situ remediation methods - Decreases or eliminates need for imported fill material - Decreases or eliminates the need for pre-design studies and post-remedial monitoring - ESD may not be required - Potential formation of hazardous byproducts not a factor	- Sheeting and shoring may be required, and excavation may need to be implemented in stages - Difficult to control noise (e.g., due to sheet piling installation and excavation equipment) and odors (e.g., due to large, open excavation) - Decon requirements for handling and transportation equipment expected to be extensive - Need for control/mitigation of traffic and dust - Not able to address contaminants below water table without groundwater cutoff or dewatering with associated treatment - Need for on site treatment of soil, which is unlikely to be cost-effective for excavations of the indicated size - Need for excavation and handling of clean soil to access TPH-contaminated soil	NA

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OPTION	TREATMENT TECHNOLOGY	EXAMPLES	ADVANTAGES	DISADVANTAGES	ESTIMATED COSTS
5	*In Situ* Thermal Desorption/Destruction (ISTD)	- Treatment of coal tar contaminated soil in an abandoned gasholder using 25 heater wells, plus dewatering (North Adams, MA) - Thermal treatment of creosote/PAH contaminated soil using 785 heater and/or vacuum wells (Alhambra, California) - Thermal treatment (pilot test) of creosote in soil and groundwater with emerging self-sustaining smoldering technology (Newark, NJ)	- Potentially aggressive; has a high potential to meet remedial specified goals in a relatively short time frame - Little or no need for imported fill material	- Pre-design studies required (e.g., bench and/or pilot scale testing) - Site preparation required (e.g., removal of buried rubble if present) - Need to monitor/prevent contaminant mobilization or dispersion - Need to consider potential affects on hydrogeology or geotechnical conditions - Requires an ESD with associated documentation - Need to control/recover/treat odors/offgas - May be difficult to address contaminants below water table without groundwater cutoff or dewatering with treatment (except possibly smoldering technology) - Very high capital costs and/or power consumption - Rigorous requirements for post-remedial confirmatory sampling may make site closure difficult; potential for isolated pockets of contamination to remain	NA
6	Surfactant Enhanced Remediation (SER)	- VeruSOL + NaOH-activated Klozur applied to coal tar contaminated soil and NAPL via pulsed pressure injection of chemical solutions into wells (Queens, NY) - Biosurfactant and high pressure air injected and extracted via wells to flush A and C bunker oil from the subsurface (Ulsan, Korea)	- Potentially aggressive in certain applications (e.g., mobilization flooding of discrete pools of NAPL) - Potentially suitable for addressing contaminants present both above and below the water table - Little or no need for imported fill material - Control/recovery of odors/offgas not expected to be a major factor - ESD not required - Potential formation of hazardous byproducts not expected to be a major factor	- Relatively high surfactant and/or supplemental chemical (e.g., oxidant) doses may be required to address NAPL and vadose zone source areas - Pre-design studies required (e.g., bench and/or pilot scale testing) - Site preparation required (e.g., removal of buried rubble, if present) - Need to monitor/prevent surfactant and contaminant mobilization or dispersion - Potential affects on hydrogeology or geotechnical conditions - Repeated applications or continuous recirculation likely to be required to meet remedial goals in the short term and/or long term - Difficult to uniformly disperse surfactant for optimum contact with contaminants using injection methodologies - Need for supplemental treatment of extracted groundwater likely to be a major factor when addressing NAPL and/or source zone areas - Rigorous requirements for post-remedial confirmatory sampling may make site closure difficult; potential for isolated pockets of contamination to remain	NA

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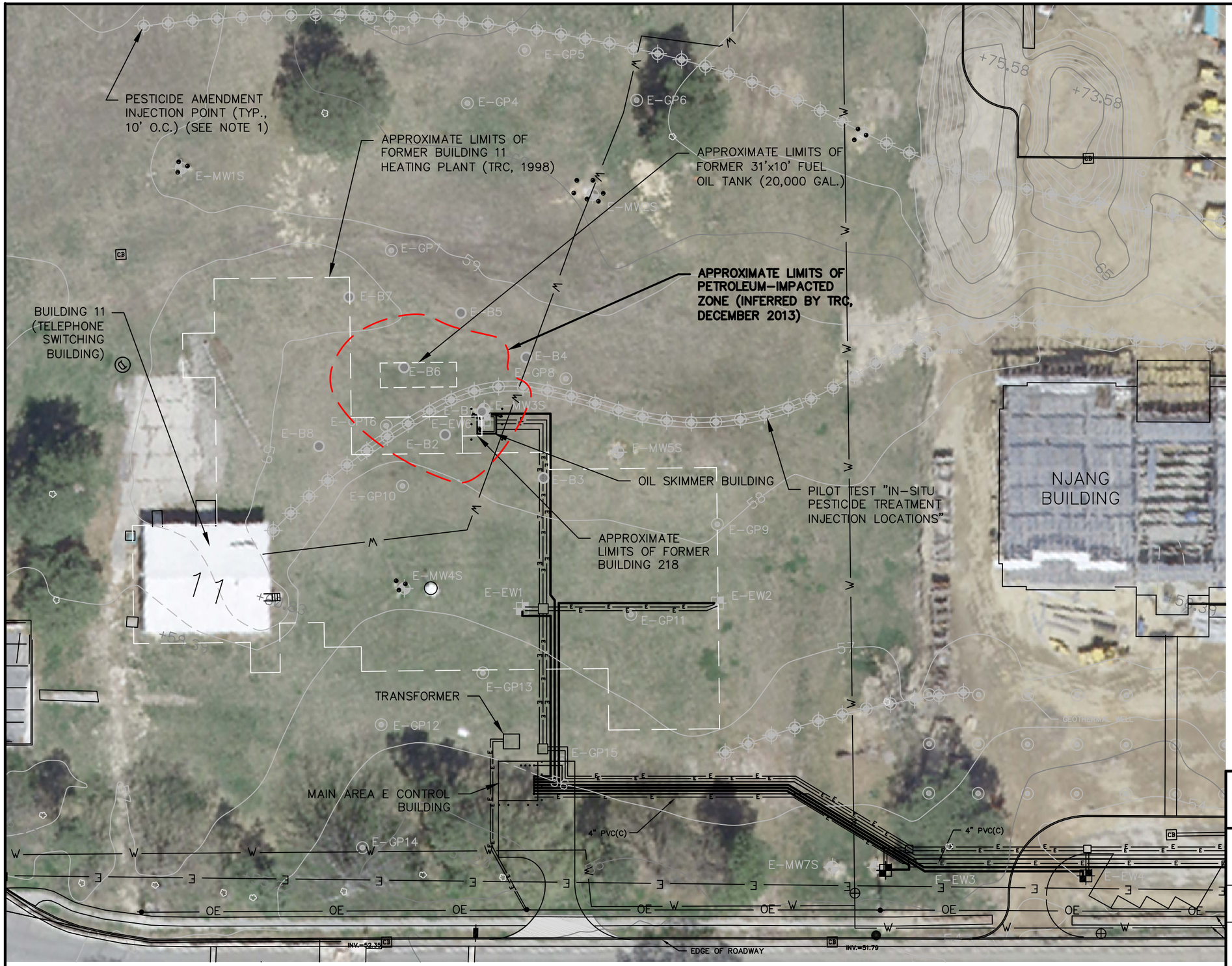
OPTION	TREATMENT TECHNOLOGY	EXAMPLES	ADVANTAGES	DISADVANTAGES	ESTIMATED COSTS
7	Soil Vapor Extraction (SVE)/Bioventing/ Bioslurping	- No examples or case studies identified for using SVE/bioventing to address viscous, heavy-end fuel contamination	- Potentially aggressive in certain applications (e.g., when used with volatile, light-end contaminants) - Little or no need for imported fill material - Potential formation of hazardous byproducts not expected to be a major factor	- Pre-design studies required (pilot scale testing) - Site preparation required (e.g., removal of buried rubble) - Difficult to uniformly distribute airflow - Need to control/recover/treat odors/offgas - Requires an ESD with associated documentation - Not likely able to address contaminants below water table without groundwater cutoff or dewatering with treatment - Not generally considered effective for remediating viscous, heavy end fuel contaminants such as No. 6 oil - Rigorous requirements for post-remedial confirmatory sampling may make site closure difficult; potential for isolated pockets of contamination to remain	NA
8	Monitored Natural Attenuation (MNA)	- No examples or case studies identified addressing viscous fuel contamination	- Likely to be lowest cost option on short to intermediate time frames	- Likely to require institutional controls and associated liabilities in perpetuity, or otherwise exceedingly long time frames - Requires an ESD and likely requires substantial supporting documentation - Typically prohibited or discouraged by regulatory agencies when NAPL present - Rigorous requirements for post-remedial confirmatory sampling may make site closure difficult; potential for isolated pockets of contamination to remain	NA

FIGURES



NJ STATE GRID 1983

NOTES:

1) BASE MAP INFORMATION: MAP SUPPLIED BY THE FEDERAL AVIATION ADMINISTRATION AND WAS DERIVED FROM AERIAL PHOTOGRAPHY FLOWN ON APRIL 4, 2010.
2) THE MAPPING COORDINATE SYSTEM IS NJ STATE PLANE NAD83 AND THE ELEVATION DATUM IS NAVD88.
3) LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE. UTILITY LOCATION, STATUS, AND CLEARANCE (NJ ONE CALL AND OTHER) MUST BE CONFIRMED PRIOR TO INTRUSIVE ACTIVITIES.
4) INFRASTRUCTURE SHOWN FOR THE NJANG BUILDING IS BASED ON FINAL DRAWINGS AND MAY NOT ACCURATELY REFLECT AS-BUILT CONDITIONS. NOT ALL INFRASTRUCTURE IS SHOWN.

LEGEND

E	UNDERGROUND ELECTRIC
	OVERHEAD ELECTRIC
	UNDERGROUND WATER LINE TO CENTRAL TREATMENT PLANT AT AREA D
	UNDERGROUND SITE WATER LINE
E-EW6	EXTRACTION WELL LOCATION
E-MW3S	MONITORING WELL LOCATION
E-B1	SOIL BORING LOCATION (1987/1988)
E-GP10	SOIL BORING LOCATION (1997)
	IN SITU PESTICIDE TREATMENT INJECTION (2012)

0 40' 80'

GRAPHIC SCALE

TRC
21 Griffin Road North
Windsor, CT 06095
(860) 298-9692

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FEDERAL AVIATION ADMINISTRATION
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ATLANTIC CITY AIRPORT, NEW JERSEY 08405

FIGURE 1
SITE PLAN

AREA E SUPPLEMENTAL REMEDIAL INVESTIGATION

Date: 05/01/14 | Project No. 162662-000190-000405

File Path: J:\CAD\162662\000190\000405\Area E\
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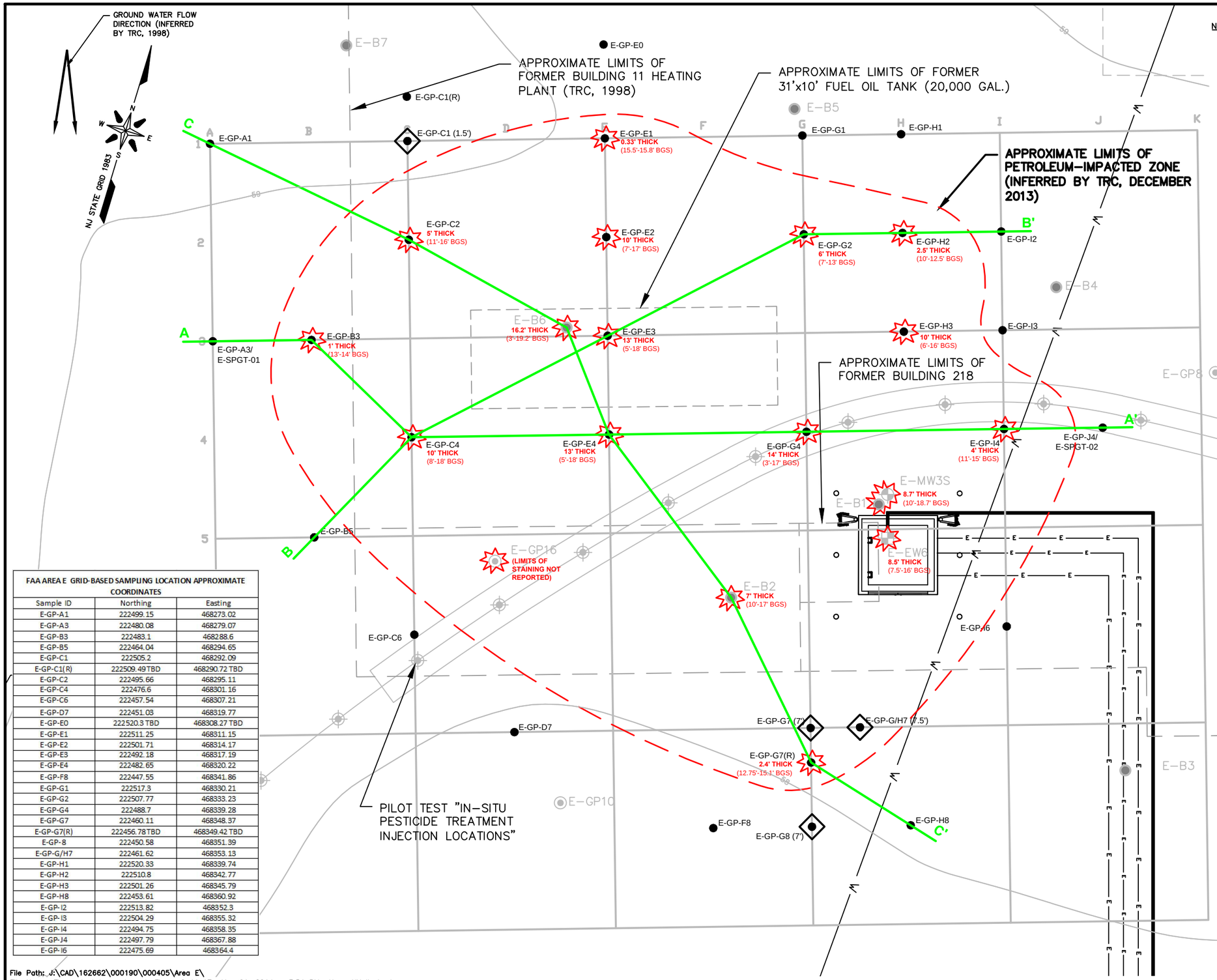

NOTES:

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2) THE MAPPING COORDINATE SYSTEM IS NJ STATE PLANE NAD83 AND THE ELEVATION DATUM IS NAVD88. SAMPLING GRID WAS ESTABLISHED USING TAPE MEASUREMENTS (NOT A LICENSED SURVEY)
3) LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE.
4) SOIL SAMPLING AND ANALYTICAL REQUIREMENTS FOR ENVIRONMENTAL AND GEOTECHNICAL BORINGS WERE DESCRIBED IN THE PROJECT PROPOSAL (TRC, 11/5/13) AND/OR OTHER DOCUMENTATION, AND WERE SUBJECT TO FIELD-ADJUSTMENT BASED ON REAL-TIME COMMUNICATION AND COORDINATION WITH THE ENVIRONMENTAL AND GEOTECHNICAL ENGINEERS.
5) GEOPROBE REFUSALS WERE REPORTEDLY ENCOUNTERED IN 2013 SOIL BORINGS AT DEPTHS RANGING FROM 1.5 TO 7.5 FT BGS AT INDICATED LOCATIONS, WHICH REQUIRED SLIGHT ADJUSTMENT OF ORIGINALLY PLANNED LOCATIONS. REASON FOR REFUSALS NOT DETERMINED. PETROLEUM IMPACTS NOT EVIDENT ABOVE REFUSAL DEPTHS. GEOPROBE REFUSALS HAD ALSO BEEN ENCOUNTERED IN THE VICINITY OF CERTAIN HISTORICAL (1997) SOIL BORINGS E-GP5, E-GP8, E-GP9, AND E-GP8 AT DEPTHS RANGING FROM 2.5 TO 9 FT BGS.
6) SOIL STAINING AT VISUALLY IMPACTED LOCATIONS WAS GENERALLY CONTINUOUS WITHIN IMPACTED ZONES.
7) BASED ON SOIL SAMPLES ANALYZED TO DATE, DOCUMENTED EXCEEDANCES OF AREA E ROD CLEANUP CRITERIA ARE SHOWN (E-B1, E-B2, E-GP-C4, E-GP-E3).
8) TANK DIMENSIONS ARE TAKEN FROM AN FAA FIGURE ENTITLED "AREA E HISTORIC TANK LOCATION", BY ENVIRONMENTAL & SAFETY SUBTEAM (9/26/12). ACTUAL SHAPE OF TANK (EG. TYPICALLY CYLINDRICAL WITH DISHED ENDS) NOT INDICATED.

LEGEND

E	UNDERGROUND ELECTRIC
	UNDERGROUND WATER LINE TO CENTRAL TREATMENT PLANT AT AREA D
W	UNDERGROUND SITE WATER LINE
E-EW6	EXTRACTION WELL LOCATION (2011)
E-MW3S	MONITORING WELL LOCATION (1987)
E-B1	SOIL BORING LOCATION (1987/1988)
E-GP10	SOIL BORING LOCATION (1997)
E-GP-B3	GRID-BASED GEOPROBE SOIL BORING LOCATION (2013)
E-GP-A3/ E-SPGT-01	GRID-BASED GEOPROBE PLUS HOLLOW STEM AUGER GEOTECHNICAL SOIL BORING LOCATION (2013)
E-GP-G7 (7')	GEOPROBE REFUSAL REPORTED AT THIS LOCATION (REFUSAL DEPTH BELOW SURFACE INDICATED IN FEET)
	PILOT TEST IN-SITU PESTICIDE TREATMENT GEOPROBE-BASED INJECTION LOCATION (2012)
	DOCUMENTED PETROLEUM IMPACTS (STAINING) IN SOIL AT THIS LOCATION (THICKNESS AND DEPTH BELOW GRADE SURFACE INDICATED IN FEET)
A — A'	CROSS SECTION (SEE FIGURE 3)

0 10' 20'
GRAPHIC SCALE

FAA AREA E GRID-BASED SAMPLING LOCATION APPROXIMATE COORDINATES

Sample ID	Northing	Easting
E-GP-A1	222499.15	468273.02
E-GP-A3	222480.08	468279.07
E-GP-B3	222483.1	468288.6
E-GP-B5	222464.04	468294.65
E-GP-C1	222505.2	468292.09
E-GP-C1(R)	222509.49 TBD	468290.72 TBD
E-GP-C2	222495.66	468295.11
E-GP-C4	222476.6	468301.16
E-GP-C6	222457.54	468307.21
E-GP-D7	222451.03	468319.77
E-GP-E0	222520.3 TBD	468308.27 TBD
E-GP-E1	222511.25	468311.15
E-GP-E2	222501.71	468314.17
E-GP-E3	222492.18	468317.19
E-GP-E4	222482.65	468320.22
E-GP-F8	222447.55	468341.86
E-GP-G1	222517.3	468330.21
E-GP-G2	222507.77	468333.23
E-GP-G4	222488.7	468339.28
E-GP-G7	222460.11	468348.37
E-GP-G7(R)	222456.78 TBD	468349.42 TBD
E-GP-8	222450.58	468351.39
E-GP-G/H7	222461.62	468353.13
E-GP-H1	222520.33	468339.74
E-GP-H2	222510.8	468342.77
E-GP-H3	222501.26	468345.79
E-GP-H8	222453.61	468360.92
E-GP-I2	222513.82	468352.3
E-GP-I3	222504.29	468355.32
E-GP-I4	222494.75	468358.35
E-GP-J4	222497.79	468367.88
E-GP-I6	222475.69	468364.4

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FIGURE 2
PETROLEUM-IMPACTED AREA

AREA E SUPPLEMENTAL REMEDIAL INVESTIGATION

Date: 05/01/14 | Project No. 162662-000190-000405

File Path: J:\CAD\162662\000190\000405\Area E\
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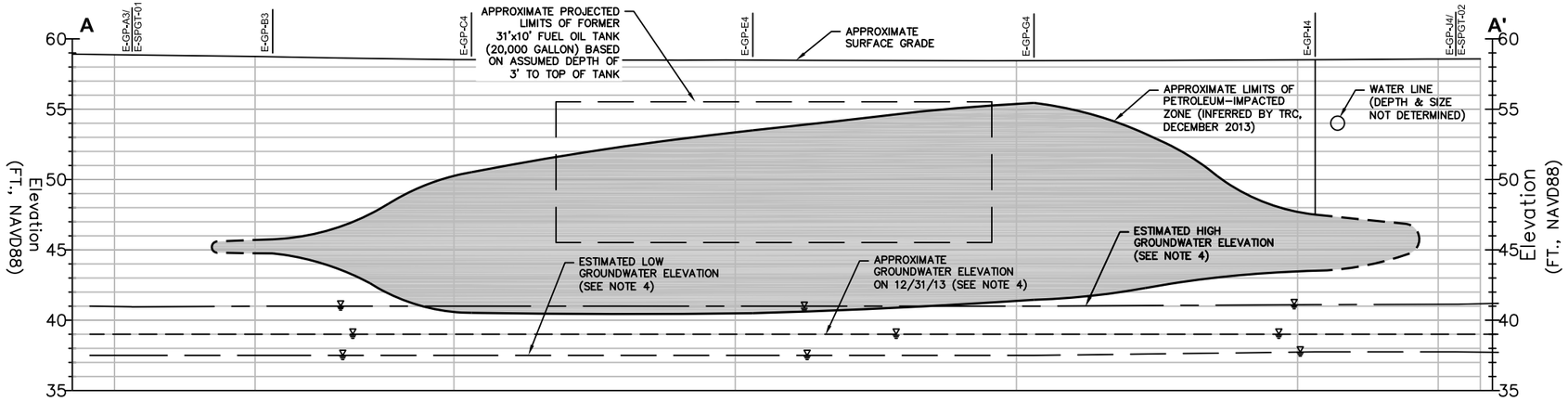
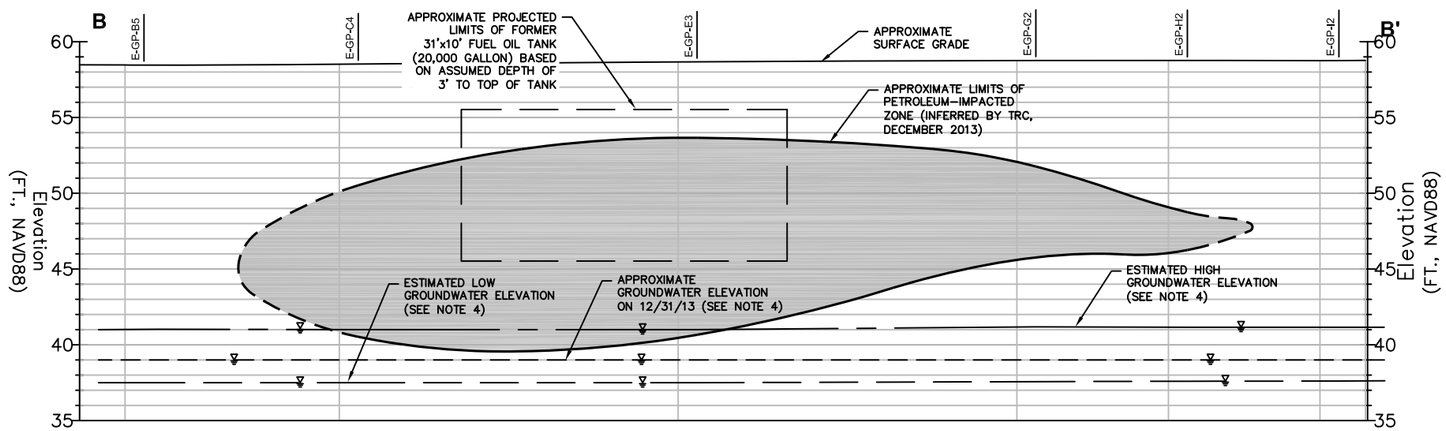
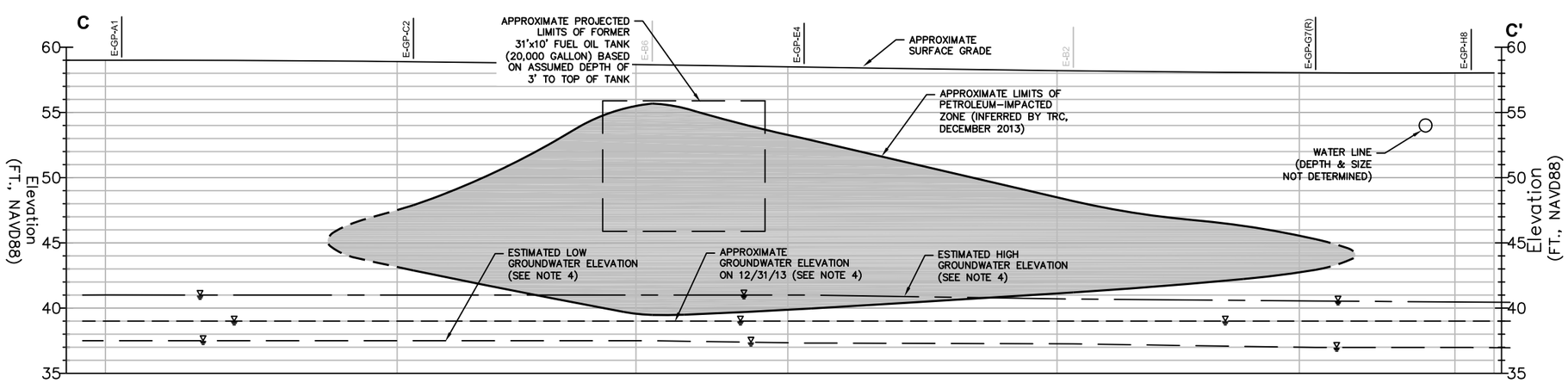


Profile View of Alignment A–A'



Profile View of Alignment B–B'



Profile View of Alignment C–C'

NOTES:

1) LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE.
2) SOIL STAINING AT VISUALLY IMPACTED LOCATIONS WAS GENERALLY CONTINUOUS WITHIN IMPACTED ZONES.
3) TANK DIMENSIONS ARE TAKEN FROM AN FAA FIGURE ENTITLED "AREA A HISTORIC TANK LOCATION", BY ENVIRONMENTAL & SAFETY SUBTEAM (9/26/12). ACTUAL SHAPE OF TANK (EG. CYLINDRICAL WITH DISHED ENDS) NOT INDICATED.
4) ALL GROUNDWATER ELEVATIONS ARE ESTIMATED BASED ON MEASUREMENTS TAKEN AT E–MW5S. (ASSUMING SIMILAR ELEVATIONS EXIST NEAR THE CENTER OF THE IMPACTED ZONE, AND THE WATER TABLE SLOPE PARALLELS SURFACE GRADE. ESTIMATED HIGH GROUNDWATER ELEVATION IS BASED ON DEPTH TO WATER MEASURED ON 12/11/09 (FOLLOWING A YEAR OF RECORD PRECIPITATION). ESTIMATED LOW GROUNDWATER ELEVATION IS BASED ON MAXIMUM DEPTH TO WATER REPORTED BY URS SINCE 10/21/11 (LOW OCCURRED ON THAT DATE).

0 10' 20'

VERTICAL & HORIZONTAL GRAPHIC SCALE

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ATLANTIC CITY AIRPORT, NEW JERSEY 08405

FIGURE 3
PROFILES A-A', B-B', & C-C'

AREA E SUPPLEMENTAL REMEDIAL INVESTIGATION

Date: 05/01/14 | **Project No. 162662-000190-000405**

File Path: J:\CAD\162662\000190\000405\Area E\
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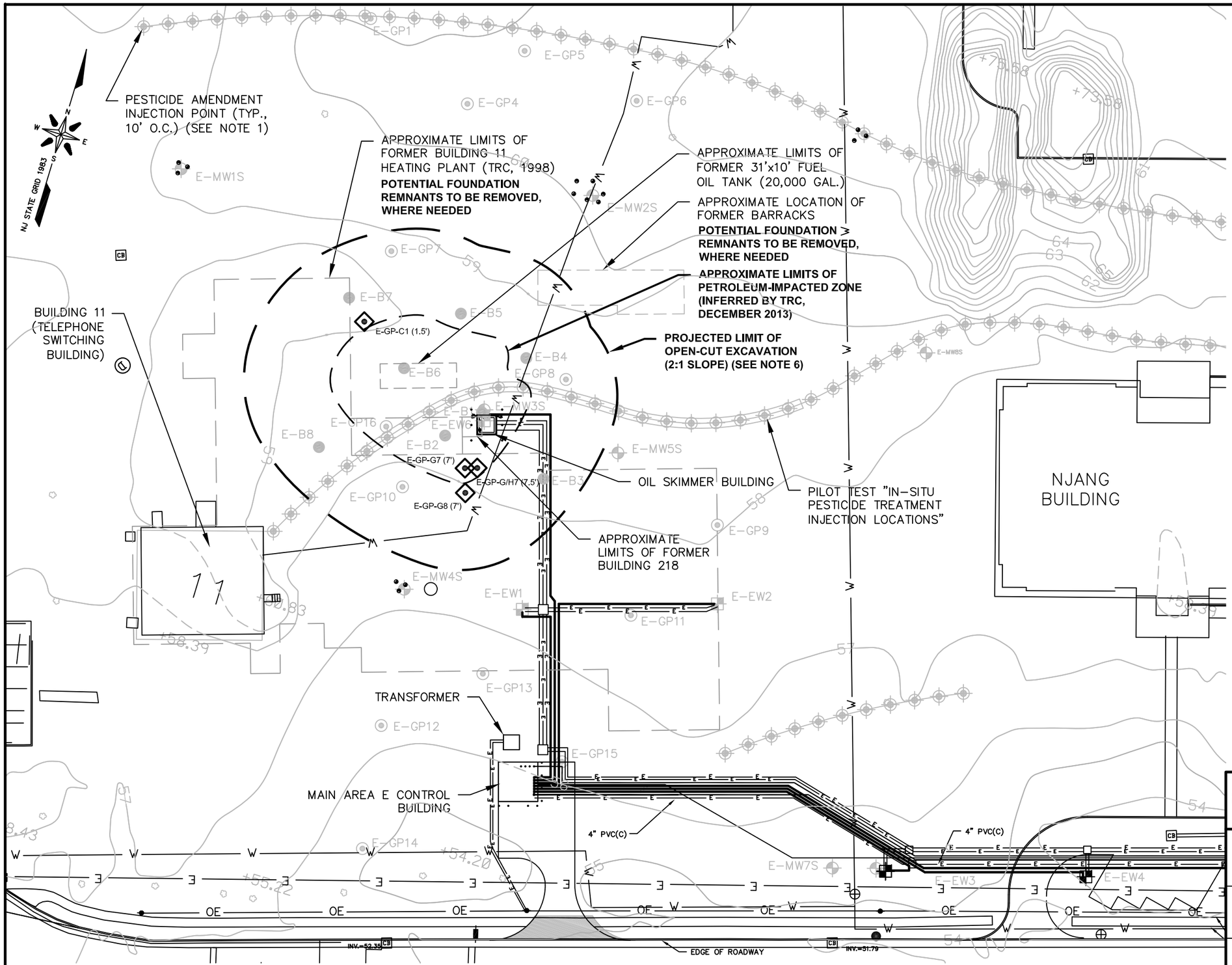

NOTES:

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3) LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE.
4) GEOPROBE REFUSALS WERE REPORTEDLY ENCOUNTERED IN 2013 SOIL BORINGS AT DEPTHS RANGING FROM 1.5 TO 7.5 FT BGS AT INDICATED LOCATIONS, WHICH REQUIRED SLIGHT ADJUSTMENT OF ORIGINALLY PLANNED LOCATIONS. REASON FOR REFUSALS NOT DETERMINED. PETROLEUM IMPACTS NOT EVIDENT ABOVE REFUSAL DEPTHS. GEOPROBE REFUSALS HAD ALSO BEEN ENCOUNTERED IN THE VICINITY OF CERTAIN HISTORICAL (1997) SOIL BORINGS E-GP5, E-GP8, E-GP9, AND E-GP8 AT DEPTHS RANGING FROM 2.5 TO 9 FT BGS.
5) TANK DIMENSIONS ARE TAKEN FROM AN FAA FIGURE ENTITLED "AREA E HISTORIC TANK LOCATION", BY ENVIRONMENTAL & SAFETY SUBTEAM (9/26/12). ACTUAL SHAPE OF TANK (EG. TYPICALLY CYLINDRICAL WITH DISHED ENDS) NOT INDICATED.
6) SINCE THE HORIZONTAL LIMITS OF THE IMPACTED ZONE DECREASE NEAR THE WATER TABLE, THE ACTUAL LIMITS OF THE OPEN-CUT EXCAVATION MAY BE LESS THAN SHOWN, ESPECIALLY ON THE NORTH SIDE, EVEN FOR A NOMINAL 2:1 SLOPE.

LEGEND

—— E ——	UNDERGROUND ELECTRIC
═══	UNDERGROUND WATER LINE TO CENTRAL TREATMENT PLANT AT AREA D
—— W ——	UNDERGROUND SITE WATER LINE
E-EW6	EXTRACTION WELL LOCATION (2011)
E-MW3S	MONITORING WELL LOCATION (1987)
E-B1	SOIL BORING LOCATION (1987/1988)
E-GP10	SOIL BORING LOCATION (1997)
E-GP-G7 (7')	GEOPROBE REFUSAL REPORTED AT THIS LOCATION (REFUSAL DEPTH BELOW SURFACE INDICATED IN FEET)
	PILOT TEST IN-SITU PESTICIDE TREATMENT GEOPROBE-BASED INJECTION LOCATION (2011)

0 40' 80'

GRAPHIC SCALE

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FIGURE 4
PROJECTED LIMITS OF AN OPEN-CUT EXCAVATION

AREA E SUPPLEMENTAL REMEDIAL INVESTIGATION

Date: 05/01/14 | Project No. 162662-000190-000405

File Path: J:\CAD\162662\000190\000405\Area E\
File Name: Figure 1-4.dwg Layout: Figure 4 11x17 May 02, 2014 - 1:45 PM User: KHollenbeck

APPENDIX A

GEOTECHNICAL BORING LOG

AND

GEOTECHNICAL LABORATORY ANALYTICAL DATA

TEST BORING LOG

PROJECT: PETROLEUM CONTAMINATION SUPPL. R.I. AREA E
LOCATION: FAA WJH TECHNICAL CENTER - POMONA, NJ

BORING **E-SPGT-01**
G.S. ELEV.
FILE 162662.000190.000404
SHEET 1 OF 2

GROUNDWATER DATA			
FIRST ENCOUNTERED 18.5 '			
DEPTH	HOUR	DATE	ELAPSED TIME

METHOD OF ADVANCING BOREHOLE				
a	FROM	0.0 '	TO	10.0 '
d	FROM	10.0 '	TO	50.0 '

DRILLER T. SARIS
HELPER N/A
INSPECTOR M. WINBOURNE
DATE STARTED 12/06/2013
DATE COMPLETED 12/06/2013

DEPTH	A	B	C	DESCRIPTION	Wn	REMARKS
				0.3 ***TOPSOIL***		
	S-1	3 3 2 3		***REDDISH-BROWN SILTY F/M SAND, MOIST*** 2.0		AT DELINEATION BORING E-GP-A3; FREE OF GRASS; VISUALLY IDENTIFIED PETROLEUM CONTAMINATION
	S-2	3 3 2 4		***REDDISH-BROWN SILTY F/M SAND, SM GRAVEL, MOIST***		
5	S-3	8 10 13 14		6.0		
	S-4	16 19 18 22		***REDDISH-BROWN F/M/C SAND AND GRAVEL, LITTLE SILT, MOIST*** 8.5		
10	S-5	13 10 10 10		***GRAY AND BROWN SILTY CLAY, TR F/ SAND, MOIST*** 10.0		
				UNSAMPLED 13.0		
15	S-6	5 7 5 8		***YELLOWISH-BROWN SILTY F/M SAND, MOIST*** 15.0		
				UNSAMPLED 18.0		
20	S-7	2 4 3 5		***YELLOWISH-BROWN AND ORANGE SILTY F/M SAND, MOIST TO WET*** 20.0		BULK SAMPLE COLLECTED FROM 18-23 FEET
				UNSAMPLED 23.0		
				23.5 ***YELLOWISH-BROWN AND ORANGE SILTY F/M SAND, WET***		
25	S-8	1 2 1 2		25.0 ***ORANGE AND YELLOWISH-BROWN SILTY CLAY, WET***		
				UNSAMPLED 28.0		
30	S-9	4 7 9 11		***REDDISH-BROWN, ORANGE, AND GRAY F/M SAND, TR SILT, WET*** 30.0		
				UNSAMPLED 33.0		
	S-10	31 50/5"		***REDDISH-BROWN F/M/C SAND, TR SILT, WET***		
35				35.0		

DRN. BMH
CKD. JPB

NEW PROJECTS TEST BORING LOG 162662_000190 FAA WJH.GPJ SITE BLAUVELT.GDT 1/6/14

TEST BORING LOG

PROJECT: PETROLEUM CONTAMINATION SUPPL. R.I. AREA E
LOCATION: FAA WJH TECHNICAL CENTER - POMONA, NJ

BORING **E-SPGT-01**
G.S. ELEV.
FILE 162662.000190.000404
SHEET 2 OF 2

DEPTH		A	B	C	DESCRIPTION	Wn	REMARKS
					UNSAMPLED 38.0		
40		S-11	15 10 9 13		***PALE REDDISH-BROWN F/M SAND, TR SILT, WET*** 40.0		
					UNSAMPLED 43.0		
45		S-12	22 34 42 48		***REDDISH-BROWN F/M/C SAND, TR GRAVEL, TR SILT, WET*** 45.0		
					UNSAMPLED 48.0		
50		S-13	25 19 14 16		***GRAY AND YELLOWISH BROWN F/M/C SAND, TR SILT, WET*** 50.0		
					END OF BORING AT 50'		
55							
60							
65							
70							
75							

NEW PROJECTS TEST BORING LOG 162662_000190 FAA WJH.GPJ SITE BLAUVELT.GDT 1/6/14

TEST BORING LOG

PROJECT: PETROLEUM CONTAMINATION SUPPL. R.I. AREA E
LOCATION: FAA WJH TECHNICAL CENTER - POMONA, NJ

BORING **E-SPGT-02**
G.S. ELEV.
FILE 162662.000190.000404
SHEET 1 OF 1

GROUNDWATER DATA			
FIRST ENCOUNTERED NR			
DEPTH	HOUR	DATE	ELAPSED TIME

METHOD OF ADVANCING BOREHOLE				
a	FROM	0.0 '	TO	10.0 '
d	FROM	10.0 '	TO	30.0 '

DRILLER T. SARIS
HELPER N/A
INSPECTOR M. WINBOURNE
DATE STARTED 12/06/2013
DATE COMPLETED 12/06/2013

DEPTH		A	B	C	DESCRIPTION	Wn	REMARKS
					0.5 ***TOPSOIL***		
		S-1	3 2 4 7		***REDDISH-BROWN SILTY F/M SAND, MOIST*** 2.5		AT LOCATION OF UNDRILLED DELINEATION BORING E-GPI/J7
		S-2	12 11 13 11		***REDDISH-BROWN F/M/C SAND, SILT AND WHITE GRAVEL, MOIST*** 4.0		
5		S-3	13 14 14 15		***REDDISH-BROWN F/M/C SAND AND WHITE GRAVEL, MOIST*** 6.5		
		S-4	12 9 12 14		***REDDISH-BROWN AND YELLOWISH-BROWN F/M SAND, TR SILT, MOIST***		
10		S-5	12 16 16 14		10.0		
					UNSAMPLED 13.0		
15		S-6	7 5 4 4		***YELLOWISH-BROWN AND REDDISH-BROWN SILTY F/M SAND, MOIST*** 15.0		
					UNSAMPLED 18.0		
20		S-7	6 2 4 7		***ORANGE, YELLOWISH-BROWN, AND REDDISH-BROWN F/M/C SAND, TR SILT, WET*** 20.0		
					UNSAMPLED 23.0		
25		S-8	NR NR NR NR		***ORANGE AND GRAY CLAYEY SILT, WET*** 25.0		
					UNSAMPLED 28.0		
30		S-9	12 11 16 18		***DARK GRAY AND PALE YELLOWISH-BROWN F/M SAND, TR SILT, WET*** 30.0		
					END OF BORING AT 30'		
35							

DRN. BMH
CKD. JPB

NEW PROJECTS TEST BORING LOG 162662_000190 FAA WJH.GPJ SITE BLAUVELT.GDT 1/6/14

SUMMARY OF LABORATORY TEST DATA

Project Name: FAA AREA E
Client Name: FAA
TRC Project #: 162662

SAMPLE IDENTIFICATION			Soil Group (USCS System)	Moisture Content (%)	GRAIN SIZE DISTRIBUTION				PLASTICITY				Dry Unit Weight (pcf)	Coefficient of Permeability (cm/sec)
Boring #	Sample #	Depth (ft)			Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Liquidity Index)		
E-SPGT-01	S-2	2.0-4.0	SM	7.5	22.6	61.3	16.1		-	-	-	-	124.2	-
	S-3	4.0-6.0	SP-SM	6.7	29.6	59.1	11.3		-	-	-	-	-	-
	S-4	6.0-8.0	SW-SM	5.2	14.4	76.1	9.5		-	-	-	-	-	-
	S-7	18.0-20.0	SM	21.8	0.3	86.0	13.7		-	-	-	-	-	-
	Bulk	18.0-23.0	SC-SM	22.3	0.5	84.9	14.6		-	-	-	-	-	$4.0x10^{-06}$
	S-8	23.0-25.0	CL-ML	25.2	44.7		55.3		24	18	6	1.2	105.6	-
	S-11	38.0-40.0	SP-SM	20.6	0.4	93.7	6.0		-	-	-	-	-	-
	S-12	43.0-45.0	SP-SM	18.0	2.0	90.3	7.7		-	-	-	-	-	-
	S-13	48.0-50.0	SP-SM	16.5	0.1	92.2	7.7		-	-	-	-	-	-
E-SPGT-02	S-3	4.0-6.0	SW-SM	4.4	29.0	63.1	7.9		-	-	-	-	-	-
	S-4	6.0-8.0	SM	7.6	0.0	79.7	20.3		-	-	-	-	111.2	-
	S-5	8.0-10.0	SP-SM	5.2	0.5	89.4	10.1		-	-	-	-	-	-
	S-7	18.0-20.0	SP-SM	21.3	0.0	88.1	11.9		-	-	-	-	-	-

DRAWN BY: TBT 01/03/14

CHECKED BY: PWK 01/06/14

SUMMARY OF LABORATORY TEST DATA

Project Name: FAA AREA E
Client Name: FAA
TRC Project #: 162662

SAMPLE IDENTIFICATION			Soil Group (USCS System)	Moisture Content (%)	GRAIN SIZE DISTRIBUTION				PLASTICITY				Dry Unit Weight (pcf)	Coefficient of Permeability (cm/sec)
Boring #	Sample #	Depth (ft)			Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Liquidity Index)		
E-SPGT-02	S-8	23.0-25.0	SM	21.2	-	-	-		NP	NP	NP	-	132.6	-
	S-9	28.0-30.0	SP-SM	18.0	0.0	91.7	8.3		-	-	-	-	-	-

DRAWN BY: TBT 01/03/14

CHECKED BY: PWK 01/06/14

SUMMARY OF LABORATORY TEST DATA

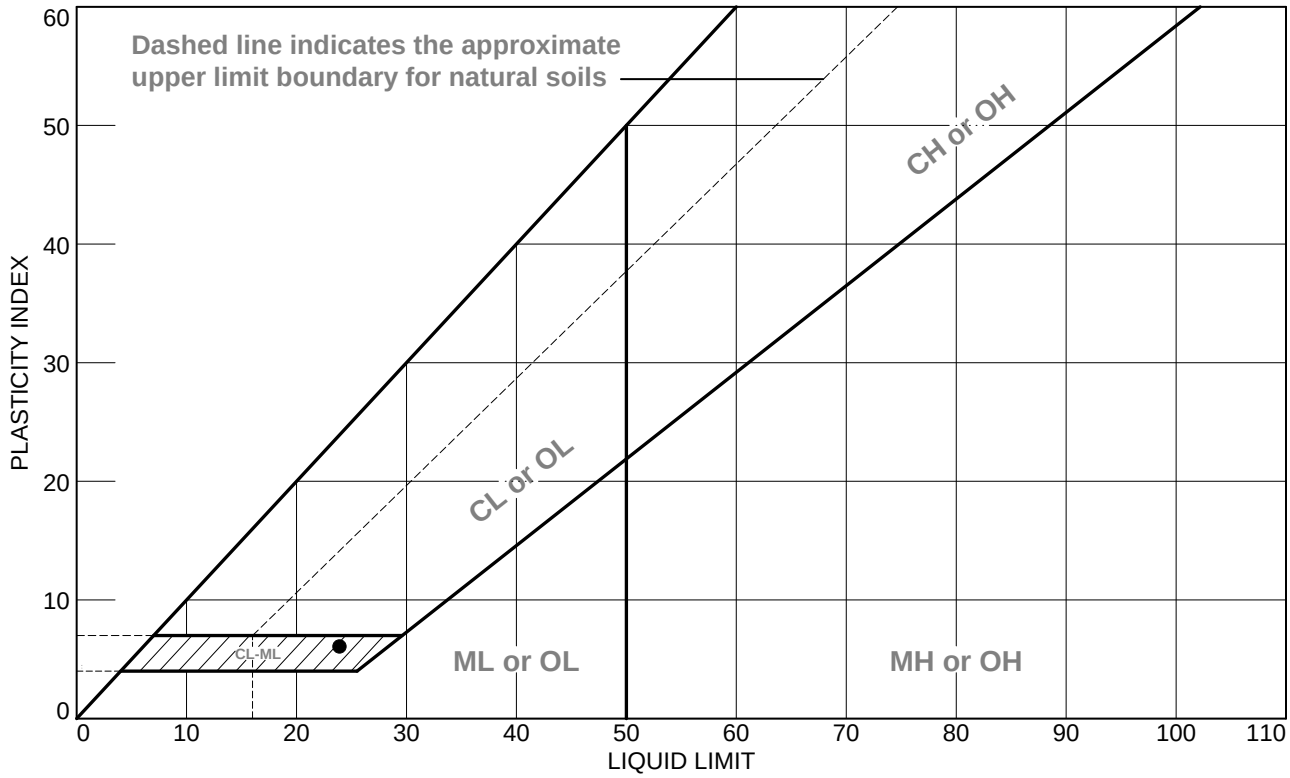
Project Name: FAA AREA E
Client Name: FAA
TRC Project #: 162662

SAMPLE IDENTIFICATION			Specific Gravity (*Assumed S.G.)	Moisture Content Before Test (%)	VOLUMETRIC PROPERTIES (AT TEST)			SHEAR STRENGTH PROPERTIES			
Boring #	Sample #	Depth (ft)			Dry Unit, PCF (*Indicates Remolded Sample)	Void Ratio	Degree of Saturation (%)	Type of Test	Normal Stress (TSF)	Strain (%)	Total Angle of Internal Friction (Degrees)
E-SPGT-01	S-7	18.0-20.0	2.75	21.8	108.2 110.1	0.59 0.56	99.8 100.6	Direct Shear	0.50 1.50	4.0 4.0	34.0

DRAWN BY: TBT 01/03/14

CHECKED BY: PWK 01/06/14

LIQUID AND PLASTIC LIMITS TEST REPORT



SOIL DATA

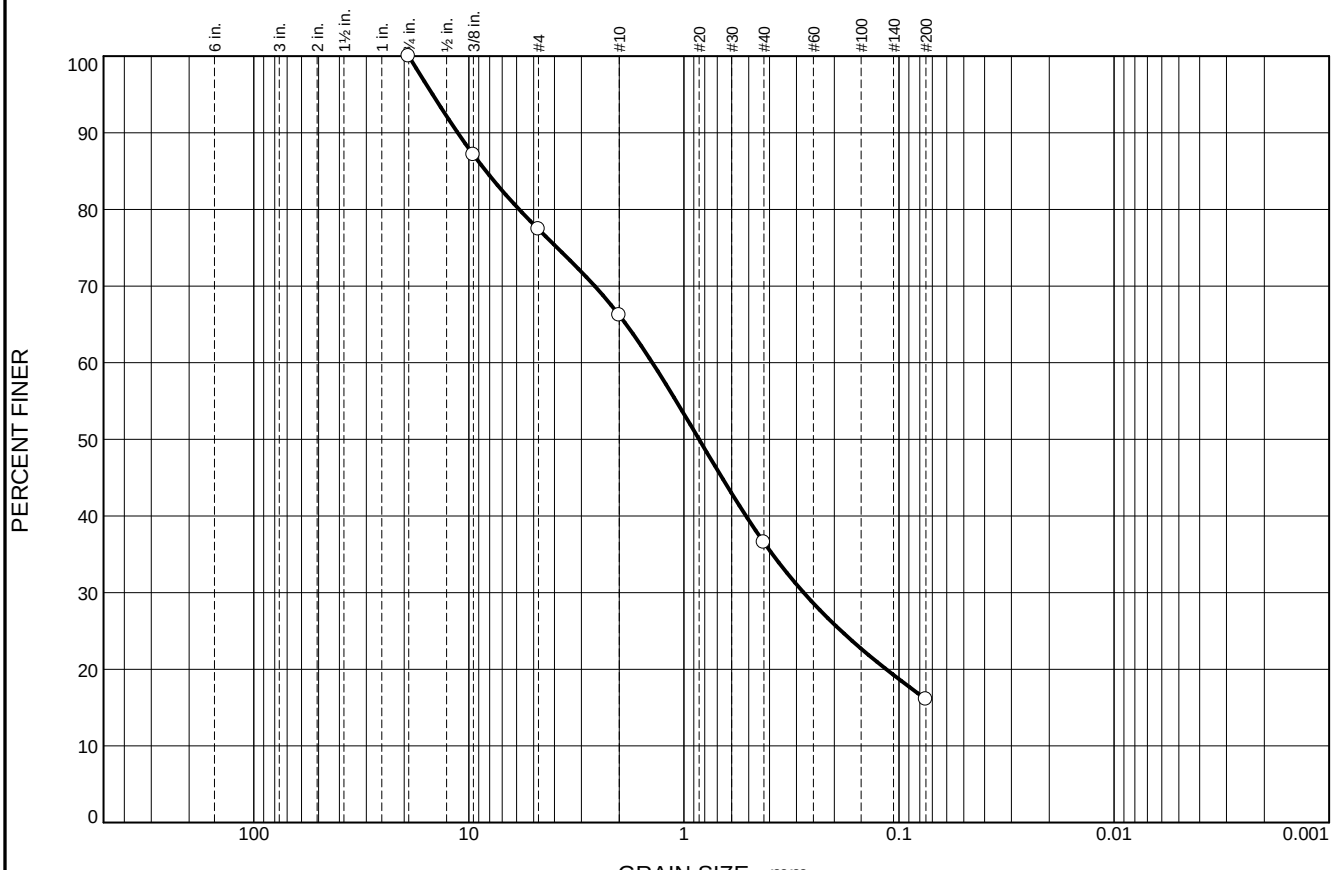
	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	LIQUIDITY INDEX	USCS
●	E-SPGT-01	S-8	23.0-25.0 FT	25.2	18	24	6	1.2	CL-ML
■	E-SPGT-02	S-8	23.0-25.0 FT	21.2	NP	NV	NP		SM

TRC
Engineers, Inc.
Mt. Laurel, NJ

Client: FAA
Project: FAA AREA E

Project No.: 162662 **Figure** 1

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	22.6	11.2	29.6	20.5	16.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			8.3317	1.4028	0.8504	0.2775				

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ BROWN M/F/C SAND, LITTLE F/ GRAVEL, LITTLE SILT	01/02/14	SM	7.5

Project No. 162662 **Client:** FAA

Project: FAA AREA E

○ **Source of Sample:** E-SPGT-01 **Depth:** 2.0-4.0 FT **Sample Number:** S-2

Remarks:

○SAMPLE DESCRIPTION BASED ON VISUAL IDENTIFICATION

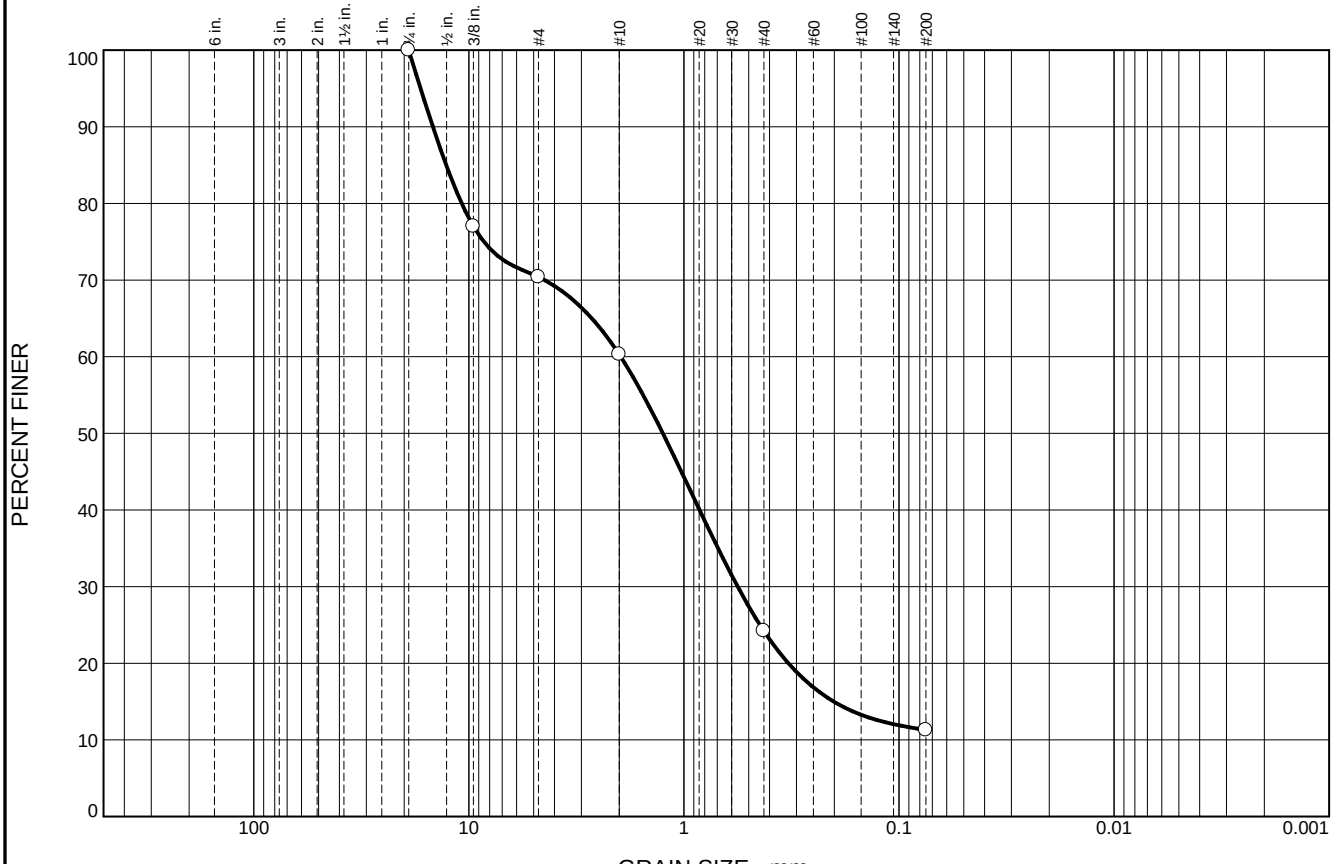
TRC Engineers, Inc.

Mt. Laurel, NJ

Figure 2

Tested By: TBT 01/02/14 **Checked By:** PWK 01/06/14

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	29.6	10.1	36.1	12.9	11.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			12.7462	1.9677	1.2535	0.5624	0.2012			

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ BROWN M/F/C SAND, LITTLE F/ GRAVEL, FEW TO LITTLE SILT	12/31/13	SP-SM	6.7

Project No. 162662 **Client:** FAA

Project: FAA AREA E

○ **Source of Sample:** E-SPGT-01 **Depth:** 4.0-6.0 FT **Sample Number:** S-3

Remarks:

○SAMPLE DESCRIPTION BASED ON VISUAL IDENTIFICATION

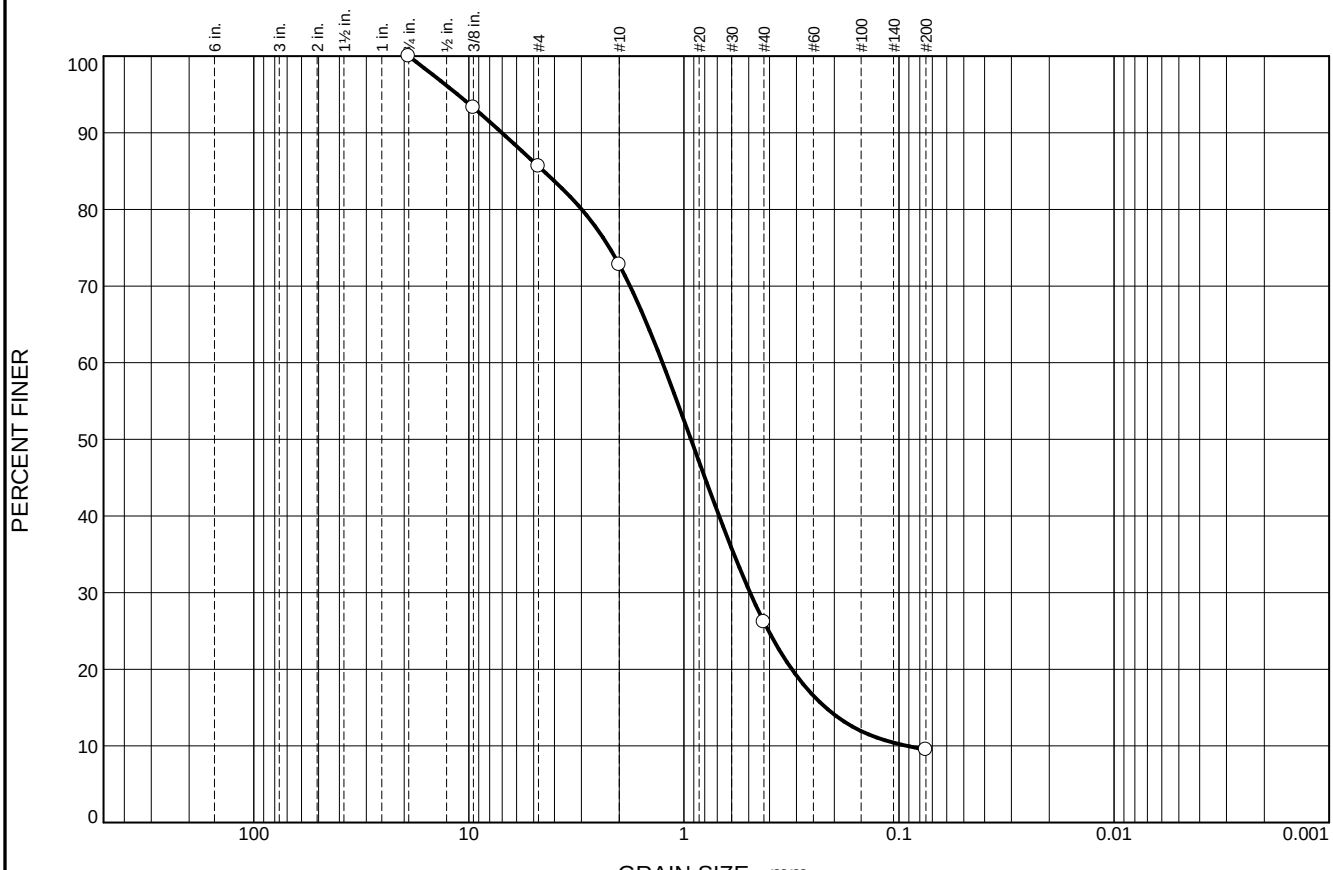
TRC Engineers, Inc.

Mt. Laurel, NJ

Figure 3

Tested By: TBT 12/31/13 **Checked By:** PWK 01/06/14

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	14.4	12.8	46.6	16.7	9.5	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			4.4891	1.2589	0.9277	0.4927	0.2192	0.0917	2.10	13.73

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ BROWN M/F/C SAND, FEW TO LITTLE F/ GRAVEL, FEW SILT	12/31/13	SW-SM	5.2

Project No. 162662 **Client:** FAA

Project: FAA AREA E

○ **Source of Sample:** E-SPGT-01 **Depth:** 6.0-8.0 FT **Sample Number:** S-4

Remarks:

○SAMPLE DESCRIPTION BASED ON VISUAL IDENTIFICATION

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Mt. Laurel, NJ

Figure 4

Tested By: TBT 12/31/13 **Checked By:** PWK 01/06/14

Particle Size Distribution Report

	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.3	1.1	13.2	71.7	13.7	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.4175	0.1995	0.1586	0.1040	0.0769			

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ LIGHT BROWN F/M/C SAND, FEW TO LITTLE SILT, TRACE F/ GRAVEL	01/02/14	SM	21.8

Project No. 162662 **Client:** FAA

Project: FAA AREA E

○ **Source of Sample:** E-SPGT-01 **Depth:** 18.0-20.0 FT **Sample Number:** S-7

Remarks:

○SAMPLE DESCRIPTION BASED ON VISUAL IDENTIFICATION

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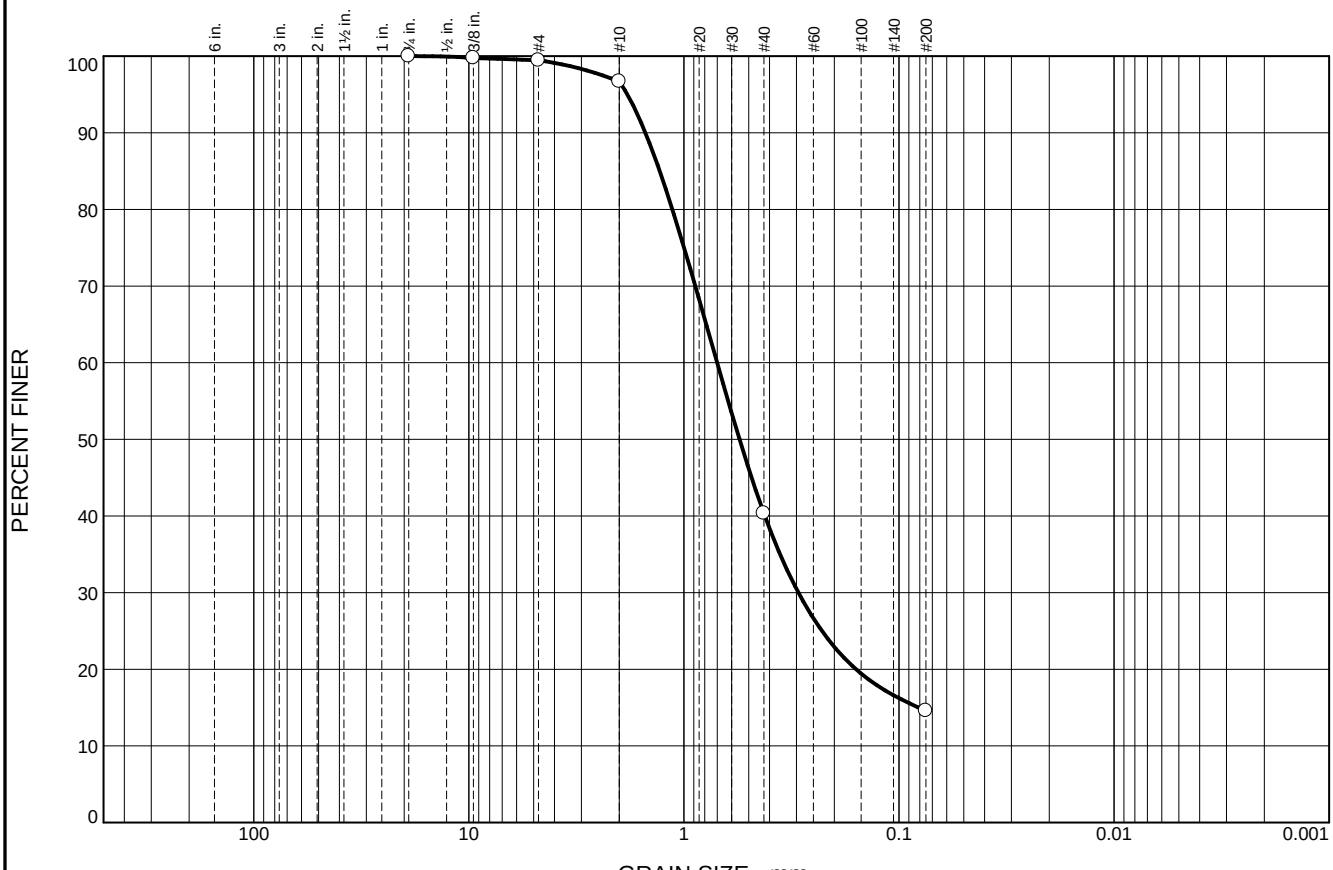
Figure 5

Tested By: TBT 01/02/14 **Checked By:** PWK 01/06/14

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.5	2.8	56.4	25.7	14.6	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			1.2961	0.7009	0.5513	0.2936	0.0810			

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ LT BROWN TO LT RED-BROWN M/F/C SAND, FEW TO LITTLE SILT, TRACE F/ GRAVEL	01/03/14	SC-SM	22.3

Project No. 162662 **Client:** FAA

Project: FAA AREA E

○ **Source:** E-SPGT-01 **Depth:** 18.0-23.0 FT **Sample No.:** BULK

Remarks:

○SAMPLE DESCRIPTION BASED ON VISUAL IDENTIFICATION

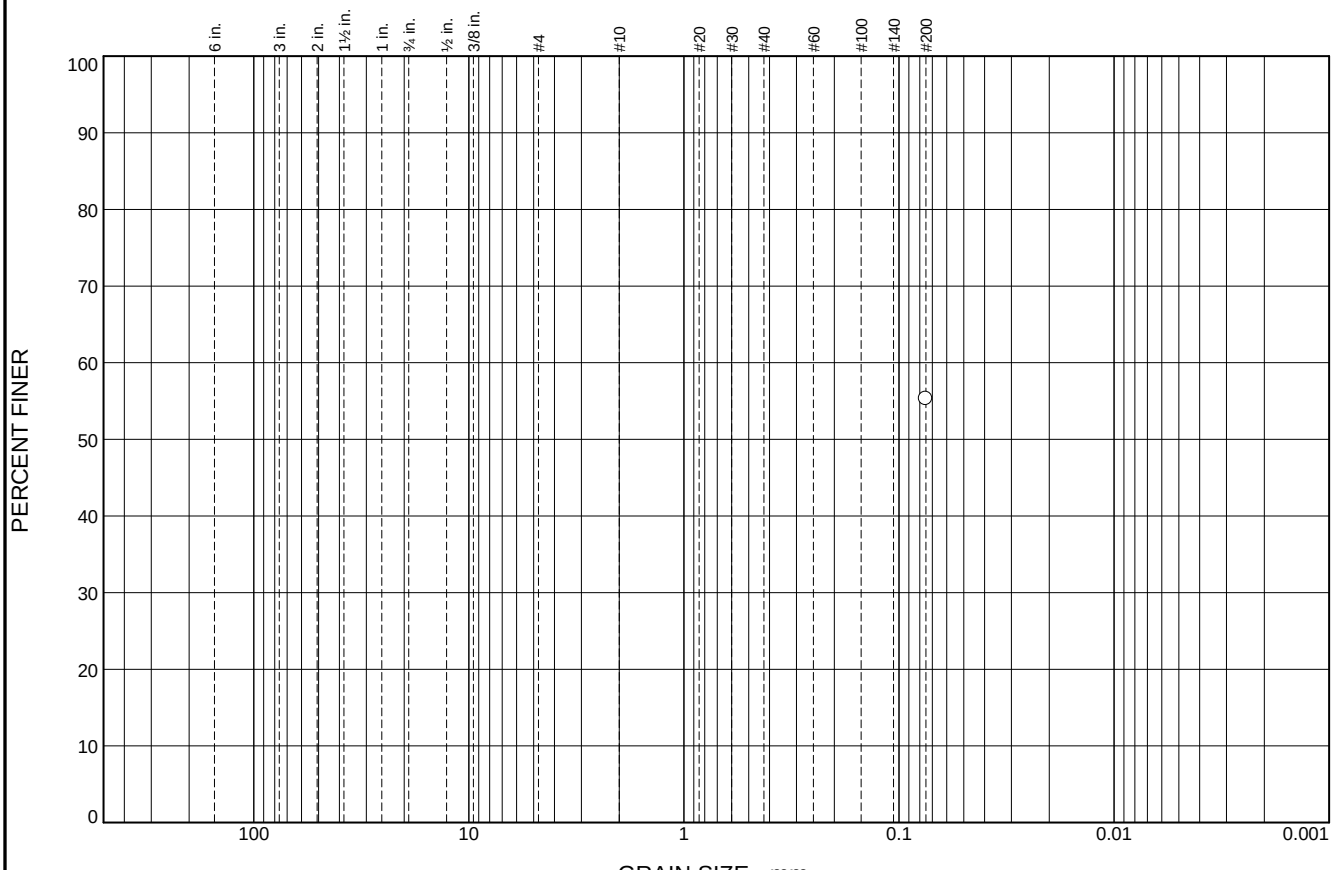
TRC Engineers, Inc.

Mt. Laurel, NJ

Figure 6

Tested By: TBT 01/03/14 **Checked By:** PWK 01/06/14

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○							55.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	24	18								

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ YELLOW-BROWN F/ SANDY SILTY CLAY	12/31/13	CL-ML	25.2

Project No. 162662 **Client:** FAA

Project: FAA AREA E

○ **Source of Sample:** E-SPGT-01 **Depth:** 23.0-25.0 FT **Sample Number:** S-8

Remarks:
○SAMPLE DESCRIPTION BASED ON VISUAL IDENTIFICATION

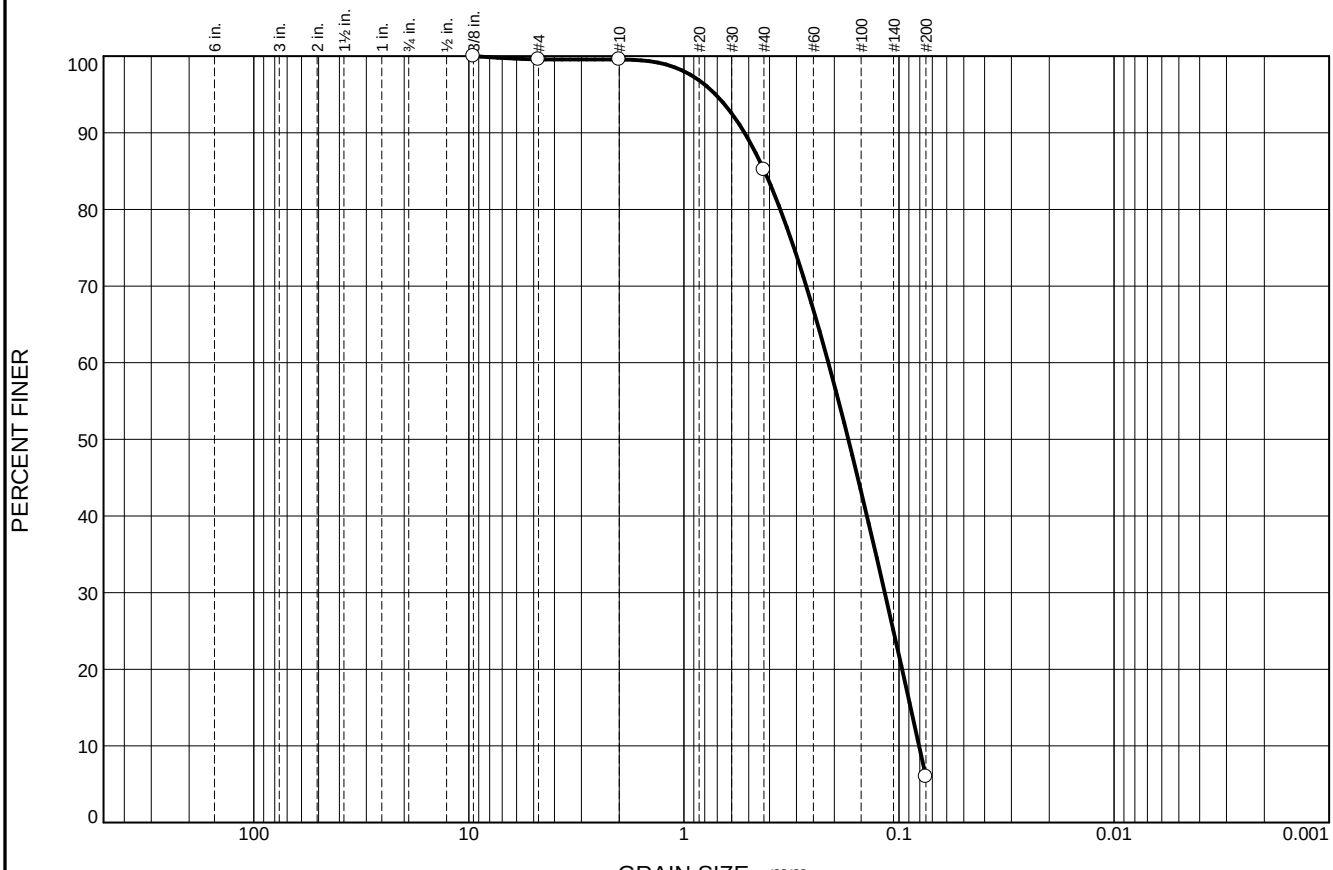
TRC Engineers, Inc.

Mt. Laurel, NJ

Figure 7

Tested By: TBT 12/31/13 **Checked By:** PWK 01/06/14

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.4	0.0	14.4	79.2	6.0	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.4222	0.2131	0.1721	0.1165	0.0883	0.0806	0.79	2.64

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ LIGHT BROWN F/M SAND, FEW SILT, TRACE F/ GRAVEL	12/31/13	SP-SM	20.6

Project No. 162662 **Client:** FAA

Project: FAA AREA E

○ **Source of Sample:** E-SPGT-01 **Depth:** 38.0-40.0 FT **Sample Number:** S-11

Remarks:
○SAMPLE DESCRIPTION BASED ON VISUAL IDENTIFICATION

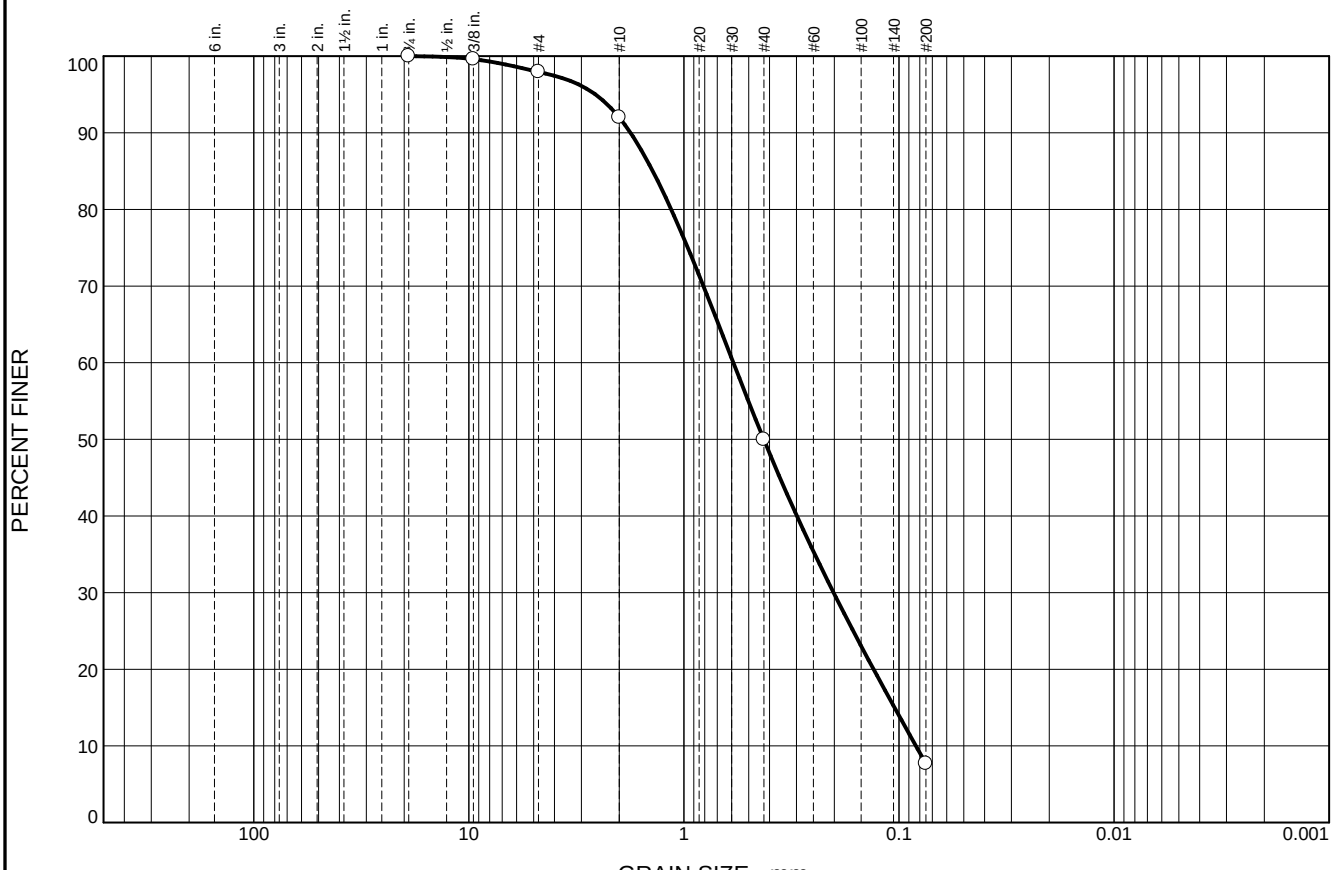
TRC Engineers, Inc.

Mt. Laurel, NJ

Figure 8

Tested By: TBT 12/31/13 **Checked By:** PWK 01/06/14

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	2.0	6.0	42.0	42.3	7.7	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			1.3965	0.5890	0.4255	0.2015	0.1049	0.0834	0.83	7.06

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ LIGHT BROWN F/M/C SAND, FEW SILT, TRACE F/ GRAVEL	12/31/13	SP-SM	18.0

Project No. 162662 **Client:** FAA

Project: FAA AREA E

○ **Source of Sample:** E-SPGT-01 **Depth:** 43.0-45.0 FT **Sample Number:** S-12

Remarks:

○SAMPLE DESCRIPTION BASED ON VISUAL IDENTIFICATION

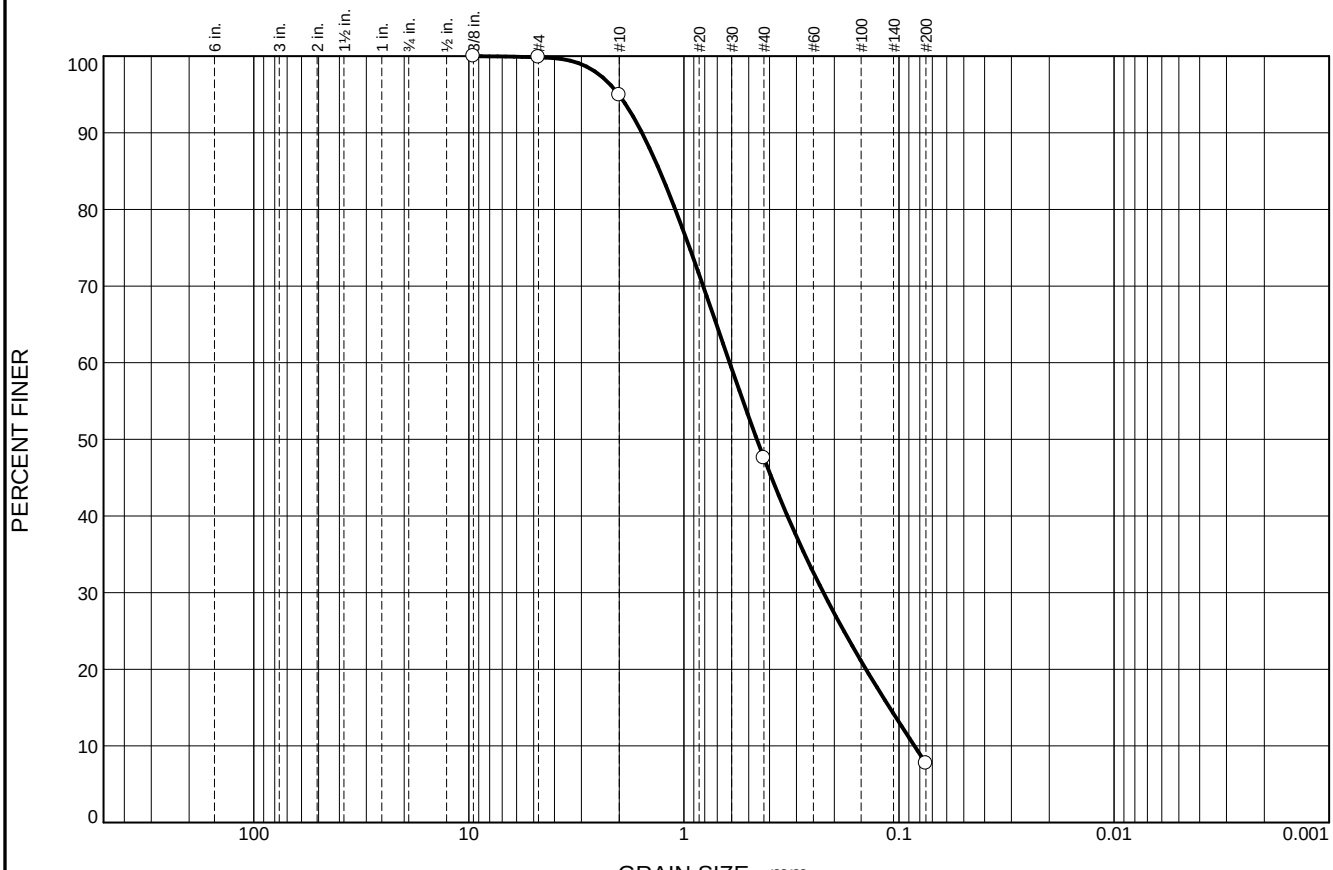
TRC Engineers, Inc.

Mt. Laurel, NJ

Figure 9

Tested By: TBT 12/31/13 **Checked By:** PWK 01/06/14

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.1	5.0	47.3	39.9	7.7	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			1.2955	0.6130	0.4581	0.2246	0.1105	0.0848	0.97	7.23

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ LIGHT BROWN TO BROWN M/F/C SAND, FEW SILT, TRACE F/ GRAVEL	01/03/14	SP-SM	16.5

Project No. 162662 **Client:** FAA

Project: FAA AREA E

○ **Source of Sample:** E-SPGT-01 **Depth:** 48.0-50.0 FT **Sample Number:** S-13

Remarks:

○SAMPLE DESCRIPTION BASED ON USCS

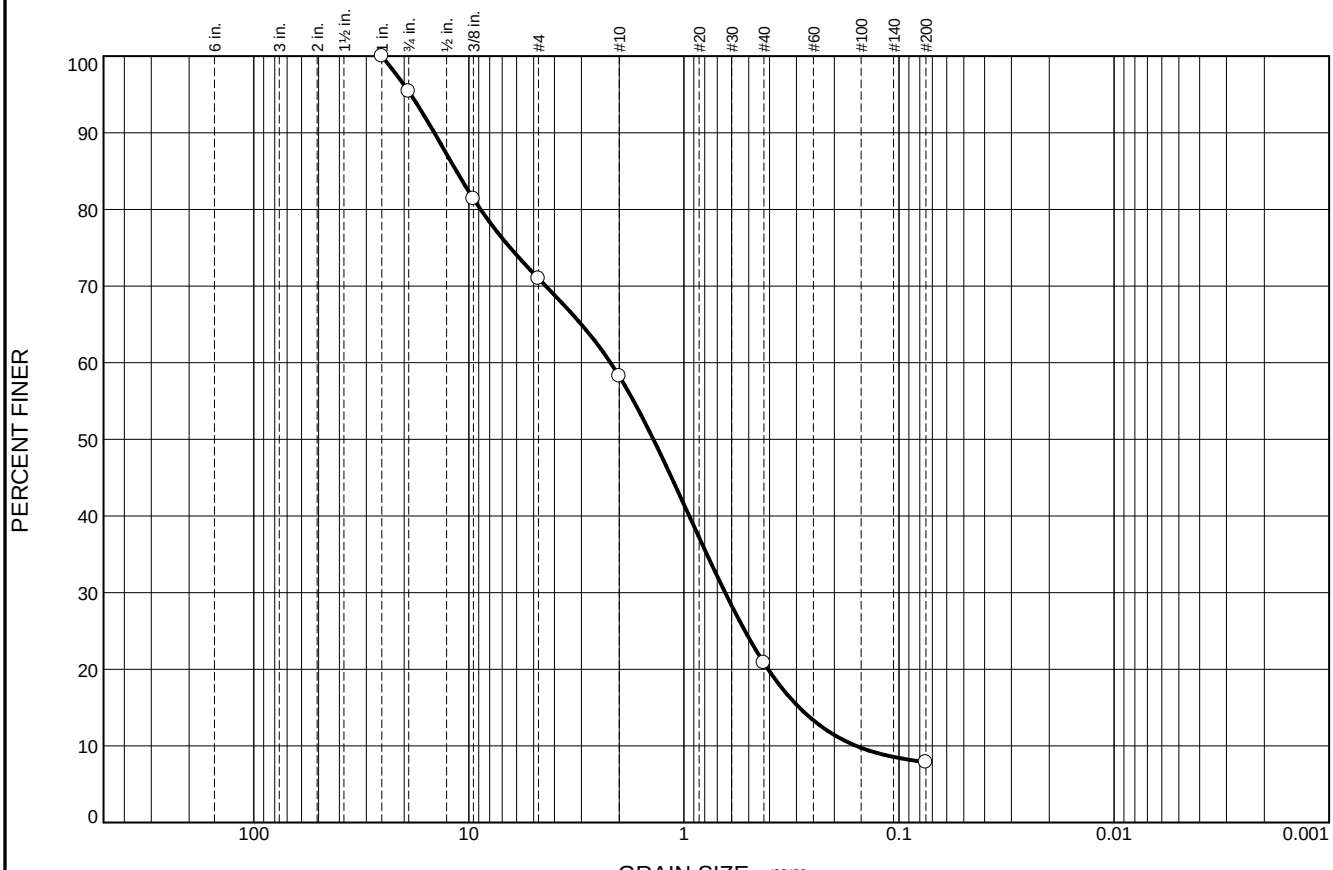
TRC Engineers, Inc.

Mt. Laurel, NJ

Figure 10

Tested By: TBT 01/03/14 **Checked By:** PWK 01/06/14

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	4.6	24.4	12.8	37.4	12.9	7.9	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			11.4216	2.1940	1.3874	0.6431	0.2907	0.1583	1.19	13.86

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ BROWN TO LIGHT BROWN M/F/C SAND, LITTLE F/C GRAVEL, FEW SILT	12/31/13	SW-SM	4.4

Project No. 162662 **Client:** FAA

Project: FAA AREA E

○ **Source of Sample:** E-SPGT-02 **Depth:** 4.0-6.0 FT **Sample Number:** S-3

Remarks:

○SAMPLE DESCRIPTION BASED ON VISUAL IDENTIFICATION

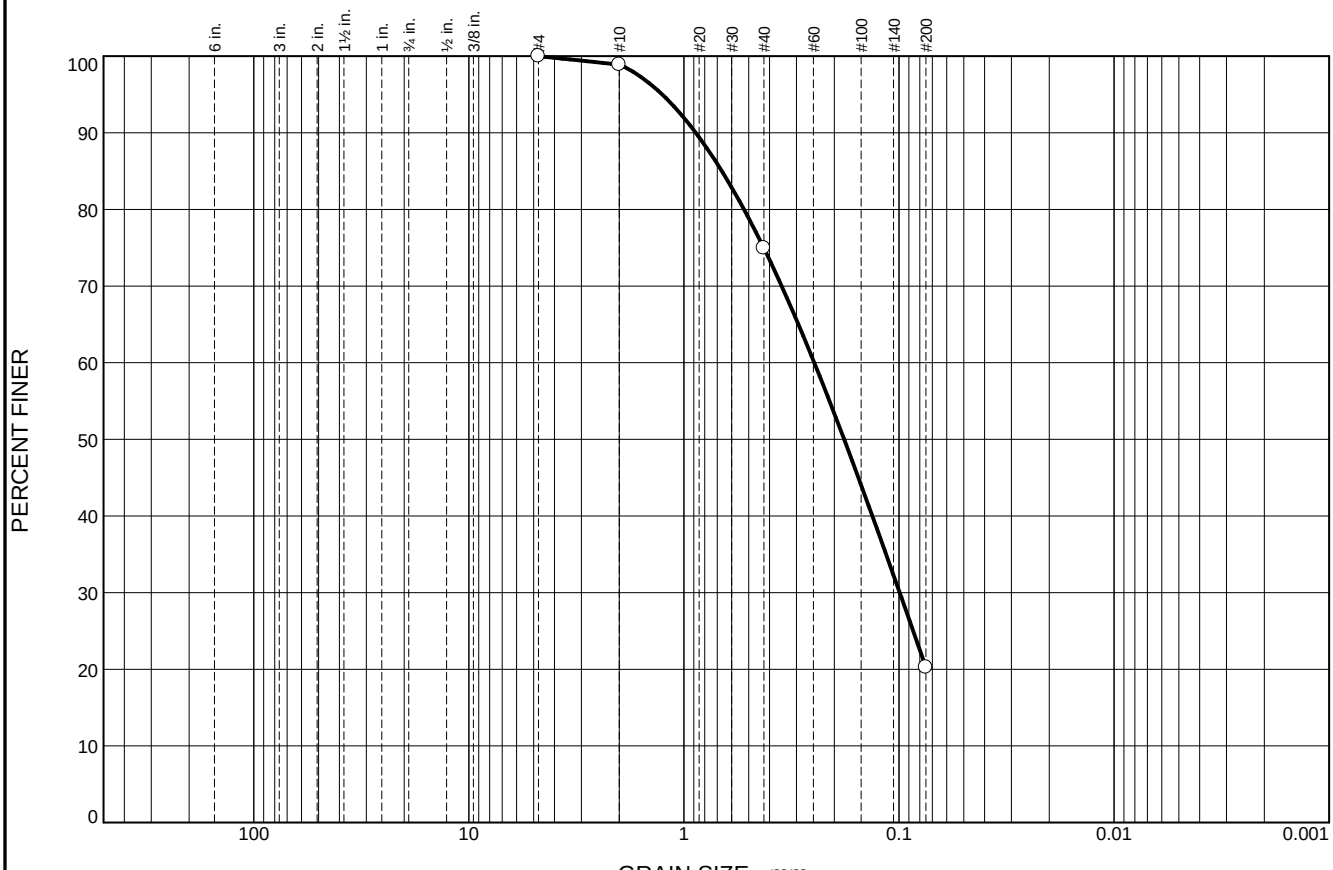
TRC Engineers, Inc.

Mt. Laurel, NJ

Figure 11

Tested By: TBT 12/31/13 **Checked By:** PWK 01/06/14

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	1.1	23.9	54.7	20.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.6665	0.2477	0.1799	0.0993				

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ LIGHT BROWN TO LIGHT ORANGE-BROWN F/M/C SAND, LITTLE SILT	01/02/14	SM	7.6

Project No. 162662 **Client:** FAA

Project: FAA AREA E

○ **Source of Sample:** E-SPGT-02 **Depth:** 6.0-8.0 FT **Sample Number:** S-4

Remarks:

○SAMPLE DESCRIPTION BASED ON USCS & VISUAL IDENTIFICATION

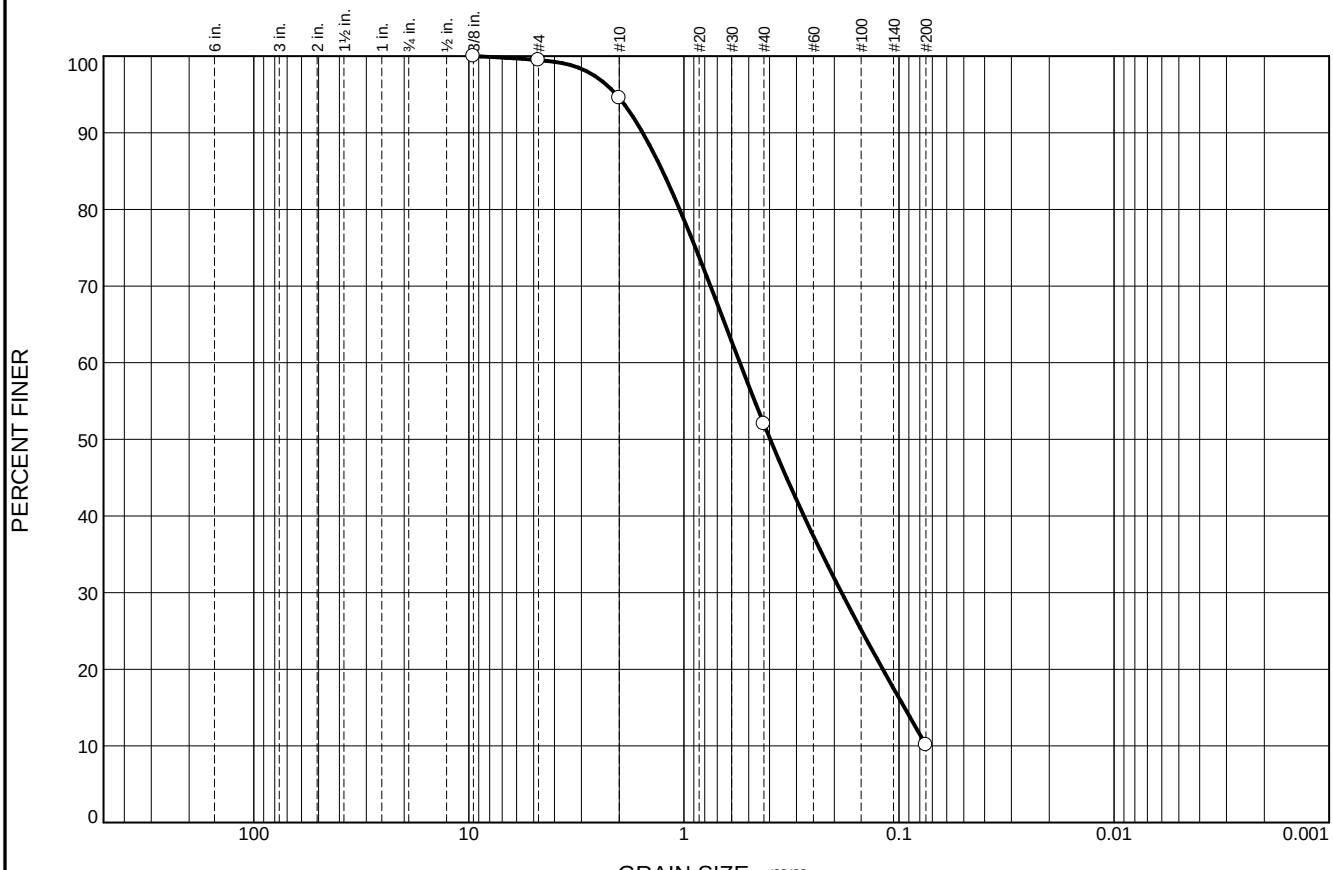
TRC Engineers, Inc.

Mt. Laurel, NJ

Figure 12

Tested By: TBT 01/02/14 **Checked By:** PWK 01/06/14

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.5	4.9	42.6	41.9	10.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			1.2577	0.5498	0.3971	0.1850	0.0943			

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ LIGHT BROWN M/F/C SAND, FEW SILT, TRACE F/ GRAVEL	12/31/13	SP-SM	5.2

Project No. 162662 **Client:** FAA

Project: FAA AREA E

○ **Source of Sample:** E-SPGT-02 **Depth:** 8.0-10.0 FT **Sample Number:** S-5

Remarks:
○SAMPLE DESCRIPTION BASED ON VISUAL IDENTIFICATION

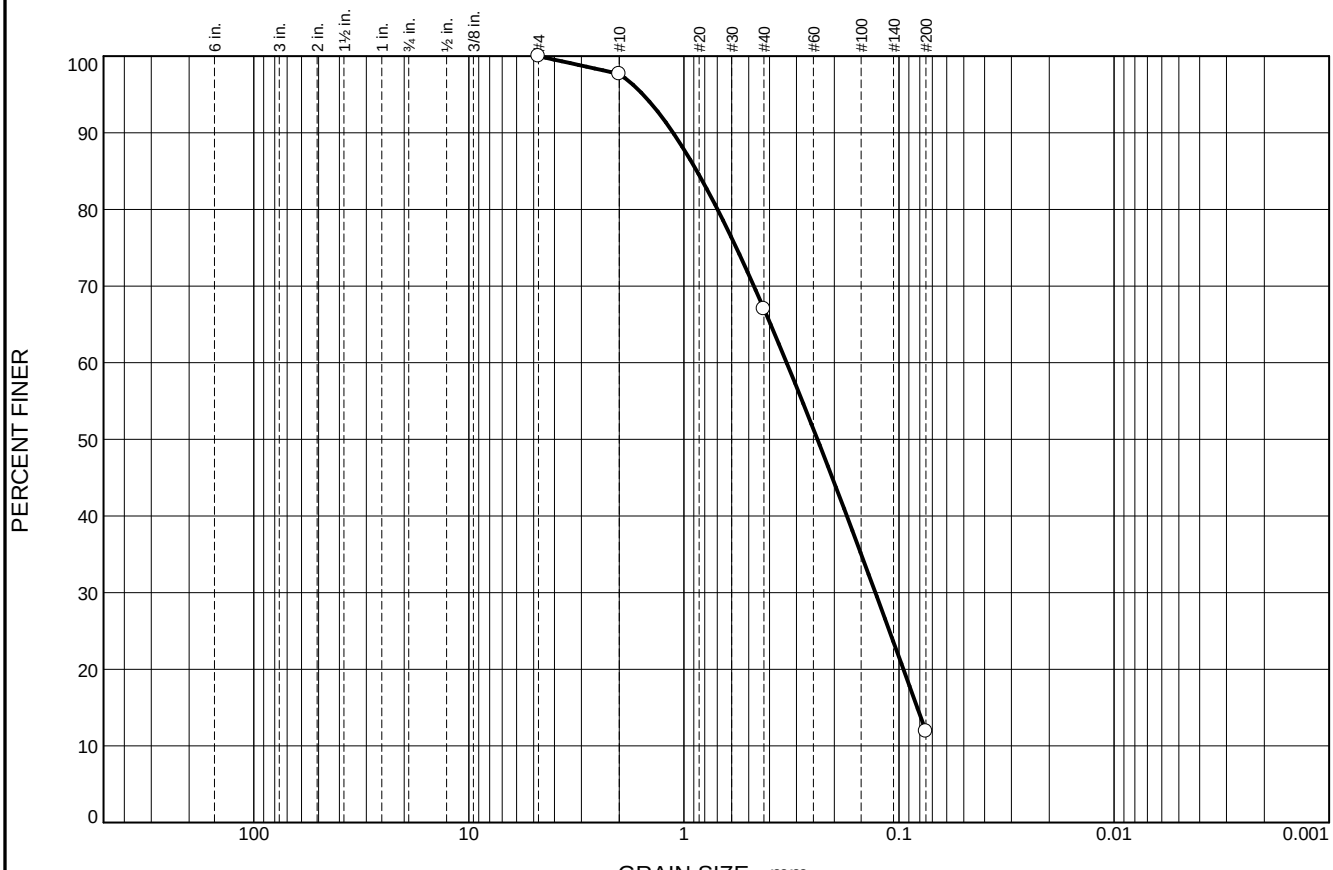
TRC Engineers, Inc.

Mt. Laurel, NJ

Figure 13

Tested By: TBT 12/31/13 **Checked By:** PWK 01/06/14

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	2.3	30.7	55.1	11.9	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.8706	0.3330	0.2395	0.1288	0.0822			

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ LIGHT BROWN TO LIGHT RED-BROWN F/M/C SAND, FEW TO LITTLE SILT	01/02/14	SP-SM	21.3

Project No. 162662 **Client:** FAA

Project: FAA AREA E

○ **Source of Sample:** E-SPGT-02 **Depth:** 18.0-20.0 FT **Sample Number:** S-7

Remarks:

○SAMPLE DESCRIPTION BASED ON VISUAL IDENTIFICATION

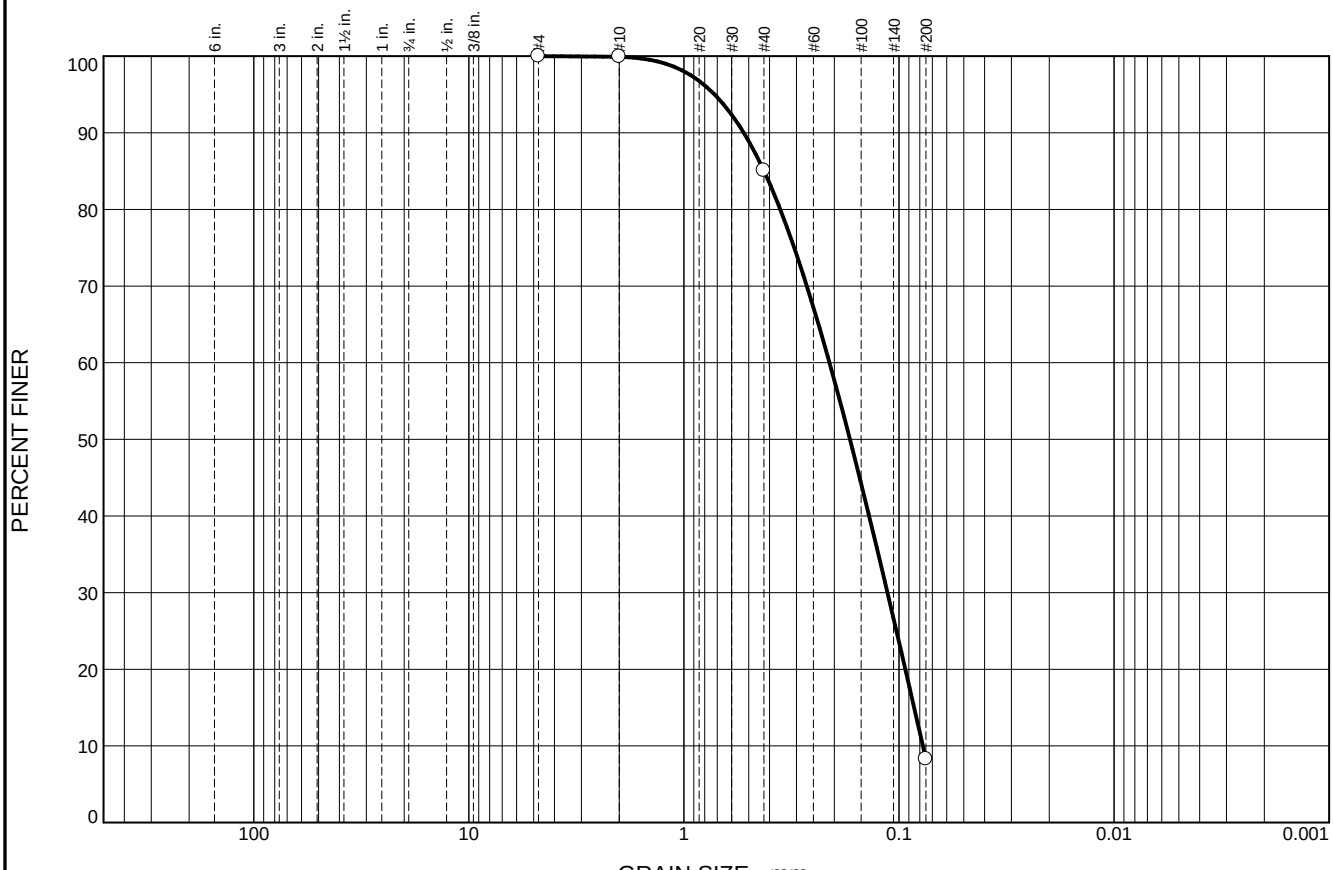
TRC Engineers, Inc.

Mt. Laurel, NJ

Figure 14

Tested By: TBT 01/02/14 **Checked By:** PWK 01/06/14

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.1	14.8	76.8	8.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.4239	0.2105	0.1691	0.1131	0.0851	0.0774	0.79	2.72

MATERIAL DESCRIPTION	TEST DATE	USCS	NM
○ LIGHT BROWN F/M/C SAND, FEW SILT	12/30/13	SP-SM	18.0

Project No. 162662 **Client:** FAA

Project: FAA AREA E

○ **Source of Sample:** E-SPGT-02 **Depth:** 28.0-30.0 FT **Sample Number:** S-9

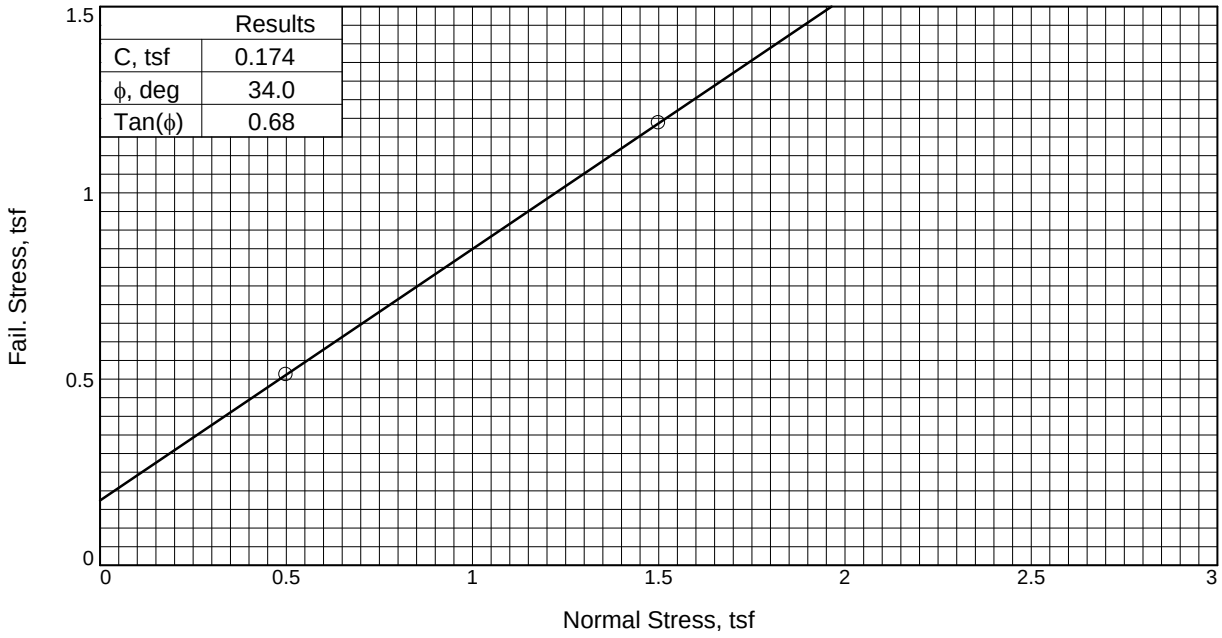
Remarks:
○SAMPLE DESCRIPTION BASED ON VISUAL IDENTIFICATION

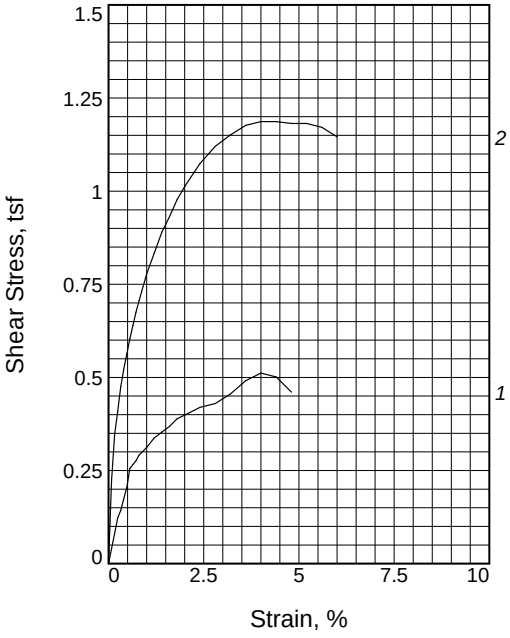
TRC Engineers, Inc.

Mt. Laurel, NJ

Figure 15

Tested By: TBT 12/30/13 **Checked By:** PWK 01/06/14





Sample No.		1	2
Initial	Water Content, %	21.8	21.8
	Dry Density, pcf	105.4	105.3
	Saturation, %	95.3	95.0
	Void Ratio	0.6285	0.6302
	Diameter, in.	2.50	2.50
	Height, in.	0.98	0.98
At Test	Water Content, %	21.3	20.5
	Dry Density, pcf	108.2	110.1
	Saturation, %	99.8	100.6
	Void Ratio	0.5867	0.5593
	Diameter, in.	2.50	2.50
	Height, in.	0.95	0.94
Normal Stress, tsf		0.500	1.500
Fail. Stress, tsf		0.512	1.187
Strain, %		4.0	4.0
Ult. Stress, tsf			
Strain, %			
Strain rate, in./min.		0.00	0.00

Sample Type: REMOLDED
Description: LIGHT BROWN F/M/C SAND, FEW TO LITTLE SILT, TRACE F/ GRAVEL

Assumed Specific Gravity= 2.75
Remarks: SAMPLE DESCRIPTION BASED ON USCS & VISUAL IDENTIFICATION

Figure 16

Client: FAA

Project: FAA AREA E

Source of Sample: E-SPGT-01 **Depth:** 18.0-20.0 FT
Sample Number: S-7
Proj. No.: 162662 **Date Sampled:**

DIRECT SHEAR TEST REPORT
TRC Engineers, Inc.
Mt. Laurel, NJ

Tested By: TBT 12/30/13 **Checked By:** PWK 01/06/14

MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS
USING A RIGID WALL PERMEAMETER
FALLING HEAD PROCEDURE (Adapted from NJDEP N.J.A.C.7:9A)

Project Name: FAA Area E	**SAMPLE**	**E-SPGT-01, 18.0-23.0 FT**	**TYPE:**	**Bulk**	**TECH** **TBT**
			DATE:	**1/2/2014**	**REVIEW** **PWK**

SAMPLE DATA		**BURRETT DIMENSIONS**	
height, cm	11.584	diameter, cm	1.44
diameter, cm	10.130	area, cm^2	1.63
area, cm^2	80.59	pan head, cm	1.24
volume, cm^3	933.50		
% moisture	22.3%		
dry density, pcf	91.7		
wet density, pcf	112.1		

$$k = \frac{a\,L}{A\,t} \ln(h_1/h_2)$$

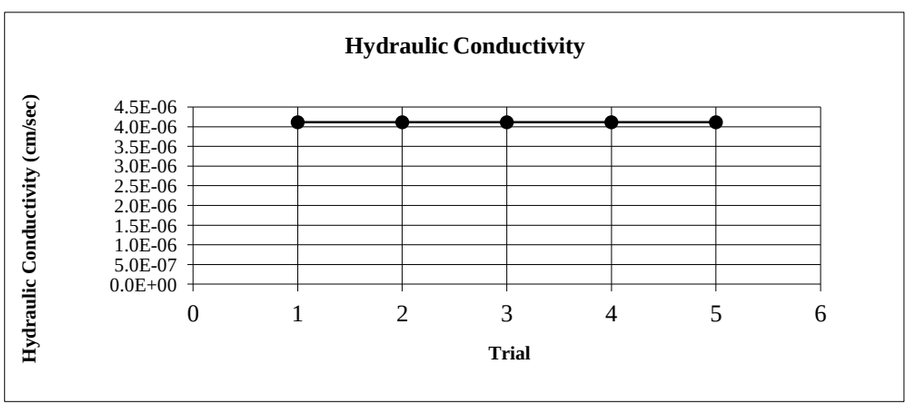
a = 1.63 cm^2
L = 11.58 cm
A = 80.59 cm^2
t = (variable) sec
h_1 = (variable) cm
h_2 = (variable) cm

TIME FUNCTION					**READINGS**		**RESULTS**	
Trial	**Start Volume (cm^3)**	**End Volume (cm^3)**	**Start Head (cm)**	**End Head (cm)**	**Volume (cm^3)**	**Time (sec)**	**Permeability (cm/sec)**	
1	0	5.4	102.3	99.1	5.4	1800	4.1E-06	
2	0	5.4	102.3	99.1	5.4	1800	4.1E-06	
3	0	5.4	102.3	99.1	5.4	1800	4.1E-06	
4	0	5.4	102.3	99.1	5.4	1800	4.1E-06	
5	0	5.4	102.3	99.1	5.4	1800	4.1E-06	
						Average =	4.1E-06	

Temperature (C^o) = 21.4
Correction Factor = 0.970
Corrected Permeability (cm/sec) = **4.0E-06**

COMMENTS:

Sample Description:
LIGHT BROWN TO LIGHT RED-BROWN M/F/C SAND, FEW TO LITTLE SILT, TRACE F/ GRAVEL



TRC
16000 Commerce Parkway, Suite B
Mount Laurel, New Jersey 08054
(856) 273-1224

FIG. 17

APPENDIX B

ENVIRONMENTAL LABORATORY ANALYTICAL DATA

ANALYTICAL REPORT

Job Number: 460-67815-1

Job Description: Area E Suppl RI: Petroleum - Impacted So

For:
TRC Environmental Corporation
21 Griffin Road North
Windsor, CT 06095

Attention: Mr. Sean Lorden

Approved for release.
Janet Mosley
Manager of Project Management Assistants
12/26/2013 2:33 PM

Designee for
Thomas Tanico, Project Manager II
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12/26/2013

cc: Mr. Mark Winbourne

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CASE NARRATIVE

Client: TRC Environmental Corporation

Project: Area E Suppl RI: Petroleum - Impacted So

Report Number: 460-67815-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 12/05/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.1 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PESTICIDES
Samples 460-67815-1 and 460-67815-2 were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081A. The samples were prepared on 12/10/2013 and analyzed on 12/11/2013.

Bromoform failed the recovery criteria low for LCS 460-198396/3. 1,4-Dioxane failed the recovery criteria high for LCSD 460-197509/5.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 196739 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Endosulfan I and Heptachlor failed the recovery criteria low for the MS of sample 460-67815-1 in batch 460-196984.

Aldrin, Endosulfan I and Heptachlor failed the recovery criteria low for the MSD of sample 460-67815-1 in batch 460-196984.

Refer to the QC report for details.

No other difficulties were encountered during the Pesticides analyses.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANICS
Samples 460-67815-1 and 460-67815-2 were analyzed for Volatile organics in accordance with EPA SW-846 Methods 8260C. The samples were prepared on 12/06/2013 and analyzed on 12/13/2013 and 12/18/2013.

The continuing calibration verification (CCV) for 1,4-Dioxane associated with batch 197509 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The laboratory control sample duplicate (LCSD) for batch 197509 recovered outside control limits for the following analytes: 1,4-Dioxane. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Surrogate recoveries for the following sample were outside control limits: E-GP-E3 (10-15') (460-67815-2). Evidence of matrix interference is present; the sample was confirmed in batch 197220.

The continuing calibration verification (CCV) for 1,4-Dioxane, Bromoform and Methylcyclohexane associated with batch 198396 recovered outside control limit. The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) associated with this batch were

within control limits, except for Bromoform. The data have been flagged and reported.

Bromofluorobenzene and Dibromofluoromethane (Surr) failed the surrogate recovery criteria low for 460-67815-2

Refer to the QC report for details.

The following sample was diluted to bring the concentration of target analytes within the calibration range: E-GP-E3 (10-15') (460-67815-2). Elevated reporting limits (RLs) are provided.

The following sample was diluted to bring the concentration of target analytes within the calibration range: E-GP-C4 (15-17.5') (460-67815-1). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the Volatile organics analyses.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 460-67815-1 and 460-67815-2 were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 12/10/2013 and analyzed on 12/24/2013.

A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for up to five analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 196934 had one analyte outside control limits; Benzo[a]pyrene therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 196934 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

2,4,6-Tribromophenol, 2-Fluorobiphenyl, 2-Fluorophenol, Nitrobenzene-d5, Phenol-d5 and Terphenyl-d14 failed the surrogate recovery criteria low for 460-67815-1. 2,4,6-Tribromophenol, 2-Fluorobiphenyl, 2-Fluorophenol, Nitrobenzene-d5, Phenol-d5 and Terphenyl-d14 failed the surrogate recovery criteria low for 460-67815-2.

4-Nitrophenol failed the recovery criteria low for the MS of sample 460-67884-2 in batch 460-197085. Benzo[a]pyrene and Hexachlorobenzene failed the recovery criteria high.

For the MSD of sample 460-67884-2 in batch 460-196984, 4-Nitrophenol and Caprolactam failed the recovery criteria low. Benzo[a]pyrene and Hexachlorobenzene failed the recovery criteria high. Also, Caprolactam exceeded the rpd limit.

Refer to the QC report for details.

The following sample(s) was diluted due to the abundance of non-target analytes: E-GP-C4 (15-17.5') (460-67815-1), E-GP-E3 (10-15') (460-67815-2). Elevated reporting limits (RLs) are provided.

Due to the level of dilution required for the following sample(s), surrogate recoveries are not reported: E-GP-C4 (15-17.5') (460-67815-1), E-GP-E3 (10-15') (460-67815-2).

Samples 460-67815-1 and 460-67815-2(20X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the semivolatiles analyses.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples 460-67815-1 and 460-67815-2 were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D). The samples were analyzed on 12/09/2013.

No difficulties were encountered during the %solids/moisture analyses.

All quality control parameters were within the acceptance limits.

EXTRACTABLE PETROLEUM HYDROCARBONS (EPH)

Samples 460-67815-1 and 460-67815-2 were analyzed for extractable petroleum hydrocarbons (EPH) in accordance with NJDEP EPH. The samples were prepared on 12/10/2013 and analyzed on 12/11/2013.

Due to the level of dilution required for the following sample(s), surrogate recoveries are not reported: E-GP-C4 (15-17.5') (460-67815-1), E-GP-E3 (10-15') (460-67815-2).

1-Chlorooctadecane, 2-Bromonaphthalene, 2-Fluorobiphenyl and o-Terphenyl failed the surrogate recovery criteria low for 460-67815-1.
1-Chlorooctadecane, 2-Bromonaphthalene, 2-Fluorobiphenyl and o-Terphenyl failed the surrogate recovery criteria low for 460-67815-2.

Refer to the QC report for details.

Samples 460-67815-1(20X), 460-67815-1(50X), 460-67815-2(10X) and 460-67815-2(25X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the NJEPH analyses.

All other quality control parameters were within the acceptance limits.

EXTRACTABLE PETROLEUM HYDROCARBONS (EPH)

Samples 460-67815-1 and 460-67815-2 were analyzed for extractable petroleum hydrocarbons (EPH) in accordance with NJDEP EPH (Calculation). The samples were analyzed on 12/12/2013.

No difficulties were encountered during the extractable petroleum hydrocarbons (EPH) analyses.

All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-67815-1	E-GP-C4 (15-17.5')	Solid	12/04/2013 1230	12/05/2013 2025
460-67815-2	E-GP-E3 (10-15')	Solid	12/04/2013 1430	12/05/2013 2025

EXECUTIVE SUMMARY - Detections

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-67815-1	**E-GP-C4 (15-17.5')**					
Benzene		400		85	ug/Kg	8260C
Toluene		500		85	ug/Kg	8260C
Chlorobenzene		59	J	85	ug/Kg	8260C
Ethylbenzene		3800		85	ug/Kg	8260C
Xylenes, Total		21000		260	ug/Kg	8260C
Cyclohexane		3800		85	ug/Kg	8260C
Isopropylbenzene		2900		85	ug/Kg	8260C
Methylcyclohexane		16000		85	ug/Kg	8260C
Naphthalene		3000	J	7400	ug/Kg	8270D
2-Methylnaphthalene		18000		7400	ug/Kg	8270D
Phenanthrene		7800		7400	ug/Kg	8270D
Pyrene		1800	J	7400	ug/Kg	8270D
Diphenyl		3500	J	7400	ug/Kg	8270D
Total Aromatics		5200		2.0	mg/Kg	NJ DEP EPH
Total Aliphatics		18000		2.0	mg/Kg	NJ DEP EPH
Total EPH		23000		2.0	mg/Kg	NJ DEP EPH
C12-C16 Aliphatics		2400		110	mg/Kg	NJDEP EPH
C9-C12 Aliphatics		250		110	mg/Kg	NJDEP EPH
C16-C21 Aliphatics		4100		110	mg/Kg	NJDEP EPH
C21-C40 Aliphatics		11000		110	mg/Kg	NJDEP EPH
C16-C21 Aromatics		1600		45	mg/Kg	NJDEP EPH
C10-C12 Aromatics		53		45	mg/Kg	NJDEP EPH
C12-C16 Aromatics		450		45	mg/Kg	NJDEP EPH
C21-C36 Aromatic		3100		45	mg/Kg	NJDEP EPH
Percent Moisture		11.2		1.0	%	Moisture
Percent Solids		88.8		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-67815-2	**E-GP-E3 (10-15')**					
Benzene		1100		160	ug/Kg	8260C
Tetrachloroethene		2700		160	ug/Kg	8260C
Toluene		10000		160	ug/Kg	8260C
Chlorobenzene		97	J	160	ug/Kg	8260C
Ethylbenzene		4800		160	ug/Kg	8260C
Xylenes, Total		29000		490	ug/Kg	8260C
Cyclohexane		2200		160	ug/Kg	8260C
Isopropylbenzene		960		160	ug/Kg	8260C
Methylcyclohexane		7100		160	ug/Kg	8260C
Naphthalene		3800	J	7400	ug/Kg	8270D
2-Methylnaphthalene		52000		7400	ug/Kg	8270D
Acenaphthene		3400	J	7400	ug/Kg	8270D
Fluorene		5100	J	7400	ug/Kg	8270D
Phenanthrene		21000		7400	ug/Kg	8270D
Anthracene		1800	J	7400	ug/Kg	8270D
Pyrene		3600	J	7400	ug/Kg	8270D
Benzo[a]anthracene		1400		740	ug/Kg	8270D
Chrysene		3200	J	7400	ug/Kg	8270D
Benzo[a]pyrene		680	J *	740	ug/Kg	8270D
Diphenyl		2900	J	7400	ug/Kg	8270D
Total Aromatics		13000		2.0	mg/Kg	NJ DEP EPH
Total Aliphatics		29000		2.0	mg/Kg	NJ DEP EPH
Total EPH		42000		2.0	mg/Kg	NJ DEP EPH
C12-C16 Aliphatics		4200		280	mg/Kg	NJDEP EPH
C9-C12 Aliphatics		390		280	mg/Kg	NJDEP EPH
C16-C21 Aliphatics		5100		280	mg/Kg	NJDEP EPH
C21-C40 Aliphatics		19000		280	mg/Kg	NJDEP EPH
C16-C21 Aromatics		4900		110	mg/Kg	NJDEP EPH
C12-C16 Aromatics		1600		110	mg/Kg	NJDEP EPH
C21-C36 Aromatic		6400		110	mg/Kg	NJDEP EPH
Percent Moisture		10.4		1.0	%	Moisture
Percent Solids		89.6		1.0	%	Moisture

METHOD SUMMARY

Client: TRC Environmental Corporation | Job Number: 460-67815-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds by GC/MS	TAL EDI	SW846 8260C	
Closed System Purge and Trap	TAL EDI		SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL EDI	SW846 8270D	
Automated Soxhlet Extraction	TAL EDI		SW846 3541
Organochlorine Pesticides (GC)	TAL EDI	SW846 8081B	
Microwave Extraction	TAL EDI		SW846 3546
New Jersey - Extractable Petroleum Hydrocarbons	TAL EDI	NJDEP NJ DEP EPH	
New Jersey Extractable Petroleum Hydrocarbons	TAL EDI	NJDEP NJDEP EPH	
Microwave Extraction	TAL EDI		SW846 3546
Percent Moisture	TAL EDI	EPA Moisture	

Lab References:

TAL EDI = TestAmerica Edison

Method References:

EPA = US Environmental Protection Agency

NJDEP = New Jersey Department of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Method	Analyst	Analyst ID
SW846 8260C	Martinez, Eddie	EMM
SW846 8260C	Tupayachi, Audberto	AAT
SW846 8270D	Zhao, Chunxin	CAZ
SW846 8081B	Kapoor, Sita	SAK
NJDEP NJ DEP EPH	Nimer, Diaa	DAN
NJDEP NJDEP EPH	Nimer, Diaa	DAN
EPA Moisture	Robinson, Ian	ITR

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-C4 (15-17.5')**

Lab Sample ID: 460-67815-1

Client Matrix: Solid

% Moisture: 11.2

Date Sampled: 12/04/2013 1230

Date Received: 12/05/2013 2025

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-198396	Instrument ID:	CVOAMS8
Prep Method:	5035	Prep Batch:	460-196154	Lab File ID:	J07063.D
Dilution:	50			Initial Weight/Volume:	6.6 g
Analysis Date:	12/18/2013 1433			Final Weight/Volume:	10 mL
Prep Date:	12/06/2013 1021				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Chloromethane		85	U	8.3	85
Bromomethane		85	U	15	85
Vinyl chloride		85	U	12	85
Chloroethane		85	U	14	85
Methylene Chloride		85	U	16	85
Acetone		430	U	230	430
Carbon disulfide		85	U	11	85
Trichlorofluoromethane		85	U	12	85
1,1-Dichloroethene		85	U	7.5	85
1,1-Dichloroethane		85	U	11	85
trans-1,2-Dichloroethene		85	U	11	85
cis-1,2-Dichloroethene		85	U	15	85
Chloroform		85	U	6.7	85
1,2-Dichloroethane		85	U	16	85
2-Butanone		430	U	200	430
1,1,1-Trichloroethane		85	U	5.3	85
Carbon tetrachloride		85	U	4.9	85
Bromodichloromethane		85	U	11	85
1,2-Dichloropropane		85	U	7.3	85
cis-1,3-Dichloropropene		85	U	16	85
Trichloroethene		85	U	7.9	85
Dibromochloromethane		85	U	17	85
1,1,2-Trichloroethane		85	U	16	85
Benzene		400		7.0	85
trans-1,3-Dichloropropene		85	U	21	85
Bromoform		85	U *	16	85
4-Methyl-2-pentanone		430	U	84	430
2-Hexanone		430	U	43	430
Tetrachloroethene		85	U	8.3	85
1,1,2,2-Tetrachloroethane		85	U	13	85
Toluene		500		13	85
Chlorobenzene		59	J	9.4	85
Ethylbenzene		3800		8.2	85
Styrene		85	U	10	85
Xylenes, Total		21000		31	260
Freon TF		85	U	7.0	85
MTBE		85	U	12	85
Cyclohexane		3800		14	85
1,2-Dibromoethane		85	U	24	85
1,3-Dichlorobenzene		85	U	12	85
1,4-Dichlorobenzene		85	U	20	85
1,2-Dichlorobenzene		85	U	17	85
Dichlorodifluoromethane		85	U	18	85
1,2,4-Trichlorobenzene		85	U	29	85
1,4-Dioxane		4300	U	3100	4300
1,2,3-Trichlorobenzene		85	U	44	85

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-C4 (15-17.5')**

Lab Sample ID: 460-67815-1

Client Matrix: Solid

% Moisture: 11.2

Date Sampled: 12/04/2013 1230

Date Received: 12/05/2013 2025

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-198396	Instrument ID:	CVOAMS8
Prep Method:	5035	Prep Batch:	460-196154	Lab File ID:	J07063.D
Dilution:	50			Initial Weight/Volume:	6.6 g
Analysis Date:	12/18/2013 1433			Final Weight/Volume:	10 mL
Prep Date:	12/06/2013 1021				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,2-Dibromo-3-Chloropropane		85	U	34	85
Bromochloromethane		85	U	23	85
Isopropylbenzene		2900		6.5	85
Methyl acetate		430	U	29	430
Methylcyclohexane		16000		12	85

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	83		75 - 135
Toluene-d8 (Surr)	75		59 - 150
Bromofluorobenzene	77		72 - 133
Dibromofluoromethane (Surr)	77		70 - 130

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-E3 (10-15')**

Lab Sample ID: 460-67815-2

Client Matrix: Solid

% Moisture: 10.4

Date Sampled: 12/04/2013 1430

Date Received: 12/05/2013 2025

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-197509	Instrument ID:	CVOAMS8
Prep Method:	5035	Prep Batch:	460-196154	Lab File ID:	J06965.D
Dilution:	100			Initial Weight/Volume:	6.78 g
Analysis Date:	12/13/2013 1445			Final Weight/Volume:	10 mL
Prep Date:	12/06/2013 1021				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Chloromethane		160	U	16	160
Bromomethane		160	U	30	160
Vinyl chloride		160	U	24	160
Chloroethane		160	U	28	160
Methylene Chloride		160	U	30	160
Acetone		820	U	440	820
Carbon disulfide		160	U	21	160
Trichlorofluoromethane		160	U	24	160
1,1-Dichloroethene		160	U	15	160
1,1-Dichloroethane		160	U	21	160
trans-1,2-Dichloroethene		160	U	21	160
cis-1,2-Dichloroethene		160	U	29	160
Chloroform		160	U	13	160
1,2-Dichloroethane		160	U	31	160
2-Butanone		820	U	380	820
1,1,1-Trichloroethane		160	U	10	160
Carbon tetrachloride		160	U	9.4	160
Bromodichloromethane		160	U	21	160
1,2-Dichloropropane		160	U	14	160
cis-1,3-Dichloropropene		160	U	30	160
Trichloroethene		160	U	15	160
Dibromochloromethane		160	U	33	160
1,1,2-Trichloroethane		160	U	31	160
Benzene		1100		14	160
trans-1,3-Dichloropropene		160	U	40	160
Bromoform		160	U	32	160
4-Methyl-2-pentanone		820	U	160	820
2-Hexanone		820	U	82	820
Tetrachloroethene		2700		16	160
1,1,2,2-Tetrachloroethane		160	U	26	160
Toluene		10000		25	160
Chlorobenzene		97	J	18	160
Ethylbenzene		4800		16	160
Styrene		160	U	20	160
Xylenes, Total		29000		59	490
Freon TF		160	U	13	160
MTBE		160	U	23	160
Cyclohexane		2200		26	160
1,2-Dibromoethane		160	U	45	160
1,3-Dichlorobenzene		160	U	22	160
1,4-Dichlorobenzene		160	U	38	160
1,2-Dichlorobenzene		160	U	34	160
Dichlorodifluoromethane		160	U	35	160
1,2,4-Trichlorobenzene		160	U	56	160
1,4-Dioxane		8200	U *	5900	8200
1,2,3-Trichlorobenzene		160	U	84	160

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-E3 (10-15')**

Lab Sample ID: 460-67815-2

Client Matrix: Solid

% Moisture: 10.4

Date Sampled: 12/04/2013 1430

Date Received: 12/05/2013 2025

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-197509	Instrument ID:	CVOAMS8
Prep Method:	5035	Prep Batch:	460-196154	Lab File ID:	J06965.D
Dilution:	100			Initial Weight/Volume:	6.78 g
Analysis Date:	12/13/2013 1445			Final Weight/Volume:	10 mL
Prep Date:	12/06/2013 1021				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,2-Dibromo-3-Chloropropane		160	U	66	160
Bromochloromethane		160	U	45	160
Isopropylbenzene		960		13	160
Methyl acetate		820	U	55	820
Methylcyclohexane		7100		22	160

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	75		75 - 135
Toluene-d8 (Surr)	67		59 - 150
Bromofluorobenzene	67	*	72 - 133
Dibromofluoromethane (Surr)	68	*	70 - 130

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-C4 (15-17.5')**

Lab Sample ID: 460-67815-1

Client Matrix: Solid

% Moisture: 11.2

Date Sampled: 12/04/2013 1230

Date Received: 12/05/2013 2025

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-199750	Instrument ID:	CBNAMS12
Prep Method:	3541	Prep Batch:	460-196934	Lab File ID:	L1145780.D
Dilution:	20			Initial Weight/Volume:	14.97 g
Analysis Date:	12/24/2013 1513			Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		7400	U	1000	7400
2-Chlorophenol		7400	U	980	7400
2-Methylphenol		7400	U	1300	7400
4-Methylphenol		7400	U	1500	7400
2-Nitrophenol		7400	U	830	7400
2,4-Dimethylphenol		7400	U	1800	7400
2,4-Dichlorophenol		7400	U	1100	7400
4-Chloro-3-methylphenol		7400	U	1100	7400
2,4,6-Trichlorophenol		7400	U	870	7400
2,4,5-Trichlorophenol		7400	U	960	7400
2,4-Dinitrophenol		23000	U	4200	23000
4-Nitrophenol		23000	U	4800	23000
4,6-Dinitro-2-methylphenol		23000	U	2000	23000
Pentachlorophenol		23000	U	2200	23000
Bis(2-chloroethyl)ether		740	U	100	740
N-Nitrosodi-n-propylamine		740	U	120	740
Hexachloroethane		740	U	83	740
Nitrobenzene		740	U	110	740
Isophorone		7400	U	910	7400
Bis(2-chloroethoxy)methane		7400	U	960	7400
Naphthalene		3000	J	860	7400
4-Chloroaniline		7400	U	2000	7400
Hexachlorobutadiene		1500	U	180	1500
2-Methylnaphthalene		18000		960	7400
Hexachlorocyclopentadiene		7400	U	880	7400
2-Chloronaphthalene		7400	U	830	7400
2-Nitroaniline		15000	U	3100	15000
Dimethyl phthalate		7400	U	880	7400
Acenaphthylene		7400	U	880	7400
2,6-Dinitrotoluene		1500	U	230	1500
3-Nitroaniline		15000	U	2600	15000
Acenaphthene		7400	U	1100	7400
Dibenzofuran		7400	U	880	7400
2,4-Dinitrotoluene		1500	U	250	1500
Diethyl phthalate		7400	U	890	7400
4-Chlorophenyl phenyl ether		7400	U	880	7400
Fluorene		7400	U	950	7400
4-Nitroaniline		15000	U	2300	15000
N-Nitrosodiphenylamine		7400	U	740	7400
4-Bromophenyl phenyl ether		7400	U	740	7400
Hexachlorobenzene		740	U	100	740
Phenanthrene		7800		950	7400
Anthracene		7400	U	910	7400
Carbazole		7400	U	880	7400
Di-n-butyl phthalate		7400	U	920	7400
Fluoranthene		7400	U	1000	7400

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-C4 (15-17.5')**

Lab Sample ID: 460-67815-1

Client Matrix: Solid

% Moisture: 11.2

Date Sampled: 12/04/2013 1230

Date Received: 12/05/2013 2025

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-199750	Instrument ID:	CBNAMS12
Prep Method:	3541	Prep Batch:	460-196934	Lab File ID:	L1145780.D
Dilution:	20			Initial Weight/Volume:	14.97 g
Analysis Date:	12/24/2013 1513			Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Pyrene		1800	J	630	7400
Butyl benzyl phthalate		7400	U	680	7400
3,3'-Dichlorobenzidine		15000	U	2600	15000
Benzo[a]anthracene		740	U	52	740
Chrysene		7400	U	870	7400
Bis(2-ethylhexyl) phthalate		7400	U	2500	7400
Di-n-octyl phthalate		7400	U	480	7400
Benzo[b]fluoranthene		740	U	47	740
Benzo[k]fluoranthene		740	U	57	740
Benzo[a]pyrene		740	U *	53	740
Indeno[1,2,3-cd]pyrene		740	U	140	740
Dibenz(a,h)anthracene		740	U	94	740
Benzo[g,h,i]perylene		7400	U	550	7400
Diphenyl		3500	J	1000	7400
Acetophenone		7400	U	1100	7400
1,4-Dioxane		7400	U	540	7400
Benzaldehyde		7400	U	880	7400
Caprolactam		7400	U	1700	7400
Atrazine		7400	U	1200	7400
2,2'-oxybis[1-chloropropane]		7400	U	830	7400
1,2,4,5-Tetrachlorobenzene		7400	U	1000	7400
2,3,4,6-Tetrachlorophenol		7400	U	970	7400

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	*	38 - 105
Phenol-d5	0	*	41 - 118
Terphenyl-d14	0	*	16 - 151
2,4,6-Tribromophenol	0	*	10 - 120
2-Fluorophenol	0	*	37 - 125
2-Fluorobiphenyl	0	*	40 - 109

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-E3 (10-15')**

Lab Sample ID: 460-67815-2

Client Matrix: Solid

% Moisture: 10.4

Date Sampled: 12/04/2013 1430

Date Received: 12/05/2013 2025

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-199750	Instrument ID:	CBNAMS12
Prep Method:	3541	Prep Batch:	460-196934	Lab File ID:	L1145781.D
Dilution:	20			Initial Weight/Volume:	15.02 g
Analysis Date:	12/24/2013 1539			Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		7400	U	990	7400
2-Chlorophenol		7400	U	970	7400
2-Methylphenol		7400	U	1300	7400
4-Methylphenol		7400	U	1500	7400
2-Nitrophenol		7400	U	820	7400
2,4-Dimethylphenol		7400	U	1800	7400
2,4-Dichlorophenol		7400	U	1100	7400
4-Chloro-3-methylphenol		7400	U	1100	7400
2,4,6-Trichlorophenol		7400	U	860	7400
2,4,5-Trichlorophenol		7400	U	950	7400
2,4-Dinitrophenol		22000	U	4200	22000
4-Nitrophenol		22000	U	4700	22000
4,6-Dinitro-2-methylphenol		22000	U	2000	22000
Pentachlorophenol		22000	U	2200	22000
Bis(2-chloroethyl)ether		740	U	100	740
N-Nitrosodi-n-propylamine		740	U	120	740
Hexachloroethane		740	U	82	740
Nitrobenzene		740	U	100	740
Isophorone		7400	U	890	7400
Bis(2-chloroethoxy)methane		7400	U	950	7400
Naphthalene		3800	J	850	7400
4-Chloroaniline		7400	U	2000	7400
Hexachlorobutadiene		1500	U	180	1500
2-Methylnaphthalene		52000		950	7400
Hexachlorocyclopentadiene		7400	U	870	7400
2-Chloronaphthalene		7400	U	820	7400
2-Nitroaniline		15000	U	3100	15000
Dimethyl phthalate		7400	U	870	7400
Acenaphthylene		7400	U	870	7400
2,6-Dinitrotoluene		1500	U	220	1500
3-Nitroaniline		15000	U	2600	15000
Acenaphthene		3400	J	1100	7400
Dibenzofuran		7400	U	860	7400
2,4-Dinitrotoluene		1500	U	240	1500
Diethyl phthalate		7400	U	880	7400
4-Chlorophenyl phenyl ether		7400	U	860	7400
Fluorene		5100	J	940	7400
4-Nitroaniline		15000	U	2300	15000
N-Nitrosodiphenylamine		7400	U	730	7400
4-Bromophenyl phenyl ether		7400	U	730	7400
Hexachlorobenzene		740	U	100	740
Phenanthrene		21000		940	7400
Anthracene		1800	J	900	7400
Carbazole		7400	U	870	7400
Di-n-butyl phthalate		7400	U	910	7400
Fluoranthene		7400	U	980	7400

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-E3 (10-15')**

Lab Sample ID: 460-67815-2

Client Matrix: Solid

% Moisture: 10.4

Date Sampled: 12/04/2013 1430

Date Received: 12/05/2013 2025

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-199750	Instrument ID:	CBNAMS12
Prep Method:	3541	Prep Batch:	460-196934	Lab File ID:	L1145781.D
Dilution:	20			Initial Weight/Volume:	15.02 g
Analysis Date:	12/24/2013 1539			Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Pyrene		3600	J	620	7400
Butyl benzyl phthalate		7400	U	680	7400
3,3'-Dichlorobenzidine		15000	U	2600	15000
Benzo[a]anthracene		1400		51	740
Chrysene		3200	J	860	7400
Bis(2-ethylhexyl) phthalate		7400	U	2500	7400
Di-n-octyl phthalate		7400	U	470	7400
Benzo[b]fluoranthene		740	U	47	740
Benzo[k]fluoranthene		740	U	56	740
Benzo[a]pyrene		680	J *	52	740
Indeno[1,2,3-cd]pyrene		740	U	140	740
Dibenz(a,h)anthracene		740	U	93	740
Benzo[g,h,i]perylene		7400	U	550	7400
Diphenyl		2900	J	990	7400
Acetophenone		7400	U	1100	7400
1,4-Dioxane		7400	U	540	7400
Benzaldehyde		7400	U	870	7400
Caprolactam		7400	U	1700	7400
Atrazine		7400	U	1100	7400
2,2'-oxybis[1-chloropropane]		7400	U	820	7400
1,2,4,5-Tetrachlorobenzene		7400	U	990	7400
2,3,4,6-Tetrachlorophenol		7400	U	960	7400

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	*	38 - 105
Phenol-d5	0	*	41 - 118
Terphenyl-d14	0	*	16 - 151
2,4,6-Tribromophenol	0	*	10 - 120
2-Fluorophenol	0	*	37 - 125
2-Fluorobiphenyl	0	*	40 - 109

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-C4 (15-17.5')**

Lab Sample ID: 460-67815-1

Client Matrix: Solid

% Moisture: 11.2

Date Sampled: 12/04/2013 1230

Date Received: 12/05/2013 2025

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-196984	Instrument ID:	CPESTGC4
Prep Method:	3546	Prep Batch:	460-196739	Initial Weight/Volume:	15.03 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	12/11/2013 0147			Injection Volume:	1 uL
Prep Date:	12/10/2013 0626			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aldrin		7.5	U	1.6	7.5
alpha-BHC		7.5	U	1.7	7.5
beta-BHC		7.5	U	1.8	7.5
delta-BHC		7.5	U	1.3	7.5
gamma-BHC (Lindane)		7.5	U	1.3	7.5
Chlordane		75	U	21	75
4,4'-DDD		7.5	U	1.5	7.5
4,4'-DDE		7.5	U	1.5	7.5
4,4'-DDT		7.5	U	1.8	7.5
Dieldrin		7.5	U	1.3	7.5
Endosulfan I		7.5	U	1.7	7.5
Endosulfan II		7.5	U	1.5	7.5
Endosulfan sulfate		7.5	U	1.5	7.5
Endrin		7.5	U	1.8	7.5
Endrin aldehyde		7.5	U	1.1	7.5
Endrin ketone		7.5	U	1.5	7.5
Heptachlor		7.5	U	1.8	7.5
Heptachlor epoxide		7.5	U	1.7	7.5
Methoxychlor		7.5	U	1.8	7.5
Toxaphene		75	U	20	75

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	86		37 - 150
DCB Decachlorobiphenyl	87		60 - 150

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-C4 (15-17.5')**

Lab Sample ID: 460-67815-1

Client Matrix: Solid

% Moisture: 11.2

Date Sampled: 12/04/2013 1230

Date Received: 12/05/2013 2025

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-196984	Instrument ID:	CPESTGC4
Prep Method:	3546	Prep Batch:	460-196739	Initial Weight/Volume:	15.03 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	12/11/2013 0147			Injection Volume:	1 uL
Prep Date:	12/10/2013 0626			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	75		37 - 150
DCB Decachlorobiphenyl	83		60 - 150

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-E3 (10-15')**

Lab Sample ID: 460-67815-2

Client Matrix: Solid

% Moisture: 10.4

Date Sampled: 12/04/2013 1430

Date Received: 12/05/2013 2025

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-196984	Instrument ID:	CPESTGC4
Prep Method:	3546	Prep Batch:	460-196739	Initial Weight/Volume:	15.00 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	12/11/2013 0202			Injection Volume:	1 uL
Prep Date:	12/10/2013 0626			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aldrin		7.5	U	1.6	7.5
alpha-BHC		7.5	U	1.7	7.5
beta-BHC		7.5	U	1.8	7.5
delta-BHC		7.5	U	1.3	7.5
gamma-BHC (Lindane)		7.5	U	1.3	7.5
Chlordane		75	U	21	75
4,4'-DDD		7.5	U	1.5	7.5
4,4'-DDE		7.5	U	1.5	7.5
4,4'-DDT		7.5	U	1.8	7.5
Dieldrin		7.5	U	1.3	7.5
Endosulfan I		7.5	U	1.7	7.5
Endosulfan II		7.5	U	1.5	7.5
Endosulfan sulfate		7.5	U	1.5	7.5
Endrin		7.5	U	1.8	7.5
Endrin aldehyde		7.5	U	1.1	7.5
Endrin ketone		7.5	U	1.5	7.5
Heptachlor		7.5	U	1.8	7.5
Heptachlor epoxide		7.5	U	1.7	7.5
Methoxychlor		7.5	U	1.8	7.5
Toxaphene		75	U	20	75

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	80		37 - 150
DCB Decachlorobiphenyl	90		60 - 150

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-E3 (10-15')**

Lab Sample ID: 460-67815-2

Client Matrix: Solid

% Moisture: 10.4

Date Sampled: 12/04/2013 1430

Date Received: 12/05/2013 2025

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-196984	Instrument ID:	CPESTGC4
Prep Method:	3546	Prep Batch:	460-196739	Initial Weight/Volume:	15.00 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	12/11/2013 0202			Injection Volume:	1 uL
Prep Date:	12/10/2013 0626			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	74		37 - 150
DCB Decachlorobiphenyl	77		60 - 150

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-C4 (15-17.5')**

Lab Sample ID: 460-67815-1

Client Matrix: Solid

Date Sampled: 12/04/2013 1230

Date Received: 12/05/2013 2025

NJ DEP EPH New Jersey - Extractable Petroleum Hydrocarbons

Analysis Method:	NJ DEP EPH	Analysis Batch:	460-197334	Instrument ID:	NOEQUIP
	N/A	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	
Analysis Date:	12/12/2013 1344			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
Total Aromatics		5200		2.0	2.0
Total Aliphatics		18000		2.0	2.0
Total EPH		23000		2.0	2.0

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-E3 (10-15')**

Lab Sample ID: 460-67815-2

Client Matrix: Solid

Date Sampled: 12/04/2013 1430

Date Received: 12/05/2013 2025

NJ DEP EPH New Jersey - Extractable Petroleum Hydrocarbons

Analysis Method:	NJ DEP EPH	Analysis Batch:	460-197334	Instrument ID:	NOEQUIP
	N/A	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	
Analysis Date:	12/12/2013 1344			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
Total Aromatics		13000		2.0	2.0
Total Aliphatics		29000		2.0	2.0
Total EPH		42000		2.0	2.0

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-C4 (15-17.5')**

Lab Sample ID: 460-67815-1

Client Matrix: Solid

% Moisture: 11.2

Date Sampled: 12/04/2013 1230

Date Received: 12/05/2013 2025

NJDEP EPH New Jersey Extractable Petroleum Hydrocarbons

Analysis Method:	NJDEP EPH	Analysis Batch:	460-196980	Instrument ID:	CBNAGC4
Prep Method:	3546	Prep Batch:	460-196763	Initial Weight/Volume:	15.04 g
Dilution:	20			Final Weight/Volume:	2 mL
Analysis Date:	12/11/2013 1632			Injection Volume:	1 uL
Prep Date:	12/10/2013 0808			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
C16-C21 Aromatics		1600		45	45
C10-C12 Aromatics		53		45	45
C12-C16 Aromatics		450		45	45
C21-C36 Aromatic		3100		45	45

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	0	D *	40 - 140
2-Fluorobiphenyl	0	D *	40 - 140
2-Bromonaphthalene	0	D *	40 - 140

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-C4 (15-17.5')**

Lab Sample ID: 460-67815-1

Client Matrix: Solid

% Moisture: 11.2

Date Sampled: 12/04/2013 1230

Date Received: 12/05/2013 2025

NJDEP EPH New Jersey Extractable Petroleum Hydrocarbons

Analysis Method:	NJDEP EPH	Analysis Batch:	460-196976	Instrument ID:	CBNAGC4
Prep Method:	3546	Prep Batch:	460-196763	Initial Weight/Volume:	15.04 g
Dilution:	50			Final Weight/Volume:	2 mL
Analysis Date:	12/11/2013 1632			Injection Volume:	1 uL
Prep Date:	12/10/2013 0808			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
C12-C16 Aliphatics		2400		110	110
C9-C12 Aliphatics		250		110	110
C16-C21 Aliphatics		4100		110	110
C21-C40 Aliphatics		11000		110	110

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Chlorooctadecane	0	* D	40 - 140

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-E3 (10-15')**

Lab Sample ID: 460-67815-2

Client Matrix: Solid

% Moisture: 10.4

Date Sampled: 12/04/2013 1430

Date Received: 12/05/2013 2025

NJDEP EPH New Jersey Extractable Petroleum Hydrocarbons

Analysis Method:	NJDEP EPH	Analysis Batch:	460-196980	Instrument ID:	CBNAGC4
Prep Method:	3546	Prep Batch:	460-196763	Initial Weight/Volume:	15.01 g
Dilution:	10			Final Weight/Volume:	10 mL
Analysis Date:	12/11/2013 1647			Injection Volume:	1 uL
Prep Date:	12/10/2013 0808			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
C16-C21 Aromatics		4900		110	110
C10-C12 Aromatics		110	U	110	110
C12-C16 Aromatics		1600		110	110
C21-C36 Aromatic		6400		110	110

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	0	D *	40 - 140
2-Fluorobiphenyl	0	D *	40 - 140
2-Bromonaphthalene	0	D *	40 - 140

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Client Sample ID: **E-GP-E3 (10-15')**

Lab Sample ID: 460-67815-2

Client Matrix: Solid

% Moisture: 10.4

Date Sampled: 12/04/2013 1430

Date Received: 12/05/2013 2025

NJDEP EPH New Jersey Extractable Petroleum Hydrocarbons

Analysis Method:	NJDEP EPH	Analysis Batch:	460-196976	Instrument ID:	CBNAGC4
Prep Method:	3546	Prep Batch:	460-196763	Initial Weight/Volume:	15.01 g
Dilution:	25			Final Weight/Volume:	10 mL
Analysis Date:	12/11/2013 1647			Injection Volume:	1 uL
Prep Date:	12/10/2013 0808			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
C12-C16 Aliphatics		4200		280	280
C9-C12 Aliphatics		390		280	280
C16-C21 Aliphatics		5100		280	280
C21-C40 Aliphatics		19000		280	280

Surrogate	%Rec	Qualifier	Acceptance Limits
1-Chlorooctadecane	0	* D	40 - 140

General Chemistry

Client Sample ID: **E-GP-C4 (15-17.5')**

Lab Sample ID: 460-67815-1

Client Matrix: Solid

Date Sampled: 12/04/2013 1230

Date Received: 12/05/2013 2025

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Moisture	11.2		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-196646		Analysis Date: 12/09/2013 1715				DryWt Corrected: N
Percent Solids	88.8		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-196646		Analysis Date: 12/09/2013 1715				DryWt Corrected: N

General Chemistry

Client Sample ID: **E-GP-E3 (10-15')**

Lab Sample ID: 460-67815-2

Client Matrix: Solid

Date Sampled: 12/04/2013 1430

Date Received: 12/05/2013 2025

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Percent Moisture	10.4		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-196646		Analysis Date: 12/09/2013 1715				DryWt Corrected: N
Percent Solids	89.6		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-196646		Analysis Date: 12/09/2013 1715				DryWt Corrected: N

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
460-67815-1	E-GP-C4 (15-17.5')	77	83	75	77
460-67815-2	E-GP-E3 (10-15')	68*	75	67	67*
MB 460-197509/7		96	96	94	95
MB 460-198396/7		92	92	88	88
LCS 460-197509/4		97	95	93	96
LCS 460-198396/3		96	95	90	90
LCSD 460-197509/5		96	96	93	95
LCSD 460-198396/4		94	92	89	88

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	70-130
DCA = 1,2-Dichloroethane-d4 (Surr)	75-135
TOL = Toluene-d8 (Surr)	59-150
BFB = Bromofluorobenzene	72-133

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
460-67815-1	E-GP-C4 (15-17.5')	0*	0*	0*	0*	0*	0*
460-67815-2	E-GP-E3 (10-15')	0*	0*	0*	0*	0*	0*
MB 460-196934/1-A		81	74	79	86	83	114
LCS 460-196934/2-A		76	72	76	85	90	110
LCS 460-196934/12-A		84	85	77	82	114	105
460-67884-E-2-A MS		86	89	82	87	107	103
460-67884-E-2-B MSD		85	90	83	92	112	106

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol	37-125
PHL = Phenol-d5	41-118
NBZ = Nitrobenzene-d5	38-105
FBP = 2-Fluorobiphenyl	40-109
TBP = 2,4,6-Tribromophenol	10-120
TPH = Terphenyl-d14	16-151

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
460-67815-1	E-GP-C4 (15-17.5')	75	86	83	87
460-67815-2	E-GP-E3 (10-15')	74	80	77	90
MB 460-196739/1-A		122	133	142	148
LCS 460-196739/2-A			129	147	
460-67815-1 MS	E-GP-C4 (15-17.5') MS	75	93	79	88
460-67815-1 MSD	E-GP-C4 (15-17.5') MSD	74	89	78	92

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	37-150
DCB = DCB Decachlorobiphenyl	60-150

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Surrogate Recovery Report

NJDEP EPH New Jersey Extractable Petroleum Hydrocarbons

Client Matrix: Solid

Lab Sample ID	Client Sample ID	1COD1 %Rec
460-67815-1	E-GP-C4 (15-17.5')	0* D
460-67815-2	E-GP-E3 (10-15')	0* D
MB 460-196763/1-A		75
LCS 460-196763/2-A		80
460-67990-A-1-D MS		63
460-67990-A-1-E MSD		61

Surrogate	Acceptance Limits
1COD = 1-Chlorooctadecane	40-140

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Surrogate Recovery Report

NJDEP EPH New Jersey Extractable Petroleum Hydrocarbons

Client Matrix: Solid

Lab Sample ID	Client Sample ID	FBP1 %Rec	2BN1 %Rec	OTPH1 %Rec
460-67815-1	E-GP-C4 (15-17.5')	0D *	0D *	0D *
460-67815-2	E-GP-E3 (10-15')	0D *	0D *	0D *
MB 460-196763/1-A		88	59	112
LCS 460-196763/2-A		97	64	136
460-67990-A-1-D MS		91	61	89
460-67990-A-1-E MSD		93	63	90

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl	40-140
2BN = 2-Bromonaphthalene	40-140
OTPH = o-Terphenyl	40-140

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Method Blank - Batch: 460-197509

Method: 8260C
Preparation: N/A

Lab Sample ID:	MB 460-197509/7	Analysis Batch:	460-197509	Instrument ID:	CVOAMS8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	J06959.D
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/13/2013 1216	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Chloromethane	50	U	4.8	50
Bromomethane	50	U	9.1	50
Vinyl chloride	50	U	7.2	50
Chloroethane	50	U	8.5	50
Methylene Chloride	50	U	9.1	50
Acetone	250	U	130	250
Carbon disulfide	50	U	6.3	50
Trichlorofluoromethane	50	U	7.3	50
1,1-Dichloroethene	50	U	4.4	50
1,1-Dichloroethane	50	U	6.5	50
trans-1,2-Dichloroethene	50	U	6.4	50
cis-1,2-Dichloroethene	50	U	8.9	50
Chloroform	50	U	3.9	50
1,2-Dichloroethane	50	U	9.5	50
2-Butanone	250	U	120	250
1,1,1-Trichloroethane	50	U	3.1	50
Carbon tetrachloride	50	U	2.9	50
Bromodichloromethane	50	U	6.3	50
1,2-Dichloropropane	50	U	4.3	50
cis-1,3-Dichloropropene	50	U	9.2	50
Trichloroethene	50	U	4.6	50
Dibromochloromethane	50	U	10	50
1,1,2-Trichloroethane	50	U	9.4	50
Benzene	50	U	4.1	50
trans-1,3-Dichloropropene	50	U	12	50
Bromoform	50	U	9.6	50
4-Methyl-2-pentanone	250	U	49	250
2-Hexanone	250	U	25	250
Tetrachloroethene	50	U	4.9	50
1,1,2,2-Tetrachloroethane	50	U	7.9	50
Toluene	50	U	7.5	50
Chlorobenzene	50	U	5.5	50
Ethylbenzene	50	U	4.8	50
Styrene	50	U	5.9	50
Xylenes, Total	150	U	18	150
Freon TF	50	U	4.1	50
MTBE	50	U	6.9	50
Cyclohexane	50	U	7.9	50
1,2-Dibromoethane	50	U	14	50
1,3-Dichlorobenzene	50	U	6.8	50
1,4-Dichlorobenzene	50	U	12	50
1,2-Dichlorobenzene	50	U	10	50
Dichlorodifluoromethane	50	U	11	50
1,2,4-Trichlorobenzene	50	U	17	50
1,4-Dioxane	2500	U	1800	2500

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Method Blank - Batch: 460-197509

Method: 8260C
Preparation: N/A

Lab Sample ID:	MB 460-197509/7	Analysis Batch:	460-197509	Instrument ID:	CVOAMS8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	J06959.D
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/13/2013 1216	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,2,3-Trichlorobenzene	50	U	26	50
1,2-Dibromo-3-Chloropropane	50	U	20	50
Bromochloromethane	50	U	14	50
Isopropylbenzene	50	U	3.8	50
Methyl acetate	250	U	17	250
Methylcyclohexane	50	U	6.8	50

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96	75 - 135
Toluene-d8 (Surr)	94	59 - 150
Bromofluorobenzene	95	72 - 133
Dibromofluoromethane (Surr)	96	70 - 130

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-197509

Method: 8260C
Preparation: N/A

LCS Lab Sample ID:	LCS 460-197509/4	Analysis Batch:	460-197509	Instrument ID:	CVOAMS8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	J06956.D
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/13/2013 1017	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-197509/5	Analysis Batch:	460-197509	Instrument ID:	CVOAMS8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	J06957.D
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/13/2013 1127	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chloromethane	108	112	52 - 144	4	30		
Bromomethane	110	122	58 - 154	10	30		
Vinyl chloride	105	110	55 - 154	5	30		
Chloroethane	115	121	66 - 144	5	30		
Methylene Chloride	109	111	78 - 118	2	30		
Acetone	117	115	48 - 177	1	30		
Carbon disulfide	110	110	70 - 120	1	30		
Trichlorofluoromethane	108	107	60 - 148	1	30		
1,1-Dichloroethene	107	108	68 - 138	1	30		
1,1-Dichloroethane	107	108	79 - 119	1	30		
trans-1,2-Dichloroethene	110	107	73 - 119	3	30		
cis-1,2-Dichloroethene	112	109	78 - 118	2	30		
Chloroform	111	110	81 - 122	1	30		
1,2-Dichloroethane	111	104	81 - 121	7	30		
2-Butanone	119	115	70 - 139	3	30		
1,1,1-Trichloroethane	110	109	78 - 118	0	30		
Carbon tetrachloride	110	108	64 - 130	1	30		
Bromodichloromethane	109	107	78 - 118	2	30		
1,2-Dichloropropane	107	103	78 - 118	5	30		
cis-1,3-Dichloropropene	108	102	75 - 120	6	30		
Trichloroethene	105	104	82 - 122	1	30		
Dibromochloromethane	90	87	78 - 118	3	30		
1,1,2-Trichloroethane	107	99	77 - 120	8	30		
Benzene	109	107	71 - 118	2	30		
trans-1,3-Dichloropropene	108	109	73 - 118	1	30		
Bromoform	86	82	76 - 133	5	30		
4-Methyl-2-pentanone	105	98	69 - 124	7	30		
2-Hexanone	120	115	62 - 123	4	30		
Tetrachloroethene	109	108	78 - 136	1	30		
1,1,2,2-Tetrachloroethane	110	105	86 - 145	5	30		
Toluene	108	108	79 - 136	0	30		
Chlorobenzene	106	104	69 - 124	2	30		
Ethylbenzene	104	104	78 - 124	0	30		
Styrene	112	111	73 - 126	1	30		
Xylenes, Total	106	106	78 - 126	1	30		
Freon TF	103	98	50 - 128	5	30		

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-197509

Method: 8260C
Preparation: N/A

LCS Lab Sample ID:	LCS 460-197509/4	Analysis Batch:	460-197509	Instrument ID:	CVOAMS8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	J06956.D
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/13/2013 1017	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-197509/5	Analysis Batch:	460-197509	Instrument ID:	CVOAMS8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	J06957.D
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/13/2013 1127	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
MTBE	108	105	65 - 143	3	30		
Cyclohexane	115	110	69 - 128	5	30		
1,2-Dibromoethane	107	100	76 - 120	6	30		
1,3-Dichlorobenzene	110	109	83 - 123	1	30		
1,4-Dichlorobenzene	107	108	84 - 124	0	30		
1,2-Dichlorobenzene	107	107	83 - 123	0	30		
Dichlorodifluoromethane	101	106	41 - 149	4	30		
1,2,4-Trichlorobenzene	103	108	62 - 144	5	30		
1,4-Dioxane	147	151	54 - 147	3	30		*
1,2,3-Trichlorobenzene	100	101	36 - 207	1	30		
1,2-Dibromo-3-Chloropropane	102	86	62 - 127	17	30		
Bromochloromethane	113	108	81 - 121	5	30		
Isopropylbenzene	110	110	80 - 143	0	30		
Methyl acetate	108	103	72 - 165	5	30		
Methylcyclohexane	117	126	80 - 134	8	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95	96	75 - 135
Toluene-d8 (Surr)	93	93	59 - 150
Bromofluorobenzene	96	95	72 - 133

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 460-197509

Method: 8260C
Preparation: N/A

LCS Lab Sample ID:	LCS 460-197509/4	Units:	ug/Kg	LCSD Lab Sample ID:	LCSD 460-197509/5
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	50			Dilution:	50
Analysis Date:	12/13/2013 1017			Analysis Date:	12/13/2013 1127
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Chloromethane	1000	1000	1080	1120
Bromomethane	1000	1000	1100	1220
Vinyl chloride	1000	1000	1050	1100
Chloroethane	1000	1000	1150	1210
Methylene Chloride	1000	1000	1090	1110
Acetone	5000	5000	5850	5770
Carbon disulfide	1000	1000	1100	1100
Trichlorofluoromethane	1000	1000	1080	1070
1,1-Dichloroethene	1000	1000	1070	1080
1,1-Dichloroethane	1000	1000	1070	1080
trans-1,2-Dichloroethene	1000	1000	1100	1070
cis-1,2-Dichloroethene	1000	1000	1120	1090
Chloroform	1000	1000	1110	1100
1,2-Dichloroethane	1000	1000	1110	1040
2-Butanone	5000	5000	5940	5740
1,1,1-Trichloroethane	1000	1000	1100	1090
Carbon tetrachloride	1000	1000	1100	1080
Bromodichloromethane	1000	1000	1090	1070
1,2-Dichloropropane	1000	1000	1070	1030
cis-1,3-Dichloropropene	1000	1000	1080	1020
Trichloroethene	1000	1000	1050	1040
Dibromochloromethane	1000	1000	901	874
1,1,2-Trichloroethane	1000	1000	1070	985
Benzene	1000	1000	1090	1070
trans-1,3-Dichloropropene	1000	1000	1080	1090
Bromoform	1000	1000	855	815
4-Methyl-2-pentanone	5000	5000	5230	4900
2-Hexanone	5000	5000	5990	5760
Tetrachloroethene	1000	1000	1090	1080
1,1,2,2-Tetrachloroethane	1000	1000	1100	1050
Toluene	1000	1000	1080	1080
Chlorobenzene	1000	1000	1060	1040
Ethylbenzene	1000	1000	1040	1040
Styrene	1000	1000	1120	1110
Xylenes, Total	2000	2000	2110	2130
Freon TF	1000	1000	1030	979
MTBE	1000	1000	1080	1050
Cyclohexane	1000	1000	1150	1100
1,2-Dibromoethane	1000	1000	1070	1000

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 460-197509

Method: 8260C
Preparation: N/A

LCS Lab Sample ID:	LCS 460-197509/4	Units:	ug/Kg	LCSD Lab Sample ID:	LCSD 460-197509/5
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	50			Dilution:	50
Analysis Date:	12/13/2013 1017			Analysis Date:	12/13/2013 1127
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual	
1,3-Dichlorobenzene	1000	1000	1100	1090	
1,4-Dichlorobenzene	1000	1000	1070	1080	
1,2-Dichlorobenzene	1000	1000	1070	1070	
Dichlorodifluoromethane	1000	1000	1010	1060	
1,2,4-Trichlorobenzene	1000	1000	1030	1080	
1,4-Dioxane	20000	20000	29300	30300	*
1,2,3-Trichlorobenzene	1000	1000	1000	1010	
1,2-Dibromo-3-Chloropropane	1000	1000	1020	859	
Bromochloromethane	1000	1000	1130	1080	
Isopropylbenzene	1000	1000	1100	1100	
Methyl acetate	5000	5000	5420	5160	
Methylcyclohexane	1000	1000	1170	1260	

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Method Blank - Batch: 460-198396

Method: 8260C
Preparation: N/A

Lab Sample ID:	MB 460-198396/7	Analysis Batch:	460-198396	Instrument ID:	CVOAMS8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	J07047.D
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/18/2013 0736	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Chloromethane	50	U	4.8	50
Bromomethane	50	U	9.1	50
Vinyl chloride	50	U	7.2	50
Chloroethane	50	U	8.5	50
Methylene Chloride	50	U	9.1	50
Acetone	250	U	130	250
Carbon disulfide	50	U	6.3	50
Trichlorofluoromethane	50	U	7.3	50
1,1-Dichloroethene	50	U	4.4	50
1,1-Dichloroethane	50	U	6.5	50
trans-1,2-Dichloroethene	50	U	6.4	50
cis-1,2-Dichloroethene	50	U	8.9	50
Chloroform	50	U	3.9	50
1,2-Dichloroethane	50	U	9.5	50
2-Butanone	250	U	120	250
1,1,1-Trichloroethane	50	U	3.1	50
Carbon tetrachloride	50	U	2.9	50
Bromodichloromethane	50	U	6.3	50
1,2-Dichloropropane	50	U	4.3	50
cis-1,3-Dichloropropene	50	U	9.2	50
Trichloroethene	50	U	4.6	50
Dibromochloromethane	50	U	10	50
1,1,2-Trichloroethane	50	U	9.4	50
Benzene	50	U	4.1	50
trans-1,3-Dichloropropene	50	U	12	50
Bromoform	50	U	9.6	50
4-Methyl-2-pentanone	250	U	49	250
2-Hexanone	250	U	25	250
Tetrachloroethene	50	U	4.9	50
1,1,2,2-Tetrachloroethane	50	U	7.9	50
Toluene	50	U	7.5	50
Chlorobenzene	50	U	5.5	50
Ethylbenzene	50	U	4.8	50
Styrene	50	U	5.9	50
Xylenes, Total	150	U	18	150
Freon TF	50	U	4.1	50
MTBE	50	U	6.9	50
Cyclohexane	50	U	7.9	50
1,2-Dibromoethane	50	U	14	50
1,3-Dichlorobenzene	50	U	6.8	50
1,4-Dichlorobenzene	50	U	12	50
1,2-Dichlorobenzene	50	U	10	50
Dichlorodifluoromethane	50	U	11	50
1,2,4-Trichlorobenzene	50	U	17	50
1,4-Dioxane	2500	U	1800	2500

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Method Blank - Batch: 460-198396

Method: 8260C
Preparation: N/A

Lab Sample ID:	MB 460-198396/7	Analysis Batch:	460-198396	Instrument ID:	CVOAMS8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	J07047.D
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/18/2013 0736	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,2,3-Trichlorobenzene	50	U	26	50
1,2-Dibromo-3-Chloropropane	50	U	20	50
Bromochloromethane	50	U	14	50
Isopropylbenzene	50	U	3.8	50
Methyl acetate	250	U	17	250
Methylcyclohexane	50	U	6.8	50

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	75 - 135
Toluene-d8 (Surr)	88	59 - 150
Bromofluorobenzene	88	72 - 133
Dibromofluoromethane (Surr)	92	70 - 130

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-198396

Method: 8260C
Preparation: N/A

LCS Lab Sample ID:	LCS 460-198396/3	Analysis Batch:	460-198396	Instrument ID:	CVOAMS8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	J07043.D
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/18/2013 0531	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-198396/4	Analysis Batch:	460-198396	Instrument ID:	CVOAMS8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	J07044.D
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/18/2013 0621	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chloromethane	89	102	52 - 144	13	30		
Bromomethane	116	135	58 - 154	15	30		
Vinyl chloride	95	108	55 - 154	13	30		
Chloroethane	105	127	66 - 144	19	30		
Methylene Chloride	101	106	78 - 118	6	30		
Acetone	102	108	48 - 177	6	30		
Carbon disulfide	101	108	70 - 120	7	30		
Trichlorofluoromethane	104	117	60 - 148	12	30		
1,1-Dichloroethene	105	111	68 - 138	6	30		
1,1-Dichloroethane	97	104	79 - 119	8	30		
trans-1,2-Dichloroethene	101	105	73 - 119	4	30		
cis-1,2-Dichloroethene	102	107	78 - 118	5	30		
Chloroform	101	108	81 - 122	6	30		
1,2-Dichloroethane	99	105	81 - 121	6	30		
2-Butanone	106	113	70 - 139	7	30		
1,1,1-Trichloroethane	102	113	78 - 118	11	30		
Carbon tetrachloride	105	115	64 - 130	9	30		
Bromodichloromethane	100	105	78 - 118	5	30		
1,2-Dichloropropane	96	103	78 - 118	6	30		
cis-1,3-Dichloropropene	93	98	75 - 120	5	30		
Trichloroethene	97	104	82 - 122	7	30		
Dibromochloromethane	80	87	78 - 118	8	30		
1,1,2-Trichloroethane	94	98	77 - 120	4	30		
Benzene	99	105	71 - 118	6	30		
trans-1,3-Dichloropropene	97	102	73 - 118	6	30		
Bromoform	71	79	76 - 133	10	30	*	
4-Methyl-2-pentanone	89	94	69 - 124	6	30		
2-Hexanone	108	112	62 - 123	4	30		
Tetrachloroethene	102	108	78 - 136	6	30		
1,1,2,2-Tetrachloroethane	91	97	86 - 145	7	30		
Toluene	98	105	79 - 136	6	30		
Chlorobenzene	96	101	69 - 124	5	30		
Ethylbenzene	97	102	78 - 124	4	30		
Styrene	101	109	73 - 126	8	30		
Xylenes, Total	97	103	78 - 126	6	30		
Freon TF	97	105	50 - 128	8	30		

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-198396

Method: 8260C
Preparation: N/A

LCS Lab Sample ID:	LCS 460-198396/3	Analysis Batch:	460-198396	Instrument ID:	CVOAMS8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	J07043.D
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/18/2013 0531	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-198396/4	Analysis Batch:	460-198396	Instrument ID:	CVOAMS8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	J07044.D
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/18/2013 0621	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
MTBE	95	102	65 - 143	7	30		
Cyclohexane	106	114	69 - 128	8	30		
1,2-Dibromoethane	92	97	76 - 120	5	30		
1,3-Dichlorobenzene	99	106	83 - 123	6	30		
1,4-Dichlorobenzene	97	103	84 - 124	6	30		
1,2-Dichlorobenzene	98	105	83 - 123	7	30		
Dichlorodifluoromethane	90	102	41 - 149	13	30		
1,2,4-Trichlorobenzene	92	97	62 - 144	5	30		
1,4-Dioxane	127	141	54 - 147	11	30		
1,2,3-Trichlorobenzene	89	99	36 - 207	10	30		
1,2-Dibromo-3-Chloropropane	76	83	62 - 127	8	30		
Bromochloromethane	102	109	81 - 121	7	30		
Isopropylbenzene	106	110	80 - 143	4	30		
Methyl acetate	93	99	72 - 165	6	30		
Methylcyclohexane	115	126	80 - 134	9	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95	92	75 - 135
Toluene-d8 (Surr)	90	89	59 - 150
Bromofluorobenzene	90	88	72 - 133

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 460-198396

Method: 8260C
Preparation: N/A

LCS Lab Sample ID:	LCS 460-198396/3	Units:	ug/Kg	LCSD Lab Sample ID:	LCSD 460-198396/4
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	50			Dilution:	50
Analysis Date:	12/18/2013 0531			Analysis Date:	12/18/2013 0621
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual		LCSD Result/Qual
Chloromethane	1000	1000	891		1020
Bromomethane	1000	1000	1160		1350
Vinyl chloride	1000	1000	948		1080
Chloroethane	1000	1000	1050		1270
Methylene Chloride	1000	1000	1010		1060
Acetone	5000	5000	5080		5380
Carbon disulfide	1000	1000	1010		1080
Trichlorofluoromethane	1000	1000	1040		1170
1,1-Dichloroethene	1000	1000	1050		1110
1,1-Dichloroethane	1000	1000	965		1040
trans-1,2-Dichloroethene	1000	1000	1010		1050
cis-1,2-Dichloroethene	1000	1000	1020		1070
Chloroform	1000	1000	1010		1080
1,2-Dichloroethane	1000	1000	991		1050
2-Butanone	5000	5000	5310		5660
1,1,1-Trichloroethane	1000	1000	1020		1130
Carbon tetrachloride	1000	1000	1050		1150
Bromodichloromethane	1000	1000	999		1050
1,2-Dichloropropane	1000	1000	964		1030
cis-1,3-Dichloropropene	1000	1000	931		976
Trichloroethene	1000	1000	971		1040
Dibromochloromethane	1000	1000	804		871
1,1,2-Trichloroethane	1000	1000	944		984
Benzene	1000	1000	988		1050
trans-1,3-Dichloropropene	1000	1000	967		1020
Bromoform	1000	1000	712	*	790
4-Methyl-2-pentanone	5000	5000	4450		4710
2-Hexanone	5000	5000	5420		5620
Tetrachloroethene	1000	1000	1020		1080
1,1,2,2-Tetrachloroethane	1000	1000	908		970
Toluene	1000	1000	983		1050
Chlorobenzene	1000	1000	956		1010
Ethylbenzene	1000	1000	973		1020
Styrene	1000	1000	1010		1090
Xylenes, Total	2000	2000	1940		2070
Freon TF	1000	1000	965		1050
MTBE	1000	1000	953		1020
Cyclohexane	1000	1000	1060		1140
1,2-Dibromoethane	1000	1000	921		966

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 460-198396

Method: 8260C
Preparation: N/A

LCS Lab Sample ID:	LCS 460-198396/3	Units:	ug/Kg	LCSD Lab Sample ID:	LCSD 460-198396/4
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	50			Dilution:	50
Analysis Date:	12/18/2013 0531			Analysis Date:	12/18/2013 0621
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
1,3-Dichlorobenzene	1000	1000	993	1060
1,4-Dichlorobenzene	1000	1000	969	1030
1,2-Dichlorobenzene	1000	1000	980	1050
Dichlorodifluoromethane	1000	1000	900	1020
1,2,4-Trichlorobenzene	1000	1000	923	968
1,4-Dioxane	20000	20000	25300	28200
1,2,3-Trichlorobenzene	1000	1000	894	987
1,2-Dibromo-3-Chloropropane	1000	1000	765	826
Bromochloromethane	1000	1000	1020	1090
Isopropylbenzene	1000	1000	1060	1100
Methyl acetate	5000	5000	4630	4930
Methylcyclohexane	1000	1000	1150	1260

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Method Blank - Batch: 460-196934

Method: 8270D
Preparation: 3541

Lab Sample ID:	MB 460-196934/1-A	Analysis Batch:	460-197230	Instrument ID:	CBNAMS12
Client Matrix:	Solid	Prep Batch:	460-196934	Lab File ID:	L1145369.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	14.98 g
Analysis Date:	12/12/2013 1043	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Phenol	330	U	44	330
2-Chlorophenol	330	U	44	330
2-Methylphenol	330	U	56	330
4-Methylphenol	330	U	65	330
2-Nitrophenol	330	U	37	330
2,4-Dimethylphenol	330	U	82	330
2,4-Dichlorophenol	330	U	48	330
4-Chloro-3-methylphenol	330	U	50	330
2,4,6-Trichlorophenol	330	U	39	330
2,4,5-Trichlorophenol	330	U	43	330
2,4-Dinitrophenol	1000	U	190	1000
4-Nitrophenol	1000	U	210	1000
4,6-Dinitro-2-methylphenol	1000	U	90	1000
Pentachlorophenol	1000	U	99	1000
Bis(2-chloroethyl)ether	33	U	4.5	33
N-Nitrosodi-n-propylamine	33	U	5.5	33
Hexachloroethane	33	U	3.7	33
Nitrobenzene	33	U	4.7	33
Isophorone	330	U	40	330
Bis(2-chloroethoxy)methane	330	U	43	330
Naphthalene	330	U	38	330
4-Chloroaniline	330	U	88	330
Hexachlorobutadiene	67	U	8.1	67
2-Methylnaphthalene	330	U	43	330
Hexachlorocyclopentadiene	330	U	39	330
2-Chloronaphthalene	330	U	37	330
2-Nitroaniline	670	U	140	670
Dimethyl phthalate	330	U	39	330
Acenaphthylene	330	U	39	330
2,6-Dinitrotoluene	67	U	10	67
3-Nitroaniline	670	U	120	670
Acenaphthene	330	U	48	330
Dibenzofuran	330	U	39	330
2,4-Dinitrotoluene	67	U	11	67
Diethyl phthalate	330	U	39	330
4-Chlorophenyl phenyl ether	330	U	39	330
Fluorene	330	U	42	330
4-Nitroaniline	670	U	100	670
N-Nitrosodiphenylamine	330	U	33	330
4-Bromophenyl phenyl ether	330	U	33	330
Hexachlorobenzene	33	U	4.5	33
Phenanthrene	330	U	42	330
Anthracene	330	U	40	330
Carbazole	330	U	39	330
Di-n-butyl phthalate	330	U	41	330

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Method Blank - Batch: 460-196934

Method: 8270D
Preparation: 3541

Lab Sample ID:	MB 460-196934/1-A	Analysis Batch:	460-197230	Instrument ID:	CBNAMS12
Client Matrix:	Solid	Prep Batch:	460-196934	Lab File ID:	L1145369.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	14.98 g
Analysis Date:	12/12/2013 1043	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Fluoranthene	330	U	44	330
Pyrene	330	U	28	330
Butyl benzyl phthalate	330	U	30	330
3,3'-Dichlorobenzidine	670	U	120	670
Benzo[a]anthracene	33	U	2.3	33
Chrysene	330	U	39	330
Bis(2-ethylhexyl) phthalate	330	U	110	330
Di-n-octyl phthalate	330	U	21	330
Benzo[b]fluoranthene	33	U	2.1	33
Benzo[k]fluoranthene	33	U	2.5	33
Benzo[a]pyrene	33	U	2.3	33
Indeno[1,2,3-cd]pyrene	33	U	6.2	33
Dibenz(a,h)anthracene	33	U	4.2	33
Benzo[g,h,i]perylene	330	U	25	330
Diphenyl	330	U	44	330
Acetophenone	330	U	51	330
1,4-Dioxane	330	U	24	330
Benzaldehyde	330	U	39	330
Caprolactam	330	U	76	330
Atrazine	330	U	51	330
2,2'-oxybis[1-chloropropane]	330	U	37	330
1,2,4,5-Tetrachlorobenzene	330	U	45	330
2,3,4,6-Tetrachlorophenol	330	U	43	330

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	79	38 - 105
Phenol-d5	74	41 - 118
Terphenyl-d14	114	16 - 151
2,4,6-Tribromophenol	83	10 - 120
2-Fluorophenol	81	37 - 125
2-Fluorobiphenyl	86	40 - 109

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Lab Control Sample - Batch: 460-196934

Method: 8270D
Preparation: 3541

Lab Sample ID:	LCS 460-196934/12-A	Analysis Batch:	460-197085	Instrument ID:	CBNAMS5
Client Matrix:	Solid	Prep Batch:	460-196934	Lab File ID:	x6607.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.02 g
Analysis Date:	12/11/2013 1934	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzaldehyde	6660	5640	85	10 - 160	

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	77	38 - 105
Phenol-d5	85	41 - 118
Terphenyl-d14	105	16 - 151
2,4,6-Tribromophenol	114	10 - 120
2-Fluorophenol	84	37 - 125
2-Fluorobiphenyl	82	40 - 109

Lab Control Sample - Batch: 460-196934

Method: 8270D
Preparation: 3541

Lab Sample ID:	LCS 460-196934/2-A	Analysis Batch:	460-197230	Instrument ID:	CBNAMS12
Client Matrix:	Solid	Prep Batch:	460-196934	Lab File ID:	L1145368.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.02 g
Analysis Date:	12/12/2013 1017	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Phenol	3330	2440	73	54 - 115	
2-Chlorophenol	3330	2560	77	56 - 110	
2-Methylphenol	3330	2480	75	54 - 117	
4-Methylphenol	3330	2260	68	47 - 103	
2-Nitrophenol	3330	2820	85	55 - 101	
2,4-Dimethylphenol	3330	2480	74	56 - 112	
2,4-Dichlorophenol	3330	2690	81	58 - 115	
4-Chloro-3-methylphenol	3330	2650	79	55 - 117	
2,4,6-Trichlorophenol	3330	2770	83	53 - 118	
2,4,5-Trichlorophenol	3330	2670	80	50 - 115	
2,4-Dinitrophenol	6660	5780	87	10 - 129	
4-Nitrophenol	6660	3990	60	45 - 114	
4,6-Dinitro-2-methylphenol	6660	6170	93	10 - 110	
Pentachlorophenol	6660	5040	76	19 - 113	
Bis(2-chloroethyl)ether	3330	2470	74	44 - 101	
N-Nitrosodi-n-propylamine	3330	2540	76	42 - 107	
Hexachloroethane	3330	2630	79	45 - 90	
Nitrobenzene	3330	1830	55	42 - 106	
Isophorone	3330	2640	79	48 - 97	
Bis(2-chloroethoxy)methane	3330	2470	74	51 - 100	
Naphthalene	3330	2550	77	53 - 94	
4-Chloroaniline	3330	696	21	10 - 96	
Hexachlorobutadiene	3330	3000	90	45 - 98	

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Lab Control Sample - Batch: 460-196934

Method: 8270D
Preparation: 3541

Lab Sample ID:	LCS 460-196934/2-A	Analysis Batch:	460-197230	Instrument ID:	CBNAMS12
Client Matrix:	Solid	Prep Batch:	460-196934	Lab File ID:	L1145368.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.02 g
Analysis Date:	12/12/2013 1017	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2-Methylnaphthalene	3330	2760	83	51 - 98	
Hexachlorocyclopentadiene	3330	2840	85	24 - 98	
2-Chloronaphthalene	3330	2770	83	51 - 102	
2-Nitroaniline	3330	2020	61	51 - 109	
Dimethyl phthalate	3330	2740	82	52 - 112	
Acenaphthylene	3330	2700	81	51 - 103	
2,6-Dinitrotoluene	3330	2870	86	51 - 115	
3-Nitroaniline	3330	1120	34	32 - 104	
Acenaphthene	3330	2480	74	46 - 100	
Dibenzofuran	3330	2710	82	52 - 106	
2,4-Dinitrotoluene	3330	2760	83	53 - 110	
Diethyl phthalate	3330	2740	82	52 - 114	
4-Chlorophenyl phenyl ether	3330	2710	82	50 - 106	
Fluorene	3330	2650	79	51 - 108	
4-Nitroaniline	3330	2230	67	45 - 106	
N-Nitrosodiphenylamine	3330	2810	84	49 - 106	
4-Bromophenyl phenyl ether	3330	3000	90	44 - 102	
Hexachlorobenzene	3330	3040	91	43 - 104	
Phenanthrene	3330	2700	81	48 - 108	
Anthracene	3330	2710	81	50 - 107	
Carbazole	3330	2590	78	49 - 104	
Di-n-butyl phthalate	3330	2690	81	50 - 108	
Fluoranthene	3330	2550	77	49 - 108	
Pyrene	3330	3400	102	49 - 116	
Butyl benzyl phthalate	3330	3050	92	49 - 117	
3,3'-Dichlorobenzidine	3330	932	28	24 - 105	
Benzo[a]anthracene	3330	2720	82	46 - 112	
Chrysene	3330	2660	80	45 - 114	
Bis(2-ethylhexyl) phthalate	3330	2620	79	49 - 119	
Di-n-octyl phthalate	3330	2890	87	40 - 106	
Benzo[b]fluoranthene	3330	2990	90	33 - 96	
Benzo[k]fluoranthene	3330	3060	92	35 - 115	
Benzo[a]pyrene	3330	3110	93	36 - 89	*
Indeno[1,2,3-cd]pyrene	3330	3230	97	43 - 109	
Dibenz(a,h)anthracene	3330	3100	93	43 - 107	
Benzo[g,h,i]perylene	3330	3130	94	43 - 106	
Diphenyl	3330	2780	84	50 - 105	
Acetophenone	3330	2620	79	40 - 95	
1,4-Dioxane	3330	1430	43	10 - 70	
Caprolactam	3330	2480	74	10 - 127	
Atrazine	3330	2500	75	30 - 100	
2,2'-oxybis[1-chloropropane]	3330	1690	51	45 - 102	
1,2,4,5-Tetrachlorobenzene	3330	2830	85	70 - 130	
2,3,4,6-Tetrachlorophenol	3330	2870	86	70 - 130	

Surrogate	% Rec	Acceptance Limits

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	76	38 - 105
Phenol-d5	72	41 - 118
Terphenyl-d14	110	16 - 151
2,4,6-Tribromophenol	90	10 - 120
2-Fluorophenol	76	37 - 125
2-Fluorobiphenyl	85	40 - 109

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-196934

Method: 8270D
Preparation: 3541

MS Lab Sample ID:	460-67884-E-2-A MS	Analysis Batch:	460-197085	Instrument ID:	CBNAMS5
Client Matrix:	Solid	Prep Batch:	460-196934	Lab File ID:	x6617.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.03 g
Analysis Date:	12/11/2013 2329			Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	460-67884-E-2-B MSD	Analysis Batch:	460-197085	Instrument ID:	CBNAMS5
Client Matrix:	Solid	Prep Batch:	460-196934	Lab File ID:	x6618.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.02 g
Analysis Date:	12/11/2013 2353			Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Phenol	85	84	54 - 115	0	30		
2-Chlorophenol	88	87	56 - 110	1	30		
2-Methylphenol	91	93	54 - 117	2	30		
4-Methylphenol	97	97	47 - 103	0	30		
2-Nitrophenol	88	90	55 - 101	2	30		
2,4-Dimethylphenol	88	91	56 - 112	3	30		
2,4-Dichlorophenol	94	96	58 - 115	2	30		
4-Chloro-3-methylphenol	95	99	55 - 117	4	30		
2,4,6-Trichlorophenol	88	90	53 - 118	3	30		
2,4,5-Trichlorophenol	85	89	50 - 115	5	30		
2,4-Dinitrophenol	100	104	10 - 129	5	30		
4-Nitrophenol	0	3	45 - 114	NC	30	U *	J *
4,6-Dinitro-2-methylphenol	97	106	10 - 110	9	30		
Pentachlorophenol	99	102	19 - 113	4	30		
Bis(2-chloroethyl)ether	77	77	44 - 101	0	30		
N-Nitrosodi-n-propylamine	93	91	42 - 107	2	30		
Hexachloroethane	77	80	45 - 90	4	30		
Nitrobenzene	60	59	42 - 106	2	30		
Isophorone	95	95	48 - 97	1	30		
Bis(2-chloroethoxy)methane	85	85	51 - 100	0	30		
Naphthalene	85	86	53 - 94	1	30		
4-Chloroaniline	39	42	10 - 96	8	30		
Hexachlorobutadiene	95	97	45 - 98	2	30		
2-Methylnaphthalene	98	98	51 - 98	0	30		
Hexachlorocyclopentadiene	93	98	24 - 98	5	30		
2-Chloronaphthalene	84	85	51 - 102	2	30		
2-Nitroaniline	70	73	51 - 109	5	30		
Dimethyl phthalate	89	94	52 - 112	6	30		
Acenaphthylene	84	87	51 - 103	4	30		
2,6-Dinitrotoluene	89	92	51 - 115	3	30		
3-Nitroaniline	49	51	32 - 104	5	30		
Acenaphthene	89	89	46 - 100	0	30		
Dibenzofuran	87	91	52 - 106	4	30		

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-196934

Method: 8270D
Preparation: 3541

MS Lab Sample ID:	460-67884-E-2-A MS	Analysis Batch:	460-197085	Instrument ID:	CBNAMS5
Client Matrix:	Solid	Prep Batch:	460-196934	Lab File ID:	x6617.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.03 g
Analysis Date:	12/11/2013 2329			Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	460-67884-E-2-B MSD	Analysis Batch:	460-197085	Instrument ID:	CBNAMS5
Client Matrix:	Solid	Prep Batch:	460-196934	Lab File ID:	x6618.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.02 g
Analysis Date:	12/11/2013 2353			Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,4-Dinitrotoluene	89	96	53 - 110	8	30		
Diethyl phthalate	86	89	52 - 114	4	30		
4-Chlorophenyl phenyl ether	91	93	50 - 106	2	30		
Fluorene	87	92	51 - 108	6	30		
4-Nitroaniline	72	73	45 - 106	2	30		
N-Nitrosodiphenylamine	89	95	49 - 106	7	30		
4-Bromophenyl phenyl ether	98	101	44 - 102	2	30		
Hexachlorobenzene	105	110	43 - 104	5	30	*	*
Phenanthrene	87	91	48 - 108	5	30		
Anthracene	88	92	50 - 107	5	30		
Carbazole	87	90	49 - 104	3	30		
Di-n-butyl phthalate	82	87	50 - 108	6	30		
Fluoranthene	87	88	49 - 108	1	30		
Pyrene	91	95	49 - 116	4	30		
Butyl benzyl phthalate	84	86	49 - 117	3	30		
3,3'-Dichlorobenzidine	55	53	24 - 105	4	30		
Benzo[a]anthracene	85	86	46 - 112	2	30		
Chrysene	82	88	45 - 114	6	30		
Bis(2-ethylhexyl) phthalate	83	87	49 - 119	5	30		
Di-n-octyl phthalate	83	86	40 - 106	4	30		
Benzo[b]fluoranthene	89	96	33 - 96	7	30		
Benzo[k]fluoranthene	87	96	35 - 115	9	30		
Benzo[a]pyrene	94	101	36 - 89	7	30	*	*
Indeno[1,2,3-cd]pyrene	93	101	43 - 109	8	30		
Dibenz(a,h)anthracene	87	95	43 - 107	9	30		
Benzo[g,h,i]perylene	92	98	43 - 106	7	30		
Diphenyl	90	91	50 - 105	2	30		
Acetophenone	89	85	40 - 95	4	30		
1,4-Dioxane	38	39	10 - 70	3	30		
Benzaldehyde	64	74	10 - 160	14	30		
Caprolactam	71	2	10 - 127	187	30		J *
Atrazine	90	97	30 - 100	7	30		
2,2'-oxybis[1-chloropropane]	77	76	45 - 102	0	30		

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-196934

Method: 8270D
Preparation: 3541

MS Lab Sample ID:	460-67884-E-2-A MS	Analysis Batch:	460-197085	Instrument ID:	CBNAMS5
Client Matrix:	Solid	Prep Batch:	460-196934	Lab File ID:	x6617.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.03 g
Analysis Date:	12/11/2013 2329			Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	460-67884-E-2-B MSD	Analysis Batch:	460-197085	Instrument ID:	CBNAMS5
Client Matrix:	Solid	Prep Batch:	460-196934	Lab File ID:	x6618.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.02 g
Analysis Date:	12/11/2013 2353			Final Weight/Volume:	1 mL
Prep Date:	12/10/2013 2354			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,2,4,5-Tetrachlorobenzene	87	90	70 - 130	4	30		
2,3,4,6-Tetrachlorophenol	97	106	70 - 130	8	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Nitrobenzene-d5	82	83	38 - 105
Phenol-d5	89	90	41 - 118
Terphenyl-d14	103	106	16 - 151
2,4,6-Tribromophenol	107	112	10 - 120
2-Fluorophenol	86	85	37 - 125
2-Fluorobiphenyl	87	92	40 - 109

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-196934

Method: 8270D
Preparation: 3541

MS Lab Sample ID:	460-67884-E-2-A MS	Units:	ug/Kg	MSD Lab Sample ID:	460-67884-E-2-B MSD
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/11/2013 2329			Analysis Date:	12/11/2013 2353
Prep Date:	12/10/2013 2354			Prep Date:	12/10/2013 2354
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Phenol	380	U	3830	3830	3240		3230	
2-Chlorophenol	380	U	3830	3830	3380		3340	
2-Methylphenol	380	U	3830	3830	3470		3550	
4-Methylphenol	380	U	3830	3830	3710		3710	
2-Nitrophenol	380	U	3830	3830	3360		3440	
2,4-Dimethylphenol	380	U	3830	3830	3360		3470	
2,4-Dichlorophenol	380	U	3830	3830	3600		3680	
4-Chloro-3-methylphenol	380	U	3830	3830	3630		3790	
2,4,6-Trichlorophenol	380	U	3830	3830	3360		3450	
2,4,5-Trichlorophenol	380	U	3830	3830	3250		3410	
2,4-Dinitrophenol	1100	U	7660	7660	7630		7990	
4-Nitrophenol	1100	U	7660	7660	1100	U *	260	J *
4,6-Dinitro-2-methylphenol	1100	U	7660	7660	7430		8090	
Pentachlorophenol	1100	U	7660	7660	7560		7830	
Bis(2-chloroethyl)ether	38	U	3830	3830	2950		2950	
N-Nitrosodi-n-propylamine	38	U	3830	3830	3560		3500	
Hexachloroethane	38	U	3830	3830	2940		3050	
Nitrobenzene	38	U	3830	3830	2290		2260	
Isophorone	380	U	3830	3830	3620		3660	
Bis(2-chloroethoxy)methane	380	U	3830	3830	3240		3250	
Naphthalene	380	U	3830	3830	3250		3290	
4-Chloroaniline	380	U	3830	3830	1480		1600	
Hexachlorobutadiene	77	U	3830	3830	3650		3710	
2-Methylnaphthalene	380	U	3830	3830	3740		3760	
Hexachlorocyclopentadiene	380	U	3830	3830	3560		3740	
2-Chloronaphthalene	380	U	3830	3830	3200		3260	
2-Nitroaniline	770	U	3830	3830	2670		2800	
Dimethyl phthalate	380	U	3830	3830	3400		3620	
Acenaphthylene	380	U	3830	3830	3200		3340	
2,6-Dinitrotoluene	77	U	3830	3830	3420		3530	
3-Nitroaniline	770	U	3830	3830	1860		1960	
Acenaphthene	380	U	3830	3830	3410		3420	
Dibenzofuran	380	U	3830	3830	3340		3500	
2,4-Dinitrotoluene	77	U	3830	3830	3400		3690	
Diethyl phthalate	380	U	3830	3830	3280		3410	
4-Chlorophenyl phenyl ether	380	U	3830	3830	3490		3570	
Fluorene	380	U	3830	3830	3320		3510	
4-Nitroaniline	770	U	3830	3830	2760		2810	
N-Nitrosodiphenylamine	380	U	3830	3830	3390		3630	
4-Bromophenyl phenyl ether	380	U	3830	3830	3760		3850	
Hexachlorobenzene	38	U	3830	3830	4000	*	4210	*
Phenanthrene	380	U	3830	3830	3320		3500	
Anthracene	380	U	3830	3830	3350		3510	

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-196934

Method: 8270D
Preparation: 3541

MS Lab Sample ID:	460-67884-E-2-A MS	Units:	ug/Kg	MSD Lab Sample ID:	460-67884-E-2-B MSD
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/11/2013 2329			Analysis Date:	12/11/2013 2353
Prep Date:	12/10/2013 2354			Prep Date:	12/10/2013 2354
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Carbazole	380	U	3830	3830	3320		3430	
Di-n-butyl phthalate	380	U	3830	3830	3120		3330	
Fluoranthene	380	U	3830	3830	3330		3380	
Pyrene	380	U	3830	3830	3480		3620	
Butyl benzyl phthalate	380	U	3830	3830	3210		3300	
3,3'-Dichlorobenzidine	770	U	3830	3830	2120		2040	
Benzo[a]anthracene	38	U	3830	3830	3240		3310	
Chrysene	380	U	3830	3830	3150		3360	
Bis(2-ethylhexyl) phthalate	380	U	3830	3830	3170		3320	
Di-n-octyl phthalate	380	U	3830	3830	3160		3300	
Benzo[b]fluoranthene	38	U	3830	3830	3420		3680	
Benzo[k]fluoranthene	38	U	3830	3830	3340		3670	
Benzo[a]pyrene	38	U	3830	3830	3610	*	3870	*
Indeno[1,2,3-cd]pyrene	38	U	3830	3830	3560		3860	
Dibenz(a,h)anthracene	38	U	3830	3830	3330		3640	
Benzo[g,h,i]perylene	380	U	3830	3830	3510		3750	
Diphenyl	380	U	3830	3830	3440		3500	
Acetophenone	380	U	3830	3830	3420		3270	
1,4-Dioxane	380	U	3830	3830	1450		1500	
Benzaldehyde	380	U	7660	7660	4920		5680	
Caprolactam	380	U	3830	3830	2710		88.3	J *
Atrazine	380	U	3830	3830	3460		3710	
2,2'-oxybis[1-chloropropane]	380	U	3830	3830	2940		2930	
1,2,4,5-Tetrachlorobenzene	380	U	3830	3830	3320		3450	
2,3,4,6-Tetrachlorophenol	380	U	3830	3830	3730		4060	

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Method Blank - Batch: 460-196739

Method: 8081B
Preparation: 3546

Lab Sample ID:	MB 460-196739/1-A	Analysis Batch:	460-196984	Instrument ID:	CPESTGC4
Client Matrix:	Solid	Prep Batch:	460-196739	Lab File ID:	WR720034.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.00 g
Analysis Date:	12/11/2013 0046	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	12/10/2013 0626			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aldrin	6.7	U	1.4	6.7
alpha-BHC	6.7	U	1.5	6.7
beta-BHC	6.7	U	1.6	6.7
delta-BHC	6.7	U	1.2	6.7
gamma-BHC (Lindane)	6.7	U	1.2	6.7
Chlordane	67	U	19	67
4,4'-DDD	6.7	U	1.3	6.7
4,4'-DDE	6.7	U	1.3	6.7
4,4'-DDT	6.7	U	1.6	6.7
Dieldrin	6.7	U	1.2	6.7
Endosulfan I	6.7	U	1.5	6.7
Endosulfan II	6.7	U	1.3	6.7
Endosulfan sulfate	6.7	U	1.3	6.7
Endrin	6.7	U	1.6	6.7
Endrin aldehyde	6.7	U	1.0	6.7
Endrin ketone	6.7	U	1.3	6.7
Heptachlor	6.7	U	1.6	6.7
Heptachlor epoxide	6.7	U	1.5	6.7
Methoxychlor	6.7	U	1.6	6.7
Toxaphene	67	U	18	67

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	133	37 - 150
DCB Decachlorobiphenyl	148	60 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	122	37 - 150
DCB Decachlorobiphenyl	142	60 - 150

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Lab Control Sample - Batch: 460-196739

Method: 8081B
Preparation: 3546

Lab Sample ID:	LCS 460-196739/2-A	Analysis Batch:	460-196984	Instrument ID:	CPESTGC4
Client Matrix:	Solid	Prep Batch:	460-196739	Lab File ID:	WR720035.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.00 g
Analysis Date:	12/11/2013 0101	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	12/10/2013 0626			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aldrin	133	155	116	69 - 138	
alpha-BHC	133	148	111	68 - 133	
beta-BHC	133	150	112	67 - 137	
delta-BHC	133	161	121	65 - 141	
gamma-BHC (Lindane)	133	148	111	68 - 134	
4,4'-DDD	133	132	99	69 - 150	
4,4'-DDE	133	148	111	70 - 147	
4,4'-DDT	133	169	127	63 - 146	
Dieldrin	133	147	111	63 - 129	
Endosulfan I	133	161	120	69 - 140	
Endosulfan II	133	164	123	66 - 136	
Endosulfan sulfate	133	162	121	65 - 137	
Endrin	133	154	116	67 - 142	
Endrin aldehyde	133	160	120	67 - 134	
Endrin ketone	133	149	112	68 - 146	
Heptachlor	133	151	113	67 - 136	
Heptachlor epoxide	133	148	111	68 - 136	
Methoxychlor	133	146	109	52 - 150	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	129	37 - 150
DCB Decachlorobiphenyl	147	60 - 150

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-196739

Method: 8081B
Preparation: 3546

MS Lab Sample ID:	460-67815-1	Analysis Batch:	460-196984	Instrument ID:	CPESTGC4
Client Matrix:	Solid	Prep Batch:	460-196739	Lab File ID:	WR720036.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.02 g
Analysis Date:	12/11/2013 0117			Final Weight/Volume:	10 mL
Prep Date:	12/10/2013 0626			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	460-67815-1	Analysis Batch:	460-196984	Instrument ID:	CPESTGC4
Client Matrix:	Solid	Prep Batch:	460-196739	Lab File ID:	WR720037.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.04 g
Analysis Date:	12/11/2013 0132			Final Weight/Volume:	10 mL
Prep Date:	12/10/2013 0626			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aldrin	73	67	69 - 138	8	30		*
alpha-BHC	74	72	68 - 133	3	30		
beta-BHC	87	77	67 - 137	13	30		
delta-BHC	95	86	65 - 141	10	30		
gamma-BHC (Lindane)	83	78	68 - 134	6	30		
4,4'-DDD	101	98	69 - 150	3	30		
4,4'-DDE	91	86	70 - 147	5	30	p	p
4,4'-DDT	91	88	63 - 146	3	30		
Dieldrin	69	67	63 - 129	4	30		
Endosulfan I	53	51	69 - 140	5	30	p *	p *
Endosulfan II	72	69	66 - 136	3	30		
Endosulfan sulfate	84	79	65 - 137	7	30		
Endrin	88	84	67 - 142	5	30		
Endrin aldehyde	78	70	67 - 134	10	30		
Endrin ketone	81	76	68 - 146	7	30		
Heptachlor	65	62	67 - 136	5	30	*	*
Heptachlor epoxide	81	80	68 - 136	2	30		
Methoxychlor	88	84	52 - 150	5	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	93	89	37 - 150
DCB Decachlorobiphenyl	88	92	60 - 150

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	75	74	37 - 150
DCB Decachlorobiphenyl	79	78	60 - 150

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-196739

Method: 8081B
Preparation: 3546

MS Lab Sample ID:	460-67815-1	Units:	ug/Kg	MSD Lab Sample ID:	460-67815-1
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/11/2013 0117			Analysis Date:	12/11/2013 0132
Prep Date:	12/10/2013 0626			Prep Date:	12/10/2013 0626
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Aldrin	7.5	U	150	150	109		101	*
alpha-BHC	7.5	U	150	150	111		108	
beta-BHC	7.5	U	150	150	131		115	
delta-BHC	7.5	U	150	150	142		128	
gamma-BHC (Lindane)	7.5	U	150	150	124		117	
4,4'-DDD	7.5	U	150	150	152		147	
4,4'-DDE	7.5	U	150	150	136	p	129	p
4,4'-DDT	7.5	U	150	150	136		132	
Dieldrin	7.5	U	150	150	104		99.8	
Endosulfan I	7.5	U	150	150	80.2	p *	76.3	p *
Endosulfan II	7.5	U	150	150	107		104	
Endosulfan sulfate	7.5	U	150	150	127		118	
Endrin	7.5	U	150	150	132		126	
Endrin aldehyde	7.5	U	150	150	117		105	
Endrin ketone	7.5	U	150	150	122		113	
Heptachlor	7.5	U	150	150	97.1	*	92.5	*
Heptachlor epoxide	7.5	U	150	150	122		120	
Methoxychlor	7.5	U	150	150	131		125	

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Method Blank - Batch: 460-196763

Method: NJDEP EPH
Preparation: 3546

Lab Sample ID:	MB 460-196763/1-A	Analysis Batch:	460-196976	Instrument ID:	CBNAGC4
Client Matrix:	Solid	Prep Batch:	460-196763	Lab File ID:	GCF82863.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.00 g
Analysis Date:	12/11/2013 0835	Units:	mg/Kg	Final Weight/Volume:	2 mL
Prep Date:	12/10/2013 0808			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
C12-C16 Aliphatics	2.0	U	2.0	2.0
C9-C12 Aliphatics	2.0	U	2.0	2.0
C16-C21 Aliphatics	2.0	U	2.0	2.0
C21-C40 Aliphatics	2.0	U	2.0	2.0
C16-C21 Aromatics	2.0	U	2.0	2.0
C10-C12 Aromatics	2.0	U	2.0	2.0
C12-C16 Aromatics	2.0	U	2.0	2.0
C21-C36 Aromatic	2.0	U	2.0	2.0

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	112	40 - 140
2-Fluorobiphenyl	88	40 - 140
2-Bromonaphthalene	59	40 - 140
1-Chlorooctadecane	75	40 - 140

Lab Control Sample - Batch: 460-196763

Method: NJDEP EPH
Preparation: 3546

Lab Sample ID:	LCS 460-196763/2-A	Analysis Batch:	460-196976	Instrument ID:	CBNAGC4
Client Matrix:	Solid	Prep Batch:	460-196763	Lab File ID:	GCF82864.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.00 g
Analysis Date:	12/11/2013 0849	Units:	mg/Kg	Final Weight/Volume:	2 mL
Prep Date:	12/10/2013 0808			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
C12-C16 Aliphatics	13.3	10.5	79	40 - 140	
C9-C12 Aliphatics	20.0	12.1	61	40 - 140	
C16-C21 Aliphatics	26.7	21.1	79	40 - 140	
C21-C40 Aliphatics	66.7	54.5	82	40 - 140	
C16-C21 Aromatics	40.0	39.3	98	40 - 140	
C10-C12 Aromatics	20.0	12.1	60	40 - 140	
C12-C16 Aromatics	26.7	18.6	70	40 - 140	
C21-C36 Aromatic	60.0	66.5	111	40 - 140	

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Matrix Spike - Batch: 460-196763

Method: NJDEP EPH
Preparation: 3546

Lab Sample ID:	460-67990-A-1-D MS	Analysis Batch:	460-196976	Instrument ID:	CBNAGC4
Client Matrix:	Solid	Prep Batch:	460-196763	Lab File ID:	GCF82885.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.04 g
Analysis Date:	12/11/2013 1533	Units:	mg/Kg	Final Weight/Volume:	2 mL
Prep Date:	12/10/2013 0808			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
C12-C16 Aliphatics	2.4	U	15.7	10.8	69	40 - 140	
C9-C12 Aliphatics	2.4	U	23.6	12.4	53	40 - 140	
C16-C21 Aliphatics	2.4	U	31.5	19.4	62	40 - 140	
C21-C40 Aliphatics	2.4	U	78.7	49.5	63	40 - 140	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-196763

Method: NJDEP EPH
Preparation: 3546

MS Lab Sample ID:	460-67990-A-1-D MS	Analysis Batch:	460-196980	Instrument ID:	CBNAGC4
Client Matrix:	Solid	Prep Batch:	460-196763	Lab File ID:	GCR81487.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.04 g
Analysis Date:	12/11/2013 1533			Final Weight/Volume:	2 mL
Prep Date:	12/10/2013 0808			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY
MSD Lab Sample ID:	460-67990-A-1-E MSD	Analysis Batch:	460-196980	Instrument ID:	CBNAGC4
Client Matrix:	Solid	Prep Batch:	460-196763	Lab File ID:	GCR81488.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.02 g
Analysis Date:	12/11/2013 1548			Final Weight/Volume:	2 mL
Prep Date:	12/10/2013 0808			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
C16-C21 Aromatics	71	71	40 - 140	1	25		
C10-C12 Aromatics	42	46	40 - 140	8	25		
C12-C16 Aromatics	50	51	40 - 140	1	25		
C21-C36 Aromatic	82	83	40 - 140	1	25		

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-196763

Method: NJDEP EPH
Preparation: 3546

MS Lab Sample ID:	460-67990-A-1-D MS	Units:	mg/Kg	MSD Lab Sample ID:	460-67990-A-1-E MSD
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/11/2013 1533			Analysis Date:	12/11/2013 1548
Prep Date:	12/10/2013 0808			Prep Date:	12/10/2013 0808
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
C16-C21 Aromatics	2.4	U	47.2	47.3	33.4	33.6
C10-C12 Aromatics	2.4	U	23.6	23.6	9.93	10.8
C12-C16 Aromatics	2.4	U	31.5	31.5	15.9	15.9
C21-C36 Aromatic	2.4	U	70.8	70.9	57.9	58.5

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Duplicate - Batch: 460-196646

Method: Moisture
Preparation: N/A

Lab Sample ID:	460-67874-D-1 DU	Analysis Batch:	460-196646	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/09/2013 1715	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	9.9	10.3	4	20	
Percent Solids	90.1	89.7	0.4	20	

DATA REPORTING QUALIFIERS

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	*	LCS or LCSD exceeds the control limits
	*	Surrogate exceeds the control limit
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	*	Duplicate RPD exceeds control limits
	J	Indicates an estimated value.
	*	LCS or LCSD exceeds the control limits
	*	MS or MSD exceeds the control limits
	*	Surrogate exceeds the control limit
GC Semi VOA		
	U	Analyzed for but not detected.
	*	MS or MSD exceeds the control limits
	*	Surrogate exceeds the control limit
	p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
	D	The reported value is from a dilution.

Client: TRC Environmental Corporation

Job Number: 460-67815-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 460-196154					
460-67815-1	E-GP-C4 (15-17.5')	T	Solid	5035	
460-67815-2	E-GP-E3 (10-15')	T	Solid	5035	
Analysis Batch:460-197509					
LCS 460-197509/4	Lab Control Sample	T	Solid	8260C	
LCSD 460-197509/5	Lab Control Sample Duplicate	T	Solid	8260C	
MB 460-197509/7	Method Blank	T	Solid	8260C	
460-67815-2	E-GP-E3 (10-15')	T	Solid	8260C	460-196154
Analysis Batch:460-198396					
LCS 460-198396/3	Lab Control Sample	T	Solid	8260C	
LCSD 460-198396/4	Lab Control Sample Duplicate	T	Solid	8260C	
MB 460-198396/7	Method Blank	T	Solid	8260C	
460-67815-1	E-GP-C4 (15-17.5')	T	Solid	8260C	460-196154

Report Basis

T = Total

Client: TRC Environmental Corporation

Job Number: 460-67815-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 460-196934					
LCS 460-196934/12-A	Lab Control Sample	T	Solid	3541	
LCS 460-196934/2-A	Lab Control Sample	T	Solid	3541	
MB 460-196934/1-A	Method Blank	T	Solid	3541	
460-67815-1	E-GP-C4 (15-17.5')	T	Solid	3541	
460-67815-2	E-GP-E3 (10-15')	T	Solid	3541	
460-67884-E-2-A MS	Matrix Spike	T	Solid	3541	
460-67884-E-2-B MSD	Matrix Spike Duplicate	T	Solid	3541	
Analysis Batch:460-197085					
LCS 460-196934/12-A	Lab Control Sample	T	Solid	8270D	460-196934
460-67884-E-2-A MS	Matrix Spike	T	Solid	8270D	460-196934
460-67884-E-2-B MSD	Matrix Spike Duplicate	T	Solid	8270D	460-196934
Analysis Batch:460-197230					
LCS 460-196934/2-A	Lab Control Sample	T	Solid	8270D	460-196934
MB 460-196934/1-A	Method Blank	T	Solid	8270D	460-196934
Analysis Batch:460-199750					
460-67815-1	E-GP-C4 (15-17.5')	T	Solid	8270D	460-196934
460-67815-2	E-GP-E3 (10-15')	T	Solid	8270D	460-196934

Report Basis

T = Total

Client: TRC Environmental Corporation

Job Number: 460-67815-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 460-196739					
LCS 460-196739/2-A	Lab Control Sample	T	Solid	3546	
MB 460-196739/1-A	Method Blank	T	Solid	3546	
460-67815-1	E-GP-C4 (15-17.5')	T	Solid	3546	
460-67815-1MS	Matrix Spike	T	Solid	3546	
460-67815-1MSD	Matrix Spike Duplicate	T	Solid	3546	
460-67815-2	E-GP-E3 (10-15')	T	Solid	3546	
Prep Batch: 460-196763					
LCS 460-196763/2-A	Lab Control Sample	T	Solid	3546	
MB 460-196763/1-A	Method Blank	T	Solid	3546	
460-67815-1	E-GP-C4 (15-17.5')	T	Solid	3546	
460-67815-2	E-GP-E3 (10-15')	T	Solid	3546	
460-67990-A-1-D MS	Matrix Spike	T	Solid	3546	
460-67990-A-1-E MSD	Matrix Spike Duplicate	T	Solid	3546	
Analysis Batch:460-196976					
LCS 460-196763/2-A	Lab Control Sample	T	Solid	NJDEP EPH	460-196763
MB 460-196763/1-A	Method Blank	T	Solid	NJDEP EPH	460-196763
460-67815-1	E-GP-C4 (15-17.5')	T	Solid	NJDEP EPH	460-196763
460-67815-2	E-GP-E3 (10-15')	T	Solid	NJDEP EPH	460-196763
460-67990-A-1-D MS	Matrix Spike	T	Solid	NJDEP EPH	460-196763
460-67990-A-1-E MSD	Matrix Spike Duplicate	T	Solid	NJDEP EPH	460-196763
Analysis Batch:460-196980					
LCS 460-196763/2-A	Lab Control Sample	T	Solid	NJDEP EPH	460-196763
MB 460-196763/1-A	Method Blank	T	Solid	NJDEP EPH	460-196763
460-67815-1	E-GP-C4 (15-17.5')	T	Solid	NJDEP EPH	460-196763
460-67815-2	E-GP-E3 (10-15')	T	Solid	NJDEP EPH	460-196763
460-67990-A-1-D MS	Matrix Spike	T	Solid	NJDEP EPH	460-196763
460-67990-A-1-E MSD	Matrix Spike Duplicate	T	Solid	NJDEP EPH	460-196763
Analysis Batch:460-196984					
LCS 460-196739/2-A	Lab Control Sample	T	Solid	8081B	460-196739
MB 460-196739/1-A	Method Blank	T	Solid	8081B	460-196739
460-67815-1	E-GP-C4 (15-17.5')	T	Solid	8081B	460-196739
460-67815-1MS	Matrix Spike	T	Solid	8081B	460-196739
460-67815-1MSD	Matrix Spike Duplicate	T	Solid	8081B	460-196739
460-67815-2	E-GP-E3 (10-15')	T	Solid	8081B	460-196739
Analysis Batch:460-197334					
460-67815-1	E-GP-C4 (15-17.5')	T	Solid	NJ DEP EPH	
460-67815-2	E-GP-E3 (10-15')	T	Solid	NJ DEP EPH	

Client: TRC Environmental Corporation

Job Number: 460-67815-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Report Basis					
T = Total					
General Chemistry					
Analysis Batch:460-196646					
460-67815-1	E-GP-C4 (15-17.5')	T	Solid	Moisture	
460-67815-2	E-GP-E3 (10-15')	T	Solid	Moisture	
460-67874-D-1 DU	Duplicate	T	Solid	Moisture	

Report Basis
T = Total

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Laboratory Chronicle

Lab ID: **460-67815-1** **Client ID:** **E-GP-C4 (15-17.5')**

Sample Date/Time: 12/04/2013 12:30 Received Date/Time: 12/05/2013 20:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5035	460-67815-A-1-A		460-198396	460-196154	12/06/2013 10:21	50	TAL EDI	OK1
A:8260C	460-67815-A-1-A		460-198396	460-196154	12/18/2013 14:33	50	TAL EDI	AAT
P:3541	460-67815-E-1-D		460-199750	460-196934	12/10/2013 23:54	20	TAL EDI	JMS
A:8270D	460-67815-E-1-D		460-199750	460-196934	12/24/2013 15:13	20	TAL EDI	CAZ
P:3546	460-67815-E-1-C		460-196984	460-196739	12/10/2013 06:26	1	TAL EDI	ARA
A:8081B	460-67815-E-1-C		460-196984	460-196739	12/11/2013 01:47	1	TAL EDI	SAK
A:NJ DEP EPH	460-67815-D-1		460-197334		12/12/2013 13:44	1	TAL EDI	DAN
P:3546	460-67815-D-1-A		460-196976	460-196763	12/10/2013 08:08	50	TAL EDI	HMP
P:3546	460-67815-D-1-A		460-196980	460-196763	12/10/2013 08:08	20	TAL EDI	HMP
A:NJDEP EPH	460-67815-D-1-A		460-196976	460-196763	12/11/2013 16:32	50	TAL EDI	DAN
A:NJDEP EPH	460-67815-D-1-A		460-196980	460-196763	12/11/2013 16:32	20	TAL EDI	DAN
A:Moisture	460-67815-E-1		460-196646		12/09/2013 17:15	1	TAL EDI	ITR

Lab ID: **460-67815-1 MS** **Client ID:** **E-GP-C4 (15-17.5')**

Sample Date/Time: 12/04/2013 12:30 Received Date/Time: 12/05/2013 20:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3546	460-67815-E-1-A MS		460-196984	460-196739	12/10/2013 06:26	1	TAL EDI	ARA
A:8081B	460-67815-E-1-A MS		460-196984	460-196739	12/11/2013 01:17	1	TAL EDI	SAK

Lab ID: **460-67815-1 MSD** **Client ID:** **E-GP-C4 (15-17.5')**

Sample Date/Time: 12/04/2013 12:30 Received Date/Time: 12/05/2013 20:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3546	460-67815-E-1-B MSD		460-196984	460-196739	12/10/2013 06:26	1	TAL EDI	ARA
A:8081B	460-67815-E-1-B MSD		460-196984	460-196739	12/11/2013 01:32	1	TAL EDI	SAK

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Laboratory Chronicle

Lab ID: **460-67815-2** **Client ID:** **E-GP-E3 (10-15')**

Sample Date/Time: 12/04/2013 14:30 Received Date/Time: 12/05/2013 20:25

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5035	460-67815-A-2-A		460-197509	460-196154	12/06/2013 10:21	100	TAL EDI	OK1
A:8260C	460-67815-A-2-A		460-197509	460-196154	12/13/2013 14:45	100	TAL EDI	EMM
P:3541	460-67815-E-2-B		460-199750	460-196934	12/10/2013 23:54	20	TAL EDI	JMS
A:8270D	460-67815-E-2-B		460-199750	460-196934	12/24/2013 15:39	20	TAL EDI	CAZ
P:3546	460-67815-E-2-A		460-196984	460-196739	12/10/2013 06:26	1	TAL EDI	ARA
A:8081B	460-67815-E-2-A		460-196984	460-196739	12/11/2013 02:02	1	TAL EDI	SAK
A:NJ DEP EPH	460-67815-D-2		460-197334		12/12/2013 13:44	1	TAL EDI	DAN
P:3546	460-67815-D-2-A		460-196976	460-196763	12/10/2013 08:08	25	TAL EDI	HMP
P:3546	460-67815-D-2-A		460-196980	460-196763	12/10/2013 08:08	10	TAL EDI	HMP
A:NJDEP EPH	460-67815-D-2-A		460-196976	460-196763	12/11/2013 16:47	25	TAL EDI	DAN
A:NJDEP EPH	460-67815-D-2-A		460-196980	460-196763	12/11/2013 16:47	10	TAL EDI	DAN
A:Moisture	460-67815-E-2		460-196646		12/09/2013 17:15	1	TAL EDI	ITR

Lab ID: **MB** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:8260C	MB 460-197509/7		460-197509		12/13/2013 12:16	50	TAL EDI	EMM
A:8260C	MB 460-198396/7		460-198396		12/18/2013 07:36	50	TAL EDI	AAT
P:3541	MB 460-196934/1-A		460-197230	460-196934	12/10/2013 23:54	1	TAL EDI	JMS
A:8270D	MB 460-196934/1-A		460-197230	460-196934	12/12/2013 10:43	1	TAL EDI	MMC
P:3546	MB 460-196739/1-A		460-196984	460-196739	12/10/2013 06:26	1	TAL EDI	ARA
A:8081B	MB 460-196739/1-A		460-196984	460-196739	12/11/2013 00:46	1	TAL EDI	SAK
P:3546	MB 460-196763/1-A		460-196976	460-196763	12/10/2013 08:08	1	TAL EDI	HMP
P:3546	MB 460-196763/1-A		460-196980	460-196763	12/10/2013 08:08	1	TAL EDI	HMP
A:NJDEP EPH	MB 460-196763/1-A		460-196976	460-196763	12/11/2013 08:35	1	TAL EDI	DAN
A:NJDEP EPH	MB 460-196763/1-A		460-196980	460-196763	12/11/2013 08:35	1	TAL EDI	DAN

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Laboratory Chronicle

Lab ID: **LCS** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:8260C	LCS 460-197509/4		460-197509		12/13/2013 10:17	50	TAL EDI	EMM
A:8260C	LCS 460-198396/3		460-198396		12/18/2013 05:31	50	TAL EDI	AAT
P:3541	LCS 460-196934/12-A		460-197085	460-196934	12/10/2013 23:54	1	TAL EDI	JMS
A:8270D	LCS 460-196934/12-A		460-197085	460-196934	12/11/2013 19:34	1	TAL EDI	MMC
P:3541	LCS 460-196934/2-A		460-197230	460-196934	12/10/2013 23:54	1	TAL EDI	JMS
A:8270D	LCS 460-196934/2-A		460-197230	460-196934	12/12/2013 10:17	1	TAL EDI	MMC
P:3546	LCS 460-196739/2-A		460-196984	460-196739	12/10/2013 06:26	1	TAL EDI	ARA
A:8081B	LCS 460-196739/2-A		460-196984	460-196739	12/11/2013 01:01	1	TAL EDI	SAK
P:3546	LCS 460-196763/2-A		460-196976	460-196763	12/10/2013 08:08	1	TAL EDI	HMP
P:3546	LCS 460-196763/2-A		460-196980	460-196763	12/10/2013 08:08	1	TAL EDI	HMP
A:NJDEP EPH	LCS 460-196763/2-A		460-196976	460-196763	12/11/2013 08:49	1	TAL EDI	DAN
A:NJDEP EPH	LCS 460-196763/2-A		460-196980	460-196763	12/11/2013 08:49	1	TAL EDI	DAN

Lab ID: **LCSD** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:8260C	LCSD 460-197509/5		460-197509		12/13/2013 11:27	50	TAL EDI	EMM
A:8260C	LCSD 460-198396/4		460-198396		12/18/2013 06:21	50	TAL EDI	AAT

Lab ID: **MS** **Client ID:** **N/A**

Sample Date/Time: 12/05/2013 10:20 Received Date/Time: 12/06/2013 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3541	460-67884-E-2-A MS		460-197085	460-196934	12/10/2013 23:54	1	TAL EDI	JMS
A:8270D	460-67884-E-2-A MS		460-197085	460-196934	12/11/2013 23:29	1	TAL EDI	MMC
P:3546	460-67990-A-1-D MS		460-196976	460-196763	12/10/2013 08:08	1	TAL EDI	HMP
P:3546	460-67990-A-1-D MS		460-196980	460-196763	12/10/2013 08:08	1	TAL EDI	HMP
A:NJDEP EPH	460-67990-A-1-D MS		460-196976	460-196763	12/11/2013 15:33	1	TAL EDI	DAN
A:NJDEP EPH	460-67990-A-1-D MS		460-196980	460-196763	12/11/2013 15:33	1	TAL EDI	DAN

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Laboratory Chronicle

Lab ID: **MSD** **Client ID:** **N/A**

Sample Date/Time: 12/05/2013 10:20 Received Date/Time: 12/06/2013 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3541	460-67884-E-2-B MSD		460-197085	460-196934	12/10/2013 23:54	1	TAL EDI	JMS
A:8270D	460-67884-E-2-B MSD		460-197085	460-196934	12/11/2013 23:53	1	TAL EDI	MMC
P:3546	460-67990-A-1-E MSD		460-196976	460-196763	12/10/2013 08:08	1	TAL EDI	HMP
P:3546	460-67990-A-1-E MSD		460-196980	460-196763	12/10/2013 08:08	1	TAL EDI	HMP
A:NJDEP EPH	460-67990-A-1-E MSD		460-196976	460-196763	12/11/2013 15:48	1	TAL EDI	DAN
A:NJDEP EPH	460-67990-A-1-E MSD		460-196980	460-196763	12/11/2013 15:48	1	TAL EDI	DAN

Lab ID: **DU** **Client ID:** **N/A**

Sample Date/Time: 12/05/2013 13:35 Received Date/Time: 12/06/2013 13:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:Moisture	460-67874-D-1 DU		460-196646		12/09/2013 17:15	1	TAL EDI	ITR

Lab References:

TAL EDI = TestAmerica Edison

8260C

Volatile Organic Compounds by GC/MS

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Medium

GC Column (1): Rtx-624 ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
E-GP-C4 (15-17.5')	460-67815-1	77	83	75	77
E-GP-E3 (10-15')	460-67815-2	68 *	75	67	67 *
	MB 460-197509/7	96	96	94	95
	MB 460-198396/7	92	92	88	88
	LCS 460-197509/4	97	95	93	96
	LCS 460-198396/3	96	95	90	90
	LCSD 460-197509/5	96	96	93	95
	LCSD 460-198396/4	94	92	89	88

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	70-130
DCA = 1,2-Dichloroethane-d4 (Surr)	75-135
TOL = Toluene-d8 (Surr)	59-150
BFB = Bromofluorobenzene	72-133

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Medium Lab File ID: J06956.D

Lab ID: LCS 460-197509/4 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Chloromethane	1000	1080	108	52-144	
Bromomethane	1000	1100	110	58-154	
Vinyl chloride	1000	1050	105	55-154	
Chloroethane	1000	1150	115	66-144	
Methylene Chloride	1000	1090	109	78-118	
Acetone	5000	5850	117	48-177	
Carbon disulfide	1000	1100	110	70-120	
Trichlorofluoromethane	1000	1080	108	60-148	
1,1-Dichloroethene	1000	1070	107	68-138	
1,1-Dichloroethane	1000	1070	107	79-119	
trans-1,2-Dichloroethene	1000	1100	110	73-119	
cis-1,2-Dichloroethene	1000	1120	112	78-118	
Chloroform	1000	1110	111	81-122	
1,2-Dichloroethane	1000	1110	111	81-121	
2-Butanone	5000	5940	119	70-139	
1,1,1-Trichloroethane	1000	1100	110	78-118	
Carbon tetrachloride	1000	1100	110	64-130	
Bromodichloromethane	1000	1090	109	78-118	
1,2-Dichloropropane	1000	1070	107	78-118	
cis-1,3-Dichloropropene	1000	1080	108	75-120	
Trichloroethene	1000	1050	105	82-122	
Dibromochloromethane	1000	901	90	78-118	
1,1,2-Trichloroethane	1000	1070	107	77-120	
Benzene	1000	1090	109	71-118	
trans-1,3-Dichloropropene	1000	1080	108	73-118	
Bromoform	1000	855	86	76-133	
4-Methyl-2-pentanone	5000	5230	105	69-124	
2-Hexanone	5000	5990	120	62-123	
Tetrachloroethene	1000	1090	109	78-136	
1,1,2,2-Tetrachloroethane	1000	1100	110	86-145	
Toluene	1000	1080	108	79-136	
Chlorobenzene	1000	1060	106	69-124	
Ethylbenzene	1000	1040	104	78-124	
Styrene	1000	1120	112	73-126	
Xylenes, Total	2000	2110	106	78-126	
Freon TF	1000	1030	103	50-128	
MTBE	1000	1080	108	65-143	
Cyclohexane	1000	1150	115	69-128	
1,2-Dibromoethane	1000	1070	107	76-120	
1,3-Dichlorobenzene	1000	1100	110	83-123	
1,4-Dichlorobenzene	1000	1070	107	84-124	
1,2-Dichlorobenzene	1000	1070	107	83-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Medium Lab File ID: J06956.D

Lab ID: LCS 460-197509/4 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	1000	1010	101	41-149	
1,2,4-Trichlorobenzene	1000	1030	103	62-144	
1,4-Dioxane	20000	29300	147	54-147	
1,2,3-Trichlorobenzene	1000	1000	100	36-207	
1,2-Dibromo-3-Chloropropane	1000	1020	102	62-127	
Bromochloromethane	1000	1130	113	81-121	
Isopropylbenzene	1000	1100	110	80-143	
Methyl acetate	5000	5420	108	72-165	
Methylcyclohexane	1000	1170	117	80-134	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Medium Lab File ID: J07043.D

Lab ID: LCS 460-198396/3 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Chloromethane	1000	891	89	52-144	
Bromomethane	1000	1160	116	58-154	
Vinyl chloride	1000	948	95	55-154	
Chloroethane	1000	1050	105	66-144	
Methylene Chloride	1000	1010	101	78-118	
Acetone	5000	5080	102	48-177	
Carbon disulfide	1000	1010	101	70-120	
Trichlorofluoromethane	1000	1040	104	60-148	
1,1-Dichloroethene	1000	1050	105	68-138	
1,1-Dichloroethane	1000	965	97	79-119	
trans-1,2-Dichloroethene	1000	1010	101	73-119	
cis-1,2-Dichloroethene	1000	1020	102	78-118	
Chloroform	1000	1010	101	81-122	
1,2-Dichloroethane	1000	991	99	81-121	
2-Butanone	5000	5310	106	70-139	
1,1,1-Trichloroethane	1000	1020	102	78-118	
Carbon tetrachloride	1000	1050	105	64-130	
Bromodichloromethane	1000	999	100	78-118	
1,2-Dichloropropane	1000	964	96	78-118	
cis-1,3-Dichloropropene	1000	931	93	75-120	
Trichloroethene	1000	971	97	82-122	
Dibromochloromethane	1000	804	80	78-118	
1,1,2-Trichloroethane	1000	944	94	77-120	
Benzene	1000	988	99	71-118	
trans-1,3-Dichloropropene	1000	967	97	73-118	
Bromoform	1000	712	71	76-133	*
4-Methyl-2-pentanone	5000	4450	89	69-124	
2-Hexanone	5000	5420	108	62-123	
Tetrachloroethene	1000	1020	102	78-136	
1,1,2,2-Tetrachloroethane	1000	908	91	86-145	
Toluene	1000	983	98	79-136	
Chlorobenzene	1000	956	96	69-124	
Ethylbenzene	1000	973	97	78-124	
Styrene	1000	1010	101	73-126	
Xylenes, Total	2000	1940	97	78-126	
Freon TF	1000	965	97	50-128	
MTBE	1000	953	95	65-143	
Cyclohexane	1000	1060	106	69-128	
1,2-Dibromoethane	1000	921	92	76-120	
1,3-Dichlorobenzene	1000	993	99	83-123	
1,4-Dichlorobenzene	1000	969	97	84-124	
1,2-Dichlorobenzene	1000	980	98	83-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Medium Lab File ID: J07043.D

Lab ID: LCS 460-198396/3 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	1000	900	90	41-149	
1,2,4-Trichlorobenzene	1000	923	92	62-144	
1,4-Dioxane	20000	25300	127	54-147	
1,2,3-Trichlorobenzene	1000	894	89	36-207	
1,2-Dibromo-3-Chloropropane	1000	765	76	62-127	
Bromochloromethane	1000	1020	102	81-121	
Isopropylbenzene	1000	1060	106	80-143	
Methyl acetate	5000	4630	93	72-165	
Methylcyclohexane	1000	1150	115	80-134	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Medium Lab File ID: J06957.D

Lab ID: LCSD 460-197509/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	1000	1120	112	4	30	52-144	
Bromomethane	1000	1220	122	10	30	58-154	
Vinyl chloride	1000	1100	110	5	30	55-154	
Chloroethane	1000	1210	121	5	30	66-144	
Methylene Chloride	1000	1110	111	2	30	78-118	
Acetone	5000	5770	115	1	30	48-177	
Carbon disulfide	1000	1100	110	1	30	70-120	
Trichlorofluoromethane	1000	1070	107	1	30	60-148	
1,1-Dichloroethene	1000	1080	108	1	30	68-138	
1,1-Dichloroethane	1000	1080	108	1	30	79-119	
trans-1,2-Dichloroethene	1000	1070	107	3	30	73-119	
cis-1,2-Dichloroethene	1000	1090	109	2	30	78-118	
Chloroform	1000	1100	110	1	30	81-122	
1,2-Dichloroethane	1000	1040	104	7	30	81-121	
2-Butanone	5000	5740	115	3	30	70-139	
1,1,1-Trichloroethane	1000	1090	109	0	30	78-118	
Carbon tetrachloride	1000	1080	108	1	30	64-130	
Bromodichloromethane	1000	1070	107	2	30	78-118	
1,2-Dichloropropane	1000	1030	103	5	30	78-118	
cis-1,3-Dichloropropene	1000	1020	102	6	30	75-120	
Trichloroethene	1000	1040	104	1	30	82-122	
Dibromochloromethane	1000	874	87	3	30	78-118	
1,1,2-Trichloroethane	1000	985	99	8	30	77-120	
Benzene	1000	1070	107	2	30	71-118	
trans-1,3-Dichloropropene	1000	1090	109	1	30	73-118	
Bromoform	1000	815	82	5	30	76-133	
4-Methyl-2-pentanone	5000	4900	98	7	30	69-124	
2-Hexanone	5000	5760	115	4	30	62-123	
Tetrachloroethene	1000	1080	108	1	30	78-136	
1,1,2,2-Tetrachloroethane	1000	1050	105	5	30	86-145	
Toluene	1000	1080	108	0	30	79-136	
Chlorobenzene	1000	1040	104	2	30	69-124	
Ethylbenzene	1000	1040	104	0	30	78-124	
Styrene	1000	1110	111	1	30	73-126	
Xylenes, Total	2000	2130	106	1	30	78-126	
Freon TF	1000	979	98	5	30	50-128	
MTBE	1000	1050	105	3	30	65-143	
Cyclohexane	1000	1100	110	5	30	69-128	
1,2-Dibromoethane	1000	1000	100	6	30	76-120	
1,3-Dichlorobenzene	1000	1090	109	1	30	83-123	
1,4-Dichlorobenzene	1000	1080	108	0	30	84-124	
1,2-Dichlorobenzene	1000	1070	107	0	30	83-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Medium Lab File ID: J06957.D

Lab ID: LCSD 460-197509/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	1000	1060	106	4	30	41-149	
1,2,4-Trichlorobenzene	1000	1080	108	5	30	62-144	
1,4-Dioxane	20000	30300	151	3	30	54-147	*
1,2,3-Trichlorobenzene	1000	1010	101	1	30	36-207	
1,2-Dibromo-3-Chloropropane	1000	859	86	17	30	62-127	
Bromochloromethane	1000	1080	108	5	30	81-121	
Isopropylbenzene	1000	1100	110	0	30	80-143	
Methyl acetate	5000	5160	103	5	30	72-165	
Methylcyclohexane	1000	1260	126	8	30	80-134	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Medium Lab File ID: J07044.D

Lab ID: LCSD 460-198396/4 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	1000	1020	102	13	30	52-144	
Bromomethane	1000	1350	135	15	30	58-154	
Vinyl chloride	1000	1080	108	13	30	55-154	
Chloroethane	1000	1270	127	19	30	66-144	
Methylene Chloride	1000	1060	106	6	30	78-118	
Acetone	5000	5380	108	6	30	48-177	
Carbon disulfide	1000	1080	108	7	30	70-120	
Trichlorofluoromethane	1000	1170	117	12	30	60-148	
1,1-Dichloroethene	1000	1110	111	6	30	68-138	
1,1-Dichloroethane	1000	1040	104	8	30	79-119	
trans-1,2-Dichloroethene	1000	1050	105	4	30	73-119	
cis-1,2-Dichloroethene	1000	1070	107	5	30	78-118	
Chloroform	1000	1080	108	6	30	81-122	
1,2-Dichloroethane	1000	1050	105	6	30	81-121	
2-Butanone	5000	5660	113	7	30	70-139	
1,1,1-Trichloroethane	1000	1130	113	11	30	78-118	
Carbon tetrachloride	1000	1150	115	9	30	64-130	
Bromodichloromethane	1000	1050	105	5	30	78-118	
1,2-Dichloropropane	1000	1030	103	6	30	78-118	
cis-1,3-Dichloropropene	1000	976	98	5	30	75-120	
Trichloroethene	1000	1040	104	7	30	82-122	
Dibromochloromethane	1000	871	87	8	30	78-118	
1,1,2-Trichloroethane	1000	984	98	4	30	77-120	
Benzene	1000	1050	105	6	30	71-118	
trans-1,3-Dichloropropene	1000	1020	102	6	30	73-118	
Bromoform	1000	790	79	10	30	76-133	
4-Methyl-2-pentanone	5000	4710	94	6	30	69-124	
2-Hexanone	5000	5620	112	4	30	62-123	
Tetrachloroethene	1000	1080	108	6	30	78-136	
1,1,2,2-Tetrachloroethane	1000	970	97	7	30	86-145	
Toluene	1000	1050	105	6	30	79-136	
Chlorobenzene	1000	1010	101	5	30	69-124	
Ethylbenzene	1000	1020	102	4	30	78-124	
Styrene	1000	1090	109	8	30	73-126	
Xylenes, Total	2000	2070	103	6	30	78-126	
Freon TF	1000	1050	105	8	30	50-128	
MTBE	1000	1020	102	7	30	65-143	
Cyclohexane	1000	1140	114	8	30	69-128	
1,2-Dibromoethane	1000	966	97	5	30	76-120	
1,3-Dichlorobenzene	1000	1060	106	6	30	83-123	
1,4-Dichlorobenzene	1000	1030	103	6	30	84-124	
1,2-Dichlorobenzene	1000	1050	105	7	30	83-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Medium Lab File ID: J07044.D

Lab ID: LCSD 460-198396/4 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	1000	1020	102	13	30	41-149	
1,2,4-Trichlorobenzene	1000	968	97	5	30	62-144	
1,4-Dioxane	20000	28200	141	11	30	54-147	
1,2,3-Trichlorobenzene	1000	987	99	10	30	36-207	
1,2-Dibromo-3-Chloropropane	1000	826	83	8	30	62-127	
Bromochloromethane	1000	1090	109	7	30	81-121	
Isopropylbenzene	1000	1100	110	4	30	80-143	
Methyl acetate	5000	4930	99	6	30	72-165	
Methylcyclohexane	1000	1260	126	9	30	80-134	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab File ID: J06959.D Lab Sample ID: MB 460-197509/7

Matrix: Solid Heated Purge:(Y/N) N

Instrument ID: CVOAMS8 Date Analyzed: 12/13/2013 12:16

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 460-197509/4	J06956.D	12/13/2013 10:17
	LCSD 460-197509/5	J06957.D	12/13/2013 11:27
E-GP-E3 (10-15')	460-67815-2	J06965.D	12/13/2013 14:45

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab File ID: J07047.D Lab Sample ID: MB 460-198396/7

Matrix: Solid Heated Purge:(Y/N) N

Instrument ID: CVOAMS8 Date Analyzed: 12/18/2013 07:36

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 460-198396/3	J07043.D	12/18/2013 05:31
	LCSD 460-198396/4	J07044.D	12/18/2013 06:21
E-GP-C4 (15-17.5')	460-67815-1	J07063.D	12/18/2013 14:33

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab File ID: J06467.D BFB Injection Date: 11/26/2013

Instrument ID: CVOAMS8 BFB Injection Time: 06:17

Analysis Batch No.: 194389

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.4	
75	30.0 - 60.0 % of mass 95	42.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.5	(0.5)1
174	50.0 - 120.00 % of mass 95	100.3	
175	5.0 - 9.0 % of mass 174	6.3	(6.3)1
176	95.0 - 101.0 % of mass 174	96.1	(95.8)1
177	5.0 - 9.0 % of mass 176	7.1	(7.4)2

1-Value is % mass 174 2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD1 460-194389/5	J06471.D	11/26/2013	07:46
	ICIS 460-194389/7	J06473.D	11/26/2013	08:36
	STD50 460-194389/8	J06474.D	11/26/2013	09:01
	STD200 460-194389/9	J06475.D	11/26/2013	09:26
	STD500 460-194389/10	J06476.D	11/26/2013	09:51
	STD5 460-194389/15	J06481.D	11/26/2013	11:55

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab File ID: J06953.D BFB Injection Date: 12/13/2013

Instrument ID: CVOAMS8 BFB Injection Time: 08:16

Analysis Batch No.: 197509

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.4	
75	30.0 - 60.0 % of mass 95	41.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	96.5	
175	5.0 - 9.0 % of mass 174	7.1	(7.3)1
176	95.0 - 101.0 % of mass 174	92.4	(95.7)1
177	5.0 - 9.0 % of mass 176	6.7	(7.2)2

1-Value is % mass 174 2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 460-197509/3	J06955.D	12/13/2013	09:52
	LCS 460-197509/4	J06956.D	12/13/2013	10:17
	LCSD 460-197509/5	J06957.D	12/13/2013	11:27
	MB 460-197509/7	J06959.D	12/13/2013	12:16
E-GP-E3 (10-15')	460-67815-2	J06965.D	12/13/2013	14:45

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab File ID: J07041.D BFB Injection Date: 12/18/2013

Instrument ID: CVOAMS8 BFB Injection Time: 04:11

Analysis Batch No.: 198396

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.0	
75	30.0 - 60.0 % of mass 95	41.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.1	(0.1)1
174	50.0 - 120.00 % of mass 95	102.4	
175	5.0 - 9.0 % of mass 174	7.5	(7.3)1
176	95.0 - 101.0 % of mass 174	100.3	(97.9)1
177	5.0 - 9.0 % of mass 176	6.5	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 460-198396/2	J07042.D	12/18/2013	05:06
	LCS 460-198396/3	J07043.D	12/18/2013	05:31
	LCSD 460-198396/4	J07044.D	12/18/2013	06:21
	MB 460-198396/7	J07047.D	12/18/2013	07:36
E-GP-C4 (15-17.5')	460-67815-1	J07063.D	12/18/2013	14:33

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Sample No.: CCVIS 460-197509/3 Date Analyzed: 12/13/2013 09:52

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm)

Lab File ID (Standard): J06955.D Heated Purge: (Y/N) N

Calibration ID: 33118

		TBA		FB		DXE	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		271902	3.18	771214	5.35	45729	6.05
UPPER LIMIT		543804	3.68	1542428	5.85	91458	6.55
LOWER LIMIT		135951	2.68	385607	4.85	22865	5.55
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 460-197509/4		284991	3.18	763236	5.35	47575	6.06
LCSD 460-197509/5		278033	3.18	764064	5.35	46948	6.07
MB 460-197509/7		300319	3.18	752609	5.36	47964	6.06
460-67815-2	E-GP-E3 (10-15')	261874	3.19	762827	5.35	45859	6.06

TBA = TBA-d9 (IS)
FB = Fluorobenzene
DXE = 1,4-Dioxane-d8

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Sample No.: CCVIS 460-197509/3 Date Analyzed: 12/13/2013 09:52

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm)

Lab File ID (Standard): J06955.D Heated Purge: (Y/N) N

Calibration ID: 33118

		CBZ		DCB			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		624033	8.82	358885	10.96		
UPPER LIMIT		1248066	9.32	717770	11.46		
LOWER LIMIT		312017	8.32	179443	10.46		
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 460-197509/4		616690	8.82	347753	10.96		
LCSD 460-197509/5		619212	8.82	349356	10.96		
MB 460-197509/7		607881	8.82	349317	10.96		
460-67815-2	E-GP-E3 (10-15')	602480	8.82	341287	10.96		

CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Sample No.: CCVIS 460-198396/2 Date Analyzed: 12/18/2013 05:06

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm)

Lab File ID (Standard): J07042.D Heated Purge: (Y/N) N

Calibration ID: 33118

		TBA		FB		DXE	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		268791	3.18	763147	5.36	44079	6.06
UPPER LIMIT		537582	3.68	1526294	5.86	88158	6.56
LOWER LIMIT		134396	2.68	381574	4.86	22040	5.56
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 460-198396/3		267030	3.17	743707	5.35	45822	6.06
LCSD 460-198396/4		270268	3.18	766822	5.36	44330	6.06
MB 460-198396/7		280882	3.18	746930	5.36	44604	6.06
460-67815-1	E-GP-C4 (15-17.5')	320694	3.20	725010	5.36	53250	6.07

TBA = TBA-d9 (IS)
FB = Fluorobenzene
DXE = 1,4-Dioxane-d8

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Sample No.: CCVIS 460-198396/2 Date Analyzed: 12/18/2013 05:06

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm)

Lab File ID (Standard): J07042.D Heated Purge: (Y/N) N

Calibration ID: 33118

		CBZ		DCB			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		621785	8.82	364556	10.96		
UPPER LIMIT		1243570	9.32	729112	11.46		
LOWER LIMIT		310893	8.32	182278	10.46		
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 460-198396/3		604239	8.82	360177	10.96		
LCSD 460-198396/4		622327	8.82	361747	10.96		
MB 460-198396/7		605508	8.82	357234	10.96		
460-67815-1	E-GP-C4 (15-17.5')	589430	8.82	351326	10.96		

CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') | Lab Sample ID: 460-67815-1

Matrix: Solid | Lab File ID: J07063.D

Analysis Method: 8260C | Date Collected: 12/04/2013 12:30

Sample wt/vol: 6.6(g) | Date Analyzed: 12/18/2013 14:33

Soil Aliquot Vol: 5 (mL) | Dilution Factor: 50

Soil Extract Vol.: 10(mL) | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: 11.2 | Level: (low/med) Medium

Analysis Batch No.: 198396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	85	U	85	8.3
74-83-9	Bromomethane	85	U	85	15
75-01-4	Vinyl chloride	85	U	85	12
75-00-3	Chloroethane	85	U	85	14
75-09-2	Methylene Chloride	85	U	85	16
67-64-1	Acetone	430	U	430	230
75-15-0	Carbon disulfide	85	U	85	11
75-69-4	Trichlorofluoromethane	85	U	85	12
75-35-4	1,1-Dichloroethene	85	U	85	7.5
75-34-3	1,1-Dichloroethane	85	U	85	11
156-60-5	trans-1,2-Dichloroethene	85	U	85	11
156-59-2	cis-1,2-Dichloroethene	85	U	85	15
67-66-3	Chloroform	85	U	85	6.7
107-06-2	1,2-Dichloroethane	85	U	85	16
78-93-3	2-Butanone	430	U	430	200
71-55-6	1,1,1-Trichloroethane	85	U	85	5.3
56-23-5	Carbon tetrachloride	85	U	85	4.9
75-27-4	Bromodichloromethane	85	U	85	11
78-87-5	1,2-Dichloropropane	85	U	85	7.3
10061-01-5	cis-1,3-Dichloropropene	85	U	85	16
79-01-6	Trichloroethene	85	U	85	7.9
124-48-1	Dibromochloromethane	85	U	85	17
79-00-5	1,1,2-Trichloroethane	85	U	85	16
71-43-2	Benzene	400		85	7.0
10061-02-6	trans-1,3-Dichloropropene	85	U	85	21
75-25-2	Bromoform	85	U *	85	16
108-10-1	4-Methyl-2-pentanone	430	U	430	84
591-78-6	2-Hexanone	430	U	430	43
127-18-4	Tetrachloroethene	85	U	85	8.3
79-34-5	1,1,2,2-Tetrachloroethane	85	U	85	13
108-88-3	Toluene	500		85	13
108-90-7	Chlorobenzene	59	J	85	9.4
100-41-4	Ethylbenzene	3800		85	8.2
100-42-5	Styrene	85	U	85	10
1330-20-7	Xylenes, Total	21000		260	31
76-13-1	Freon TF	85	U	85	7.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') | Lab Sample ID: 460-67815-1

Matrix: Solid | Lab File ID: J07063.D

Analysis Method: 8260C | Date Collected: 12/04/2013 12:30

Sample wt/vol: 6.6(g) | Date Analyzed: 12/18/2013 14:33

Soil Aliquot Vol: 5 (mL) | Dilution Factor: 50

Soil Extract Vol.: 10(mL) | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: 11.2 | Level: (low/med) Medium

Analysis Batch No.: 198396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	MTBE	85	U	85	12
110-82-7	Cyclohexane	3800		85	14
106-93-4	1,2-Dibromoethane	85	U	85	24
541-73-1	1,3-Dichlorobenzene	85	U	85	12
106-46-7	1,4-Dichlorobenzene	85	U	85	20
95-50-1	1,2-Dichlorobenzene	85	U	85	17
75-71-8	Dichlorodifluoromethane	85	U	85	18
120-82-1	1,2,4-Trichlorobenzene	85	U	85	29
123-91-1	1,4-Dioxane	4300	U	4300	3100
87-61-6	1,2,3-Trichlorobenzene	85	U	85	44
96-12-8	1,2-Dibromo-3-Chloropropane	85	U	85	34
74-97-5	Bromochloromethane	85	U	85	23
98-82-8	Isopropylbenzene	2900		85	6.5
79-20-9	Methyl acetate	430	U	430	29
108-87-2	Methylcyclohexane	16000		85	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		75-135
2037-26-5	Toluene-d8 (Surr)	75		59-150
460-00-4	Bromofluorobenzene	77		72-133
1868-53-7	Dibromofluoromethane (Surr)	77		70-130

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07063.D
Lims ID: 460-67815-A-1-A Lab Sample ID: 460-67815-1
Client ID: E-GP-C4 (15-17.5')
Sample Type: Client
Inject. Date: 18-Dec-2013 14:33:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: 460-67815-A-1-A
Misc. Info.: 460-0007957-023
Operator ID: Instrument ID: CVOAMS8

Method: \\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\8260_W8.m
Limit Group: VOA - 8260C Water and Solid
Last Update: 18-Dec-2013 17:03:01 Calib Date: 26-Nov-2013 11:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06481.D

Column 1 : Rtx-624 (0.25 mm) Detector MS SCAN
Process Host: XAWRK026

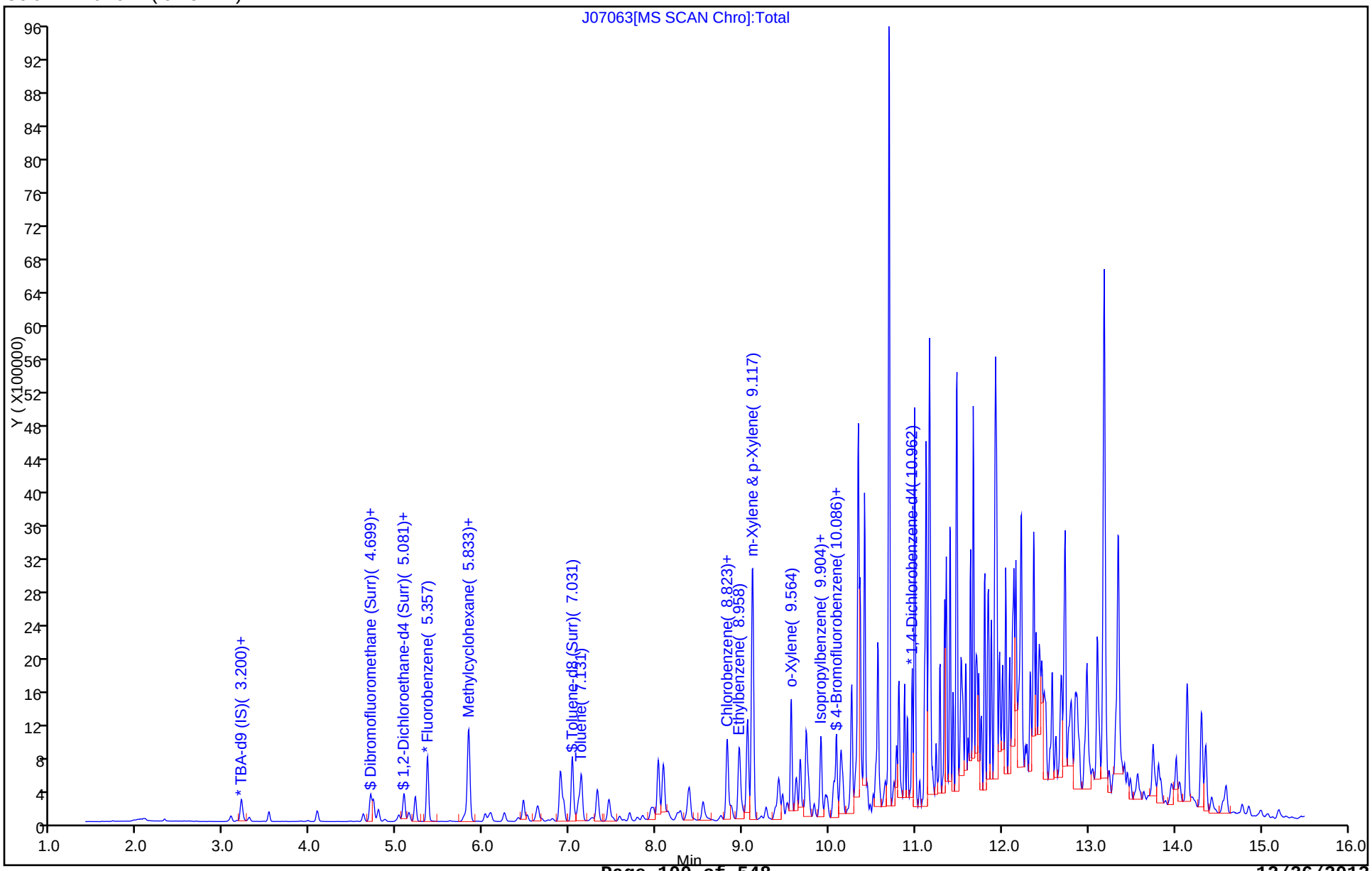
First Level Reviewer: delpolitov Date: 18-Dec-2013 17:03:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
* 151 TBA-d9 (IS)	65	3.200	3.182	0.018	43	320694	1000.0	
49 Cyclohexane	56	4.699	4.698	0.001	90	161239	44.4	
$ 152 Dibromofluoromethane (Surr)	113	4.728	4.733	-0.005	93	140686	38.6	
53 Benzene	78	5.069	5.068	0.001	93	58276	4.65	
$ 54 1,2-Dichloroethane-d4 (Surr)	65	5.086	5.086	0.0	87	161689	41.4	
* 59 Fluorobenzene	96	5.357	5.356	0.001	99	725010	50.0	
63 Methylcyclohexane	83	5.833	5.832	0.001	94	555648	187.9	
* 150 1,4-Dioxane-d8	96	6.068	6.061	0.007	89	53250	1000.0	
$ 76 Toluene-d8 (Surr)	98	7.031	7.031	0.0	97	582970	37.6	
77 Toluene	91	7.108	7.107	0.001	93	78682	5.86	
* 87 Chlorobenzene-d5	117	8.823	8.823	0.0	83	589430	50.0	
88 Chlorobenzene	112	8.864	8.858	0.006	23	6456	0.6880	
89 Ethylbenzene	106	8.958	8.958	0.0	97	209021	44.8	
91 m-Xylene & p-Xylene	106	9.117	9.117	0.0	94	997795	173.5	
92 o-Xylene	106	9.564	9.563	0.001	92	404723	70.7	
98 Isopropylbenzene	105	9.904	9.904	0.0	96	393990	33.6	
$ 99 4-Bromofluorobenzene	174	10.086	10.086	0.0	90	211895	38.3	
* 116 1,4-Dichlorobenzene-d4	152	10.962	10.961	0.001	92	351326	50.0	
S 131 Xylenes, Total	100				0		244.2	

Report Date: 18-Dec-2013 17:03:01 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07063.D				
Injection Date:	18-Dec-2013 14:33:30	Instrument ID:	CVOAMS8	Operator ID:	
Lims ID:	460-67815-A-1-A	Lab Sample ID:	460-67815-1	Worklist Smp#:	23
Client ID:	E-GP-C4 (15-17.5')				
Purge Vol:	5.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	22
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column: Rtx-624 (0.25 mm)					

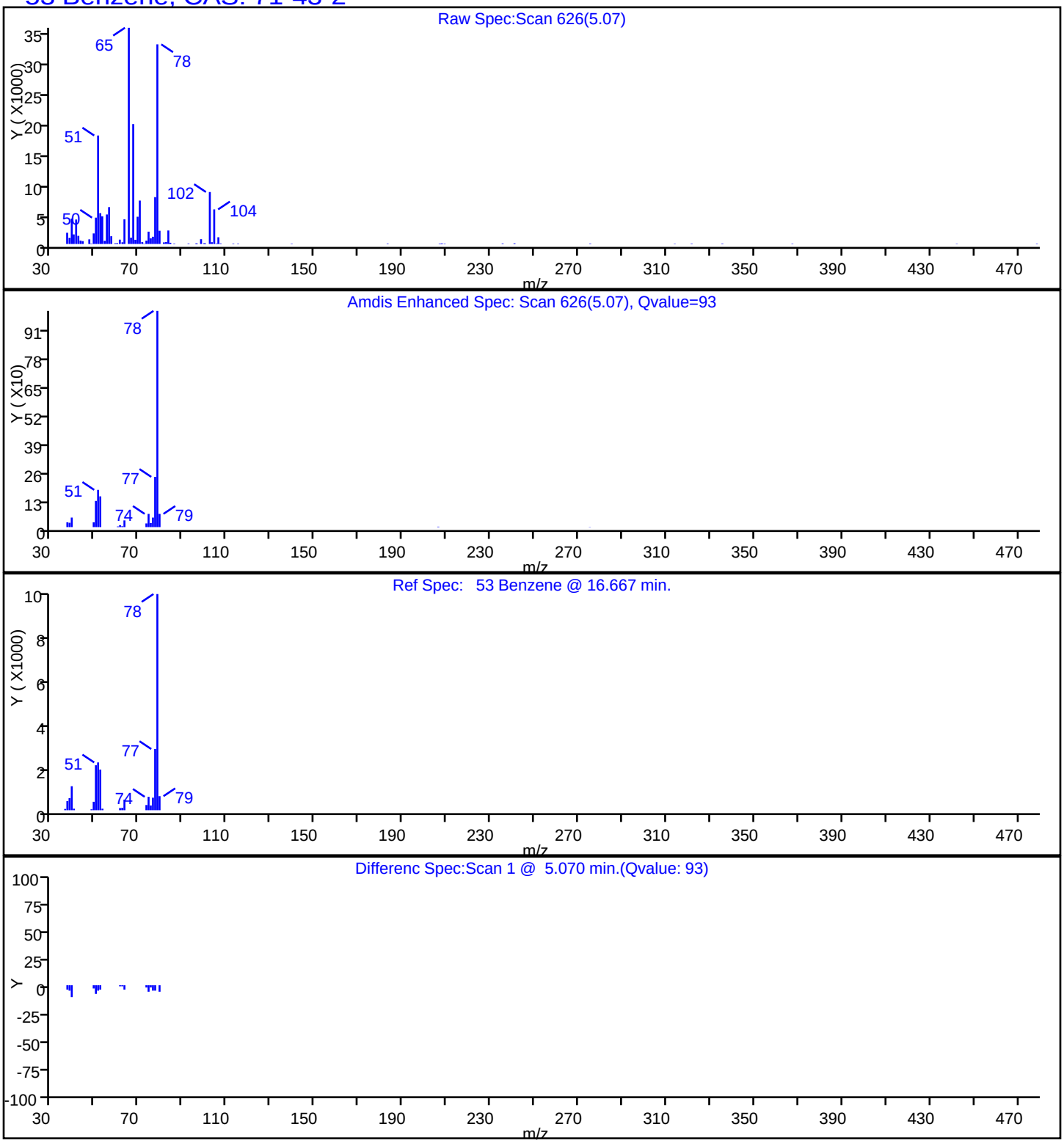


Report Date: 18-Dec-2013 17:03:01 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07063.D				
Injection Date:	18-Dec-2013 14:33:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-1-A	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Operator ID:		ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

53 Benzene, CAS: 71-43-2

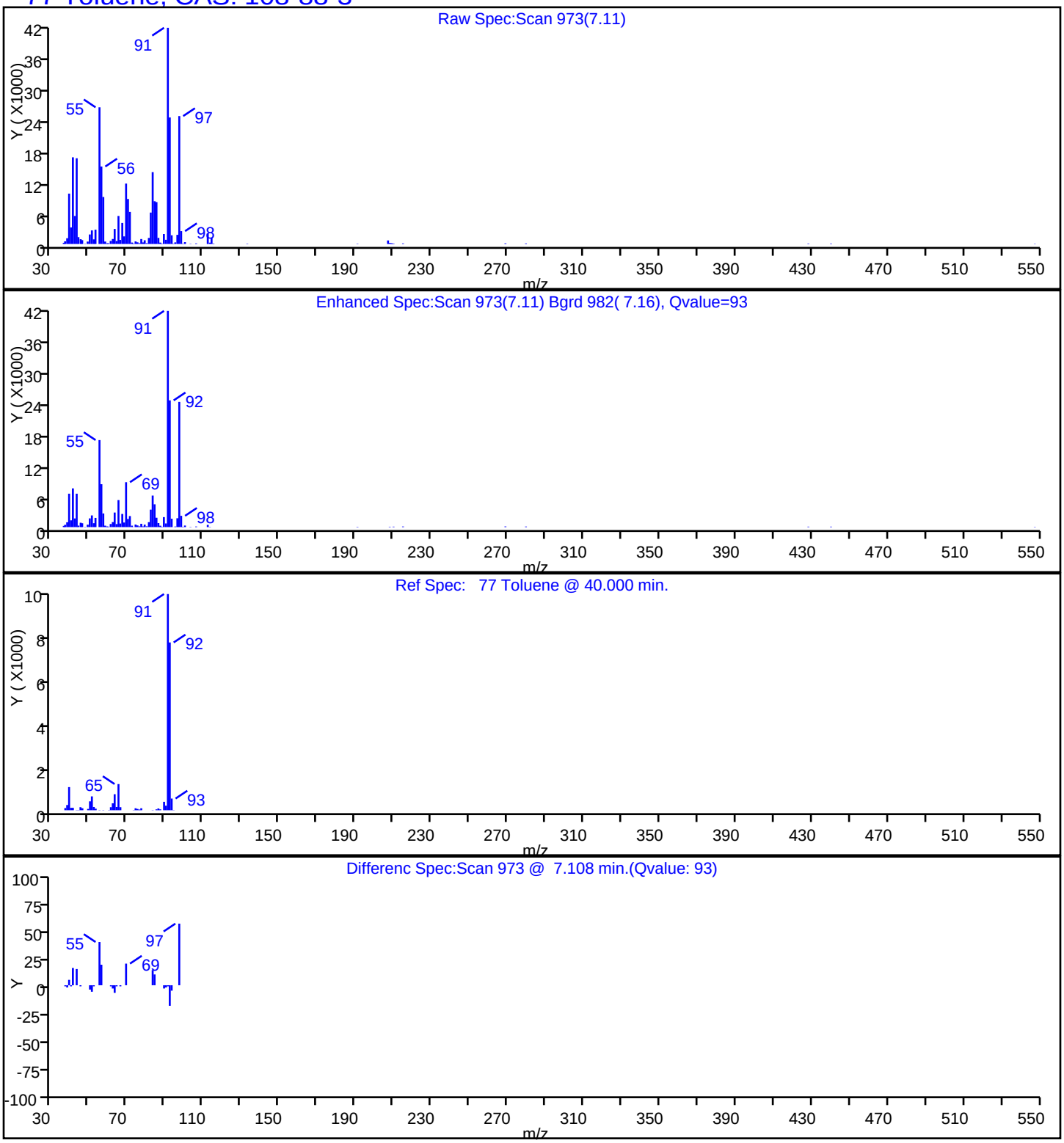


Report Date: 18-Dec-2013 17:03:01 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07063.D				
Injection Date:	18-Dec-2013 14:33:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-1-A	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Operator ID:		ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

77 Toluene, CAS: 108-88-3

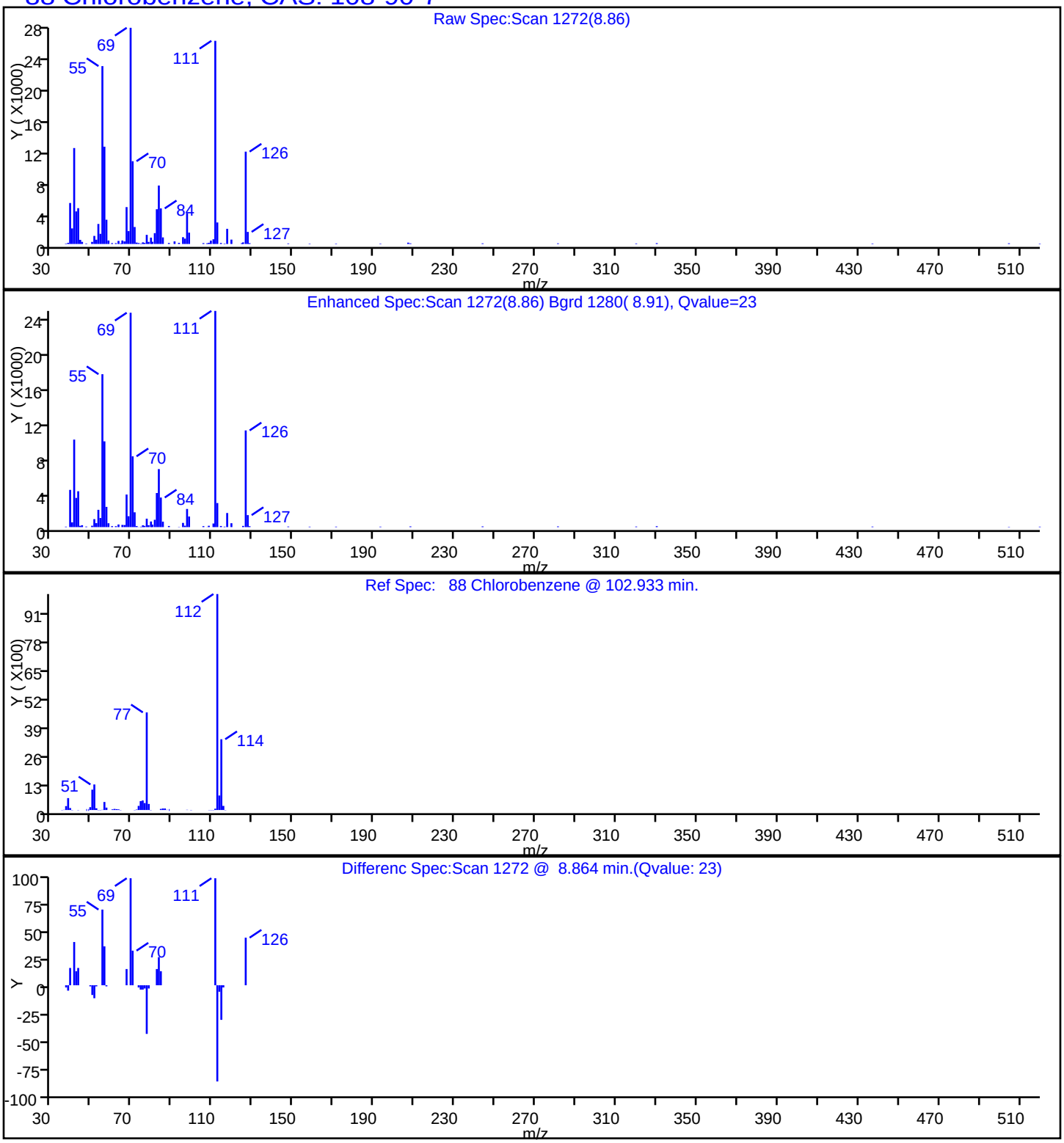


Report Date: 18-Dec-2013 17:03:02 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07063.D				
Injection Date:	18-Dec-2013 14:33:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-1-A	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Operator ID:		ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

88 Chlorobenzene, CAS: 108-90-7

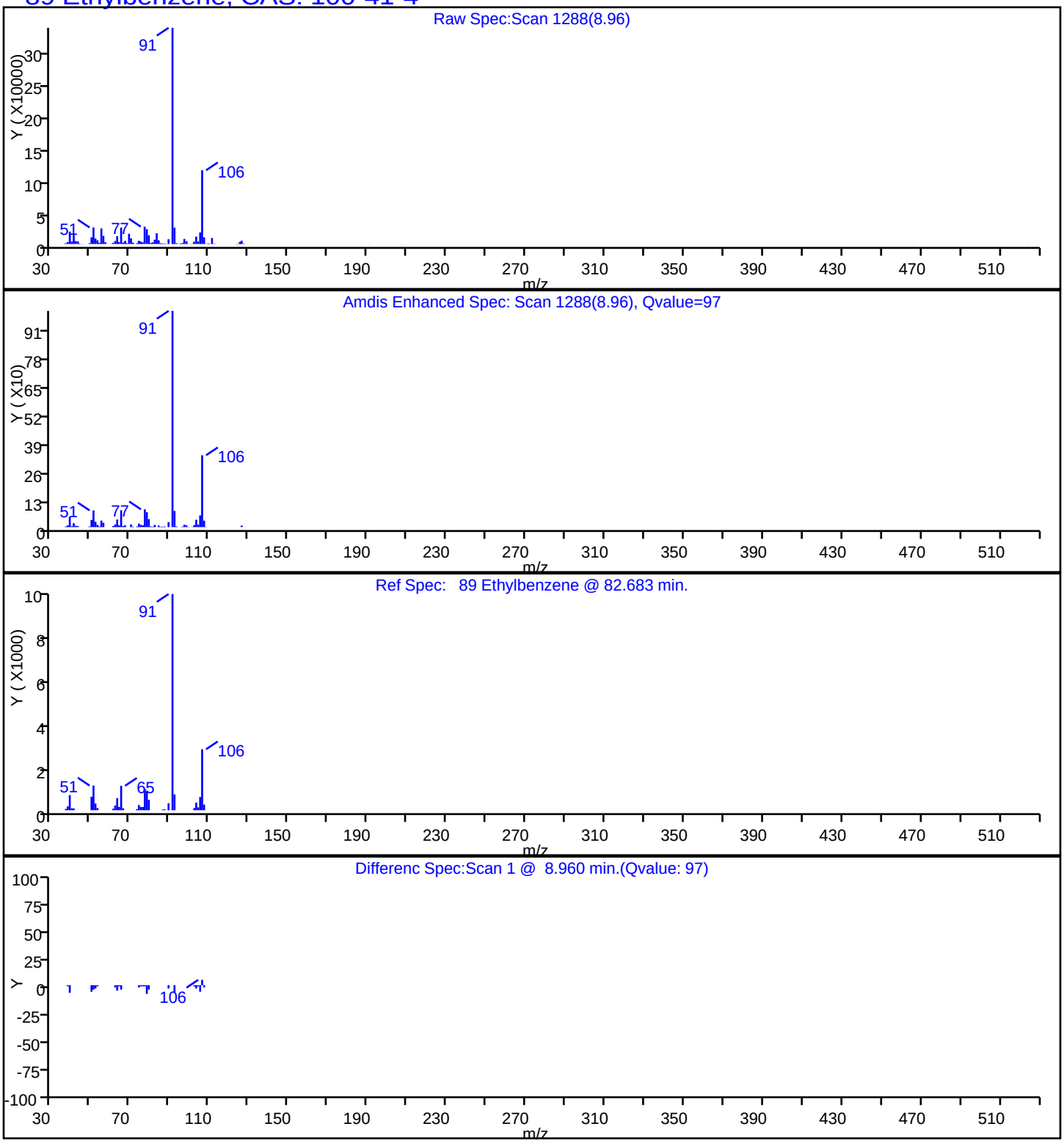


Report Date: 18-Dec-2013 17:03:02 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07063.D				
Injection Date:	18-Dec-2013 14:33:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-1-A	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Operator ID:		ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

89 Ethylbenzene, CAS: 100-41-4

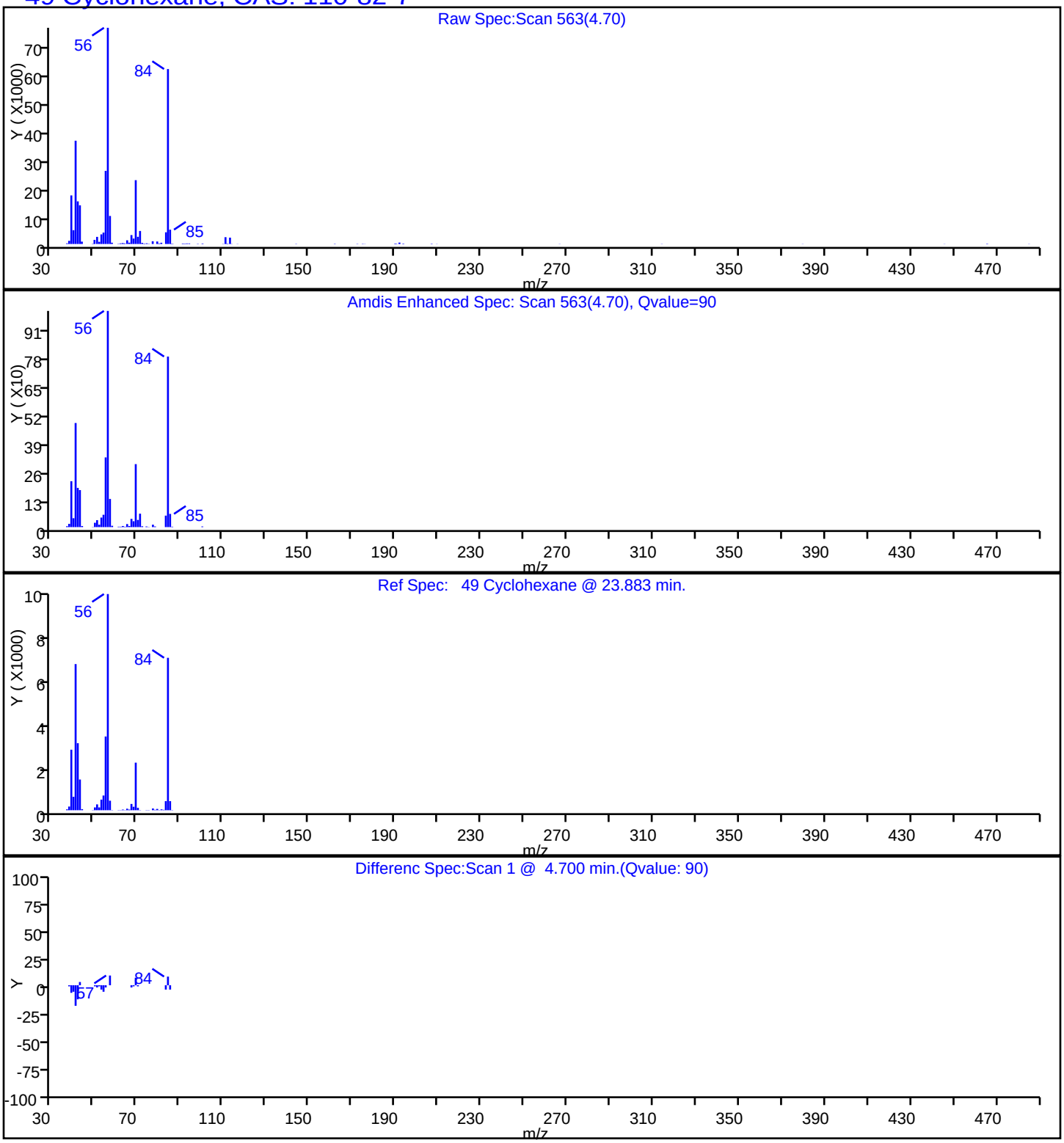


Report Date: 18-Dec-2013 17:03:01 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07063.D				
Injection Date:	18-Dec-2013 14:33:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-1-A	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Operator ID:		ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

49 Cyclohexane, CAS: 110-82-7

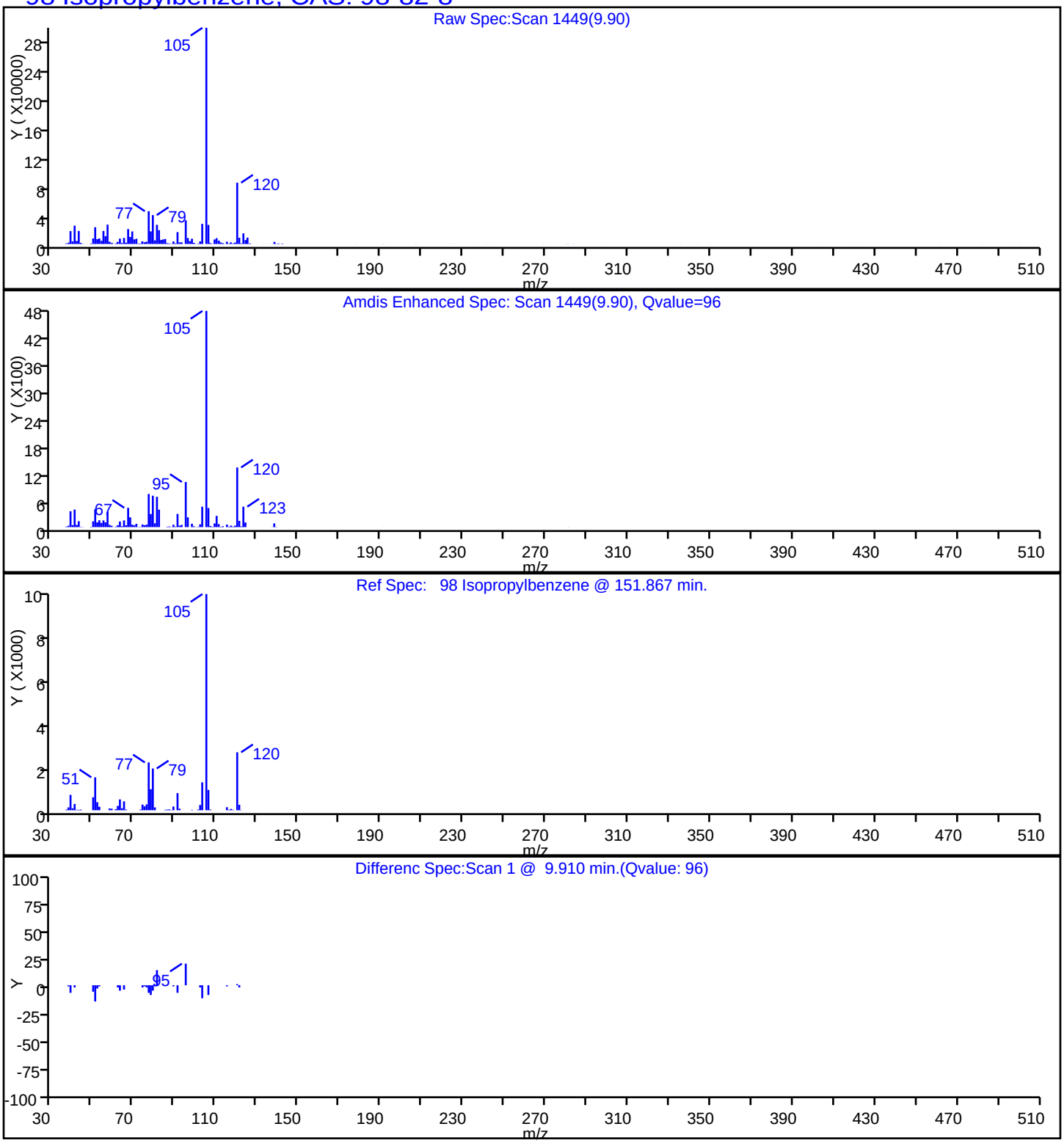


Report Date: 18-Dec-2013 17:03:02 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07063.D				
Injection Date:	18-Dec-2013 14:33:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-1-A	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Operator ID:		ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

98 Isopropylbenzene, CAS: 98-82-8

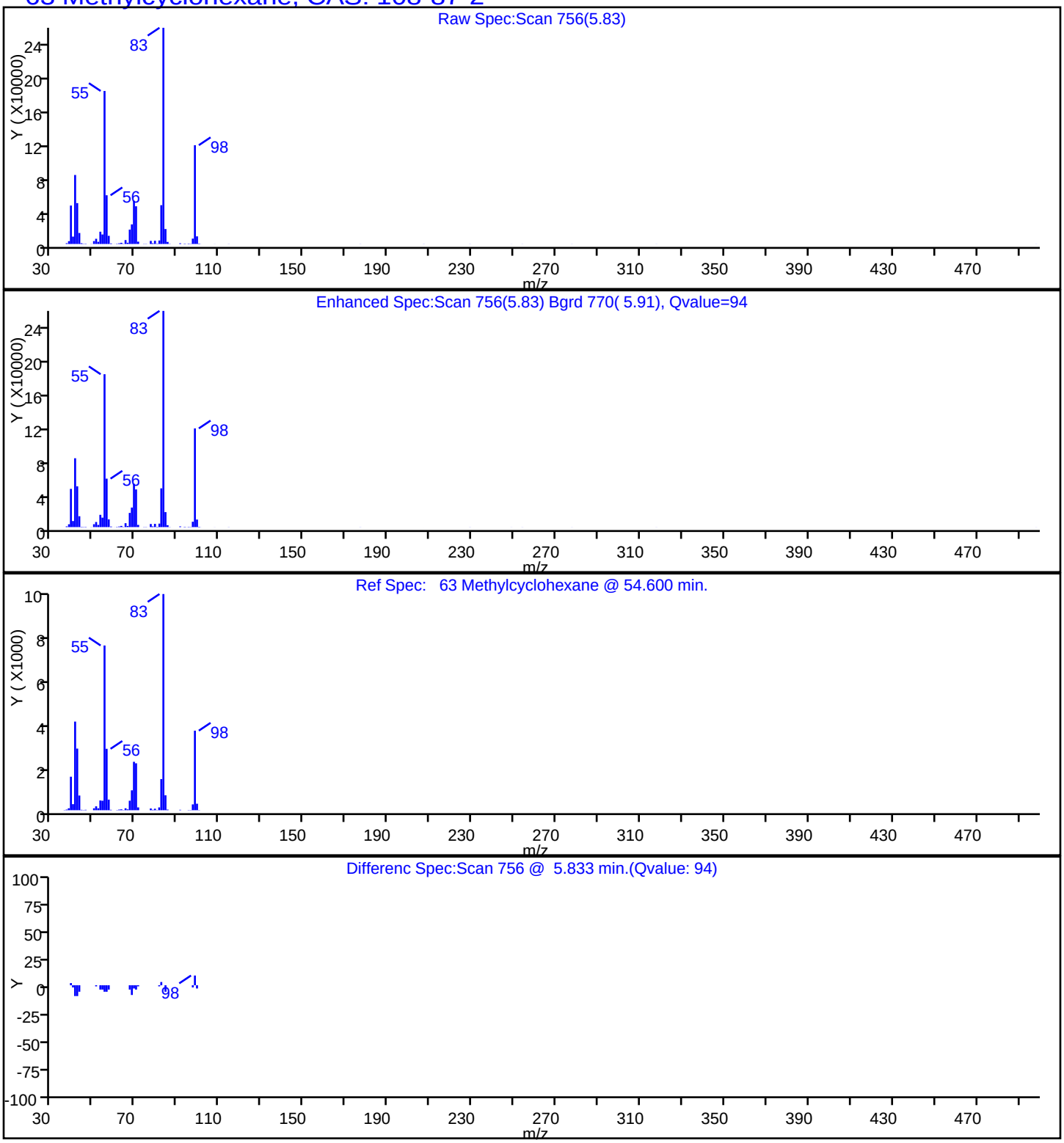


Report Date: 18-Dec-2013 17:03:01 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07063.D				
Injection Date:	18-Dec-2013 14:33:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-1-A	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Operator ID:		ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

63 Methylcyclohexane, CAS: 108-87-2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-E3 (10-15') | Lab Sample ID: 460-67815-2

Matrix: Solid | Lab File ID: J06965.D

Analysis Method: 8260C | Date Collected: 12/04/2013 14:30

Sample wt/vol: 6.78(g) | Date Analyzed: 12/13/2013 14:45

Soil Aliquot Vol: 5 (mL) | Dilution Factor: 100

Soil Extract Vol.: 10(mL) | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: 10.4 | Level: (low/med) Medium

Analysis Batch No.: 197509 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	160	U	160	16
74-83-9	Bromomethane	160	U	160	30
75-01-4	Vinyl chloride	160	U	160	24
75-00-3	Chloroethane	160	U	160	28
75-09-2	Methylene Chloride	160	U	160	30
67-64-1	Acetone	820	U	820	440
75-15-0	Carbon disulfide	160	U	160	21
75-69-4	Trichlorofluoromethane	160	U	160	24
75-35-4	1,1-Dichloroethene	160	U	160	15
75-34-3	1,1-Dichloroethane	160	U	160	21
156-60-5	trans-1,2-Dichloroethene	160	U	160	21
156-59-2	cis-1,2-Dichloroethene	160	U	160	29
67-66-3	Chloroform	160	U	160	13
107-06-2	1,2-Dichloroethane	160	U	160	31
78-93-3	2-Butanone	820	U	820	380
71-55-6	1,1,1-Trichloroethane	160	U	160	10
56-23-5	Carbon tetrachloride	160	U	160	9.4
75-27-4	Bromodichloromethane	160	U	160	21
78-87-5	1,2-Dichloropropane	160	U	160	14
10061-01-5	cis-1,3-Dichloropropene	160	U	160	30
79-01-6	Trichloroethene	160	U	160	15
124-48-1	Dibromochloromethane	160	U	160	33
79-00-5	1,1,2-Trichloroethane	160	U	160	31
71-43-2	Benzene	1100		160	14
10061-02-6	trans-1,3-Dichloropropene	160	U	160	40
75-25-2	Bromoform	160	U	160	32
108-10-1	4-Methyl-2-pentanone	820	U	820	160
591-78-6	2-Hexanone	820	U	820	82
127-18-4	Tetrachloroethene	2700		160	16
79-34-5	1,1,2,2-Tetrachloroethane	160	U	160	26
108-88-3	Toluene	10000		160	25
108-90-7	Chlorobenzene	97	J	160	18
100-41-4	Ethylbenzene	4800		160	16
100-42-5	Styrene	160	U	160	20
1330-20-7	Xylenes, Total	29000		490	59
76-13-1	Freon TF	160	U	160	13

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-E3 (10-15') | Lab Sample ID: 460-67815-2

Matrix: Solid | Lab File ID: J06965.D

Analysis Method: 8260C | Date Collected: 12/04/2013 14:30

Sample wt/vol: 6.78(g) | Date Analyzed: 12/13/2013 14:45

Soil Aliquot Vol: 5 (mL) | Dilution Factor: 100

Soil Extract Vol.: 10(mL) | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: 10.4 | Level: (low/med) Medium

Analysis Batch No.: 197509 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	MTBE	160	U	160	23
110-82-7	Cyclohexane	2200		160	26
106-93-4	1,2-Dibromoethane	160	U	160	45
541-73-1	1,3-Dichlorobenzene	160	U	160	22
106-46-7	1,4-Dichlorobenzene	160	U	160	38
95-50-1	1,2-Dichlorobenzene	160	U	160	34
75-71-8	Dichlorodifluoromethane	160	U	160	35
120-82-1	1,2,4-Trichlorobenzene	160	U	160	56
123-91-1	1,4-Dioxane	8200	U *	8200	5900
87-61-6	1,2,3-Trichlorobenzene	160	U	160	84
96-12-8	1,2-Dibromo-3-Chloropropane	160	U	160	66
74-97-5	Bromochloromethane	160	U	160	45
98-82-8	Isopropylbenzene	960		160	13
79-20-9	Methyl acetate	820	U	820	55
108-87-2	Methylcyclohexane	7100		160	22

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	75		75-135
2037-26-5	Toluene-d8 (Surr)	67		59-150
460-00-4	Bromofluorobenzene	67	*	72-133
1868-53-7	Dibromofluoromethane (Surr)	68	*	70-130

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06965.D
Lims ID: 460-67815-A-2-A Lab Sample ID: 460-67815-2
Client ID: E-GP-E3 (10-15')
Sample Type: Client
Inject. Date: 13-Dec-2013 14:45:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 100.0000
Sample Info: 460-67815-A-2-A
Misc. Info.: 460-0007774-013
Operator ID: Instrument ID: CVOAMS8

Method: \\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\8260_W8.m
Limit Group: VOA - 8260C Water and Solid
Last Update: 16-Dec-2013 09:51:47 Calib Date: 26-Nov-2013 11:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06481.D

Column 1 : Rtx-624 (0.25 mm) Detector MS SCAN
Process Host: XAWRK003

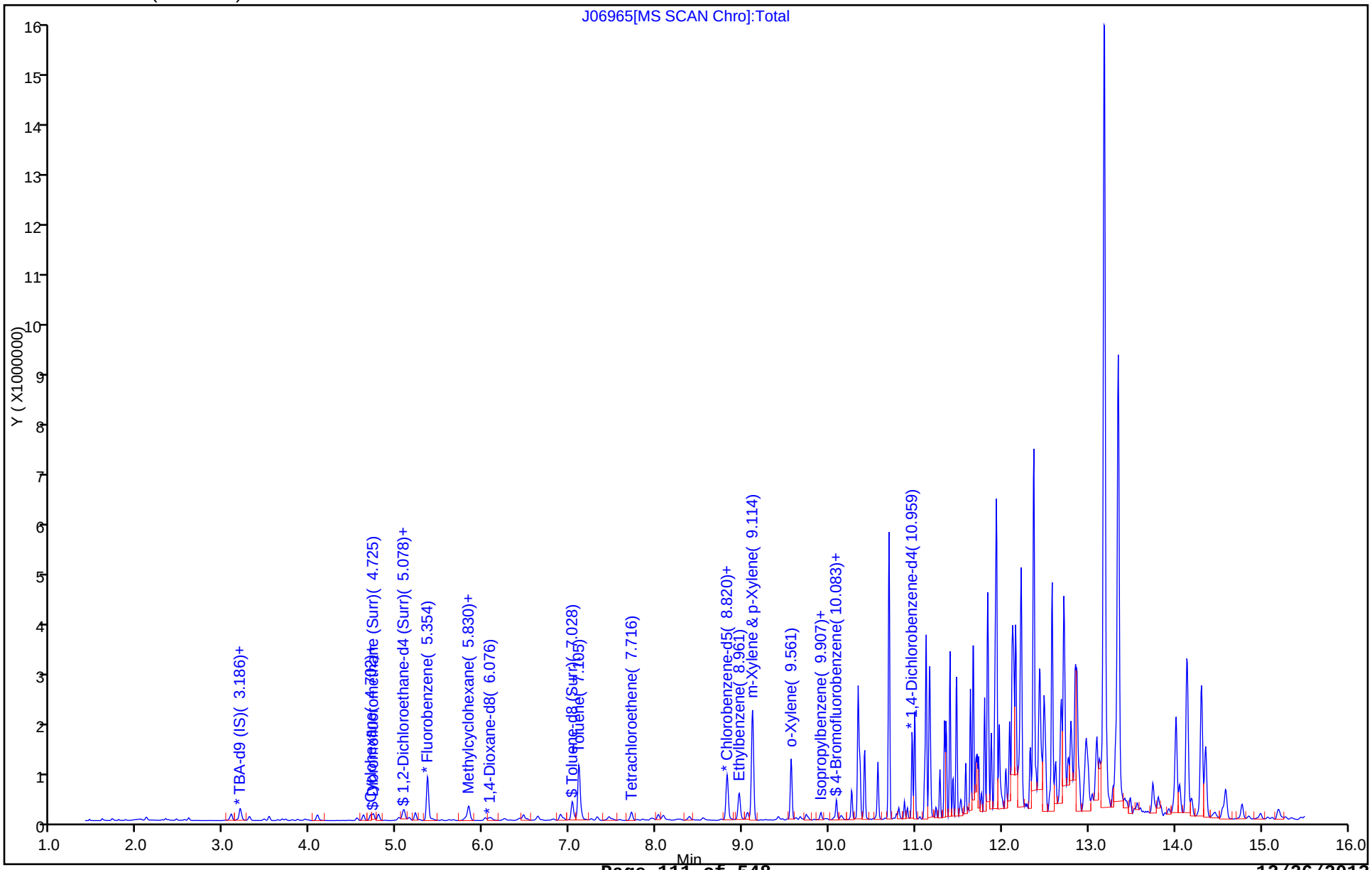
First Level Reviewer: martineze Date: 16-Dec-2013 09:54:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
* 151 TBA-d9 (IS)	65	3.186	3.180	0.006	56	261874	1000.0	
49 Cyclohexane	56	4.696	4.696	0.0	89	51105	13.4	
$ 152 Dibromofluoromethane (Surr)	113	4.731	4.731	0.0	95	65536	17.1	
53 Benzene	78	5.066	5.066	0.0	95	87056	6.79	
$ 54 1,2-Dichloroethane-d4 (Surr)	65	5.083	5.084	-0.001	86	77066	18.8	
* 59 Fluorobenzene	96	5.354	5.354	0.0	99	762827	50.0	
63 Methylcyclohexane	83	5.830	5.830	0.0	94	134539	43.2	
* 150 1,4-Dioxane-d8	96	6.059	6.053	0.006	84	45859	1000.0	
$ 76 Toluene-d8 (Surr)	98	7.028	7.029	-0.001	95	263867	16.6	
77 Toluene	91	7.105	7.105	0.0	91	835868	60.9	
80 Tetrachloroethene	166	7.716	7.716	0.0	90	57303	16.2	
* 87 Chlorobenzene-d5	117	8.820	8.821	-0.001	82	602480	50.0	
88 Chlorobenzene	112	8.861	8.856	0.005	84	5678	0.5920	
89 Ethylbenzene	106	8.961	8.962	-0.001	97	139940	29.4	
91 m-Xylene & p-Xylene	106	9.114	9.115	0.0	94	721524	122.7	
92 o-Xylene	106	9.561	9.561	0.0	94	322427	55.1	
98 Isopropylbenzene	105	9.907	9.908	-0.001	93	70201	5.85	
$ 99 4-Bromofluorobenzene	174	10.083	10.084	-0.001	94	94296	16.7	
* 116 1,4-Dichlorobenzene-d4	152	10.959	10.959	0.0	83	341287	50.0	
S 131 Xylenes, Total	100				0		177.8	

Report Date: 16-Dec-2013 09:54:01 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06965.D				
Injection Date:	13-Dec-2013 14:45:30	Instrument ID:	CVOAMS8	Operator ID:	
Lims ID:	460-67815-A-2-A	Lab Sample ID:	460-67815-2	Worklist Smp#:	13
Client ID:	E-GP-E3 (10-15')				
Purge Vol:	5.000 mL	Dil. Factor:	100.0000	ALS Bottle#:	12
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column: Rtx-624 (0.25 mm)					

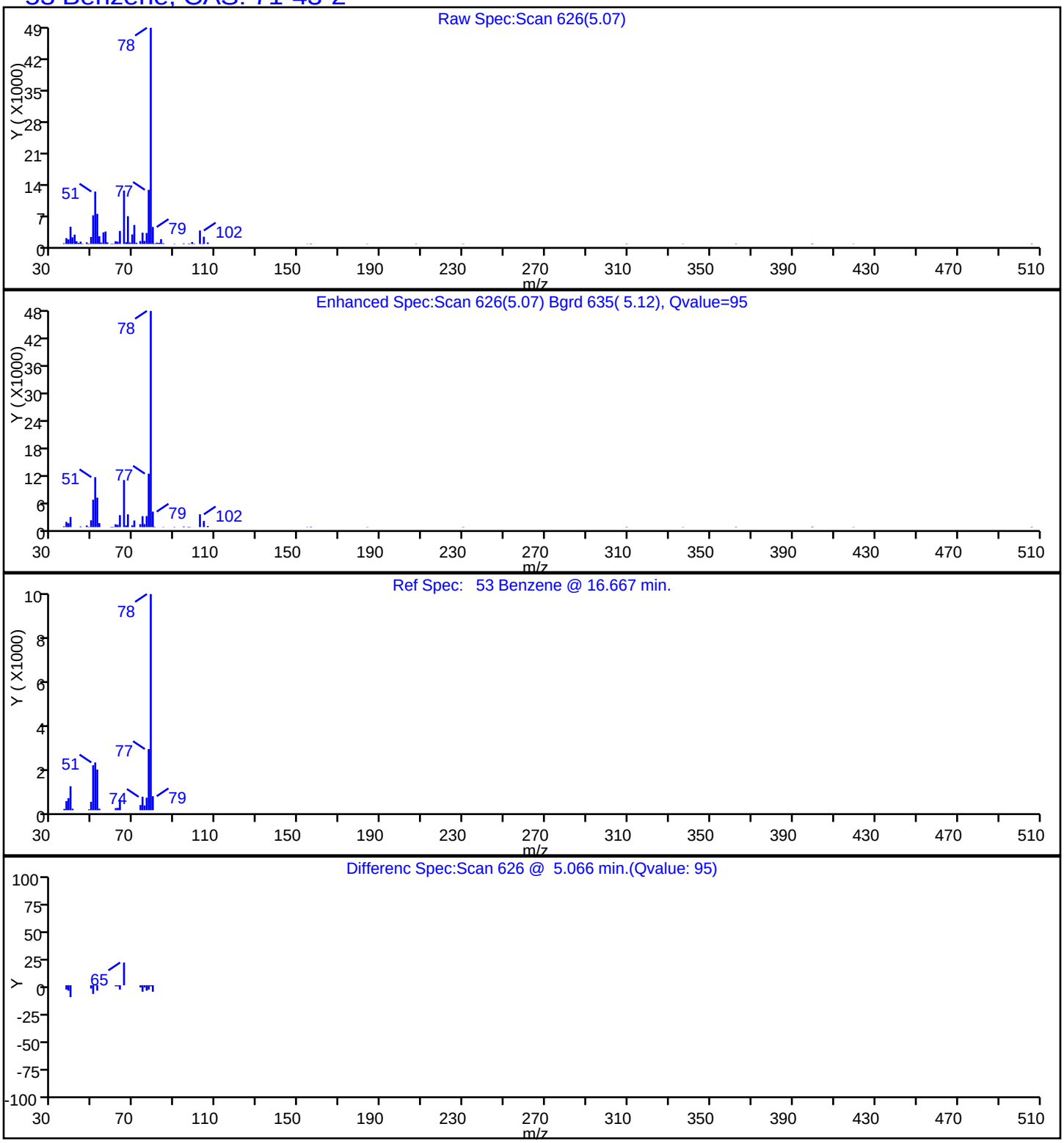


Report Date: 16-Dec-2013 09:54:01 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06965.D				
Injection Date:	13-Dec-2013 14:45:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-2-A	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	100.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

53 Benzene, CAS: 71-43-2

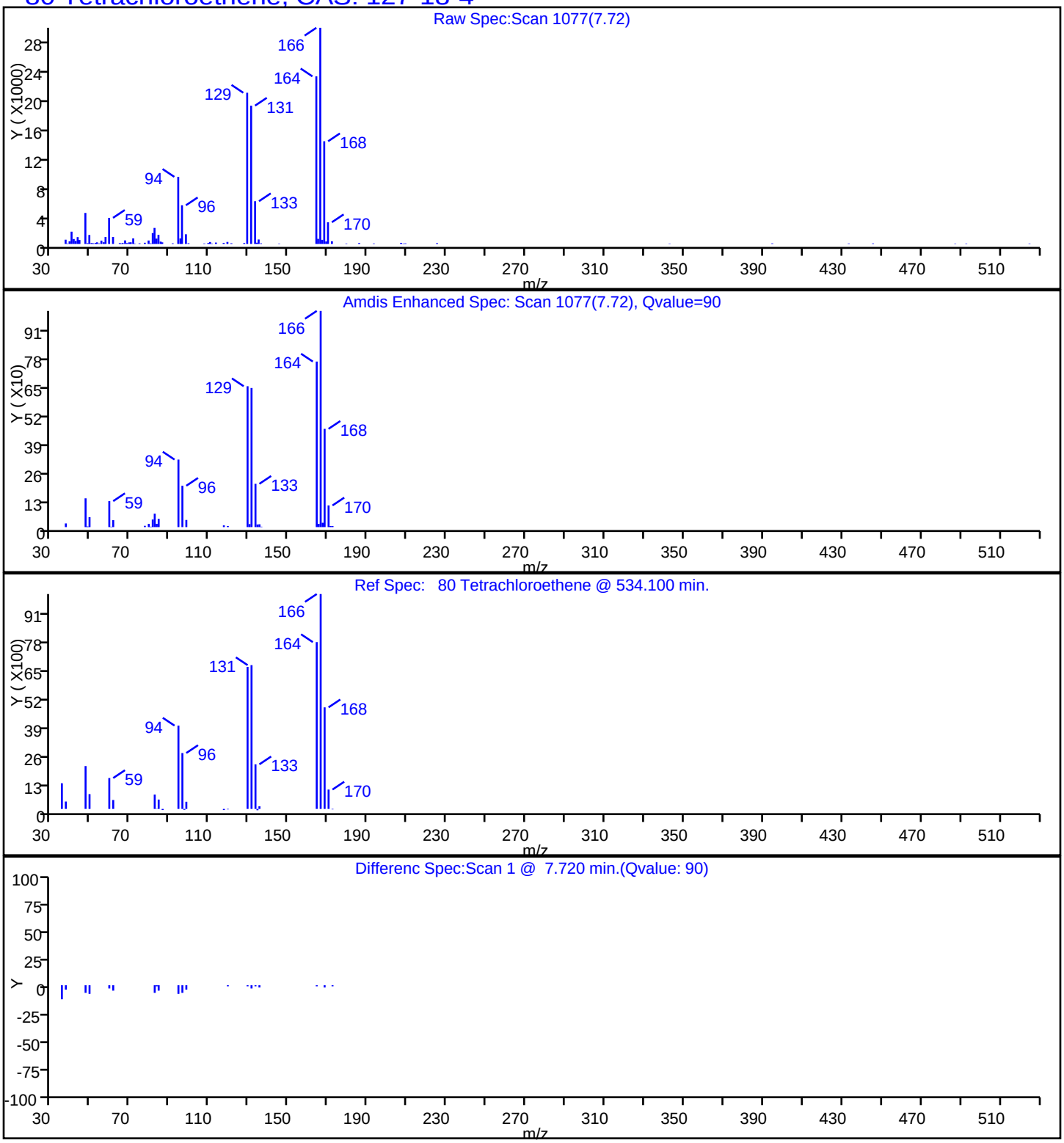


Report Date: 16-Dec-2013 09:54:01 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06965.D				
Injection Date:	13-Dec-2013 14:45:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-2-A	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	100.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4

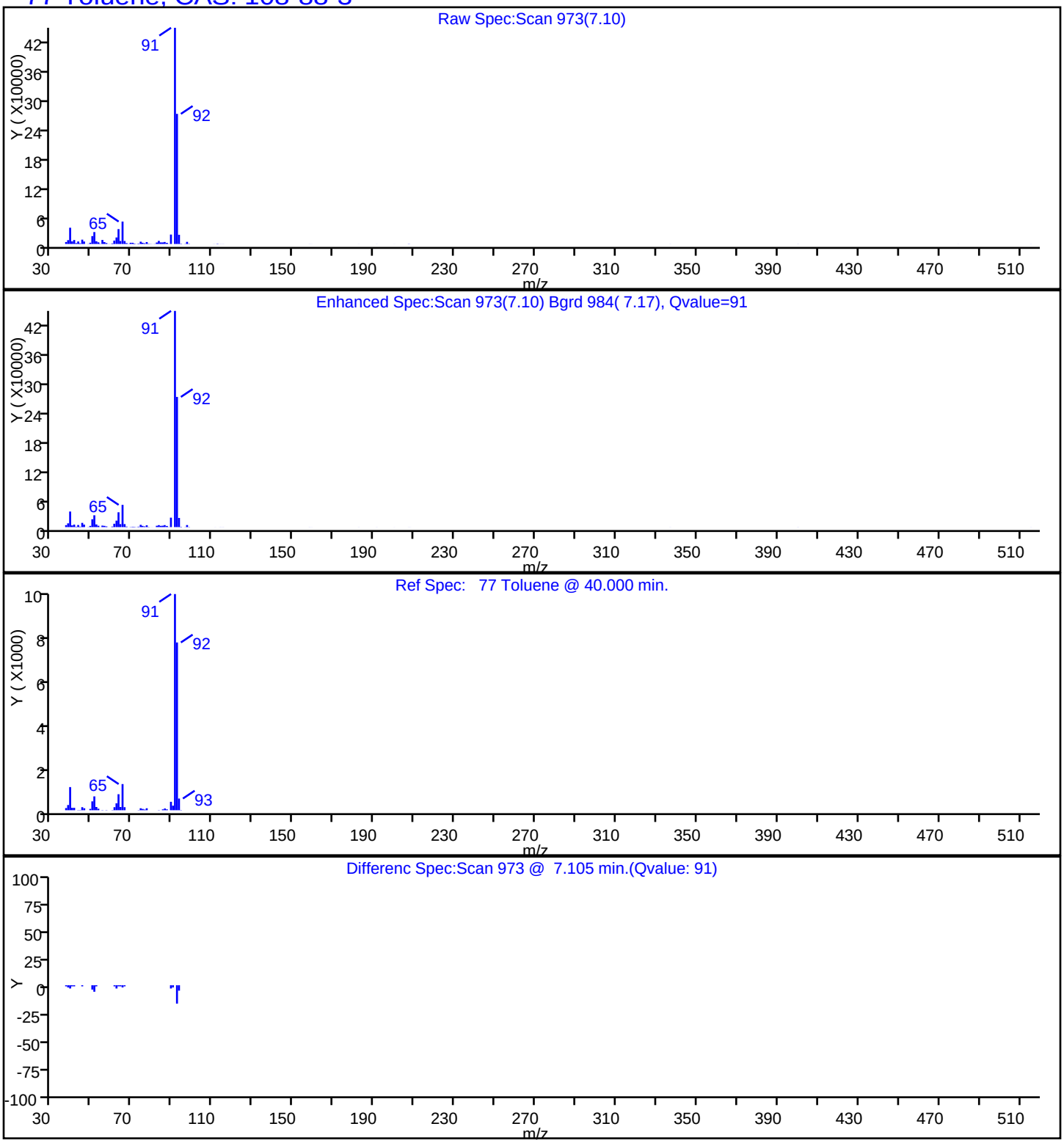


Report Date: 16-Dec-2013 09:54:01 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06965.D				
Injection Date:	13-Dec-2013 14:45:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-2-A	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	100.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

77 Toluene, CAS: 108-88-3

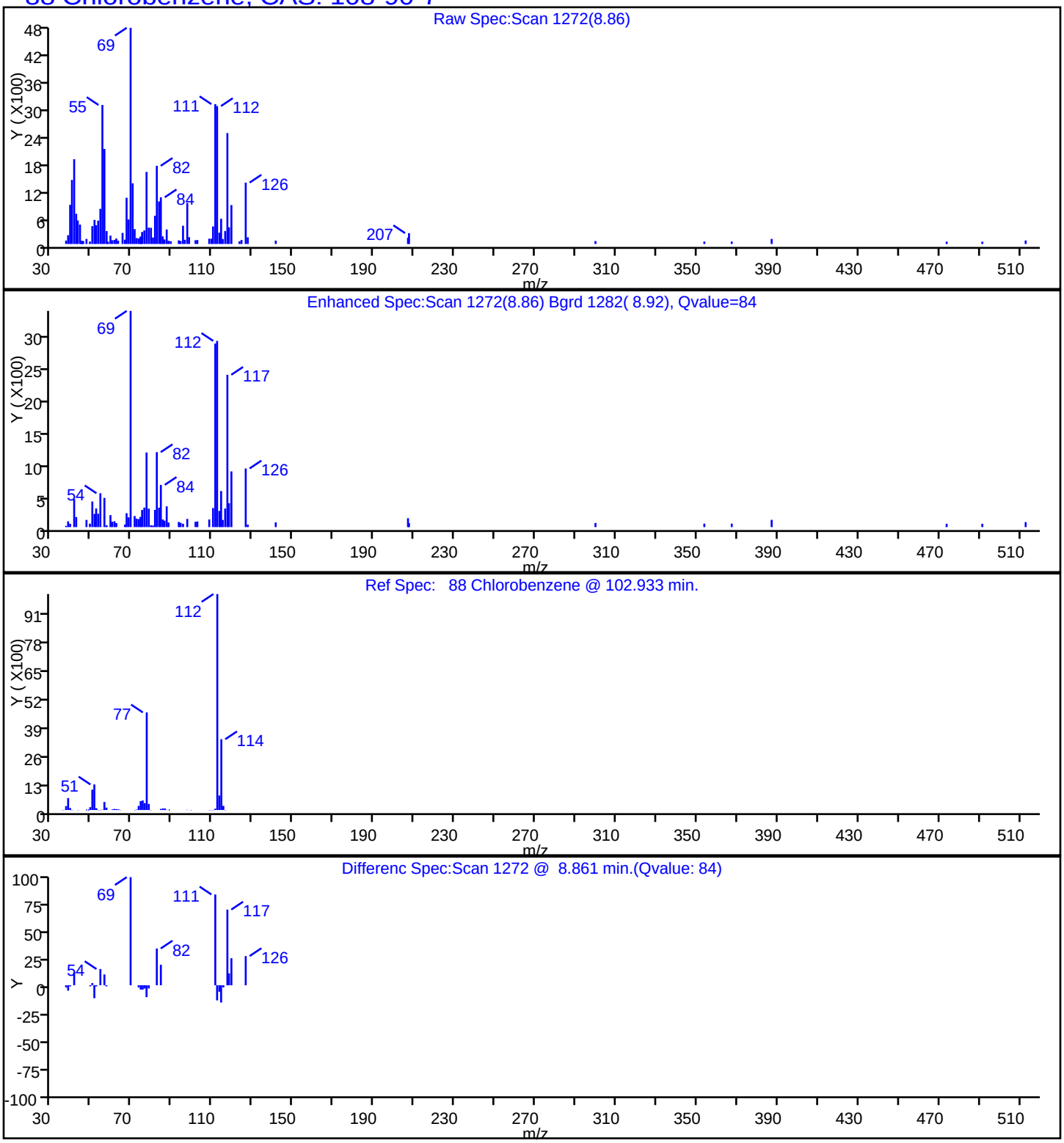


Report Date: 16-Dec-2013 09:54:01 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06965.D				
Injection Date:	13-Dec-2013 14:45:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-2-A	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	100.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

88 Chlorobenzene, CAS: 108-90-7

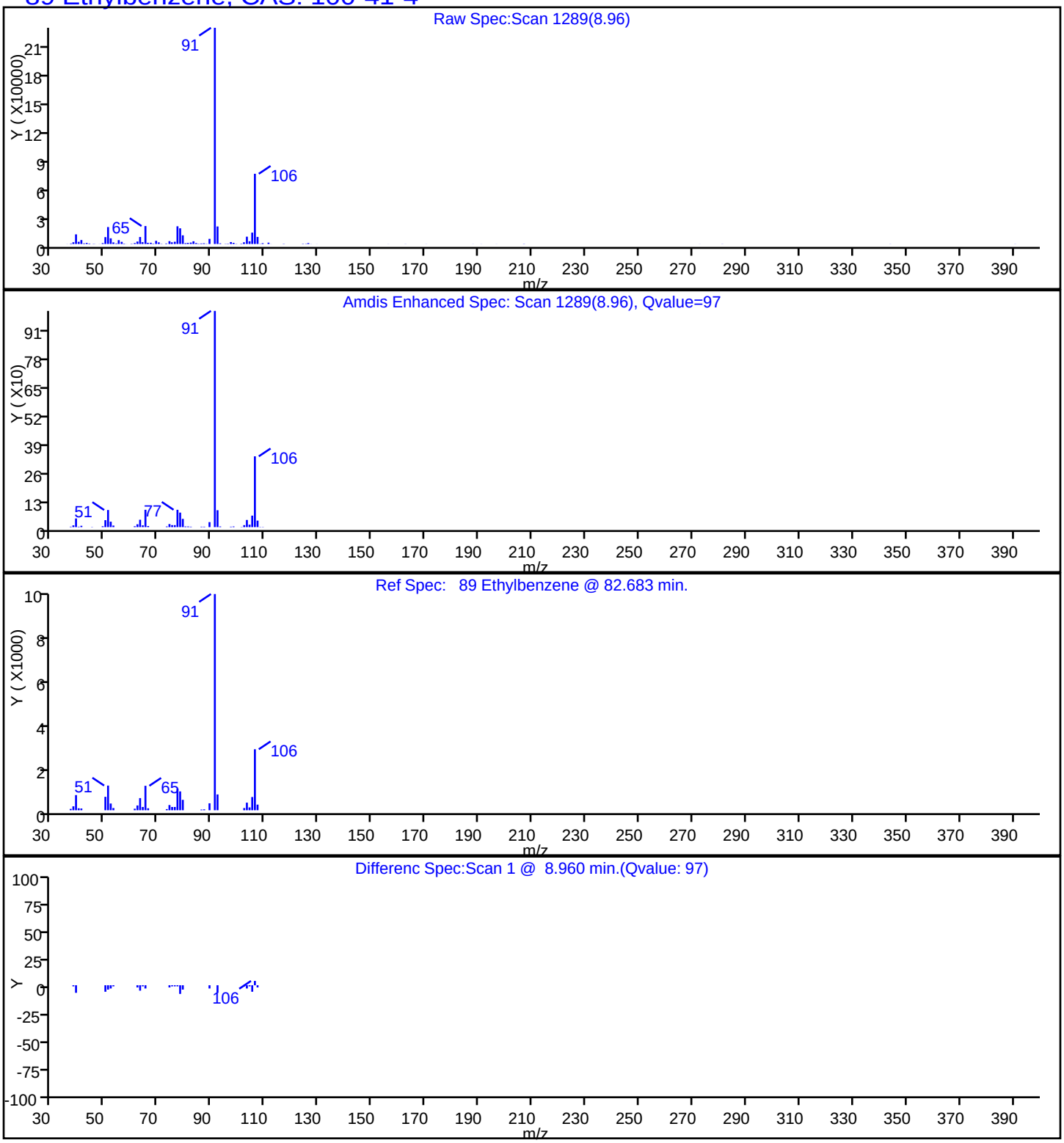


Report Date: 16-Dec-2013 09:54:01 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06965.D				
Injection Date:	13-Dec-2013 14:45:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-2-A	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	100.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

89 Ethylbenzene, CAS: 100-41-4

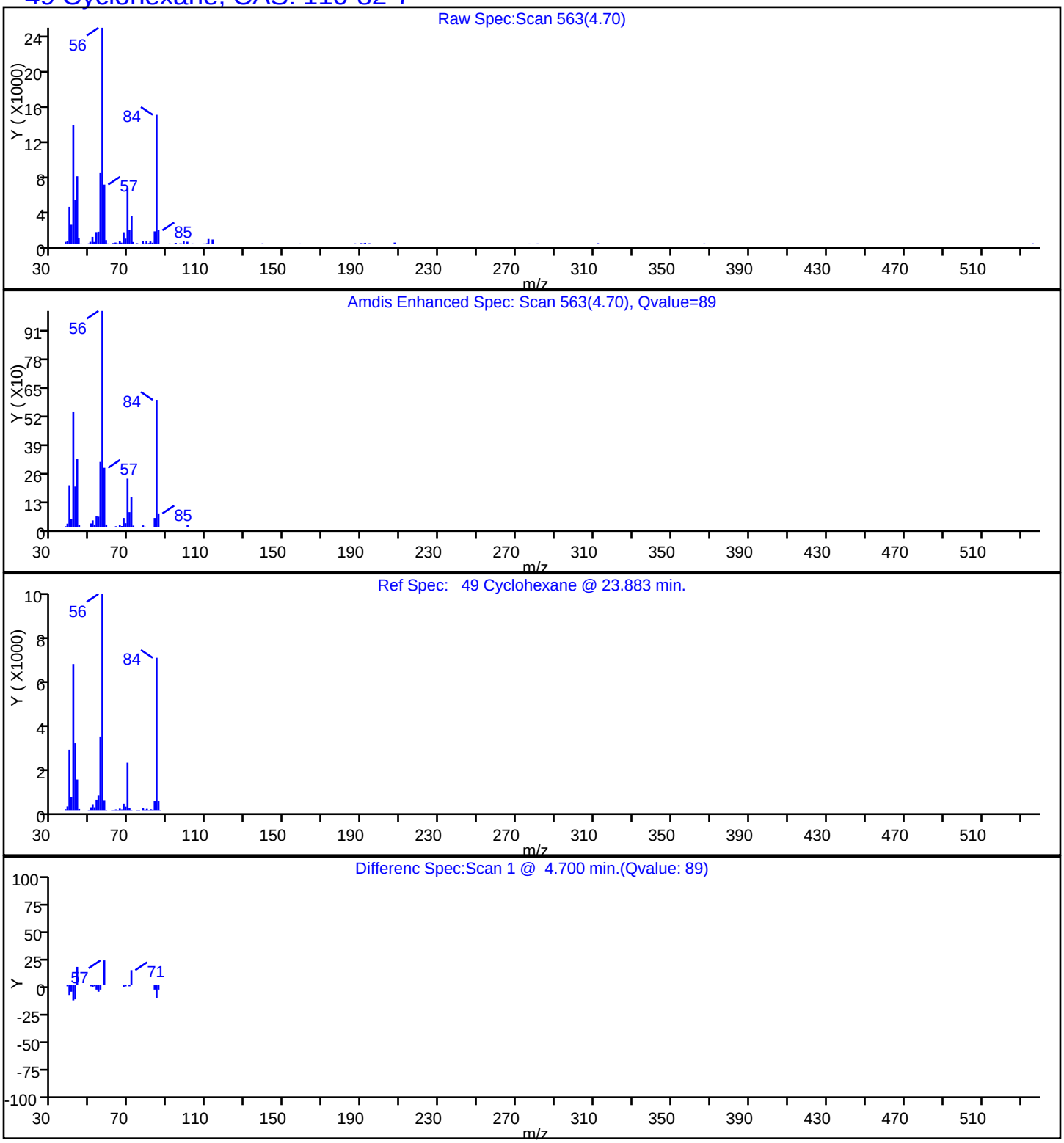


Report Date: 16-Dec-2013 09:54:01 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06965.D				
Injection Date:	13-Dec-2013 14:45:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-2-A	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	100.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

49 Cyclohexane, CAS: 110-82-7



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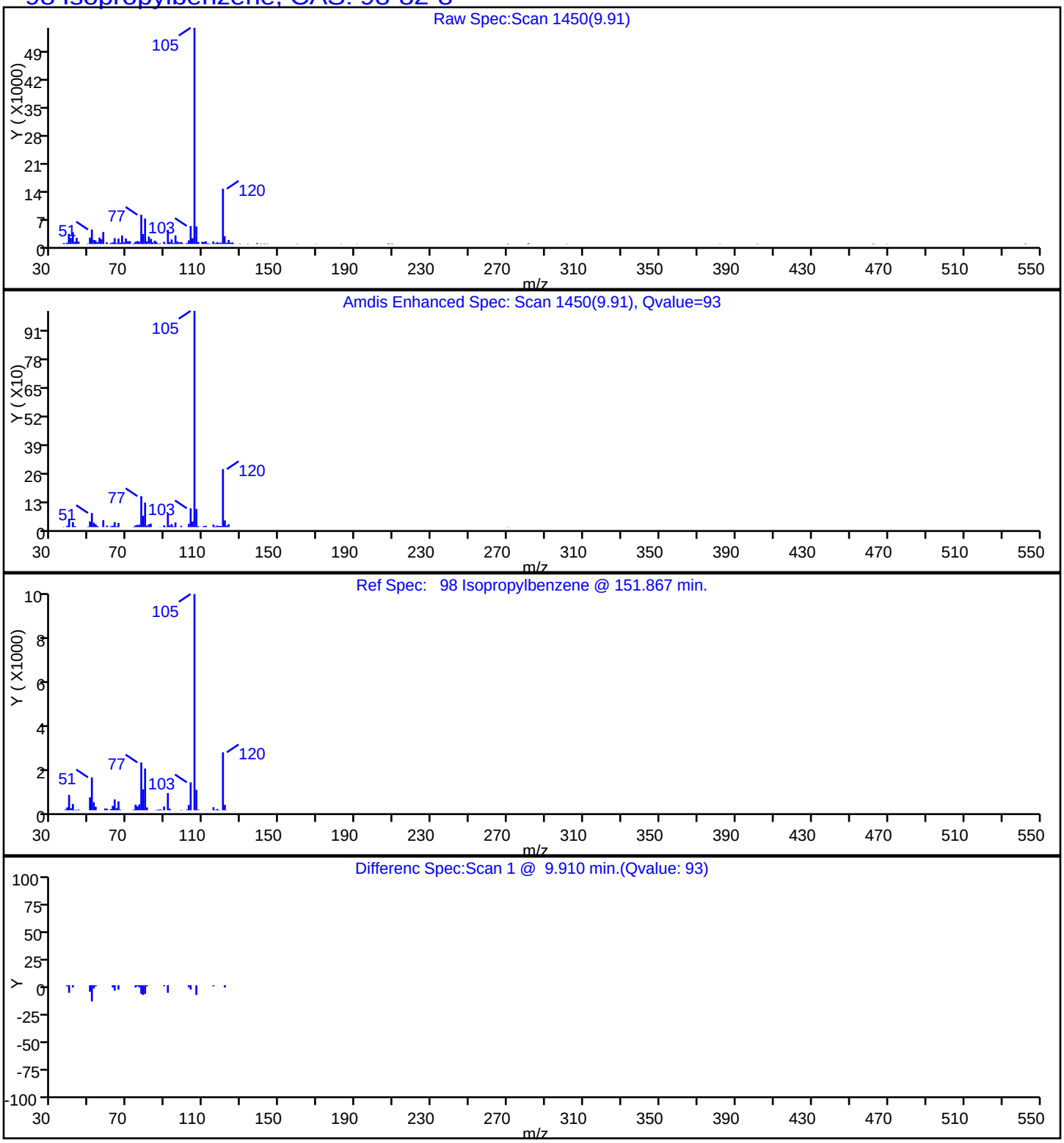
TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06965.D				
Injection Date:	13-Dec-2013 14:45:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-2-A	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	100.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

98 Isopropylbenzene, CAS: 98-82-8



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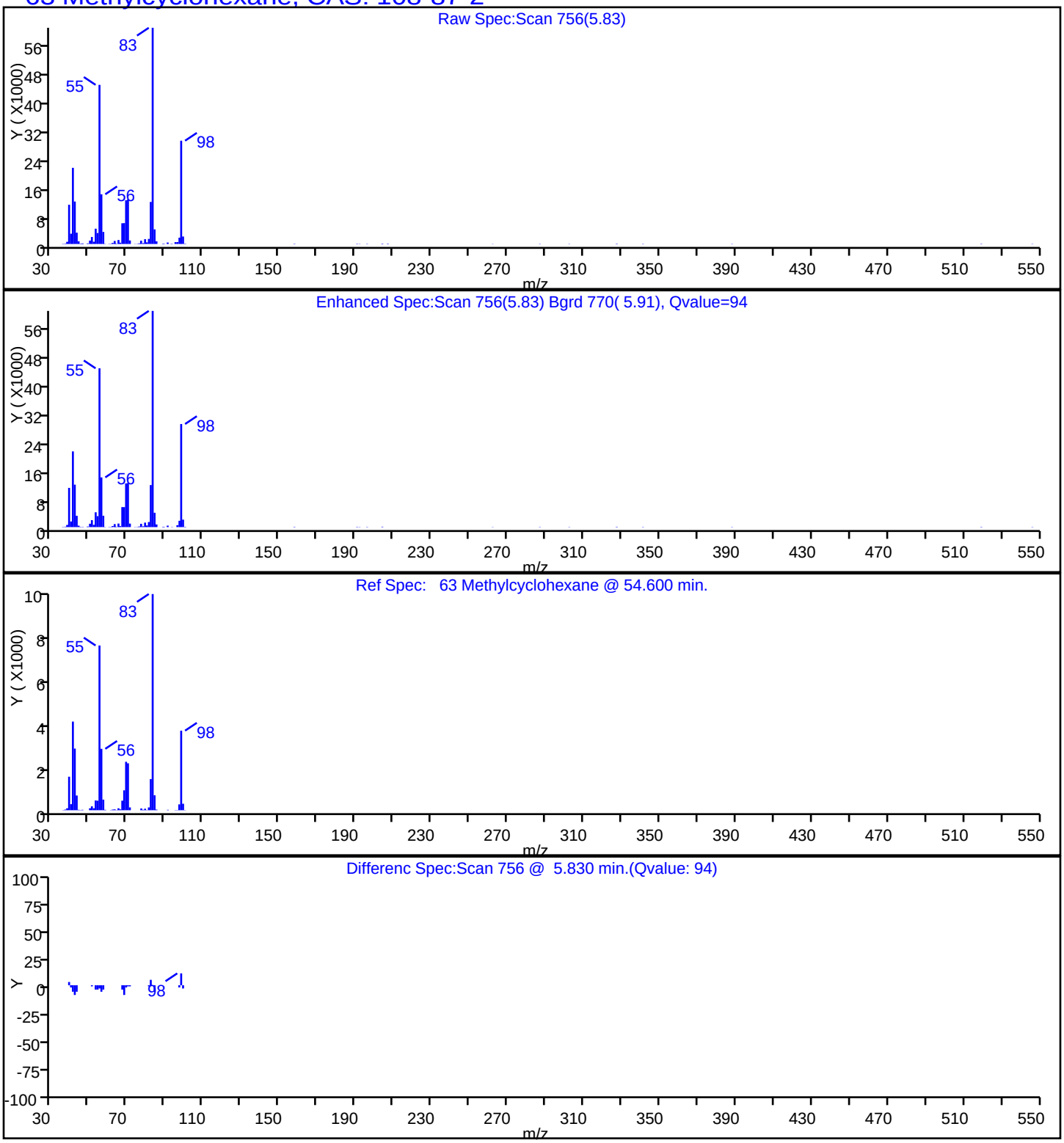
TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06965.D				
Injection Date:	13-Dec-2013 14:45:30	Instrument ID:	CVOAMS8		
Lims ID:	460-67815-A-2-A	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	100.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column:	Rtx-624 (0.25 mm)	Detector	MS SCAN		

63 Methylcyclohexane, CAS: 108-87-2



FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194389

SDG No.:

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 07:46 Calibration End Date: 11/26/2013 11:55 Calibration ID: 33118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 460-194389/5	J06471.D
Level 2	STD5 460-194389/15	J06481.D
Level 3	ICIS 460-194389/7	J06473.D
Level 4	STD50 460-194389/8	J06474.D
Level 5	STD200 460-194389/9	J06475.D
Level 6	STD500 460-194389/10	J06476.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2379 0.2145	0.2221	0.2256	0.2086	0.2272	Ave		0.2227			0.1000	4.6		20.0			
Chloromethane	0.1823 0.1657	0.1467	0.1641	0.1596	0.1594	Ave		0.1630			0.1000	7.1		20.0			
Vinyl chloride	0.1618 0.1522	0.1508	0.1605	0.1568	0.1595	Ave		0.1569			0.1000	2.9		20.0			
Bromomethane	0.1148 0.0968	0.1162	0.0981	0.1014	0.0978	Ave		0.1042			0.1000	8.5		20.0			
Chloroethane	5.9675 3.6976	4.2404	4.3180	4.1099	4.1484	Ave		4.4136			0.1000	18.0		20.0			
Dichlorofluoromethane	0.2694 0.2401	0.2470	0.2689	0.2593	0.2554	Ave		0.2567				4.6		20.0			
Trichlorofluoromethane	0.2199 0.2152	0.2004	0.2230	0.2145	0.2242	Ave		0.2162			0.1000	4.0		20.0			
Ethanol	0.0680 0.0195	0.0161	0.0205	0.0202	0.0194	QuaF		0.0195	0						1.0000		0.9900
Ethyl ether	0.1320 0.1007	0.1082	0.1289	0.1010	0.1163	Ave		0.1145				12.0		20.0			
2-Methyl-1,3-butadiene	0.1184 0.1333	0.1122	0.1614	0.1143	0.1601	Ave		0.1333				17.0		20.0			
Freon TF	0.1115 0.2056	0.1343	0.1784	0.1845	0.2094	QuaF		0.2074	0		0.1000				1.0000		0.9900
Acrolein	0.8228 +++++	0.8793	0.7825	0.7151	0.7159	Ave		0.7831				9.0		20.0			
1,1-Dichloroethene	0.1887 0.2030	0.1515	0.2001	0.1928	0.2072	Ave		0.1905			0.1000	11.0		20.0			
Acetone	3.5369 2.5439	2.5938	2.7279	2.8350	2.8725	Ave		2.8516			0.1000	13.0		20.0			
Iodomethane	0.3239 0.3496	0.2629	0.3660	0.3567	0.3769	Ave		0.3393				12.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194389

SDG No.:

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 07:46 Calibration End Date: 11/26/2013 11:55 Calibration ID: 33118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.4983 0.5854	0.4007	0.6122	0.6204	0.6792	Ave		0.5660			0.1000	18.0		20.0			
Isopropyl alcohol	0.6038 0.4578	0.3430	0.4472	0.4690	0.4704	Ave		0.4652				18.0		20.0			
Methyl acetate	0.1319 +++++	0.1350	0.1509	0.1386	0.1277	Ave		0.1368			0.1000	6.4		20.0			
Cyclopentene	0.4896 0.5041	0.3863	0.5873	0.5508	0.5612	Ave		0.5132				14.0		20.0			
Acetonitrile	1.5226 1.1186	1.1027	1.2732	1.2826	1.2226	Ave		1.2537				12.0		20.0			
Methylene Chloride	0.2235 0.2158	0.1987	0.2349	0.2241	0.2275	Ave		0.2208			0.1000	5.6		20.0			
2-Methyl-2-propanol	1.3097 0.8435	0.7943	0.8067	0.8234	0.8594	QuaF		0.8625	0						1.0000		0.9900
MTBE	0.5603 0.5654	0.5617	0.6164	0.5881	0.6031	Ave		0.5825			0.1000	4.1		20.0			
trans-1,2-Dichloroethene	0.2406 0.2130	0.1780	0.2262	0.2172	0.2264	Ave		0.2169			0.1000	9.8		20.0			
Acrylonitrile	0.0754 0.0601	0.0756	0.0837	0.0783	0.0725	Ave		0.0743				11.0		20.0			
Hexane	0.1760 0.1541	0.1436	0.1457	0.1565	0.1692	Ave		0.1575				8.2		20.0			
Isopropyl ether	0.5794 0.5053	0.5188	0.6211	0.6013	0.5764	Ave		0.5670				8.1		20.0			
1,1-Dichloroethane	0.3949 0.3583	0.3201	0.3967	0.3683	0.3765	Ave		0.3691			0.2000	7.7		20.0			
Vinyl acetate	0.3052 +++++	0.3250	0.3770	0.2982	0.2559	Ave		0.3122				14.0		20.0			
Allyl alcohol	0.1138 0.1360	0.0833	0.1219	0.1239	0.1294	Ave		0.1180				16.0		20.0			
2-Chloro-1,3-butadiene	0.1906 0.1947	0.1550	0.2047	0.2026	0.2077	Ave		0.1926				10.0		20.0			
Tert-butyl ethyl ether	0.5979 0.5610	0.5337	0.6467	0.6296	0.6146	Ave		0.5972				7.2		20.0			
2,2-Dichloropropane	0.2389 0.2703	0.1925	0.2384	0.2399	0.2690	Ave		0.2415				12.0		20.0			
cis-1,2-Dichloroethene	0.2310 0.2314	0.2208	0.2528	0.2372	0.2481	Ave		0.2369			0.1000	5.0		20.0			
2-Butanone	1.3359 1.1058	1.2936	1.3818	1.2640	1.2931	Ave		1.2790			0.1000	7.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194389

SDG No.:

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 07:46 Calibration End Date: 11/26/2013 11:55 Calibration ID: 33118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethyl acetate	0.3930 0.2921	0.3756	0.4108	0.4014	0.3765	Ave		0.3749				11.0		20.0			
Methyl acrylate	0.1881 0.1376	0.1664	0.1987	0.1982	0.1981	Ave		0.1812				14.0		20.0			
Propionitrile	1.6465 1.3034	1.3104	1.5711	1.5596	1.4905	Ave		1.4803				9.7		20.0			
Bromochloromethane	0.1240 0.1228	0.1135	0.1319	0.1230	0.1277	Ave		0.1238				5.0		20.0			
Tetrahydrofuran	4.9617 2.8379	3.6984	3.9533	3.6085	3.4233	Ave		3.7472				19.0		20.0			
Methacrylonitrile	0.0926 0.0702	0.0907	0.1038	0.1006	0.0883	Ave		0.0911				13.0		20.0			
Chloroform	0.3290 0.3231	0.3269	0.3959	0.3492	0.3558	Ave		0.3467			0.2000	7.9		20.0			
Cyclohexane	0.2427 0.2610	0.2134	0.2458	0.2575	0.2823	Ave		0.2504			0.1000	9.2		20.0			
1,1,1-Trichloroethane	0.2270 0.2985	0.2199	0.2715	0.2717	0.3045	Ave		0.2655			0.1000	13.0		20.0			
Carbon tetrachloride	0.1569 0.2349	0.1435	0.2027	0.1949	0.2348	Ave		0.1946			0.1000	20.0		20.0			
1,1-Dichloropropene	0.2454 0.2535	0.2140	0.2612	0.2547	0.2697	Ave		0.2498				7.7		20.0			
Isobutyl alcohol	0.2684 0.3221	0.2636	0.3031	0.3176	0.3428	Ave		0.3029				10.0		20.0			
Benzene	1.1252 0.9456	0.9969	1.1665	1.0821	1.0659	Ave		1.0637			0.5000	7.6		20.0			
Isopropyl acetate	0.4693 0.4207	0.4453	0.5163	0.5148	0.4959	Ave		0.4770				8.2		20.0			
Tert-amyl methyl ether	0.5548 0.5402	0.5284	0.6096	0.6037	0.5949	Ave		0.5719				6.1		20.0			
1,2-Dichloroethane	0.2625 0.2495	0.2490	0.2708	0.2591	0.2608	Ave		0.2586			0.1000	3.2		20.0			
n-Heptane	0.0832 0.0638	0.0622	0.0544	0.0649	0.0669	Ave		0.0659				14.0		20.0			
2,4,4-Trimethyl-1-pentene	0.2479 0.2434	0.2464	0.2456	0.2642	0.2771	Ave		0.2541				5.3		20.0			
n-Butanol	0.2144 0.2344	0.1365	0.1869	0.2076	0.2304	Ave		0.2017				18.0		20.0			
Trichloroethene	0.2349 +++++	0.1913	0.2237	0.2194	0.2345	Ave		0.2208			0.2000	8.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194389

SDG No.:

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 07:46 Calibration End Date: 11/26/2013 11:55 Calibration ID: 33118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethyl acrylate	0.4004 0.3451	0.3505	0.4201	0.4294	0.4341	Ave		0.3966				10.0		20.0			
Methylcyclohexane	0.2136 0.2053	0.1789	0.1936	0.2067	0.2252	Ave		0.2039			0.1000	7.9		20.0			
1,2-Dichloropropane	0.2075 0.2006	0.2067	0.2252	0.2088	0.2129	Ave		0.2103			0.1000	3.9		20.0			
Methyl methacrylate	0.0712 0.0582	0.0593	0.0703	0.0717	0.0724	Ave		0.0672				9.8		20.0			
1,4-Dioxane	1.3710 0.8516	0.8770	0.8407	0.8255	0.7853	QuaF		0.7538	0						1.0000		0.9900
n-Propyl acetate	0.3136 0.2068	0.2486	0.2871	0.2889	0.2797	Ave		0.2708				14.0		20.0			
Dibromomethane	0.1373 0.1343	0.1309	0.1441	0.1346	0.1396	Ave		0.1368				3.4		20.0			
Bromodichloromethane	0.2060 0.2728	0.2159	0.2446	0.2467	0.2766	Ave		0.2438			0.2000	12.0		20.0			
2-Chloroethyl vinyl ether	0.1322 0.1518	0.1349	0.1575	0.1600	0.1583	Ave		0.1491				8.3		20.0			
2-Nitropropane	0.0262 0.0201	0.0209	0.0249	0.0297	0.0401	Qua	-0.783	0.0539	0						0.9930		0.9900
Epichlorohydrin	0.0180 0.0203	0.0196	0.0221	0.0217	0.0220	Ave		0.0206				7.9		20.0			
cis-1,3-Dichloropropene	0.3394 0.4253	0.3640	0.4330	0.4230	0.4453	Ave		0.4050			0.2000	11.0		20.0			
4-Methyl-2-pentanone	0.2071 0.1809	0.2348	0.2376	0.2270	0.2157	Ave		0.2171			0.1000	9.7		20.0			
Toluene	1.2368 0.9993	1.0982	1.2110	1.1456	1.1434	Ave		1.1390			0.4000	7.4		20.0			
trans-1,3-Dichloropropene	0.2494 0.3688	0.2770	0.3173	0.3409	0.3730	Ave		0.3211			0.1000	16.0		20.0			
Ethyl methacrylate	0.2184 0.2581	0.2422	0.2809	0.2789	0.2921	Ave		0.2618				11.0		20.0			
1,1,2-Trichloroethane	0.1969 0.2229	0.2214	0.2350	0.2245	0.2306	Ave		0.2219			0.1000	6.0		20.0			
Tetrachloroethene	0.2559 0.3085	0.2649	0.3041	0.3050	0.3209	Ave		0.2932			0.2000	9.0		20.0			
1,3-Dichloropropane	0.3987 0.4096	0.4220	0.4483	0.4198	0.4263	Ave		0.4208				4.0		20.0			
2-Hexanone	3.5624 3.2458	3.4971	3.9889	3.8627	3.9019	Ave		3.6765			0.1000	7.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194389

SDG No.:

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 07:46 Calibration End Date: 11/26/2013 11:55 Calibration ID: 33118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
n-Butyl acetate	0.3279 0.2939	0.3242	0.3735	0.3780	0.3763	Ave		0.3456				10.0		20.0			
Dibromochloromethane	0.1534 0.3028	0.1966	0.2317	0.2475	0.2947	QuaF		0.2819	0		0.1000				1.0000		0.9900
1,2-Dibromoethane	0.2520 0.2884	0.2719	0.2906	0.2824	0.2922	Ave		0.2796			0.1000	5.5		20.0			
Chlorobenzene	0.8808 0.7319	0.7755	0.8125	0.7825	0.7929	Ave		0.7960			0.5000	6.2		20.0			
Ethylbenzene	0.4245 0.3806	0.3674	0.4031	0.3929	0.4054	Ave		0.3957			0.1000	5.1		20.0			
1,1,1,2-Tetrachloroethane	0.1953 0.2624	0.2156	0.2361	0.2381	0.2687	Ave		0.2360				12.0		20.0			
m-Xylene & p-Xylene	0.4946 0.4730	0.4666	0.4951	0.4955	0.5030	Ave		0.4880			0.1000	3.0		20.0			
n-Butyl acrylate	0.1271 0.1790	0.1431	0.1976	0.2144	0.2230	QuaF		0.2467	0						0.9990		0.9900
o-Xylene	0.4976 0.4477	0.4703	0.5037	0.4995	0.4949	Ave		0.4856			0.3000	4.5		20.0			
Styrene	0.7261 0.7620	0.7984	0.9061	0.8905	0.8708	Ave		0.8257			0.3000	9.0		20.0			
Amyl acetate (mixed isomers)	0.5019 0.5109	0.5128	0.6670	0.6867	0.6806	Ave		0.5933				16.0		20.0			
Bromoform	0.1035 0.2249	0.1179	0.1498	0.1673	0.2143	QuaF		0.2000	0.0001		0.1000				0.9990		0.9900
Isopropylbenzene	0.9875 0.8673	0.9430	1.0486	1.0738	1.0552	Ave		0.9959			0.1000	8.0		20.0			
Camphene	0.0331 0.0433	0.0425	0.0400	0.0450	0.0459	Ave		0.0416				11.0		20.0			
Bromobenzene	0.6036 0.5882	0.6269	0.6579	0.6184	0.6361	Ave		0.6219				3.9		20.0			
1,1,2,2-Tetrachloroethane	0.5308 +++++	0.6011	0.6137	0.5765	0.5796	Ave		0.5804			0.3000	5.5		20.0			
N-Propylbenzene	2.0607 1.4965	1.8639	2.0220	1.9959	1.9466	Ave		1.8976				11.0		20.0			
1,2,3-Trichloropropane	0.1682 0.1653	0.1710	0.1795	0.1686	0.1744	Ave		0.1712				3.0		20.0			
trans-1,4-Dichloro-2-butene	0.1292 0.1533	0.1305	0.1107	0.1420	0.1565	Ave		0.1371				12.0		20.0			
2-Chlorotoluene	1.5222 1.1801	1.5164	1.5779	1.5174	1.4767	Ave		1.4651				9.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194389

SDG No.:

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 07:46 Calibration End Date: 11/26/2013 11:55 Calibration ID: 33118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
4-Ethyltoluene	2.0226 1.3580	1.7094	1.9002	1.9307	1.8001	Ave		1.7868				13.0		20.0			
1,3,5-Trimethylbenzene	1.4822 1.1946	1.4055	1.4811	1.4876	1.4785	Ave		1.4216				8.1		20.0			
4-Chlorotoluene	1.4878 1.1773	1.4889	1.4934	1.4439	1.4251	Ave		1.4194				8.6		20.0			
Butyl Methacrylate	0.3487 0.5815	0.4287	0.6030	0.6431	0.6728	QuaF		0.7200	0						1.0000		0.9900
tert-Butylbenzene	1.0949 0.9751	1.0325	1.0959	1.1339	1.1459	Ave		1.0797				6.0		20.0			
1,2,4-Trimethylbenzene	1.6739 1.2336	1.5651	1.6196	1.6095	1.5762	Ave		1.5463				10.0		20.0			
sec-Butylbenzene	1.4770 1.2101	1.3815	1.4732	1.5034	1.4910	Ave		1.4227				7.9		20.0			
4-Isopropyltoluene	1.3974 1.0768	1.3118	1.3508	1.3966	1.3622	Ave		1.3159				9.2		20.0			
1,3-Dichlorobenzene	1.1090 0.8729	1.0829	1.1191	1.0708	1.0540	Ave		1.0514			0.6000	8.6		20.0			
1,4-Dichlorobenzene	1.2056 0.9139	1.1511	1.1617	1.0991	1.0937	Ave		1.1042			0.5000	9.2		20.0			
Benzyl chloride	0.4754 0.9572	0.4603	0.6805	0.8287	1.0131	QuaF		1.0120	0						0.9990		0.9900
Indan	1.8087 1.3497	1.6761	1.9726	1.9613	1.8079	Ave		1.7627				13.0		20.0			
n-Butylbenzene	1.6529 1.1095	1.3415	1.3184	1.3309	1.3415	Ave		1.3491				13.0		20.0			
1,2-Dichlorobenzene	1.1202 0.9234	1.0812	1.1449	1.0731	1.0584	Ave		1.0669			0.4000	7.2		20.0			
1,2-Dibromo-3-Chloropropane	0.1078 0.1242	0.0896	0.0928	0.0976	0.1100	Ave		0.1037			0.0500	12.0		20.0			
1,3,5-Trichlorobenzene	0.8184 0.6331	0.6871	0.6957	0.7119	0.7067	Ave		0.7088				8.6		20.0			
Camphor	0.0658 0.0697	0.0523	0.0632	0.0667	0.0728	Ave		0.0651				11.0		20.0			
1,2,4-Trichlorobenzene	0.9331 0.6483	0.7546	0.7251	0.7082	0.7154	Ave		0.7475			0.2000	13.0		20.0			
Hexachlorobutadiene	0.3847 0.2649	0.3848	0.2249	0.2405	0.2536	QuaF		0.2448	0						1.0000		0.9900
Naphthalene	1.9902 1.6543	2.1646	2.2636	2.1607	2.1404	Ave		2.0623				11.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194389

SDG No.:

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 07:46 Calibration End Date: 11/26/2013 11:55 Calibration ID: 33118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trichlorobenzene	0.8782 0.6448	0.7419	0.7402	0.6985	0.7236	Ave		0.7379				11.0		20.0			
Dibromofluoromethane (Surr)	0.2474 0.2509	0.2499	0.2540	0.2510	0.2559	Ave		0.2515				1.2		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2759 0.2654	0.2676	0.2706	0.2705	0.2665	Ave		0.2694				1.4		20.0			
Toluene-d8 (Surr)	1.3366 1.3061	1.3047	1.3247	1.3206	1.3056	Ave		1.3164				1.0		20.0			
Bromofluorobenzene	0.4754 0.4672	0.4655	0.4684	0.4758	0.4652	Ave		0.4696				1.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194389

SDG No.:

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 07:46 Calibration End Date: 11/26/2013 11:55 Calibration ID: 33118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 460-194389/5	J06471.D
Level 2	STD5 460-194389/15	J06481.D
Level 3	ICIS 460-194389/7	J06473.D
Level 4	STD50 460-194389/8	J06474.D
Level 5	STD200 460-194389/9	J06475.D
Level 6	STD500 460-194389/10	J06476.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	3586 1693680	16911	68840	159758	707153	1.00 500	5.00	20.0	50.0	200
Chloromethane	FB	Ave	2747 1308320	11166	50089	122225	496086	1.00 500	5.00	20.0	50.0	200
Vinyl chloride	FB	Ave	2439 1201836	11480	48976	120046	496377	1.00 500	5.00	20.0	50.0	200
Bromomethane	FB	Ave	1730 764812	8846	29935	77635	304233	1.00 500	5.00	20.0	50.0	200
Chloroethane	TBA	Ave	1777 663220	7037	27205	66089	268938	1.00 500	5.00	20.0	50.0	200
Dichlorofluoromethane	FB	Ave	4061 1896130	18807	82059	198534	794893	1.00 500	5.00	20.0	50.0	200
Trichlorofluoromethane	FB	Ave	3314 1699689	15259	68051	164248	697787	1.00 500	5.00	20.0	50.0	200
Ethanol	TBA	QuaF	1012 174656	1332	6459	16238	62913	50.0 25000	250	1000	2500	10000
Ethyl ether	FB	Ave	1990 795569	8241	39345	77351	361943	1.00 500	5.00	20.0	50.0	200
2-Methyl-1,3-butadiene	FB	Ave	1784 1053036	8541	49247	87514	498299	1.00 500	5.00	20.0	50.0	200
Freon TF	FB	QuaF	1681 1623307	10224	54439	141271	651699	1.00 500	5.00	20.0	50.0	200
Acrolein	TBA	Ave	980 +++++	5837	9860	22999	46411	4.00 +++++	20.0	40.0	100	200
1,1-Dichloroethene	FB	Ave	2844 1602958	11534	61046	147638	644671	1.00 500	5.00	20.0	50.0	200
Acetone	TBA	Ave	5266 2281428	21522	85934	227936	931105	5.00 2500	25.0	100	250	1000
Iodomethane	FB	Ave	4881 2761094	20019	111680	273129	1172992	1.00 500	5.00	20.0	50.0	200
Carbon disulfide	FB	Ave	7511 4623099	30508	186816	475094	2113517	1.00 500	5.00	20.0	50.0	200

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194389

SDG No.:

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 07:46 Calibration End Date: 11/26/2013 11:55 Calibration ID: 33118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Isopropyl alcohol	TBA	Ave	1798 821167	5692	28175	75425	304930	10.0 5000	50.0	200	500	2000
Methyl acetate	FB	Ave	9940 +++++	51410	230207	530874	1987620	5.00 +++++	25.0	100	250	1000
Cyclopentene	FB	Ave	7379 3980818	29413	179223	421777	1746462	1.00 500	5.00	20.0	50.0	200
Acetonitrile	TBA	Ave	4534 2006375	18299	80219	206240	792635	10.0 5000	50.0	200	500	2000
Methylene Chloride	FB	Ave	3369 1704347	15130	71671	171650	707806	1.00 500	5.00	20.0	50.0	200
2-Methyl-2-propanol	TBA	QuaF	3900 1512904	13182	50826	132400	557167	10.0 5000	50.0	200	500	2000
MTBE	FB	Ave	8445 4465293	42764	188092	450346	1876806	1.00 500	5.00	20.0	50.0	200
trans-1,2-Dichloroethene	FB	Ave	3626 1682090	13555	69025	166292	704600	1.00 500	5.00	20.0	50.0	200
Acrylonitrile	FB	Ave	11365 4748824	57542	255258	599271	2255325	10.0 5000	50.0	200	500	2000
Hexane	FB	Ave	2653 1216857	10931	44470	119867	526608	1.00 500	5.00	20.0	50.0	200
Isopropyl ether	FB	Ave	8733 3990689	39498	189509	460467	1793641	1.00 500	5.00	20.0	50.0	200
1,1-Dichloroethane	FB	Ave	5952 2829381	24368	121064	282005	1171501	1.00 500	5.00	20.0	50.0	200
Vinyl acetate	FB	Ave	9199 +++++	49483	230063	456648	1592859	2.00 +++++	10.0	40.0	100	400
Allyl alcohol	TBA	Ave	847 609702	3456	19198	49801	209751	25.0 12500	125	500	1250	5000
2-Chloro-1,3-butadiene	FB	Ave	2873 1537395	11802	62458	155173	646450	1.00 500	5.00	20.0	50.0	200
Tert-butyl ethyl ether	FB	Ave	9011 4429919	40636	197338	482140	1912488	1.00 500	5.00	20.0	50.0	200
2,2-Dichloropropane	FB	Ave	3600 2134857	14656	72744	183733	837045	1.00 500	5.00	20.0	50.0	200
cis-1,2-Dichloroethene	FB	Ave	3482 1827171	16810	77137	181611	772032	1.00 500	5.00	20.0	50.0	200
2-Butanone	TBA	Ave	1989 991679	10734	43530	101629	419174	5.00 2500	25.0	100	250	1000
Ethyl acetate	FB	Ave	11847 4613220	57198	250675	614713	2343297	2.00 1000	10.0	40.0	100	400
Methyl acrylate	FB	Ave	2835 1086474	12667	60639	151749	616448	1.00 500	5.00	20.0	50.0	200

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194389

SDG No.:

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 07:46 Calibration End Date: 11/26/2013 11:55 Calibration ID: 33118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Propionitrile	TBA	Ave	4903 2337845	21746	98986	250794	966268	10.0 5000	50.0	200	500	2000
Bromochloromethane	FB	Ave	1869 970060	8645	40263	94217	397226	1.00 500	5.00	20.0	50.0	200
Tetrahydrofuran	TBA	Ave	2955 1018046	12275	49814	116053	443860	2.00 1000	10.0	40.0	100	400
Methacrylonitrile	FB	Ave	13962 5541488	69042	316885	770606	2749064	10.0 5000	50.0	200	500	2000
Chloroform	FB	Ave	4959 2551210	24893	120807	267395	1107184	1.00 500	5.00	20.0	50.0	200
Cyclohexane	FB	Ave	3658 2060787	16245	75008	197154	878436	1.00 500	5.00	20.0	50.0	200
1,1,1-Trichloroethane	FB	Ave	3421 2357252	16744	82845	208033	947480	1.00 500	5.00	20.0	50.0	200
Carbon tetrachloride	FB	Ave	2365 1854948	10926	61844	149288	730524	1.00 500	5.00	20.0	50.0	200
1,1-Dichloropropene	FB	Ave	3699 2002237	16291	79715	195016	839244	1.00 500	5.00	20.0	50.0	200
Isobutyl alcohol	TBA	Ave	1998 1444139	10936	47738	127686	555623	25.0 12500	125	500	1250	5000
Benzene	CBZ	Ave	13120 5832228	58950	277798	646793	2604223	1.00 500	5.00	20.0	50.0	200
Isopropyl acetate	FB	Ave	7073 3322141	33907	157535	394205	1543100	1.00 500	5.00	20.0	50.0	200
Tert-amyl methyl ether	FB	Ave	8362 4265614	40233	186019	462308	1851233	1.00 500	5.00	20.0	50.0	200
1,2-Dichloroethane	FB	Ave	3956 1970588	18960	82646	198408	811427	1.00 500	5.00	20.0	50.0	200
n-Heptane	FB	Ave	1254 503492	4738	16613	49685	208133	1.00 500	5.00	20.0	50.0	200
2,4,4-Trimethyl-1-pentene	FB	Ave	7474 3844804	37513	149915	404714	1724716	2.00 1000	10.0	40.0	100	400
n-Butanol	TBA	Ave	1596 1051260	5663	29436	83444	373456	25.0 12500	125	500	1250	5000
Trichloroethene	FB	Ave	3540 +++++	14568	68258	168001	729827	1.00 +++++	5.00	20.0	50.0	200
Ethyl acrylate	FB	Ave	6035 2725183	26688	128184	328861	1350696	1.00 500	5.00	20.0	50.0	200
Methylcyclohexane	FB	Ave	3219 1621616	13619	59081	158322	700884	1.00 500	5.00	20.0	50.0	200
1,2-Dichloropropane	FB	Ave	3127 1584144	15740	68704	159899	662576	1.00 500	5.00	20.0	50.0	200

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194389

SDG No.:

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 07:46 Calibration End Date: 11/26/2013 11:55 Calibration ID: 33118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl methacrylate	FB	Ave	2145 918894	9034	42906	109765	450383	2.00 1000	10.0	40.0	100	400
1,4-Dioxane	DXE	QuaF	3223 404220	4355	16641	41188	152464	50.0 10000	100	400	1000	4000
n-Propyl acetate	FB	Ave	4726 1633210	18924	87609	221203	870352	1.00 500	5.00	20.0	50.0	200
Dibromomethane	FB	Ave	2069 1060920	9963	43976	103040	434554	1.00 500	5.00	20.0	50.0	200
Bromodichloromethane	FB	Ave	3105 2154335	16437	74646	188947	860870	1.00 500	5.00	20.0	50.0	200
2-Chloroethyl vinyl ether	FB	Ave	1992 1198573	10274	48064	122519	492613	1.00 500	5.00	20.0	50.0	200
2-Nitropropane	FB	Qua	789 318170	3181	15205	45519	249441	2.00 1000	10.0	40.0	100	400
Epichlorohydrin	FB	Ave	5429 3203819	29789	134734	332653	1367080	20.0 10000	100	400	1000	4000
cis-1,3-Dichloropropene	CBZ	Ave	3958 2623311	21526	103128	252849	1088030	1.00 500	5.00	20.0	50.0	200
4-Methyl-2-pentanone	CBZ	Ave	12073 5578587	69413	282866	678274	2634385	5.00 2500	25.0	100	250	1000
Toluene	CBZ	Ave	14422 6163365	64944	288399	684719	2793396	1.00 500	5.00	20.0	50.0	200
trans-1,3-Dichloropropene	CBZ	Ave	2908 2274891	16381	75564	203738	911293	1.00 500	5.00	20.0	50.0	200
Ethyl methacrylate	FB	Ave	3292 2037976	18438	85723	213599	908921	1.00 500	5.00	20.0	50.0	200
1,1,2-Trichloroethane	CBZ	Ave	2296 1374551	13095	55970	134204	563484	1.00 500	5.00	20.0	50.0	200
Tetrachloroethene	CBZ	Ave	2984 1902631	15663	72429	182309	783917	1.00 500	5.00	20.0	50.0	200
1,3-Dichloropropane	CBZ	Ave	4649 2526325	24956	106763	250916	1041434	1.00 500	5.00	20.0	50.0	200
2-Hexanone	TBA	Ave	5304 2910885	29017	125657	310571	1264804	5.00 2500	25.0	100	250	1000
n-Butyl acetate	CBZ	Ave	3823 1812541	19171	88960	225951	919295	1.00 500	5.00	20.0	50.0	200
Dibromochloromethane	CBZ	QuaF	1789 1867409	11629	55176	147929	719953	1.00 500	5.00	20.0	50.0	200
1,2-Dibromoethane	CBZ	Ave	2939 1778704	16079	69209	168820	714006	1.00 500	5.00	20.0	50.0	200
Chlorobenzene	CBZ	Ave	10271 4514216	45858	193493	467714	1937296	1.00 500	5.00	20.0	50.0	200

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194389

SDG No.:

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 07:46 Calibration End Date: 11/26/2013 11:55 Calibration ID: 33118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Ethylbenzene	CBZ	Ave	4950 2347435	21727	96009	234867	990565	1.00 500	5.00	20.0	50.0	200
1,1,1,2-Tetrachloroethane	CBZ	Ave	2277 1618564	12750	56232	142314	656365	1.00 500	5.00	20.0	50.0	200
m-Xylene & p-Xylene	CBZ	Ave	5767 2917488	27593	117900	296157	1228918	1.00 500	5.00	20.0	50.0	200
n-Butyl acrylate	CBZ	QuaF	1482 1104067	8463	47070	128167	544749	1.00 500	5.00	20.0	50.0	200
o-Xylene	CBZ	Ave	5802 2761042	27810	119964	298562	1209153	1.00 500	5.00	20.0	50.0	200
Styrene	CBZ	Ave	8467 4700035	47216	215794	532265	2127417	1.00 500	5.00	20.0	50.0	200
Amyl acetate (mixed isomers)	DCB	Ave	3453 1894408	17892	93510	244837	975413	1.00 500	5.00	20.0	50.0	200
Bromoform	CBZ	QuaF	1207 1387132	6972	35665	100021	523522	1.00 500	5.00	20.0	50.0	200
Isopropylbenzene	CBZ	Ave	11515 5348901	55763	249714	641831	2577901	1.00 500	5.00	20.0	50.0	200
Camphene	CBZ	Ave	386 267245	2515	9519	26872	112087	1.00 500	5.00	20.0	50.0	200
Bromobenzene	DCB	Ave	4153 2180998	21872	92233	220494	911585	1.00 500	5.00	20.0	50.0	200
1,1,2,2-Tetrachloroethane	DCB	Ave	3652 +++++	20975	86032	205557	830697	1.00 +++++	5.00	20.0	50.0	200
N-Propylbenzene	DCB	Ave	14178 5548440	65035	283473	711595	2789713	1.00 500	5.00	20.0	50.0	200
1,2,3-Trichloropropane	DCB	Ave	1157 613060	5966	25162	60104	249988	1.00 500	5.00	20.0	50.0	200
trans-1,4-Dichloro-2-butene	DCB	Ave	889 568541	4554	15523	50634	224300	1.00 500	5.00	20.0	50.0	200
2-Chlorotoluene	DCB	Ave	10473 4375396	52910	221220	541003	2116266	1.00 500	5.00	20.0	50.0	200
4-Ethyltoluene	DCB	Ave	13916 5035017	59643	266404	688354	2579794	1.00 500	5.00	20.0	50.0	200
1,3,5-Trimethylbenzene	DCB	Ave	10198 4429003	49041	207639	530368	2118855	1.00 500	5.00	20.0	50.0	200
4-Chlorotoluene	DCB	Ave	10236 4364995	51950	209373	514808	2042303	1.00 500	5.00	20.0	50.0	200
Butyl Methacrylate	DCB	QuaF	2399 2155917	14958	84542	229289	964173	1.00 500	5.00	20.0	50.0	200
tert-Butylbenzene	DCB	Ave	7533 3615398	36026	153635	404292	1642254	1.00 500	5.00	20.0	50.0	200

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194389

SDG No.:

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 07:46 Calibration End Date: 11/26/2013 11:55 Calibration ID: 33118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,4-Trimethylbenzene	DCB	Ave	11517 4573761	54610	227060	573853	2258925	1.00 500	5.00	20.0	50.0	200
sec-Butylbenzene	DCB	Ave	10162 4486802	48204	206543	536020	2136863	1.00 500	5.00	20.0	50.0	200
4-Isopropyltoluene	DCB	Ave	9614 3992462	45771	189381	497936	1952238	1.00 500	5.00	20.0	50.0	200
1,3-Dichlorobenzene	DCB	Ave	7630 3236436	37783	156891	381775	1510496	1.00 500	5.00	20.0	50.0	200
1,4-Dichlorobenzene	DCB	Ave	8295 3388583	40163	162863	391858	1567427	1.00 500	5.00	20.0	50.0	200
Benzyl chloride	DCB	QuaF	3271 3549104	16059	95399	295470	1451920	1.00 500	5.00	20.0	50.0	200
Indan	DCB	Ave	12444 5004277	58482	276553	699281	2590961	1.00 500	5.00	20.0	50.0	200
n-Butylbenzene	DCB	Ave	11372 4113724	46806	184830	474523	1922614	1.00 500	5.00	20.0	50.0	200
1,2-Dichlorobenzene	DCB	Ave	7707 3423763	37724	160514	382588	1516784	1.00 500	5.00	20.0	50.0	200
1,2-Dibromo-3-Chloropropane	DCB	Ave	742 460453	3126	13011	34799	157605	1.00 500	5.00	20.0	50.0	200
1,3,5-Trichlorobenzene	DCB	Ave	5631 2347164	23975	97533	253827	1012748	1.00 500	5.00	20.0	50.0	200
Camphor	DCB	Ave	2264 1292594	9116	44287	118967	521852	5.00 2500	25.0	100	250	1000
1,2,4-Trichlorobenzene	DCB	Ave	6420 2403553	26328	101661	252505	1025288	1.00 500	5.00	20.0	50.0	200
Hexachlorobutadiene	DCB	QuaF	2647 982341	13428	31525	85761	363509	1.00 500	5.00	20.0	50.0	200
Naphthalene	DCB	Ave	13693 6133725	75525	317345	770369	3067537	1.00 500	5.00	20.0	50.0	200
1,2,3-Trichlorobenzene	DCB	Ave	6042 2390522	25886	103779	249025	1037072	1.00 500	5.00	20.0	50.0	200
Dibromofluoromethane (Surr)	FB	Ave	186457 198146	190296	193747	192205	199054	50.0 50.0	50.0	50.0	50.0	50.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	207907 209569	203712	206394	207113	207318	50.0 50.0	50.0	50.0	50.0	50.0
Toluene-d8 (Surr)	CBZ	Ave	779277 805529	771578	788709	789329	797448	50.0 50.0	50.0	50.0	50.0	50.0
Bromofluorobenzene	CBZ	Ave	277148 288178	275288	278864	284399	284118	50.0 50.0	50.0	50.0	50.0	50.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194389

SDG No.:

Instrument ID: CVOAMS8 GC Column: Rtx-624 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 07:46 Calibration End Date: 11/26/2013 11:55 Calibration ID: 33118

Curve Type Legend:

Ave = Average ISTD
Qua = Quadratic ISTD
QuaF = Quadratic ISTD forced zero

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-197509/3 Calibration Date: 12/13/2013 09:52

Instrument ID: CVOAMS8 Calib Start Date: 11/26/2013 07:46

GC Column: Rtx-624 ID: 0.25(mm) Calib End Date: 11/26/2013 11:55

Lab File ID: J06955.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2227	0.2152	0.1000	19.3	20.0	-3.4	20.0
Chloromethane	Ave	0.1630	0.1654	0.1000	20.3	20.0	1.5	20.0
Vinyl chloride	Ave	0.1569	0.1594	0.1000	20.3	20.0	1.6	20.0
Bromomethane	Ave	0.1042	0.1135	0.1000	21.8	20.0	9.0	20.0
Chloroethane	Ave	4.414	5.037	0.1000	22.8	20.0	14.1	20.0
Dichlorofluoromethane	Ave	0.2567	0.2632		20.5	20.0	2.5	20.0
Trichlorofluoromethane	Ave	0.2162	0.2254	0.1000	20.8	20.0	4.2	20.0
Ethanol	QuaF		0.0257		1320	1000	31.5*	20.0
Ethyl ether	Ave	0.1145	0.1139		19.9	20.0	-0.6	20.0
2-Methyl-1,3-butadiene	Ave	0.1333	0.1202		18.0	20.0	-9.8	20.0
Freon TF	QuaF		0.2050	0.1000	19.8	20.0	-1.2	20.0
Acrolein	Ave	0.7831	0.6700		34.2	40.0	-14.4	20.0
1,1-Dichloroethene	Ave	0.1905	0.1972	0.1000	20.7	20.0	3.5	20.0
Acetone	Ave	2.852	3.263	0.1000	114	100	14.4	20.0
Iodomethane	Ave	0.3393	0.3762		22.2	20.0	10.9	20.0
Isopropyl alcohol	Ave	0.4652	0.5528		238	200	18.8	20.0
Carbon disulfide	Ave	0.5660	0.5926	0.1000	20.9	20.0	4.7	20.0
Cyclopentene	Ave	0.5132	0.5836		22.7	20.0	13.7	20.0
Methyl acetate	Ave	0.1368	0.1388	0.1000	101	100	1.4	20.0
Acetonitrile	Ave	1.254	1.490		238	200	18.8	20.0
Methylene Chloride	Ave	0.2208	0.2336	0.1000	21.2	20.0	5.8	20.0
2-Methyl-2-propanol	QuaF		1.018		236	200	18.2	20.0
MTBE	Ave	0.5825	0.5949	0.1000	20.4	20.0	2.1	20.0
trans-1,2-Dichloroethene	Ave	0.2169	0.2286	0.1000	21.1	20.0	5.4	20.0
Acrylonitrile	Ave	0.0743	0.0767		207	200	3.3	20.0
Hexane	Ave	0.1575	0.1789		22.7	20.0	13.6	20.0
Isopropyl ether	Ave	0.5670	0.6088		21.5	20.0	7.4	20.0
1,1-Dichloroethane	Ave	0.3691	0.3813	0.2000	20.7	20.0	3.3	20.0
Vinyl acetate	Ave	0.3122	0.3538		45.3	40.0	13.3	20.0
2-Chloro-1,3-butadiene	Ave	0.1926	0.2131		22.1	20.0	10.6	20.0
Tert-butyl ethyl ether	Ave	0.5972	0.6320		21.2	20.0	5.8	20.0
2,2-Dichloropropane	Ave	0.2415	0.2602		21.6	20.0	7.8	20.0
cis-1,2-Dichloroethene	Ave	0.2369	0.2502	0.1000	21.1	20.0	5.6	20.0
2-Butanone	Ave	1.279	1.454	0.1000	114	100	13.7	20.0
Ethyl acetate	Ave	0.3749	0.3837		40.9	40.0	2.4	20.0
Methyl acrylate	Ave	0.1812	0.1900		21.0	20.0	4.9	20.0
Propionitrile	Ave	1.480	1.755		237	200	18.6	20.0
Bromochloromethane	Ave	0.1238	0.1356		21.9	20.0	9.5	20.0
Tetrahydrofuran	Ave	3.747	4.221		45.1	40.0	12.7	20.0
Methacrylonitrile	Ave	0.0911	0.0995		219	200	9.3	20.0
Chloroform	Ave	0.3467	0.3645	0.2000	21.0	20.0	5.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-197509/3 Calibration Date: 12/13/2013 09:52

Instrument ID: CVOAMS8 Calib Start Date: 11/26/2013 07:46

GC Column: Rtx-624 ID: 0.25(mm) Calib End Date: 11/26/2013 11:55

Lab File ID: J06955.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Cyclohexane	Ave	0.2504	0.2676	0.1000	21.4	20.0	6.8	20.0
1,1,1-Trichloroethane	Ave	0.2655	0.2825	0.1000	21.3	20.0	6.4	20.0
Carbon tetrachloride	Ave	0.1946	0.2012	0.1000	20.7	20.0	3.4	20.0
1,1-Dichloropropene	Ave	0.2498	0.2614		20.9	20.0	4.7	20.0
Isobutyl alcohol	Ave	0.3029	0.3420		564	500	12.9	20.0
Benzene	Ave	1.064	1.111	0.5000	20.9	20.0	4.5	20.0
Isopropyl acetate	Ave	0.4770	0.4933		20.7	20.0	3.4	20.0
Tert-amyl methyl ether	Ave	0.5719	0.6007		21.0	20.0	5.0	20.0
1,2-Dichloroethane	Ave	0.2586	0.2686	0.1000	20.8	20.0	3.9	20.0
n-Heptane	Ave	0.0659	0.0813		24.7	20.0	23.4*	20.0
2,4,4-Trimethyl-1-pentene	Ave	0.2541	0.3100		48.8	40.0	22.0*	20.0
n-Butanol	Ave	0.2017	0.2420		600	500	20.0	20.0
Trichloroethene	Ave	0.2208	0.2231	0.2000	20.2	20.0	1.1	20.0
Ethyl acrylate	Ave	0.3966	0.4272		21.5	20.0	7.7	20.0
Methylcyclohexane	Ave	0.2039	0.2365	0.1000	23.2	20.0	16.0	20.0
1,2-Dichloropropane	Ave	0.2103	0.2167	0.1000	20.6	20.0	3.1	20.0
Methyl methacrylate	Ave	0.0672	0.0664		39.5	40.0	-1.2	20.0
1,4-Dioxane	QuaF		1.124		592	400	47.9*	20.0
Dibromomethane	Ave	0.1368	0.1385		20.2	20.0	1.2	20.0
n-Propyl acetate	Ave	0.2708	0.2712		20.0	20.0	0.2	20.0
Bromodichloromethane	Ave	0.2438	0.2549	0.2000	20.9	20.0	4.6	20.0
2-Nitropropane	Qua		0.0301		37.7	40.0	-5.6	20.0
2-Chloroethyl vinyl ether	Ave	0.1491	0.1511		20.3	20.0	1.3	20.0
cis-1,3-Dichloropropene	Ave	0.4050	0.4049	0.2000	20.0	20.0	-0.0	20.0
4-Methyl-2-pentanone	Ave	0.2171	0.2121	0.1000	97.7	100	-2.3	20.0
Toluene	Ave	1.139	1.143	0.4000	20.1	20.0	0.3	20.0
trans-1,3-Dichloropropene	Ave	0.3211	0.3295	0.1000	20.5	20.0	2.6	20.0
Ethyl methacrylate	Ave	0.2618	0.2681		20.5	20.0	2.4	20.0
1,1,2-Trichloroethane	Ave	0.2219	0.2174	0.1000	19.6	20.0	-2.0	20.0
Tetrachloroethene	Ave	0.2932	0.3029	0.2000	20.7	20.0	3.3	20.0
1,3-Dichloropropane	Ave	0.4208	0.4164		19.8	20.0	-1.1	20.0
2-Hexanone	Ave	3.676	4.251	0.1000	116	100	15.6	20.0
n-Butyl acetate	Ave	0.3456	0.3328		19.3	20.0	-3.7	20.0
Dibromochloromethane	QuaF		0.2421	0.1000	17.1	20.0	-14.3	20.0
1,2-Dibromoethane	Ave	0.2796	0.2732	0.1000	19.5	20.0	-2.3	20.0
Chlorobenzene	Ave	0.7960	0.7900	0.5000	19.8	20.0	-0.8	20.0
Ethylbenzene	Ave	0.3957	0.3932	0.1000	19.9	20.0	-0.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.2360	0.2435		20.6	20.0	3.2	20.0
m-Xylene & p-Xylene	Ave	0.4880	0.4952	0.1000	20.3	20.0	1.5	20.0
n-Butyl acrylate	QuaF		0.1852		15.1	20.0	-24.3*	20.0
o-Xylene	Ave	0.4856	0.4855	0.3000	20.0	20.0	-0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-197509/3 Calibration Date: 12/13/2013 09:52

Instrument ID: CVOAMS8 Calib Start Date: 11/26/2013 07:46

GC Column: Rtx-624 ID: 0.25(mm) Calib End Date: 11/26/2013 11:55

Lab File ID: J06955.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Styrene	Ave	0.8257	0.8678	0.3000	21.0	20.0	5.1	20.0
Amyl acetate (mixed isomers)	Ave	0.5933	0.6103		20.6	20.0	2.9	20.0
Bromoform	QuaF		0.1611	0.1000	16.0	20.0	-19.8	20.0
Isopropylbenzene	Ave	0.996	1.044	0.1000	21.0	20.0	4.8	20.0
Camphene	Ave	0.0416	0.0500		24.0	20.0	20.1*	20.0
Bromobenzene	Ave	0.6219	0.6555		21.1	20.0	5.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5804	0.5925	0.3000	20.4	20.0	2.1	20.0
N-Propylbenzene	Ave	1.898	2.011		21.2	20.0	6.0	20.0
1,2,3-Trichloropropane	Ave	0.1712	0.1718		20.1	20.0	0.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1371	0.1408		20.6	20.0	2.8	20.0
2-Chlorotoluene	Ave	1.465	1.529		20.9	20.0	4.3	20.0
4-Ethyltoluene	Ave	1.787	1.973		22.1	20.0	10.4	50.0
1,3,5-Trimethylbenzene	Ave	1.422	1.524		21.4	20.0	7.2	20.0
4-Chlorotoluene	Ave	1.419	1.455		20.5	20.0	2.5	20.0
Butyl Methacrylate	QuaF		0.5934		16.6	20.0	-17.1	20.0
tert-Butylbenzene	Ave	1.080	1.166		21.6	20.0	8.0	20.0
1,2,4-Trimethylbenzene	Ave	1.546	1.607		20.8	20.0	3.9	20.0
sec-Butylbenzene	Ave	1.423	1.605		22.6	20.0	12.8	20.0
4-Isopropyltoluene	Ave	1.316	1.493		22.7	20.0	13.4	20.0
1,3-Dichlorobenzene	Ave	1.051	1.066	0.6000	20.3	20.0	1.4	20.0
1,4-Dichlorobenzene	Ave	1.104	1.118	0.5000	20.3	20.0	1.3	20.0
Benzyl chloride	QuaF		0.8231		16.3	20.0	-18.5	20.0
Indan	Ave	1.763	1.979		22.5	20.0	12.3	20.0
n-Butylbenzene	Ave	1.349	1.479		21.9	20.0	9.6	20.0
1,2-Dichlorobenzene	Ave	1.067	1.068	0.4000	20.0	20.0	0.1	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1037	0.0900	0.0500	17.4	20.0	-13.1	20.0
Camphor	Ave	0.0651	0.0666		102	100	2.4	20.0
1,2,4-Trichlorobenzene	Ave	0.7475	0.7187	0.2000	19.2	20.0	-3.8	20.0
Hexachlorobutadiene	QuaF		0.3142		25.6	20.0	27.8*	20.0
Naphthalene	Ave	2.062	2.052		19.9	20.0	-0.5	20.0
1,2,3-Trichlorobenzene	Ave	0.7379	0.6894		18.7	20.0	-6.6	20.0
Allyl alcohol	Ave	0.1180			25.0	500		
Epichlorohydrin	Ave	0.0206			20.0	400		
Dibromofluoromethane (Surr)	Ave	0.2515	0.2448		48.7	50.0	-2.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2694	0.2558		47.5	50.0	-5.0	20.0
Toluene-d8 (Surr)	Ave	1.316	1.213		46.1	50.0	-7.8	20.0
Bromofluorobenzene	Ave	0.4696	0.4368		46.5	50.0	-7.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-198396/2 Calibration Date: 12/18/2013 05:06

Instrument ID: CVOAMS8 Calib Start Date: 11/26/2013 07:46

GC Column: Rtx-624 ID: 0.25(mm) Calib End Date: 11/26/2013 11:55

Lab File ID: J07042.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2227	0.1809	0.1000	16.2	20.0	-18.8	20.0
Chloromethane	Ave	0.1630	0.1549	0.1000	19.0	20.0	-5.0	20.0
Vinyl chloride	Ave	0.1569	0.1407	0.1000	17.9	20.0	-10.4	20.0
Bromomethane	Ave	0.1042	0.0989*	0.1000	19.0	20.0	-5.1	20.0
Chloroethane	Ave	4.414	4.790	0.1000	21.7	20.0	8.5	20.0
Dichlorofluoromethane	Ave	0.2567	0.2636		20.5	20.0	2.7	20.0
Trichlorofluoromethane	Ave	0.2162	0.2056	0.1000	19.0	20.0	-4.9	20.0
Ethanol	QuaF		0.0231		1180	1000	18.3	20.0
Ethyl ether	Ave	0.1145	0.1192		20.8	20.0	4.1	20.0
2-Methyl-1,3-butadiene	Ave	0.1333	0.1505		22.6	20.0	12.9	20.0
Freon TF	QuaF		0.2110	0.1000	20.3	20.0	1.7	20.0
Acrolein	Ave	0.7831	0.4501		23.0	40.0	-42.5*	20.0
1,1-Dichloroethene	Ave	0.1905	0.2038	0.1000	21.4	20.0	7.0	20.0
Acetone	Ave	2.852	3.262	0.1000	114	100	14.4	20.0
Iodomethane	Ave	0.3393	0.3711		21.9	20.0	9.4	20.0
Carbon disulfide	Ave	0.5660	0.5818	0.1000	20.6	20.0	2.8	20.0
Isopropyl alcohol	Ave	0.4652	0.4960		213	200	6.6	20.0
Methyl acetate	Ave	0.1368	0.1335	0.1000	97.6	100	-2.4	20.0
Cyclopentene	Ave	0.5132	0.5445		21.2	20.0	6.1	20.0
Acetonitrile	Ave	1.254	1.405		224	200	12.1	20.0
Methylene Chloride	Ave	0.2208	0.2353	0.1000	21.3	20.0	6.6	20.0
2-Methyl-2-propanol	QuaF		0.9231		214	200	7.1	20.0
MTBE	Ave	0.5825	0.5904	0.1000	20.3	20.0	1.4	20.0
trans-1,2-Dichloroethene	Ave	0.2169	0.2278	0.1000	21.0	20.0	5.0	20.0
Acrylonitrile	Ave	0.0743	0.0749		202	200	0.9	20.0
Hexane	Ave	0.1575	0.1861		23.6	20.0	18.1	20.0
Isopropyl ether	Ave	0.5670	0.6014		21.2	20.0	6.0	20.0
1,1-Dichloroethane	Ave	0.3691	0.3825	0.2000	20.7	20.0	3.6	20.0
Vinyl acetate	Ave	0.3122	0.3312		42.4	40.0	6.1	20.0
2-Chloro-1,3-butadiene	Ave	0.1926	0.2049		21.3	20.0	6.4	20.0
Tert-butyl ethyl ether	Ave	0.5972	0.6298		21.1	20.0	5.4	20.0
2,2-Dichloropropane	Ave	0.2415	0.2642		21.9	20.0	9.4	20.0
cis-1,2-Dichloroethene	Ave	0.2369	0.2569	0.1000	21.7	20.0	8.5	20.0
2-Butanone	Ave	1.279	1.431	0.1000	112	100	11.9	20.0
Ethyl acetate	Ave	0.3749	0.3712		39.6	40.0	-1.0	20.0
Methyl acrylate	Ave	0.1812	0.1815		20.0	20.0	0.2	20.0
Propionitrile	Ave	1.480	1.763		238	200	19.1	20.0
Bromochloromethane	Ave	0.1238	0.1299		21.0	20.0	4.9	20.0
Tetrahydrofuran	Ave	3.747	3.918		41.8	40.0	4.6	20.0
Methacrylonitrile	Ave	0.0911	0.0998		219	200	9.7	20.0
Chloroform	Ave	0.3467	0.3731	0.2000	21.5	20.0	7.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-198396/2 Calibration Date: 12/18/2013 05:06

Instrument ID: CVOAMS8 Calib Start Date: 11/26/2013 07:46

GC Column: Rtx-624 ID: 0.25(mm) Calib End Date: 11/26/2013 11:55

Lab File ID: J07042.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Cyclohexane	Ave	0.2504	0.2818	0.1000	22.5	20.0	12.5	20.0
1,1,1-Trichloroethane	Ave	0.2655	0.2856	0.1000	21.5	20.0	7.6	20.0
Carbon tetrachloride	Ave	0.1946	0.2114	0.1000	21.7	20.0	8.6	20.0
1,1-Dichloropropene	Ave	0.2498	0.2657		21.3	20.0	6.4	20.0
Isobutyl alcohol	Ave	0.3029	0.3149		520	500	4.0	20.0
Benzene	Ave	1.064	1.089	0.5000	20.5	20.0	2.4	20.0
Isopropyl acetate	Ave	0.4770	0.4812		20.2	20.0	0.9	20.0
Tert-amyl methyl ether	Ave	0.5719	0.6025		21.1	20.0	5.3	20.0
1,2-Dichloroethane	Ave	0.2586	0.2686	0.1000	20.8	20.0	3.9	20.0
n-Heptane	Ave	0.0659	0.0849		25.8	20.0	28.8*	20.0
2,4,4-Trimethyl-1-pentene	Ave	0.2541	0.2954		46.5	40.0	16.2	20.0
n-Butanol	Ave	0.2017	0.2093		519	500	3.7	20.0
Trichloroethene	Ave	0.2208	0.2263	0.2000	20.5	20.0	2.5	20.0
Ethyl acrylate	Ave	0.3966	0.4347		21.9	20.0	9.6	20.0
Methylcyclohexane	Ave	0.2039	0.2524	0.1000	24.8	20.0	23.8*	20.0
1,2-Dichloropropane	Ave	0.2103	0.2142	0.1000	20.4	20.0	1.9	20.0
Methyl methacrylate	Ave	0.0672	0.0699		41.6	40.0	4.0	20.0
1,4-Dioxane	QuaF		1.002		528	400	32.0*	20.0
Dibromomethane	Ave	0.1368	0.1381		20.2	20.0	0.9	20.0
n-Propyl acetate	Ave	0.2708	0.2704		20.0	20.0	-0.1	20.0
Bromodichloromethane	Ave	0.2438	0.2495	0.2000	20.5	20.0	2.3	20.0
2-Chloroethyl vinyl ether	Ave	0.1491	0.1566		21.0	20.0	5.0	20.0
2-Nitropropane	Qua		0.0259		34.5	40.0	-13.8	20.0
cis-1,3-Dichloropropene	Ave	0.4050	0.3950	0.2000	19.5	20.0	-2.5	20.0
4-Methyl-2-pentanone	Ave	0.2171	0.2007	0.1000	92.4	100	-7.6	20.0
Toluene	Ave	1.139	1.167	0.4000	20.5	20.0	2.4	20.0
trans-1,3-Dichloropropene	Ave	0.3211	0.3188	0.1000	19.9	20.0	-0.7	20.0
Ethyl methacrylate	Ave	0.2618	0.2588		19.8	20.0	-1.1	20.0
1,1,2-Trichloroethane	Ave	0.2219	0.2169	0.1000	19.5	20.0	-2.3	20.0
Tetrachloroethene	Ave	0.2932	0.3211	0.2000	21.9	20.0	9.5	20.0
1,3-Dichloropropane	Ave	0.4208	0.3987		19.0	20.0	-5.2	20.0
2-Hexanone	Ave	3.676	4.074	0.1000	111	100	10.8	20.0
n-Butyl acetate	Ave	0.3456	0.3263		18.9	20.0	-5.6	20.0
Dibromochloromethane	QuaF		0.2328	0.1000	16.5	20.0	-17.6	20.0
1,2-Dibromoethane	Ave	0.2796	0.2728	0.1000	19.5	20.0	-2.4	20.0
Chlorobenzene	Ave	0.7960	0.8079	0.5000	20.3	20.0	1.5	20.0
Ethylbenzene	Ave	0.3957	0.3936	0.1000	19.9	20.0	-0.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.2360	0.2335		19.8	20.0	-1.1	20.0
m-Xylene & p-Xylene	Ave	0.4880	0.5092	0.1000	20.9	20.0	4.3	20.0
n-Butyl acrylate	QuaF		0.1854		15.2	20.0	-24.2*	20.0
o-Xylene	Ave	0.4856	0.5073	0.3000	20.9	20.0	4.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-198396/2 Calibration Date: 12/18/2013 05:06

Instrument ID: CVOAMS8 Calib Start Date: 11/26/2013 07:46

GC Column: Rtx-624 ID: 0.25(mm) Calib End Date: 11/26/2013 11:55

Lab File ID: J07042.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Styrene	Ave	0.8257	0.8917	0.3000	21.6	20.0	8.0	20.0
Amyl acetate (mixed isomers)	Ave	0.5933	0.5813		19.6	20.0	-2.0	20.0
Bromoform	QuaF		0.1478	0.1000	14.7	20.0	-26.4*	20.0
Isopropylbenzene	Ave	0.996	1.114	0.1000	22.4	20.0	11.9	20.0
Camphene	Ave	0.0416	0.0474		22.8	20.0	13.8	20.0
Bromobenzene	Ave	0.6219	0.6490		20.9	20.0	4.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5804	0.5583	0.3000	19.2	20.0	-3.8	20.0
N-Propylbenzene	Ave	1.898	2.083		22.0	20.0	9.8	20.0
1,2,3-Trichloropropane	Ave	0.1712	0.1640		19.2	20.0	-4.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1371	0.1271		18.6	20.0	-7.2	20.0
2-Chlorotoluene	Ave	1.465	1.559		21.3	20.0	6.4	20.0
4-Ethyltoluene	Ave	1.787	1.986		22.2	20.0	11.1	50.0
1,3,5-Trimethylbenzene	Ave	1.422	1.552		21.8	20.0	9.2	20.0
4-Chlorotoluene	Ave	1.419	1.478		20.8	20.0	4.1	20.0
Butyl Methacrylate	QuaF		0.5898		16.5	20.0	-17.6	20.0
tert-Butylbenzene	Ave	1.080	1.192		22.1	20.0	10.4	20.0
1,2,4-Trimethylbenzene	Ave	1.546	1.655		21.4	20.0	7.0	20.0
sec-Butylbenzene	Ave	1.423	1.649		23.2	20.0	15.9	20.0
1,3-Dichlorobenzene	Ave	1.051	1.098	0.6000	20.9	20.0	4.4	20.0
4-Isopropyltoluene	Ave	1.316	1.530		23.3	20.0	16.3	20.0
1,4-Dichlorobenzene	Ave	1.104	1.137	0.5000	20.6	20.0	3.0	20.0
Benzyl chloride	QuaF		0.7892		15.6	20.0	-21.9*	20.0
Indan	Ave	1.763	1.980		22.5	20.0	12.3	20.0
n-Butylbenzene	Ave	1.349	1.475		21.9	20.0	9.3	20.0
1,2-Dichlorobenzene	Ave	1.067	1.102	0.4000	20.7	20.0	3.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1037	0.0854	0.0500	16.5	20.0	-17.6	20.0
Camphor	Ave	0.0651	0.0636		97.8	100	-2.2	20.0
1,2,4-Trichlorobenzene	Ave	0.7475	0.7282	0.2000	19.5	20.0	-2.6	20.0
Hexachlorobutadiene	QuaF		0.3030		24.7	20.0	23.3*	20.0
Naphthalene	Ave	2.062	2.041		19.8	20.0	-1.0	20.0
1,2,3-Trichlorobenzene	Ave	0.7379	0.7059		19.1	20.0	-4.3	20.0
Allyl alcohol	Ave	0.1180			25.0	500		
Epichlorohydrin	Ave	0.0206			20.0	400		
Dibromofluoromethane (Surr)	Ave	0.2515	0.2350		46.7	50.0	-6.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2694	0.2497		46.3	50.0	-7.3	20.0
Toluene-d8 (Surr)	Ave	1.316	1.163		44.2	50.0	-11.7	20.0
Bromofluorobenzene	Ave	0.4696	0.4219		44.9	50.0	-10.1	20.0

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06467.D
Lims ID: BFB Lab Sample ID:
Client ID:
Sample Type: BFB
Inject. Date: 26-Nov-2013 06:17:30 ALS Bottle#: 99 Worklist Smp#: 1
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 460-0007188-001
Operator ID: Instrument ID: CVOAMS8

Method: \\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\8260_W8.m
Limit Group: VOA - 8260C Water and Solid
Last Update: 29-Nov-2013 16:20:31 Calib Date: 26-Nov-2013 11:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06481.D

Column 1 : Rtx-624 (0.25 mm) Detector MS SCAN
Process Host: XAWRK010

First Level Reviewer: baronm Date: 29-Nov-2013 14:41:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
$ 140 BFB	95	4.181	4.176	0.005	0	66995	0	

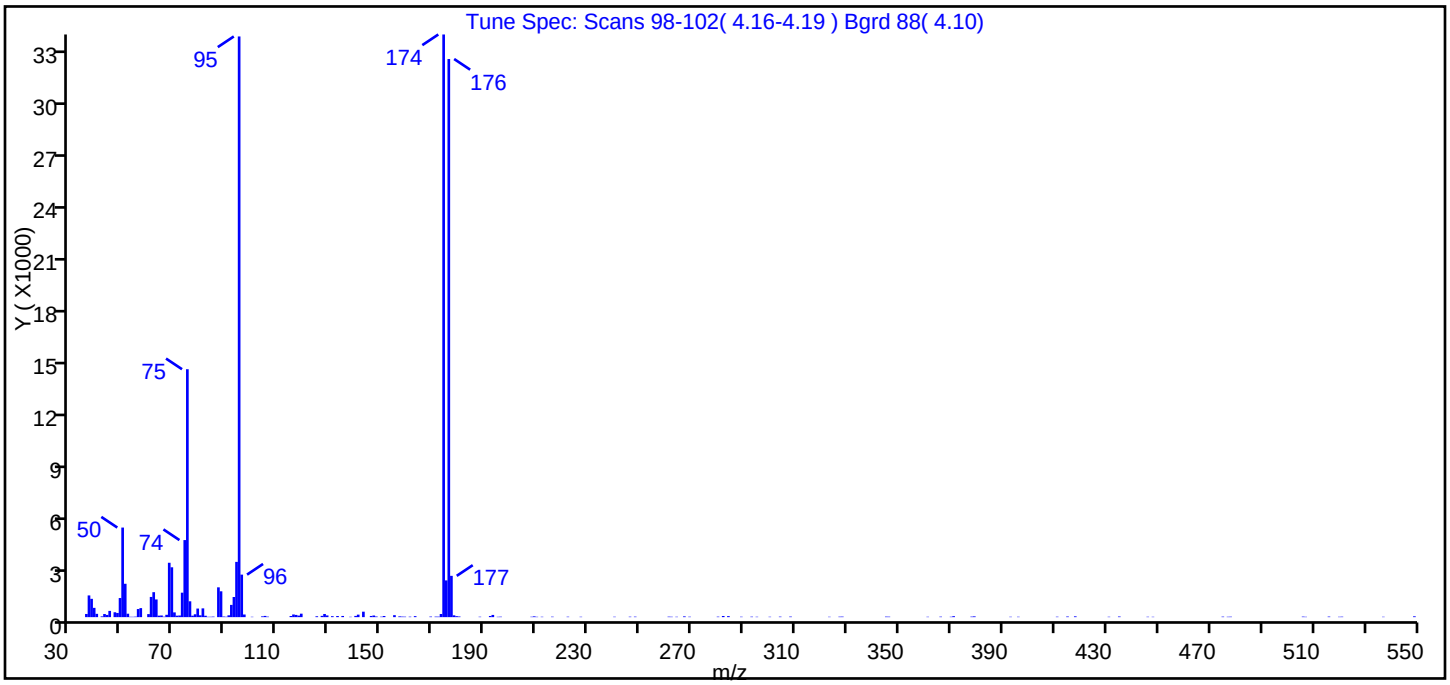
Report Date: 29-Nov-2013 16:20:31 Chrom Revision: 2.1 15-Oct-2013 07:52:24

MS Tune Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06467.D				
Injection Date:	26-Nov-2013 06:17:30	Instrument ID:	CVOAMS8		
Lims ID:	BFB	Lab Sample ID:			
Client ID:					
Operator ID:		ALS Bottle#:	99	Worklist Smp#:	1
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Tune Method:	BFB Method 8260				

$ 140 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.40
75	30.00 - 60.00% of mass 95	42.70
96	5.00 - 9.00% of mass 95	7.30
173	Less than 2.00% of mass 174	0.50 (0.50)
174	Greater than 50.00% of mass 95	100.30
175	5.00 - 9.00% of mass 174	6.30 (6.30)
176	95.00 - 101.00% of mass 174	96.10 (95.80)
177	5.00 - 9.00% of mass 176	7.10 (7.40)

Data File: \\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06467.D\8260_W8.rslt\spectra.d
Injection Date: 26-Nov-2013 06:17:30
Spectrum: Tune Spec: Scans 98-102(4.16-4.19) Bgrd 88(4.10)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 158

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	180	80.00	103	150.00	27	282.00	65
37.00	1232	81.00	498	151.00	64	284.00	57
38.00	1039	82.00	79	155.00	112	289.00	24
39.00	527	83.00	20	157.00	43	293.00	27
40.00	187	84.00	21	158.00	31	295.00	22
42.00	43	85.00	30	159.00	27	300.00	22
43.00	177	87.00	1691	161.00	27	304.00	29
44.00	127	88.00	1466	163.00	57	308.00	32
45.00	354	89.00	34	169.00	33	323.00	21
47.00	277	90.00	23	171.00	30	327.00	27
48.00	237	91.00	103	172.00	28	328.00	30
49.00	1084	92.00	695	173.00	179	345.00	30
50.00	5082	93.00	1143	174.00	33056	346.00	27
51.00	1893	94.00	3135	175.00	2085	361.00	21
52.00	194	95.00	32944	176.00	31664	366.00	28
53.00	21	96.00	2412	177.00	2343	370.00	22
54.00	20	97.00	150	178.00	102	371.00	54
55.00	29	100.00	20	179.00	55	378.00	30
56.00	459	104.00	45	180.00	37	379.00	43
57.00	512	105.00	70	188.00	24	393.00	22
60.00	172	106.00	29	192.00	64	396.00	22
61.00	1146	115.00	65	193.00	126	411.00	25
62.00	1416	116.00	151	195.00	20	415.00	36
63.00	1004	117.00	127	196.00	26	418.00	45
64.00	85	118.00	87	208.00	23	431.00	22
65.00	94	119.00	197	209.00	44	435.00	36
66.00	26	125.00	50	210.00	20	446.00	22
67.00	133	127.00	73	212.00	22	448.00	20
68.00	3085	128.00	179	216.00	26	475.00	29
69.00	2828	129.00	96	222.00	25	477.00	22
70.00	270	131.00	54	227.00	22	478.00	26
71.00	84	133.00	63	240.00	23	506.00	30
72.00	93	135.00	67	246.00	26	507.00	20

Report Date: 29-Nov-2013 16:20:31 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06467.D\8260_W8.rslt\spectra.d
Injection Date: 26-Nov-2013 06:17:30
Spectrum: Tune Spec: Scans 98-102(4.16-4.19) Bgrd 88(4.10)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 158

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	1388	138.00	20	248.00	28	516.00	32
74.00	4372	140.00	70	261.00	28	520.00	21
75.00	14065	141.00	142	262.00	23	521.00	27
76.00	899	143.00	310	264.00	22	537.00	21
77.00	83	146.00	67	267.00	43	549.00	47
78.00	163	147.00	92	269.00	25		
79.00	487	148.00	36	280.00	28		

TestAmerica Edison
Target Compound Quantitation Report

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06953.D				
Lims ID:	BFB	Lab Sample ID:			
Client ID:					
Sample Type:	BFB				
Inject. Date:	13-Dec-2013 08:16:30	ALS Bottle#:	99	Worklist Smp#:	1
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	460-0007774-001				
Operator ID:		Instrument ID:	CVOAMS8		
Method:	\\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\8260_W8.m				
Limit Group:	VOA - 8260C Water and Solid				
Last Update:	13-Dec-2013 10:39:23	Calib Date:	26-Nov-2013 11:55:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06481.D				
Column 1 :	Rtx-624 (0.25 mm)	Detector	MS SCAN		
Process Host:	XAWRK024				
First Level Reviewer: martineze		Date:	13-Dec-2013 10:39:23		

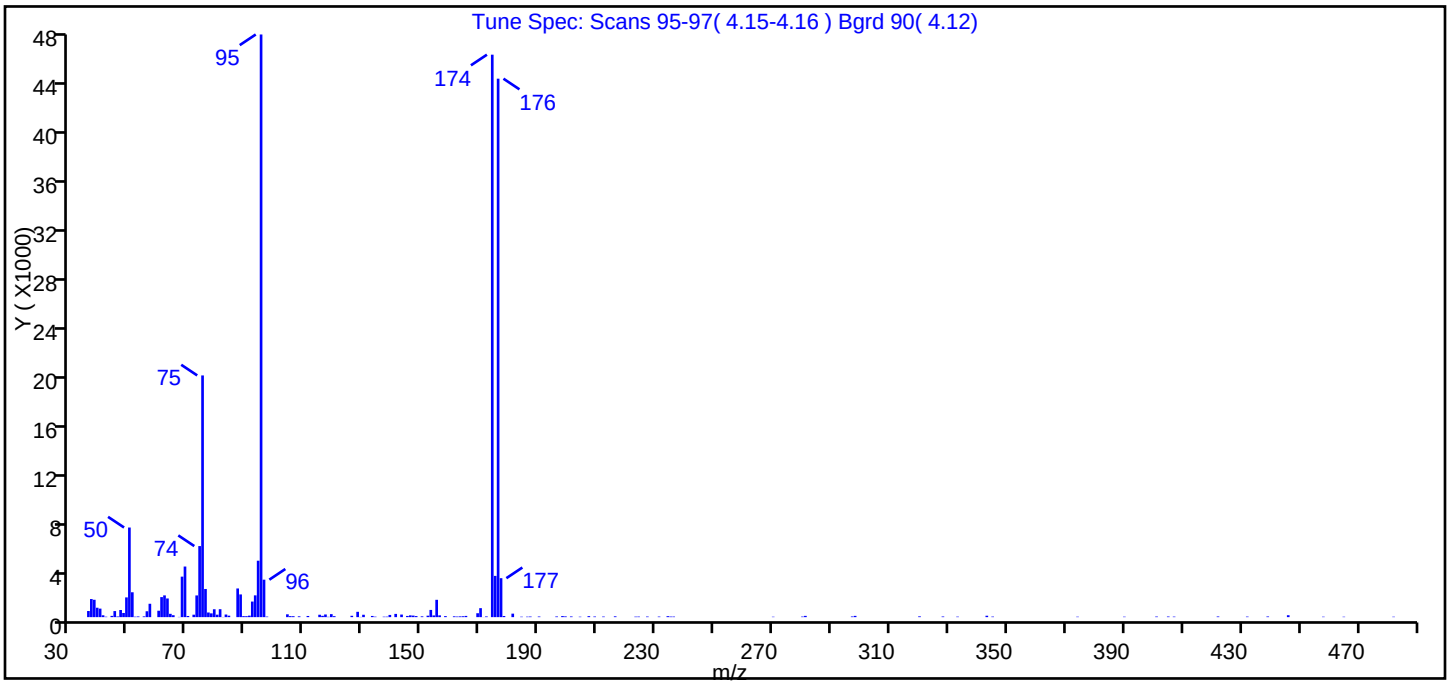
Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
$ 140 BFB	95	4.153	4.153	0.0	97	68535	0	

MS Tune Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06953.D				
Injection Date:	13-Dec-2013 08:16:30	Instrument ID:	CVOAMS8		
Lims ID:	BFB	Lab Sample ID:			
Client ID:					
Operator ID:		ALS Bottle#:	99	Worklist Smp#:	1
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Tune Method:	BFB Method 8260				

$ 140 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.40
75	30.00 - 60.00% of mass 95	41.50
96	5.00 - 9.00% of mass 95	6.40
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	96.50
175	5.00 - 9.00% of mass 174	7.10 (7.30)
176	95.00 - 101.00% of mass 174	92.40 (95.70)
177	5.00 - 9.00% of mass 176	6.70 (7.20)

Data File: \\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06953.D\8260_W8.rslt\spectra.d
Injection Date: 13-Dec-2013 08:16:30
Spectrum: Tune Spec: Scans 95-97(4.15-4.16) Bgrd 90(4.12)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 144

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	503	78.00	310	138.00	39	199.00	61
37.00	1484	79.00	646	139.00	181	201.00	56
38.00	1424	80.00	202	141.00	266	204.00	36
39.00	771	81.00	651	143.00	212	207.00	81
40.00	699	82.00	14	145.00	98	209.00	52
41.00	151	83.00	215	146.00	147	212.00	48
42.00	35	84.00	120	147.00	127	216.00	67
44.00	104	87.00	2351	148.00	87	223.00	41
45.00	497	88.00	1862	150.00	65	224.00	46
46.00	53	89.00	81	152.00	120	227.00	49
47.00	586	90.00	77	153.00	592	231.00	47
48.00	341	91.00	122	154.00	141	234.00	79
49.00	1619	92.00	1277	155.00	1421	235.00	46
50.00	7348	93.00	1786	156.00	147	236.00	46
51.00	2039	94.00	4626	158.00	85	270.00	33
52.00	38	95.00	47768	161.00	66	280.00	47
53.00	56	96.00	3072	162.00	48	281.00	104
55.00	62	97.00	45	163.00	63	297.00	55
56.00	483	104.00	232	164.00	74	298.00	104
57.00	1097	105.00	83	165.00	101	320.00	65
60.00	526	106.00	76	169.00	321	328.00	53
61.00	1643	108.00	67	170.00	737	333.00	41
62.00	1784	111.00	96	171.00	6	343.00	115
63.00	1531	115.00	198	172.00	58	345.00	46
64.00	272	116.00	109	174.00	46112	374.00	36
65.00	158	117.00	219	175.00	3382	390.00	37
67.00	18	118.00	27	176.00	44144	401.00	50
68.00	3320	119.00	246	177.00	3194	405.00	51
69.00	4149	120.00	80	178.00	91	407.00	43
70.00	95	126.00	111	181.00	287	422.00	55
72.00	201	128.00	437	184.00	36	432.00	45
73.00	1780	129.00	17	186.00	38	439.00	55
74.00	5826	130.00	196	187.00	49	446.00	157

Report Date: 13-Dec-2013 10:39:23 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06953.D\8260_W8.rslt\spectra.d
Injection Date: 13-Dec-2013 08:16:30
Spectrum: Tune Spec: Scans 95-97(4.15-4.16) Bgrd 90(4.12)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 144

m/z	Y	m/z	Y	m/z	Y	m/z	Y
75.00	19816	133.00	98	190.00	52	458.00	36
76.00	2308	134.00	39	196.00	56	465.00	34
77.00	380	137.00	37	198.00	87	482.00	35

TestAmerica Edison
Target Compound Quantitation Report

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07041.D				
Lims ID:	BFB	Lab Sample ID:			
Client ID:					
Sample Type:	BFB				
Inject. Date:	18-Dec-2013 04:11:30	ALS Bottle#:	99	Worklist Smp#:	1
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	460-0007957-001				
Operator ID:		Instrument ID:	CVOAMS8		
Method:	\\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\8260_W8.m				
Limit Group:	VOA - 8260C Water and Solid				
Last Update:	18-Dec-2013 16:40:49	Calib Date:	26-Nov-2013 11:55:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06481.D				
Column 1 :	Rtx-624 (0.25 mm)	Detector	MS SCAN		
Process Host:	XAWRK026				
First Level Reviewer: delpolitov		Date:	18-Dec-2013 16:40:49		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
$ 140 BFB	95	4.175	4.175	0.0	96	77103	0	

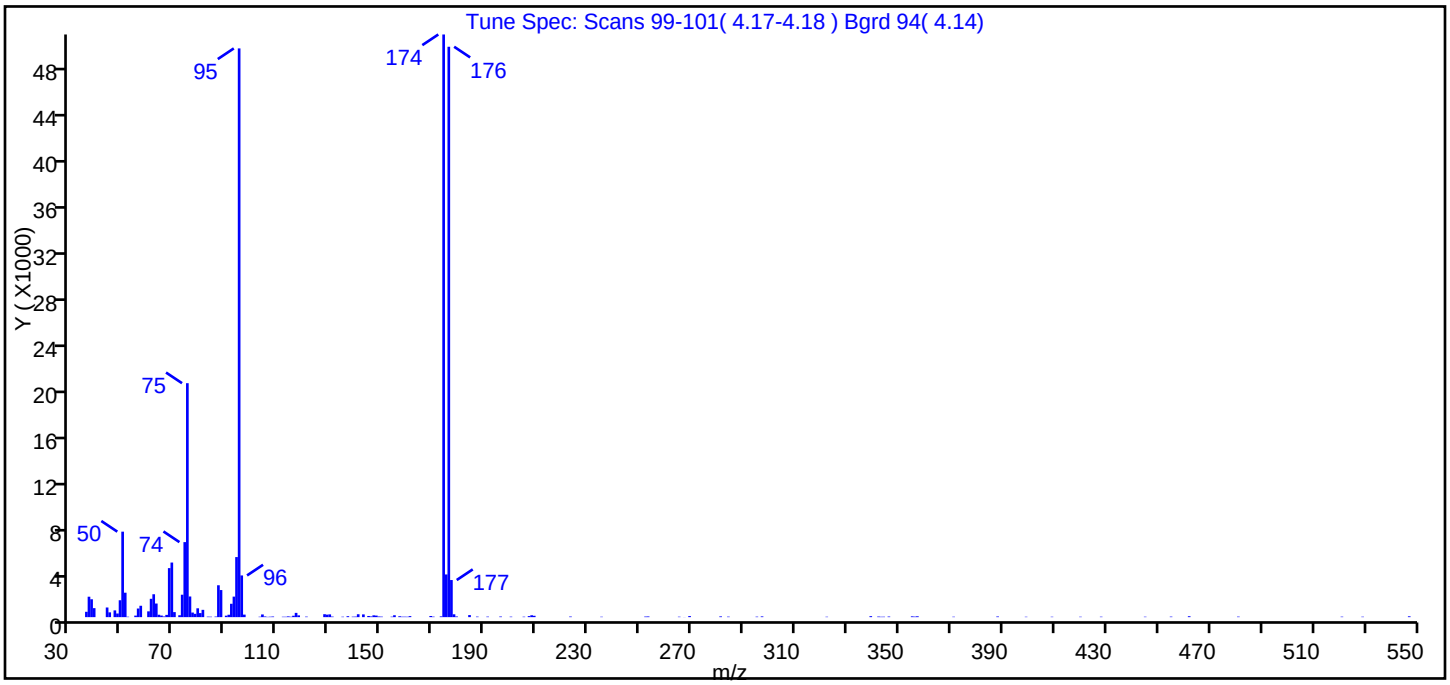
Report Date: 18-Dec-2013 16:40:50 Chrom Revision: 2.1 15-Oct-2013 07:52:24

MS Tune Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07041.D				
Injection Date:	18-Dec-2013 04:11:30	Instrument ID:	CVOAMS8		
Lims ID:	BFB	Lab Sample ID:			
Client ID:					
Operator ID:		ALS Bottle#:	99	Worklist Smp#:	1
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Tune Method:	BFB Method 8260				

$ 140 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.00
75	30.00 - 60.00% of mass 95	41.10
96	5.00 - 9.00% of mass 95	7.30
173	Less than 2.00% of mass 174	0.10 (0.10)
174	Greater than 50.00% of mass 95	102.40
175	5.00 - 9.00% of mass 174	7.50 (7.30)
176	95.00 - 101.00% of mass 174	100.30 (97.90)
177	5.00 - 9.00% of mass 176	6.50 (6.50)

Data File: \\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07041.D\8260_W8.rslt\spectra.d
Injection Date: 18-Dec-2013 04:11:30
Spectrum: Tune Spec: Scans 99-101(4.17-4.18) Bgrd 94(4.14)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 137

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	464	81.00	633	140.00	49	235.00	35
37.00	1772	83.00	44	141.00	251	252.00	51
38.00	1551	84.00	39	143.00	238	253.00	60
39.00	780	86.00	51	145.00	101	265.00	38
44.00	837	87.00	2765	146.00	62	267.00	7
45.00	415	88.00	2349	147.00	157	269.00	92
47.00	587	90.00	127	148.00	134	281.00	66
48.00	314	91.00	208	149.00	56	284.00	44
49.00	1465	92.00	1159	150.00	45	295.00	43
50.00	7413	93.00	1780	154.00	41	297.00	64
51.00	2119	94.00	5209	155.00	164	322.00	35
52.00	37	95.00	49320	157.00	77	339.00	85
55.00	133	96.00	3616	158.00	41	342.00	51
56.00	748	97.00	219	159.00	41	343.00	34
57.00	987	103.00	37	160.00	35	344.00	37
60.00	503	104.00	234	161.00	89	346.00	53
61.00	1590	105.00	58	169.00	99	355.00	68
62.00	1985	106.00	25	170.00	44	356.00	47
63.00	1180	107.00	37	173.00	65	357.00	73
64.00	208	108.00	54	174.00	50528	371.00	37
65.00	137	112.00	35	175.00	3702	388.00	57
66.00	59	113.00	35	176.00	49464	399.00	34
67.00	196	114.00	65	177.00	3218	409.00	35
68.00	4251	115.00	35	178.00	247	420.00	36
69.00	4735	116.00	122	179.00	58	428.00	39
70.00	437	117.00	370	184.00	178	445.00	37
72.00	165	118.00	153	187.00	46	455.00	46
73.00	1945	121.00	46	191.00	45	462.00	78
74.00	6506	128.00	255	196.00	54	481.00	45
75.00	20288	129.00	218	200.00	42	521.00	42
76.00	1791	130.00	239	205.00	39	529.00	38
77.00	398	131.00	49	207.00	91	547.00	72
78.00	288	135.00	37	208.00	163		

Report Date: 18-Dec-2013 16:40:50 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07041.D\8260_W8.rslt\spectra.d
Injection Date: 18-Dec-2013 04:11:30
Spectrum: Tune Spec: Scans 99-101(4.17-4.18) Bgrd 94(4.14)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 137

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	767	137.00	82	209.00	118		
80.00	350	139.00	42	223.00	52		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 460-197509/7

Matrix: Solid | Lab File ID: J06959.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 12/13/2013 12:16

Soil Aliquot Vol: 5 (mL) | Dilution Factor: 50

Soil Extract Vol.: 5(mL) | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Medium

Analysis Batch No.: 197509 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	50	U	50	4.8
74-83-9	Bromomethane	50	U	50	9.1
75-01-4	Vinyl chloride	50	U	50	7.2
75-00-3	Chloroethane	50	U	50	8.5
75-09-2	Methylene Chloride	50	U	50	9.1
67-64-1	Acetone	250	U	250	130
75-15-0	Carbon disulfide	50	U	50	6.3
75-69-4	Trichlorofluoromethane	50	U	50	7.3
75-35-4	1,1-Dichloroethene	50	U	50	4.4
75-34-3	1,1-Dichloroethane	50	U	50	6.5
156-60-5	trans-1,2-Dichloroethene	50	U	50	6.4
156-59-2	cis-1,2-Dichloroethene	50	U	50	8.9
67-66-3	Chloroform	50	U	50	3.9
107-06-2	1,2-Dichloroethane	50	U	50	9.5
78-93-3	2-Butanone	250	U	250	120
71-55-6	1,1,1-Trichloroethane	50	U	50	3.1
56-23-5	Carbon tetrachloride	50	U	50	2.9
75-27-4	Bromodichloromethane	50	U	50	6.3
78-87-5	1,2-Dichloropropane	50	U	50	4.3
10061-01-5	cis-1,3-Dichloropropene	50	U	50	9.2
79-01-6	Trichloroethene	50	U	50	4.6
124-48-1	Dibromochloromethane	50	U	50	10
79-00-5	1,1,2-Trichloroethane	50	U	50	9.4
71-43-2	Benzene	50	U	50	4.1
10061-02-6	trans-1,3-Dichloropropene	50	U	50	12
75-25-2	Bromoform	50	U	50	9.6
108-10-1	4-Methyl-2-pentanone	250	U	250	49
591-78-6	2-Hexanone	250	U	250	25
127-18-4	Tetrachloroethene	50	U	50	4.9
79-34-5	1,1,2,2-Tetrachloroethane	50	U	50	7.9
108-88-3	Toluene	50	U	50	7.5
108-90-7	Chlorobenzene	50	U	50	5.5
100-41-4	Ethylbenzene	50	U	50	4.8
100-42-5	Styrene	50	U	50	5.9
1330-20-7	Xylenes, Total	150	U	150	18
76-13-1	Freon TF	50	U	50	4.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 460-197509/7
Matrix: Solid
Lab File ID: J06959.D
Analysis Method: 8260C
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 12/13/2013 12:16
Soil Aliquot Vol: 5 (mL)
Dilution Factor: 50
Soil Extract Vol.: 5(mL)
GC Column: Rtx-624 ID: 0.25(mm)
% Moisture:
Level: (low/med) Medium
Analysis Batch No.: 197509
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	MTBE	50	U	50	6.9
110-82-7	Cyclohexane	50	U	50	7.9
106-93-4	1,2-Dibromoethane	50	U	50	14
541-73-1	1,3-Dichlorobenzene	50	U	50	6.8
106-46-7	1,4-Dichlorobenzene	50	U	50	12
95-50-1	1,2-Dichlorobenzene	50	U	50	10
75-71-8	Dichlorodifluoromethane	50	U	50	11
120-82-1	1,2,4-Trichlorobenzene	50	U	50	17
123-91-1	1,4-Dioxane	2500	U	2500	1800
87-61-6	1,2,3-Trichlorobenzene	50	U	50	26
96-12-8	1,2-Dibromo-3-Chloropropane	50	U	50	20
74-97-5	Bromochloromethane	50	U	50	14
98-82-8	Isopropylbenzene	50	U	50	3.8
79-20-9	Methyl acetate	250	U	250	17
108-87-2	Methylcyclohexane	50	U	50	6.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		75-135
2037-26-5	Toluene-d8 (Surr)	94		59-150
460-00-4	Bromofluorobenzene	95		72-133
1868-53-7	Dibromofluoromethane (Surr)	96		70-130

TestAmerica Edison
Target Compound Quantitation Report

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06959.D				
Lims ID:	MB	Lab Sample ID:	MB 460-197509/7-A		
Client ID:					
Sample Type:	MB				
Inject. Date:	13-Dec-2013 12:16:30	ALS Bottle#:	6	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Sample Info:	MB				
Misc. Info.:	460-0007774-007				
Operator ID:		Instrument ID:	CVOAMS8		
Method:	\\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\8260_W8.m				
Limit Group:	VOA - 8260C Water and Solid				
Last Update:	15-Dec-2013 19:40:00	Calib Date:	26-Nov-2013 11:55:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06481.D				
Column 1 :	Rtx-624 (0.25 mm)	Detector	MS SCAN		
Process Host:	XAWRK013				
First Level Reviewer: delpolitov		Date:	15-Dec-2013 19:40:00		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
* 151 TBA-d9 (IS)	65	3.176	3.180	-0.004	64	300319	1000.0	
$ 152 Dibromofluoromethane (Surr)	113	4.733	4.731	0.002	95	181099	47.8	
$ 54 1,2-Dichloroethane-d4 (Surr)	65	5.085	5.084	0.001	87	194798	48.0	
* 59 Fluorobenzene	96	5.356	5.354	0.002	99	752609	50.0	
* 150 1,4-Dioxane-d8	96	6.061	6.053	0.008	60	47964	1000.0	
$ 76 Toluene-d8 (Surr)	98	7.030	7.029	0.001	100	748312	46.8	
* 87 Chlorobenzene-d5	117	8.822	8.821	0.001	82	607881	50.0	
$ 99 4-Bromofluorobenzene	174	10.085	10.084	0.001	98	271104	47.5	
* 116 1,4-Dichlorobenzene-d4	152	10.961	10.959	0.002	92	349317	50.0	

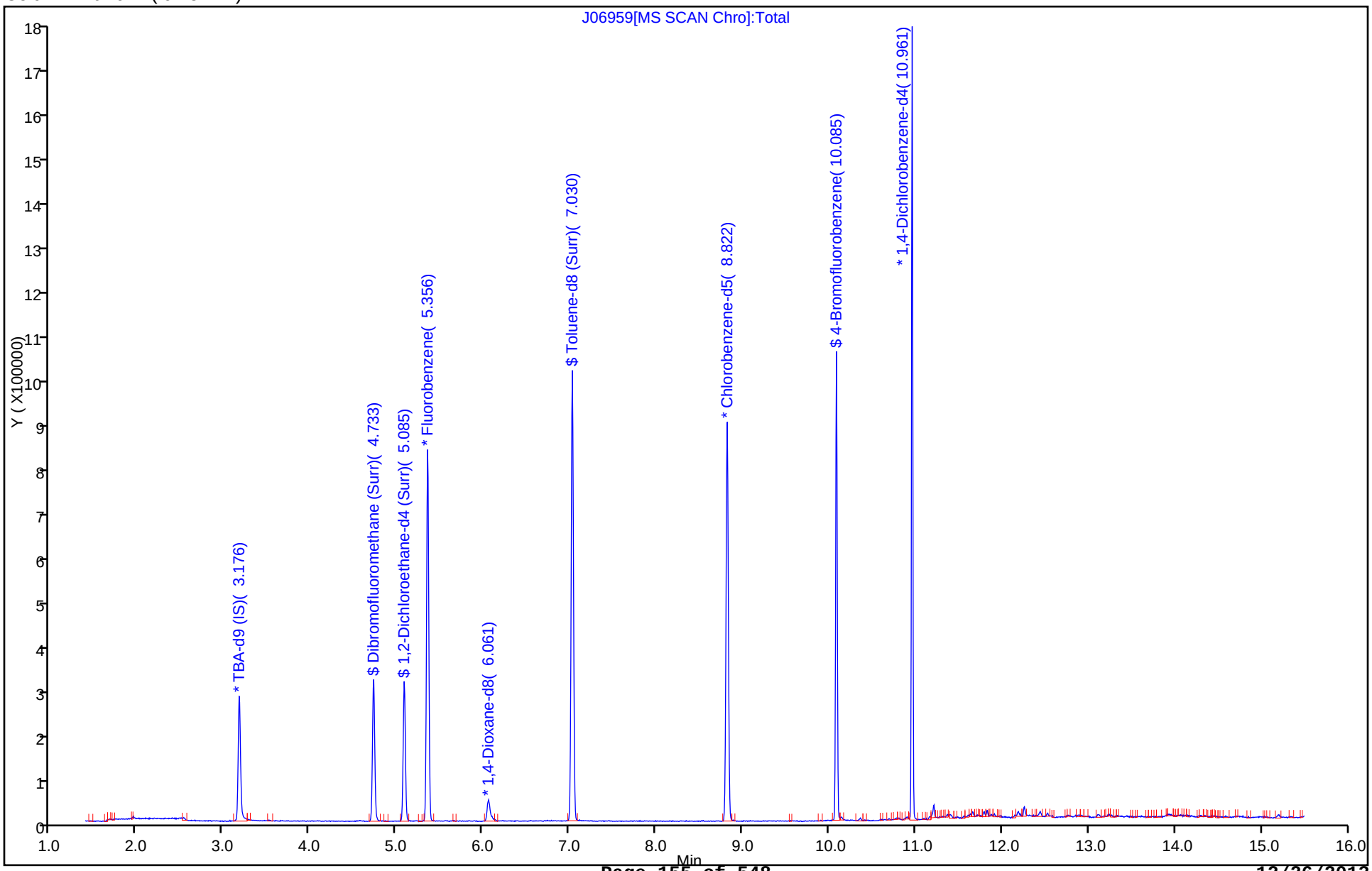
Report Date: 15-Dec-2013 19:40:00 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File: \\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06959.D

Injection Date:	13-Dec-2013 12:16:30	Instrument ID:	CVOAMS8	Operator ID:	
Lims ID:	MB	Lab Sample ID:	MB 460-197509/7-A	Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	6
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		

Column: Rtx-624 (0.25 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 460-198396/7

Matrix: Solid | Lab File ID: J07047.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 12/18/2013 07:36

Soil Aliquot Vol: 5 (mL) | Dilution Factor: 50

Soil Extract Vol.: 5(mL) | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Medium

Analysis Batch No.: 198396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	50	U	50	4.8
74-83-9	Bromomethane	50	U	50	9.1
75-01-4	Vinyl chloride	50	U	50	7.2
75-00-3	Chloroethane	50	U	50	8.5
75-09-2	Methylene Chloride	50	U	50	9.1
67-64-1	Acetone	250	U	250	130
75-15-0	Carbon disulfide	50	U	50	6.3
75-69-4	Trichlorofluoromethane	50	U	50	7.3
75-35-4	1,1-Dichloroethene	50	U	50	4.4
75-34-3	1,1-Dichloroethane	50	U	50	6.5
156-60-5	trans-1,2-Dichloroethene	50	U	50	6.4
156-59-2	cis-1,2-Dichloroethene	50	U	50	8.9
67-66-3	Chloroform	50	U	50	3.9
107-06-2	1,2-Dichloroethane	50	U	50	9.5
78-93-3	2-Butanone	250	U	250	120
71-55-6	1,1,1-Trichloroethane	50	U	50	3.1
56-23-5	Carbon tetrachloride	50	U	50	2.9
75-27-4	Bromodichloromethane	50	U	50	6.3
78-87-5	1,2-Dichloropropane	50	U	50	4.3
10061-01-5	cis-1,3-Dichloropropene	50	U	50	9.2
79-01-6	Trichloroethene	50	U	50	4.6
124-48-1	Dibromochloromethane	50	U	50	10
79-00-5	1,1,2-Trichloroethane	50	U	50	9.4
71-43-2	Benzene	50	U	50	4.1
10061-02-6	trans-1,3-Dichloropropene	50	U	50	12
75-25-2	Bromoform	50	U	50	9.6
108-10-1	4-Methyl-2-pentanone	250	U	250	49
591-78-6	2-Hexanone	250	U	250	25
127-18-4	Tetrachloroethene	50	U	50	4.9
79-34-5	1,1,2,2-Tetrachloroethane	50	U	50	7.9
108-88-3	Toluene	50	U	50	7.5
108-90-7	Chlorobenzene	50	U	50	5.5
100-41-4	Ethylbenzene	50	U	50	4.8
100-42-5	Styrene	50	U	50	5.9
1330-20-7	Xylenes, Total	150	U	150	18
76-13-1	Freon TF	50	U	50	4.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 460-198396/7

Matrix: Solid | Lab File ID: J07047.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 12/18/2013 07:36

Soil Aliquot Vol: 5 (mL) | Dilution Factor: 50

Soil Extract Vol.: 5(mL) | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Medium

Analysis Batch No.: 198396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	MTBE	50	U	50	6.9
110-82-7	Cyclohexane	50	U	50	7.9
106-93-4	1,2-Dibromoethane	50	U	50	14
541-73-1	1,3-Dichlorobenzene	50	U	50	6.8
106-46-7	1,4-Dichlorobenzene	50	U	50	12
95-50-1	1,2-Dichlorobenzene	50	U	50	10
75-71-8	Dichlorodifluoromethane	50	U	50	11
120-82-1	1,2,4-Trichlorobenzene	50	U	50	17
123-91-1	1,4-Dioxane	2500	U	2500	1800
87-61-6	1,2,3-Trichlorobenzene	50	U	50	26
96-12-8	1,2-Dibromo-3-Chloropropane	50	U	50	20
74-97-5	Bromochloromethane	50	U	50	14
98-82-8	Isopropylbenzene	50	U	50	3.8
79-20-9	Methyl acetate	250	U	250	17
108-87-2	Methylcyclohexane	50	U	50	6.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		75-135
2037-26-5	Toluene-d8 (Surr)	88		59-150
460-00-4	Bromofluorobenzene	88		72-133
1868-53-7	Dibromofluoromethane (Surr)	92		70-130

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07047.D
Lims ID: MB Lab Sample ID: MB 460-198396/7-A
Client ID:
Sample Type: MB
Inject. Date: 18-Dec-2013 07:36:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: MB
Misc. Info.: 460-0007957-007 =460-0007957-007
Operator ID: Instrument ID: CVOAMS8

Method: \\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\8260_W8.m
Limit Group: VOA - 8260C Water and Solid
Last Update: 18-Dec-2013 17:32:47 Calib Date: 26-Nov-2013 11:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06481.D

Column 1 : Rtx-624 (0.25 mm) Detector MS SCAN
Process Host: XAWRK026

First Level Reviewer: delpolitov Date: 18-Dec-2013 17:20:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
* 151 TBA-d9 (IS)	65	3.177	3.182	-0.006	72	280882	1000.0	
$ 152 Dibromofluoromethane (Surr)	113	4.734	4.733	0.001	93	173733	46.2	
$ 54 1,2-Dichloroethane-d4 (Surr)	65	5.086	5.086	0.0	87	185938	46.2	
* 59 Fluorobenzene	96	5.356	5.356	0.0	99	746930	50.0	
* 150 1,4-Dioxane-d8	96	6.055	6.061	-0.006	65	44604	1000.0	
$ 76 Toluene-d8 (Surr)	98	7.031	7.031	0.0	99	705045	44.2	
* 87 Chlorobenzene-d5	117	8.823	8.823	0.0	83	605508	50.0	
$ 99 4-Bromofluorobenzene	174	10.086	10.086	0.0	98	251033	44.1	
* 116 1,4-Dichlorobenzene-d4	152	10.962	10.961	0.001	93	357234	50.0	

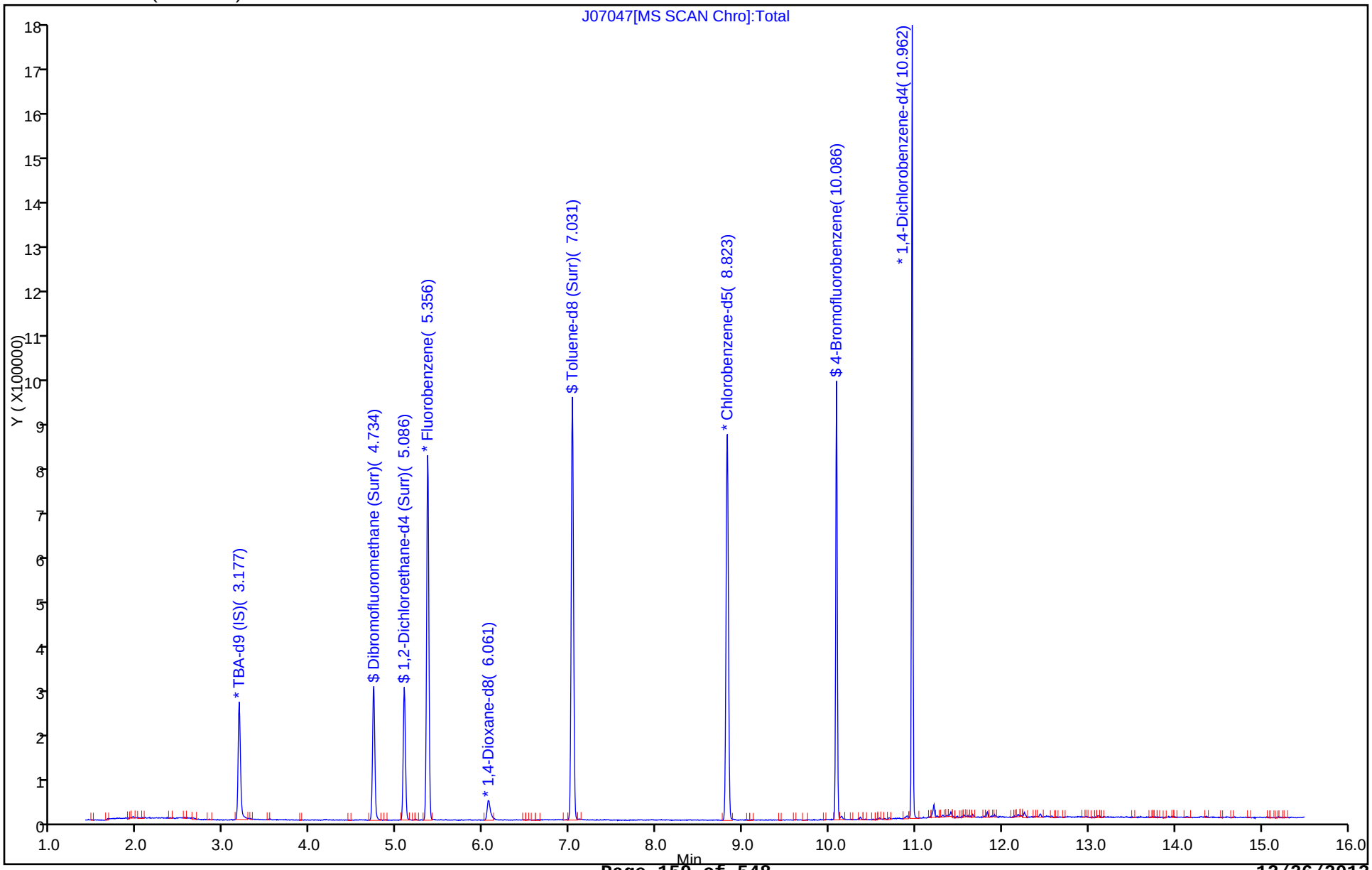
Report Date: 18-Dec-2013 17:32:48 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File: \\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07047.D

Injection Date:	18-Dec-2013 07:36:30	Instrument ID:	CVOAMS8	Operator ID:	
Lims ID:	MB	Lab Sample ID:	MB 460-198396/7-A	Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	6
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		

Column: Rtx-624 (0.25 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 460-197509/4

Matrix: Solid | Lab File ID: J06956.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 12/13/2013 10:17

Soil Aliquot Vol: 5 (mL) | Dilution Factor: 50

Soil Extract Vol.: 5(mL) | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Medium

Analysis Batch No.: 197509 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1080		50	4.8
74-83-9	Bromomethane	1100		50	9.1
75-01-4	Vinyl chloride	1050		50	7.2
75-00-3	Chloroethane	1150		50	8.5
75-09-2	Methylene Chloride	1090		50	9.1
67-64-1	Acetone	5850		250	130
75-15-0	Carbon disulfide	1100		50	6.3
75-69-4	Trichlorofluoromethane	1080		50	7.3
75-35-4	1,1-Dichloroethene	1070		50	4.4
75-34-3	1,1-Dichloroethane	1070		50	6.5
156-60-5	trans-1,2-Dichloroethene	1100		50	6.4
156-59-2	cis-1,2-Dichloroethene	1120		50	8.9
67-66-3	Chloroform	1110		50	3.9
107-06-2	1,2-Dichloroethane	1110		50	9.5
78-93-3	2-Butanone	5940		250	120
71-55-6	1,1,1-Trichloroethane	1100		50	3.1
56-23-5	Carbon tetrachloride	1100		50	2.9
75-27-4	Bromodichloromethane	1090		50	6.3
78-87-5	1,2-Dichloropropane	1070		50	4.3
10061-01-5	cis-1,3-Dichloropropene	1080		50	9.2
79-01-6	Trichloroethene	1050		50	4.6
124-48-1	Dibromochloromethane	901		50	10
79-00-5	1,1,2-Trichloroethane	1070		50	9.4
71-43-2	Benzene	1090		50	4.1
10061-02-6	trans-1,3-Dichloropropene	1080		50	12
75-25-2	Bromoform	855		50	9.6
108-10-1	4-Methyl-2-pentanone	5230		250	49
591-78-6	2-Hexanone	5990		250	25
127-18-4	Tetrachloroethene	1090		50	4.9
79-34-5	1,1,2,2-Tetrachloroethane	1100		50	7.9
108-88-3	Toluene	1080		50	7.5
108-90-7	Chlorobenzene	1060		50	5.5
100-41-4	Ethylbenzene	1040		50	4.8
100-42-5	Styrene	1120		50	5.9
1330-20-7	Xylenes, Total	2110		150	18
76-13-1	Freon TF	1030		50	4.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 460-197509/4
Matrix: Solid
Lab File ID: J06956.D
Analysis Method: 8260C
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 12/13/2013 10:17
Soil Aliquot Vol: 5 (mL)
Dilution Factor: 50
Soil Extract Vol.: 5(mL)
GC Column: Rtx-624 ID: 0.25(mm)
% Moisture:
Level: (low/med) Medium
Analysis Batch No.: 197509
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	MTBE	1080		50	6.9
110-82-7	Cyclohexane	1150		50	7.9
106-93-4	1,2-Dibromoethane	1070		50	14
541-73-1	1,3-Dichlorobenzene	1100		50	6.8
106-46-7	1,4-Dichlorobenzene	1070		50	12
95-50-1	1,2-Dichlorobenzene	1070		50	10
75-71-8	Dichlorodifluoromethane	1010		50	11
120-82-1	1,2,4-Trichlorobenzene	1030		50	17
123-91-1	1,4-Dioxane	29300		2500	1800
87-61-6	1,2,3-Trichlorobenzene	1000		50	26
96-12-8	1,2-Dibromo-3-Chloropropane	1020		50	20
74-97-5	Bromochloromethane	1130		50	14
98-82-8	Isopropylbenzene	1100		50	3.8
79-20-9	Methyl acetate	5420		250	17
108-87-2	Methylcyclohexane	1170		50	6.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		75-135
2037-26-5	Toluene-d8 (Surr)	93		59-150
460-00-4	Bromofluorobenzene	96		72-133
1868-53-7	Dibromofluoromethane (Surr)	97		70-130

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06956.D
Lims ID: LCS Lab Sample ID: LCS 460-197509/4-A
Client ID:
Sample Type: LCS
Inject. Date: 13-Dec-2013 10:17:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: LCS
Misc. Info.: 460-0007774-004
Operator ID: Instrument ID: CVOAMS8

Method: \\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\8260_W8.m
Limit Group: VOA - 8260C Water and Solid
Last Update: 15-Dec-2013 19:37:32 Calib Date: 26-Nov-2013 11:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06481.D

Column 1 : Rtx-624 (0.25 mm) Detector MS SCAN
Process Host: XAWRK013

First Level Reviewer: martineze Date: 13-Dec-2013 10:39:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.476	1.476	0.0	87	68955	20.3	
2 Chloromethane	50	1.646	1.647	-0.001	88	53592	21.5	
4 Vinyl chloride	62	1.734	1.735	-0.001	97	50532	21.1	
149 Butadiene	54	1.764	1.764	0.0	92	38552	0	
6 Bromomethane	94	2.016	2.017	-0.001	97	34972	22.0	
7 Chloroethane	64	2.110	2.105	0.005	99	28915	23.0	
9 Dichlorofluoromethane	67	2.287	2.287	-0.001	96	87368	22.3	
8 Trichlorofluoromethane	101	2.292	2.293	-0.001	82	71344	21.6	
11 Ethanol	46	2.498	2.493	0.005	98	9514	1712.1	
13 Ethyl ether	59	2.533	2.534	-0.001	94	36397	20.8	
14 2-Methyl-1,3-butadiene	53	2.551	2.552	-0.001	94	39052	19.2	
16 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.704	2.698	0.006	95	65110	20.6	
17 Acrolein	56	2.710	2.710	0.0	37	7453	33.4	
18 1,1-Dichloroethene	96	2.733	2.734	-0.001	88	62241	21.4	
19 Acetone	43	2.833	2.828	0.005	86	95127	117.1	
20 Iodomethane	142	2.886	2.887	0.0	97	115967	22.4	
34 Isopropyl alcohol	45	2.921	2.916	0.005	35	31356	236.5	
21 Carbon disulfide	76	2.921	2.922	-0.001	98	190744	22.1	
147 3-Chloro-1-propene	76	3.056	3.057	-0.001	89	37691	0	
23 Methyl acetate	43	3.074	3.075	-0.001	97	226392	108.4	
22 Cyclopentene	67	3.074	3.075	-0.001	91	185648	23.7	
24 Acetonitrile	41	3.127	3.127	0.0	98	84553	236.6	
* 151 TBA-d9 (IS)	65	3.180	3.180	0.0	92	284991	1000.0	
25 Methylene Chloride	84	3.185	3.186	-0.001	75	73366	21.8	
26 2-Methyl-2-propanol	59	3.250	3.245	0.005	98	56194	228.8	
27 Methyl tert-butyl ether	73	3.344	3.345	-0.001	97	191467	21.5	
29 trans-1,2-Dichloroethene	96	3.373	3.368	0.005	82	73154	22.1	
30 Acrylonitrile	53	3.450	3.451	-0.001	94	255054	225.0	
32 Hexane	57	3.526	3.527	-0.001	88	57196	23.8	
35 Isopropyl ether	45	3.738	3.733	0.005	97	190256	22.0	
36 1,1-Dichloroethane	63	3.773	3.774	-0.001	94	120948	21.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
37 Vinyl acetate	43	3.791	3.785	0.006	99	222834	46.8	
33 2-Chloro-1,3-butadiene	88	3.820	3.815	0.005	86	67715	23.0	
40 Tert-butyl ethyl ether	59	4.055	4.050	0.005	86	197485	21.7	
41 2,2-Dichloropropane	77	4.267	4.267	0.0	94	83066	22.5	
42 cis-1,2-Dichloroethene	96	4.290	4.291	-0.001	91	80694	22.3	
44 Ethyl acetate	43	4.314	4.314	0.0	97	250412	43.8	
43 2-Butanone (MEK)	72	4.314	4.314	0.0	97	43285	118.7	
39 Methyl acrylate	55	4.366	4.367	-0.001	97	60352	21.8	
48 Propionitrile	54	4.449	4.444	0.005	97	100837	239.0	
46 Chlorobromomethane	128	4.519	4.520	-0.001	57	42880	22.7	
45 Tetrahydrofuran	42	4.519	4.526	-0.007	80	48401	45.3	
31 Methacrylonitrile	67	4.549	4.549	0.0	88	319867	230.1	
47 Chloroform	83	4.572	4.573	-0.001	89	117957	22.3	
49 Cyclohexane	56	4.701	4.696	0.005	87	88085	23.0	
50 1,1,1-Trichloroethane	97	4.719	4.720	-0.001	93	88838	21.9	
$ 152 Dibromofluoromethane (Surr)	113	4.731	4.731	0.0	94	186622	48.6	
51 Carbon tetrachloride	117	4.836	4.831	0.005	88	65147	21.9	
52 1,1-Dichloropropene	75	4.866	4.867	-0.001	97	85121	22.3	
56 Isobutyl alcohol	43	4.983	4.984	-0.001	97	50987	590.6	
53 Benzene	78	5.066	5.066	0.0	90	284836	21.7	
$ 54 1,2-Dichloroethane-d4 (Surr)	65	5.083	5.084	-0.001	88	195615	47.6	
57 Isopropyl acetate	43	5.124	5.119	0.005	97	153981	21.1	
142 Tert-amyl methyl ether	73	5.130	5.125	0.005	87	188137	21.5	
55 1,2-Dichloroethane	62	5.160	5.160	0.0	91	87423	22.1	
58 n-Heptane	57	5.218	5.213	0.005	91	25461	25.3	
* 59 Fluorobenzene	96	5.354	5.354	0.0	99	763236	50.0	
60 2,4,4-Trimethyl-1-pentene	57	5.565	5.566	-0.001	95	191802	49.4	
62 n-Butanol	56	5.653	5.654	-0.001	84	34865	606.5	
61 Trichloroethene	95	5.712	5.707	0.005	91	70980	21.1	
64 Ethyl acrylate	55	5.829	5.830	-0.001	97	137867	22.8	
63 Methylcyclohexane	83	5.829	5.830	-0.001	71	72540	23.3	
65 1,2-Dichloropropane	63	6.000	6.001	0.0	91	68988	21.5	
* 150 1,4-Dioxane-d8	96	6.064	6.053	0.011	49	47575	1000.0	
66 Methyl methacrylate	100	6.076	6.077	-0.001	82	44256	43.2	
67 1,4-Dioxane	88	6.111	6.112	-0.001	63	21191	586.5	
69 n-Propyl acetate	43	6.129	6.130	-0.001	96	86512	20.9	
68 Dibromomethane	93	6.129	6.130	-0.001	70	46344	22.2	
70 Dichlorobromomethane	83	6.282	6.283	-0.001	93	81330	21.9	
71 2-Nitropropane	41	6.623	6.617	0.006	74	20032	39.8	
72 2-Chloroethyl vinyl ether	63	6.617	6.623	-0.006	89	49072	21.6	
74 cis-1,3-Dichloropropene	75	6.781	6.782	-0.001	84	108316	21.7	
75 4-Methyl-2-pentanone (MIBK)	43	6.946	6.946	0.0	93	280059	104.6	
$ 76 Toluene-d8 (Surr)	98	7.028	7.029	-0.001	99	754814	46.5	
77 Toluene	91	7.104	7.105	-0.001	93	302715	21.5	
78 trans-1,3-Dichloropropene	75	7.457	7.458	-0.001	94	85540	21.6	
82 Ethyl methacrylate	69	7.480	7.481	-0.001	87	85552	21.4	
79 1,1,2-Trichloroethane	83	7.674	7.675	-0.001	93	58329	21.3	
80 Tetrachloroethene	166	7.715	7.716	-0.001	90	78788	21.8	
81 1,3-Dichloropropane	76	7.886	7.887	-0.001	88	110540	21.3	
83 2-Hexanone	58	7.945	7.945	0.0	93	125595	119.9	
85 n-Butyl acetate	43	8.062	8.057	0.005	96	87580	20.5	
84 Chlorodibromomethane	129	8.115	8.116	-0.001	94	62789	18.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
86 Ethylene Dibromide	107	8.274	8.274	0.0	99	73685	21.4	
* 87 Chlorobenzene-d5	117	8.820	8.821	-0.001	80	616690	50.0	
88 Chlorobenzene	112	8.855	8.856	-0.001	96	207601	21.1	
89 Ethylbenzene	106	8.961	8.962	-0.001	97	101570	20.8	
90 1,1,1,2-Tetrachloroethane	131	8.973	8.973	0.0	89	62651	21.5	
91 m-Xylene & p-Xylene	106	9.120	9.115	0.006	94	126290	21.0	
93 n-Butyl acrylate	73	9.543	9.543	0.0	92	48875	16.2	
92 o-Xylene	106	9.560	9.561	-0.001	95	127213	21.2	
94 Styrene	104	9.590	9.590	0.0	97	227448	22.3	
96 Amyl acetate (mixed isomers)	43	9.772	9.773	-0.001	93	93413	22.6	
97 Bromoform	173	9.795	9.796	-0.001	83	42392	17.1	
98 Isopropylbenzene	105	9.907	9.908	-0.001	94	270015	22.0	
$ 99 4-Bromofluorobenzene	174	10.083	10.084	-0.001	97	276857	47.8	
95 Camphene	41	10.101	10.102	-0.001	92	11507	22.4	
100 Bromobenzene	156	10.201	10.201	0.0	90	96013	22.2	
101 1,1,2,2-Tetrachloroethane	83	10.242	10.237	0.005	92	88726	22.0	
102 N-Propylbenzene	91	10.260	10.260	0.0	93	300108	22.7	
103 1,2,3-Trichloropropane	110	10.283	10.284	-0.001	96	25633	21.5	
104 trans-1,4-Dichloro-2-butene	53	10.295	10.295	0.0	81	21757	22.8	
105 2-Chlorotoluene	91	10.354	10.354	0.0	93	227409	22.3	
143 4-Ethyltoluene	105	10.354	10.354	0.0	93	287599	23.1	
106 1,3,5-Trimethylbenzene	105	10.412	10.413	-0.001	94	221175	22.4	
107 4-Chlorotoluene	91	10.448	10.442	0.006	95	214334	21.7	
108 Butyl Methacrylate	87	10.489	10.489	0.0	87	88488	17.8	
109 tert-Butylbenzene	119	10.647	10.648	-0.001	91	170075	22.6	
110 1,2,4-Trimethylbenzene	105	10.694	10.695	-0.001	96	243077	22.6	
113 sec-Butylbenzene	105	10.806	10.807	-0.001	99	231816	23.4	
114 4-Isopropyltoluene	119	10.906	10.907	-0.001	93	216264	23.6	
115 1,3-Dichlorobenzene	146	10.912	10.912	0.0	98	160641	22.0	
* 116 1,4-Dichlorobenzene-d4	152	10.959	10.959	0.0	84	347753	50.0	
117 1,4-Dichlorobenzene	146	10.976	10.977	-0.001	94	164850	21.5	
118 Benzyl chloride	91	11.076	11.077	-0.001	99	121432	17.3	
119 2,3-Dihydroindene	117	11.123	11.124	-0.001	90	285900	23.3	
133 p-Diethylbenzene	119	11.158	11.159	-0.001	93	135689	0	
120 n-Butylbenzene	91	11.176	11.177	-0.001	95	210470	22.4	
121 1,2-Dichlorobenzene	146	11.223	11.224	-0.001	97	159413	21.5	
132 1,2,4,5-Tetramethylbenzene	119	11.634	11.635	-0.001	95	222052	0	
122 1,2-Dibromo-3-Chloropropane	75	11.711	11.711	0.0	90	14703	20.4	
145 1,3,5-Trichlorobenzene	180	11.793	11.794	-0.001	96	107816	21.9	
123 Camphor	95	12.140	12.140	0.0	88	51101	112.9	
124 1,2,4-Trichlorobenzene	180	12.193	12.193	0.0	91	106591	20.5	
126 Hexachlorobutadiene	225	12.257	12.258	-0.001	92	46496	27.2	
127 Naphthalene	128	12.369	12.370	-0.001	99	310983	21.7	
128 1,2,3-Trichlorobenzene	180	12.527	12.528	-0.001	94	103046	20.1	
S 131 Xylenes, Total	100				0		42.2	

Report Date: 15-Dec-2013 19:38:02 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File: \\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06956.D

Injection Date: 13-Dec-2013 10:17:30 Instrument ID: CVOAMS8 Operator ID:

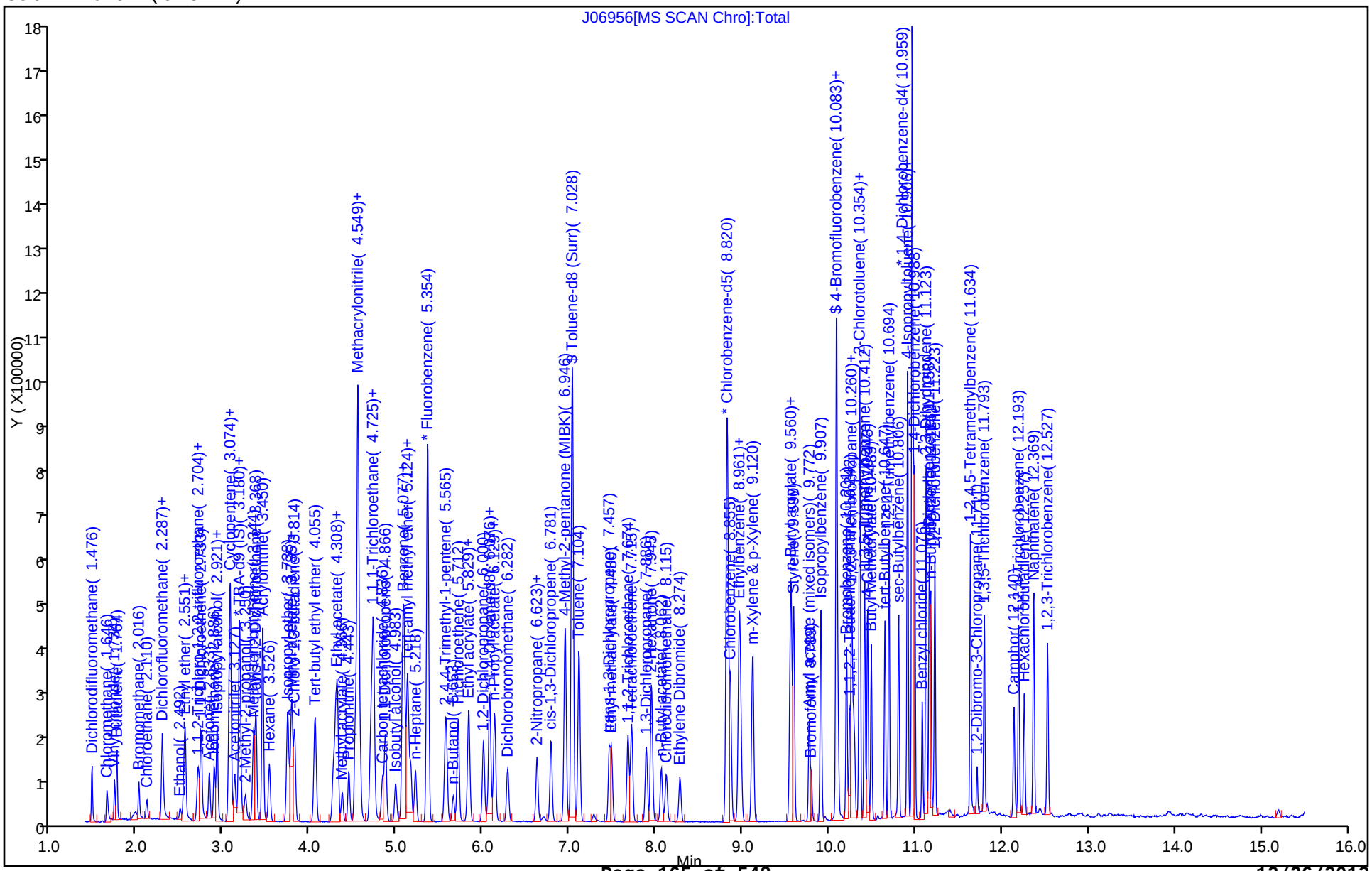
Lims ID: LCS Lab Sample ID: LCS 460-197509/4-A Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 50.0000 ALS Bottle#: 3

Method: 8260_W8 Limit Group: VOA - 8260C Water and Solid

Column: Rtx-624 (0.25 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 460-198396/3

Matrix: Solid | Lab File ID: J07043.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 12/18/2013 05:31

Soil Aliquot Vol: 5 (mL) | Dilution Factor: 50

Soil Extract Vol.: 5(mL) | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Medium

Analysis Batch No.: 198396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	891		50	4.8
74-83-9	Bromomethane	1160		50	9.1
75-01-4	Vinyl chloride	948		50	7.2
75-00-3	Chloroethane	1050		50	8.5
75-09-2	Methylene Chloride	1010		50	9.1
67-64-1	Acetone	5080		250	130
75-15-0	Carbon disulfide	1010		50	6.3
75-69-4	Trichlorofluoromethane	1040		50	7.3
75-35-4	1,1-Dichloroethene	1050		50	4.4
75-34-3	1,1-Dichloroethane	965		50	6.5
156-60-5	trans-1,2-Dichloroethene	1010		50	6.4
156-59-2	cis-1,2-Dichloroethene	1020		50	8.9
67-66-3	Chloroform	1010		50	3.9
107-06-2	1,2-Dichloroethane	991		50	9.5
78-93-3	2-Butanone	5310		250	120
71-55-6	1,1,1-Trichloroethane	1020		50	3.1
56-23-5	Carbon tetrachloride	1050		50	2.9
75-27-4	Bromodichloromethane	999		50	6.3
78-87-5	1,2-Dichloropropane	964		50	4.3
10061-01-5	cis-1,3-Dichloropropene	931		50	9.2
79-01-6	Trichloroethene	971		50	4.6
124-48-1	Dibromochloromethane	804		50	10
79-00-5	1,1,2-Trichloroethane	944		50	9.4
71-43-2	Benzene	988		50	4.1
10061-02-6	trans-1,3-Dichloropropene	967		50	12
75-25-2	Bromoform	712		50	9.6
108-10-1	4-Methyl-2-pentanone	4450		250	49
591-78-6	2-Hexanone	5420		250	25
127-18-4	Tetrachloroethene	1020		50	4.9
79-34-5	1,1,2,2-Tetrachloroethane	908		50	7.9
108-88-3	Toluene	983		50	7.5
108-90-7	Chlorobenzene	956		50	5.5
100-41-4	Ethylbenzene	973		50	4.8
100-42-5	Styrene	1010		50	5.9
1330-20-7	Xylenes, Total	1940		150	18
76-13-1	Freon TF	965		50	4.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 460-198396/3
Matrix: Solid
Lab File ID: J07043.D
Analysis Method: 8260C
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 12/18/2013 05:31
Soil Aliquot Vol: 5 (mL)
Dilution Factor: 50
Soil Extract Vol.: 5(mL)
GC Column: Rtx-624 ID: 0.25(mm)
% Moisture:
Level: (low/med) Medium
Analysis Batch No.: 198396
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	MTBE	953		50	6.9
110-82-7	Cyclohexane	1060		50	7.9
106-93-4	1,2-Dibromoethane	921		50	14
541-73-1	1,3-Dichlorobenzene	993		50	6.8
106-46-7	1,4-Dichlorobenzene	969		50	12
95-50-1	1,2-Dichlorobenzene	980		50	10
75-71-8	Dichlorodifluoromethane	900		50	11
120-82-1	1,2,4-Trichlorobenzene	923		50	17
123-91-1	1,4-Dioxane	25300		2500	1800
87-61-6	1,2,3-Trichlorobenzene	894		50	26
96-12-8	1,2-Dibromo-3-Chloropropane	765		50	20
74-97-5	Bromochloromethane	1020		50	14
98-82-8	Isopropylbenzene	1060		50	3.8
79-20-9	Methyl acetate	4630		250	17
108-87-2	Methylcyclohexane	1150		50	6.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		75-135
2037-26-5	Toluene-d8 (Surr)	90		59-150
460-00-4	Bromofluorobenzene	90		72-133
1868-53-7	Dibromofluoromethane (Surr)	96		70-130

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07043.D
Lims ID: LCS Lab Sample ID: LCS 460-198396/3-A
Client ID:
Sample Type: LCS
Inject. Date: 18-Dec-2013 05:31:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: LCS
Misc. Info.: 460-0007957-003
Operator ID: Instrument ID: CVOAMS8

Method: \\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\8260_W8.m
Limit Group: VOA - 8260C Water and Solid
Last Update: 18-Dec-2013 16:44:34 Calib Date: 26-Nov-2013 11:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06481.D

Column 1 : Rtx-624 (0.25 mm) Detector MS SCAN
Process Host: XAWRK026

First Level Reviewer: delpolitov Date: 18-Dec-2013 16:44:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.476	1.473	0.003	87	59641	18.0	
2 Chloromethane	50	1.646	1.649	-0.003	88	43211	17.8	
4 Vinyl chloride	62	1.735	1.737	-0.002	82	44247	19.0	
149 Butadiene	54	1.764	1.760	0.004	92	35386	0	
6 Bromomethane	94	2.028	2.019	0.009	98	35879	23.2	
7 Chloroethane	64	2.111	2.107	0.004	96	24723	21.0	
9 Dichlorofluoromethane	67	2.287	2.283	0.004	90	75160	19.7	
8 Trichlorofluoromethane	101	2.299	2.295	0.004	86	66896	20.8	
11 Ethanol	46	2.492	2.495	-0.003	94	6447	1238.2	
13 Ethyl ether	59	2.539	2.536	0.003	91	36928	21.7	
14 2-Methyl-1,3-butadiene	53	2.551	2.554	-0.003	92	43963	22.2	
16 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.704	2.701	0.003	93	59561	19.3	
17 Acrolein	56	2.710	2.706	0.004	17	4009	19.2	
18 1,1-Dichloroethene	96	2.739	2.736	0.003	87	59625	21.0	
19 Acetone	43	2.833	2.830	0.003	85	77419	101.7	
20 Iodomethane	142	2.886	2.889	-0.003	95	105778	21.0	
21 Carbon disulfide	76	2.921	2.924	-0.003	98	169241	20.1	
34 Isopropyl alcohol	45	2.921	2.924	-0.003	31	26720	215.1	
147 3-Chloro-1-propene	76	3.057	3.059	-0.003	89	34265	0	
23 Methyl acetate	43	3.074	3.071	0.003	97	188337	92.5	
22 Cyclopentene	67	3.080	3.077	0.003	76	153249	20.1	
24 Acetonitrile	41	3.127	3.129	-0.002	95	67196	200.7	
* 151 TBA-d9 (IS)	65	3.174	3.182	-0.008	87	267030	1000.0	
25 Methylene Chloride	84	3.186	3.182	0.004	75	66082	20.1	
26 2-Methyl-2-propanol	59	3.250	3.247	0.003	97	48424	210.4	
27 Methyl tert-butyl ether	73	3.344	3.347	-0.003	96	165217	19.1	
29 trans-1,2-Dichloroethene	96	3.374	3.370	0.004	83	65039	20.2	
30 Acrylonitrile	53	3.450	3.447	0.003	94	213299	193.1	
32 Hexane	57	3.527	3.523	0.004	89	52844	22.6	
35 Isopropyl ether	45	3.738	3.735	0.003	96	165936	19.7	
36 1,1-Dichloroethane	63	3.773	3.776	-0.003	99	105995	19.3	

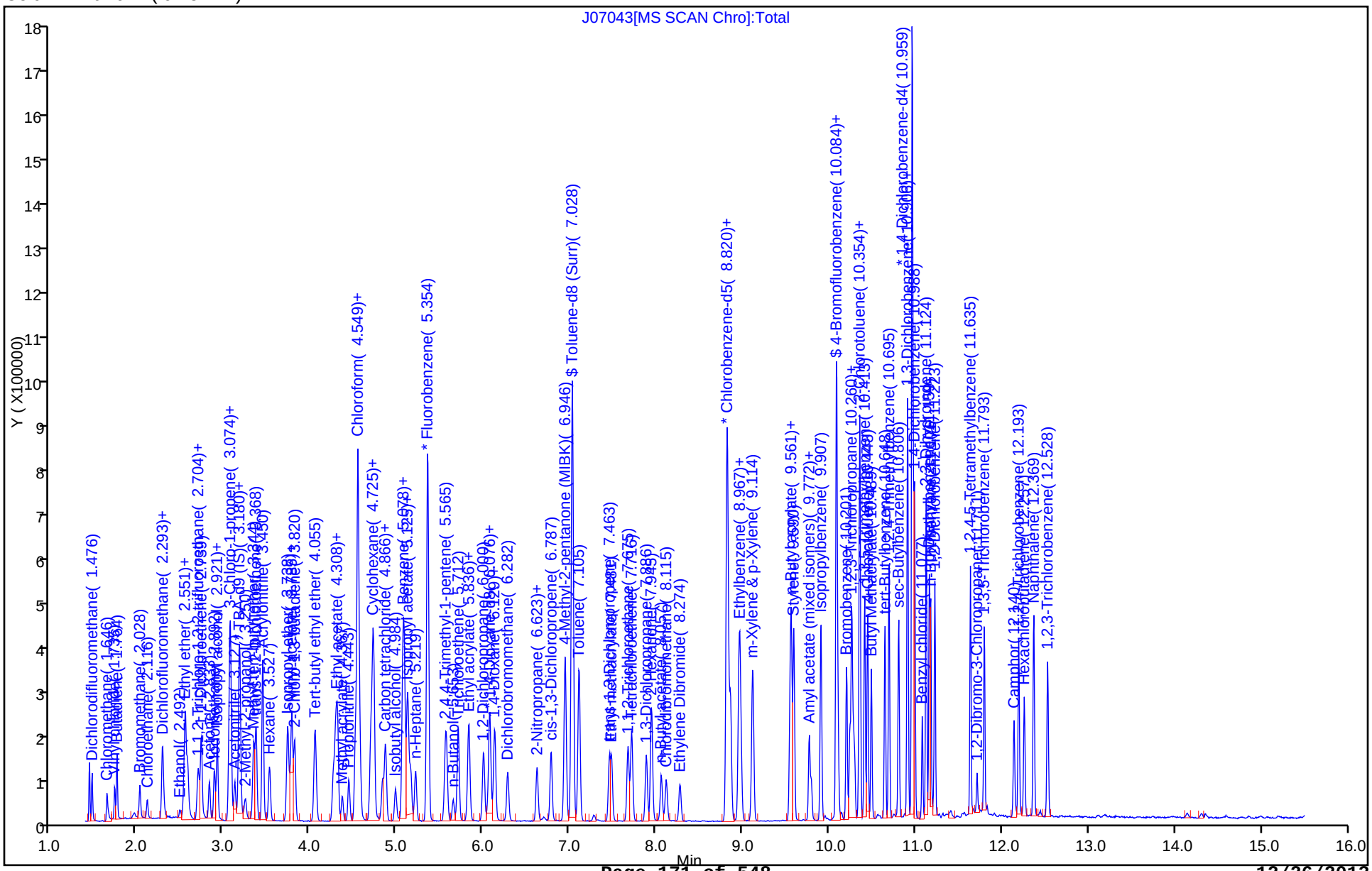
Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
37 Vinyl acetate	43	3.791	3.787	0.004	99	190841	41.1	
33 2-Chloro-1,3-butadiene	88	3.820	3.817	0.003	89	57675	20.1	
40 Tert-butyl ethyl ether	59	4.055	4.052	0.003	86	173458	19.5	
41 2,2-Dichloropropane	77	4.267	4.269	-0.002	93	76774	21.4	
42 cis-1,2-Dichloroethene	96	4.296	4.293	0.003	98	71544	20.3	
43 2-Butanone (MEK)	72	4.314	4.310	0.004	97	36243	106.1	
44 Ethyl acetate	43	4.314	4.316	-0.002	96	205294	36.8	
39 Methyl acrylate	55	4.373	4.369	0.004	97	50393	18.7	
48 Propionitrile	54	4.443	4.446	-0.003	98	81466	206.1	
46 Chlorobromomethane	128	4.519	4.522	-0.003	56	37629	20.4	
45 Tetrahydrofuran	42	4.525	4.522	0.003	63	39302	39.3	
31 Methacrylonitrile	67	4.549	4.551	-0.002	88	271795	200.7	
47 Chloroform	83	4.572	4.575	-0.003	100	104307	20.2	
49 Cyclohexane	56	4.702	4.698	0.004	86	78661	21.1	
50 1,1,1-Trichloroethane	97	4.719	4.722	-0.003	96	80179	20.3	
$ 152 Dibromofluoromethane (Surr)	113	4.731	4.733	-0.002	95	179187	47.9	
51 Carbon tetrachloride	117	4.837	4.833	0.004	87	60826	21.0	
52 1,1-Dichloropropene	75	4.866	4.869	-0.003	96	74394	20.0	
56 Isobutyl alcohol	43	4.990	4.986	0.004	97	41752	516.2	
53 Benzene	78	5.066	5.068	-0.002	90	254009	19.8	
$ 54 1,2-Dichloroethane-d4 (Surr)	65	5.084	5.086	-0.002	86	190085	47.4	
57 Isopropyl acetate	43	5.119	5.121	-0.002	98	132808	18.7	
142 Tert-amyl methyl ether	73	5.131	5.127	0.004	91	165633	19.5	
55 1,2-Dichloroethane	62	5.160	5.162	-0.002	91	76245	19.8	
58 n-Heptane	57	5.219	5.215	0.004	88	24167	24.7	
* 59 Fluorobenzene	96	5.354	5.356	-0.002	99	743707	50.0	
60 2,4,4-Trimethyl-1-pentene	57	5.571	5.568	0.003	96	168688	44.6	
62 n-Butanol	56	5.653	5.656	-0.003	89	28268	524.8	
61 Trichloroethene	95	5.712	5.709	0.003	91	63762	19.4	
64 Ethyl acrylate	55	5.830	5.832	-0.002	96	119584	20.3	
63 Methylcyclohexane	83	5.836	5.832	0.004	74	69628	23.0	
65 1,2-Dichloropropane	63	6.000	6.003	-0.003	91	60333	19.3	
* 150 1,4-Dioxane-d8	96	6.059	6.061	-0.002	66	45822	1000.0	
66 Methyl methacrylate	100	6.076	6.073	0.003	80	38586	38.6	
67 1,4-Dioxane	88	6.124	6.120	0.004	31	17601	506.3	
69 n-Propyl acetate	43	6.129	6.132	-0.003	96	72809	18.1	
68 Dibromomethane	93	6.135	6.132	0.003	76	39952	19.6	
70 Dichlorobromomethane	83	6.282	6.279	0.003	95	72421	20.0	
71 2-Nitropropane	41	6.623	6.619	0.004	74	17101	36.7	
72 2-Chloroethyl vinyl ether	63	6.623	6.619	0.004	87	41725	18.8	
74 cis-1,3-Dichloropropene	75	6.787	6.784	0.003	85	91145	18.6	
75 4-Methyl-2-pentanone (MIBK)	43	6.946	6.948	-0.002	94	233634	89.0	
$ 76 Toluene-d8 (Surr)	98	7.028	7.031	-0.003	99	718330	45.2	
77 Toluene	91	7.111	7.107	0.004	92	270665	19.7	
78 trans-1,3-Dichloropropene	75	7.457	7.460	-0.003	93	75047	19.3	
82 Ethyl methacrylate	69	7.481	7.483	-0.002	86	75086	19.3	
79 1,1,2-Trichloroethane	83	7.675	7.671	0.004	93	50651	18.9	
80 Tetrachloroethene	166	7.716	7.718	-0.002	95	71948	20.3	
81 1,3-Dichloropropane	76	7.886	7.889	-0.003	89	96295	18.9	
83 2-Hexanone	58	7.945	7.947	-0.002	92	106450	108.4	
85 n-Butyl acetate	43	8.057	8.059	-0.002	97	72024	17.2	
84 Chlorodibromomethane	129	8.115	8.118	-0.003	94	54899	16.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
86 Ethylene Dibromide	107	8.274	8.276	-0.002	98	62226	18.4	
* 87 Chlorobenzene-d5	117	8.820	8.823	-0.003	79	604239	50.0	
88 Chlorobenzene	112	8.861	8.858	0.003	95	183848	19.1	
89 Ethylbenzene	106	8.961	8.958	0.003	97	93059	19.5	
90 1,1,1,2-Tetrachloroethane	131	8.979	8.976	0.003	89	54506	19.1	
91 m-Xylene & p-Xylene	106	9.114	9.117	-0.003	94	113320	19.2	
93 n-Butyl acrylate	73	9.549	9.545	0.004	94	41570	14.0	
92 o-Xylene	106	9.561	9.563	-0.002	95	115358	19.7	
94 Styrene	104	9.590	9.592	-0.002	97	202014	20.2	
96 Amyl acetate (mixed isomers)	43	9.772	9.769	0.003	94	74247	17.4	
97 Bromoform	173	9.796	9.792	0.004	83	34544	14.2	
98 Isopropylbenzene	105	9.907	9.904	0.003	94	254430	21.1	
$ 99 4-Bromofluorobenzene	174	10.084	10.086	-0.002	98	255750	45.1	
95 Camphene	41	10.101	10.104	-0.003	89	11256	22.4	
100 Bromobenzene	156	10.201	10.203	-0.002	90	87479	19.5	
101 1,1,2,2-Tetrachloroethane	83	10.242	10.239	0.003	87	75894	18.2	
102 N-Propylbenzene	91	10.260	10.262	-0.002	93	280747	20.5	
103 1,2,3-Trichloropropane	110	10.283	10.280	0.003	98	22098	17.9	
104 trans-1,4-Dichloro-2-butene	53	10.295	10.298	-0.003	73	17576	17.8	
105 2-Chlorotoluene	91	10.354	10.350	0.004	93	209217	19.8	
143 4-Ethyltoluene	105	10.360	10.356	0.004	94	259467	20.2	
106 1,3,5-Trimethylbenzene	105	10.413	10.409	0.004	91	207984	20.3	
107 4-Chlorotoluene	91	10.448	10.444	0.004	94	197897	19.4	
108 Butyl Methacrylate	87	10.489	10.491	-0.002	85	77078	14.9	
109 tert-Butylbenzene	119	10.648	10.644	0.004	92	162454	20.9	
110 1,2,4-Trimethylbenzene	105	10.695	10.691	0.004	90	220839	19.8	
113 sec-Butylbenzene	105	10.806	10.803	0.003	98	223143	21.8	
114 4-Isopropyltoluene	119	10.906	10.909	-0.003	96	205436	21.7	
115 1,3-Dichlorobenzene	146	10.912	10.909	0.003	97	150381	19.9	
* 116 1,4-Dichlorobenzene-d4	152	10.959	10.961	-0.002	92	360177	50.0	
117 1,4-Dichlorobenzene	146	10.977	10.979	-0.002	94	154132	19.4	
118 Benzyl chloride	91	11.077	11.079	-0.003	99	102772	14.1	
119 2,3-Dihydroindene	117	11.124	11.126	-0.002	92	259784	20.5	
133 p-Diethylbenzene	119	11.159	11.161	-0.002	95	125041	0	
120 n-Butylbenzene	91	11.176	11.173	0.003	95	200950	20.7	
121 1,2-Dichlorobenzene	146	11.223	11.226	-0.003	98	150580	19.6	
132 1,2,4,5-Tetramethylbenzene	119	11.635	11.637	-0.002	96	197318	0	
122 1,2-Dibromo-3-Chloropropane	75	11.711	11.708	0.003	88	11421	15.3	
145 1,3,5-Trichlorobenzene	180	11.793	11.796	-0.003	96	101185	19.8	
123 Camphor	95	12.140	12.137	0.003	87	43783	93.4	
124 1,2,4-Trichlorobenzene	180	12.193	12.195	-0.002	92	99424	18.5	
126 Hexachlorobutadiene	225	12.257	12.260	-0.003	93	44506	25.1	
127 Naphthalene	128	12.369	12.366	0.003	100	283643	19.1	
128 1,2,3-Trichlorobenzene	180	12.528	12.530	-0.002	94	95069	17.9	
S 131 Xylenes, Total	100				0		38.9	

Report Date: 18-Dec-2013 16:44:35 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07043.D				
Injection Date:	18-Dec-2013 05:31:30	Instrument ID:	CVOAMS8	Operator ID:	
Lims ID:	LCS	Lab Sample ID:	LCS 460-198396/3-A	Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	2
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column: Rtx-624 (0.25 mm)					



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 460-197509/5

Matrix: Solid | Lab File ID: J06957.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 12/13/2013 11:27

Soil Aliquot Vol: 5 (mL) | Dilution Factor: 50

Soil Extract Vol.: 5(mL) | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Medium

Analysis Batch No.: 197509 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1120		50	4.8
74-83-9	Bromomethane	1220		50	9.1
75-01-4	Vinyl chloride	1100		50	7.2
75-00-3	Chloroethane	1210		50	8.5
75-09-2	Methylene Chloride	1110		50	9.1
67-64-1	Acetone	5770		250	130
75-15-0	Carbon disulfide	1100		50	6.3
75-69-4	Trichlorofluoromethane	1070		50	7.3
75-35-4	1,1-Dichloroethene	1080		50	4.4
75-34-3	1,1-Dichloroethane	1080		50	6.5
156-60-5	trans-1,2-Dichloroethene	1070		50	6.4
156-59-2	cis-1,2-Dichloroethene	1090		50	8.9
67-66-3	Chloroform	1100		50	3.9
107-06-2	1,2-Dichloroethane	1040		50	9.5
78-93-3	2-Butanone	5740		250	120
71-55-6	1,1,1-Trichloroethane	1090		50	3.1
56-23-5	Carbon tetrachloride	1080		50	2.9
75-27-4	Bromodichloromethane	1070		50	6.3
78-87-5	1,2-Dichloropropane	1030		50	4.3
10061-01-5	cis-1,3-Dichloropropene	1020		50	9.2
79-01-6	Trichloroethene	1040		50	4.6
124-48-1	Dibromochloromethane	874		50	10
79-00-5	1,1,2-Trichloroethane	985		50	9.4
71-43-2	Benzene	1070		50	4.1
10061-02-6	trans-1,3-Dichloropropene	1090		50	12
75-25-2	Bromoform	815		50	9.6
108-10-1	4-Methyl-2-pentanone	4900		250	49
591-78-6	2-Hexanone	5760		250	25
127-18-4	Tetrachloroethene	1080		50	4.9
79-34-5	1,1,2,2-Tetrachloroethane	1050		50	7.9
108-88-3	Toluene	1080		50	7.5
108-90-7	Chlorobenzene	1040		50	5.5
100-41-4	Ethylbenzene	1040		50	4.8
100-42-5	Styrene	1110		50	5.9
1330-20-7	Xylenes, Total	2130		150	18
76-13-1	Freon TF	979		50	4.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 460-197509/5
Matrix: Solid
Lab File ID: J06957.D
Analysis Method: 8260C
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 12/13/2013 11:27
Soil Aliquot Vol: 5 (mL)
Dilution Factor: 50
Soil Extract Vol.: 5(mL)
GC Column: Rtx-624 ID: 0.25(mm)
% Moisture:
Level: (low/med) Medium
Analysis Batch No.: 197509
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	MTBE	1050		50	6.9
110-82-7	Cyclohexane	1100		50	7.9
106-93-4	1,2-Dibromoethane	1000		50	14
541-73-1	1,3-Dichlorobenzene	1090		50	6.8
106-46-7	1,4-Dichlorobenzene	1080		50	12
95-50-1	1,2-Dichlorobenzene	1070		50	10
75-71-8	Dichlorodifluoromethane	1060		50	11
120-82-1	1,2,4-Trichlorobenzene	1080		50	17
123-91-1	1,4-Dioxane	30300		2500	1800
87-61-6	1,2,3-Trichlorobenzene	1010		50	26
96-12-8	1,2-Dibromo-3-Chloropropane	859		50	20
74-97-5	Bromochloromethane	1080		50	14
98-82-8	Isopropylbenzene	1100		50	3.8
79-20-9	Methyl acetate	5160		250	17
108-87-2	Methylcyclohexane	1260		50	6.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		75-135
2037-26-5	Toluene-d8 (Surr)	93		59-150
460-00-4	Bromofluorobenzene	95		72-133
1868-53-7	Dibromofluoromethane (Surr)	96		70-130

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06957.D
Lims ID: LCSD Lab Sample ID: LCSD 460-197509/5-A
Client ID:
Sample Type: LCSD
Inject. Date: 13-Dec-2013 11:27:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: LCSD
Misc. Info.: 460-0007774-005
Operator ID: Instrument ID: CVOAMS8

Method: \\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\8260_W8.m
Limit Group: VOA - 8260C Water and Solid
Last Update: 13-Dec-2013 12:18:26 Calib Date: 26-Nov-2013 11:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06481.D

Column 1 : Rtx-624 (0.25 mm) Detector MS SCAN
Process Host: XAWRK024

First Level Reviewer: martineze Date: 13-Dec-2013 12:03:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.476	1.476	0.0	88	71928	21.1	
2 Chloromethane	50	1.646	1.647	-0.001	98	55928	22.5	
4 Vinyl chloride	62	1.734	1.735	-0.001	96	52917	22.1	
149 Butadiene	54	1.764	1.764	0.0	94	39348	0	
6 Bromomethane	94	2.017	2.017	0.0	99	38881	24.4	
7 Chloroethane	64	2.111	2.105	0.005	99	29758	24.2	
9 Dichlorofluoromethane	67	2.287	2.287	0.0	89	87333	22.3	
8 Trichlorofluoromethane	101	2.293	2.293	0.0	85	70417	21.3	
11 Ethanol	46	2.492	2.493	-0.001	98	8536	1574.5	
13 Ethyl ether	59	2.534	2.534	0.0	94	35642	20.4	
14 2-Methyl-1,3-butadiene	53	2.551	2.552	-0.001	93	41137	20.2	
16 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.704	2.698	0.006	95	62030	19.6	
17 Acrolein	56	2.710	2.710	0.0	40	6884	31.6	
18 1,1-Dichloroethene	96	2.733	2.734	-0.001	88	62877	21.6	
19 Acetone	43	2.833	2.828	0.005	88	91450	115.3	
20 Iodomethane	142	2.886	2.887	0.0	95	119342	23.0	
34 Isopropyl alcohol	45	2.921	2.916	0.005	36	32083	248.0	
21 Carbon disulfide	76	2.921	2.922	-0.001	98	189980	22.0	
147 3-Chloro-1-propene	76	3.056	3.057	-0.001	89	37344	0	
23 Methyl acetate	43	3.074	3.075	-0.001	98	215623	103.1	
22 Cyclopentene	67	3.074	3.075	-0.001	76	185232	23.6	
24 Acetonitrile	41	3.127	3.127	0.0	95	79143	227.0	
* 151 TBA-d9 (IS)	65	3.180	3.180	0.0	93	278033	1000.0	
25 Methylene Chloride	84	3.186	3.186	0.0	76	74719	22.1	
26 2-Methyl-2-propanol	59	3.250	3.245	0.005	97	57431	239.7	
27 Methyl tert-butyl ether	73	3.344	3.345	-0.001	96	186782	21.0	
29 trans-1,2-Dichloroethene	96	3.368	3.368	0.0	82	70838	21.4	
30 Acrylonitrile	53	3.450	3.451	-0.001	93	242219	213.5	
32 Hexane	57	3.527	3.527	-0.001	90	58234	24.2	
35 Isopropyl ether	45	3.738	3.733	0.005	95	189344	21.9	
36 1,1-Dichloroethane	63	3.773	3.774	-0.001	94	121822	21.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
37 Vinyl acetate	43	3.785	3.785	0.0	99	224853	47.1	
33 2-Chloro-1,3-butadiene	88	3.814	3.815	-0.001	87	67406	22.9	
40 Tert-butyl ethyl ether	59	4.055	4.050	0.005	86	197939	21.7	
41 2,2-Dichloropropane	77	4.267	4.267	0.0	93	86268	23.4	
42 cis-1,2-Dichloroethene	96	4.296	4.291	0.005	92	79069	21.8	
44 Ethyl acetate	43	4.314	4.314	0.0	97	237925	41.5	
43 2-Butanone (MEK)	72	4.314	4.314	0.0	97	40860	114.9	
39 Methyl acrylate	55	4.367	4.367	0.0	97	58068	21.0	
48 Propionitrile	54	4.443	4.444	-0.001	97	95402	231.8	
46 Chlorobromomethane	128	4.519	4.520	-0.001	66	41032	21.7	
45 Tetrahydrofuran	42	4.519	4.526	-0.007	78	47718	45.8	
31 Methacrylonitrile	67	4.549	4.549	0.0	89	307826	221.2	
47 Chloroform	83	4.572	4.573	-0.001	86	116646	22.0	
49 Cyclohexane	56	4.702	4.696	0.006	88	83935	21.9	
50 1,1,1-Trichloroethane	97	4.719	4.720	-0.001	93	88679	21.9	
$ 152 Dibromofluoromethane (Surr)	113	4.731	4.731	0.0	95	184294	47.9	
51 Carbon tetrachloride	117	4.837	4.831	0.006	88	64395	21.7	
52 1,1-Dichloropropene	75	4.866	4.867	-0.001	96	83950	22.0	
56 Isobutyl alcohol	43	4.984	4.984	0.0	95	49192	584.1	
53 Benzene	78	5.066	5.066	0.0	91	280635	21.3	
$ 54 1,2-Dichloroethane-d4 (Surr)	65	5.084	5.084	0.0	86	197057	47.9	
57 Isopropyl acetate	43	5.119	5.119	0.0	96	152448	20.9	
142 Tert-amyl methyl ether	73	5.131	5.125	0.005	93	186080	21.3	
55 1,2-Dichloroethane	62	5.160	5.160	0.0	89	81903	20.7	
58 n-Heptane	57	5.219	5.213	0.006	88	29792	29.6	
* 59 Fluorobenzene	96	5.354	5.354	0.0	99	764064	50.0	
60 2,4,4-Trimethyl-1-pentene	57	5.571	5.566	0.005	96	193620	49.9	
62 n-Butanol	56	5.653	5.654	-0.001	85	32441	578.5	
61 Trichloroethene	95	5.706	5.707	-0.001	91	70054	20.8	
64 Ethyl acrylate	55	5.830	5.830	0.0	96	136642	22.5	
63 Methylcyclohexane	83	5.830	5.830	0.0	72	78366	25.2	
65 1,2-Dichloropropane	63	6.000	6.001	0.0	90	65941	20.5	
* 150 1,4-Dioxane-d8	96	6.065	6.053	0.012	38	46948	1000.0	
66 Methyl methacrylate	100	6.076	6.077	-0.001	82	43279	42.2	
67 1,4-Dioxane	88	6.112	6.112	0.0	51	21596	605.5	
69 n-Propyl acetate	43	6.129	6.130	-0.001	96	82843	20.0	
68 Dibromomethane	93	6.135	6.130	0.005	74	43683	20.9	
70 Dichlorobromomethane	83	6.282	6.283	-0.001	96	79902	21.4	
71 2-Nitropropane	41	6.623	6.617	0.006	72	19810	39.5	
72 2-Chloroethyl vinyl ether	63	6.617	6.623	-0.006	88	46782	20.5	
74 cis-1,3-Dichloropropene	75	6.782	6.782	0.0	84	102766	20.5	
75 4-Methyl-2-pentanone (MIBK)	43	6.946	6.946	0.0	94	263444	98.0	
$ 76 Toluene-d8 (Surr)	98	7.028	7.029	-0.001	99	758835	46.5	
77 Toluene	91	7.105	7.105	0.0	91	305464	21.7	
78 trans-1,3-Dichloropropene	75	7.457	7.458	-0.001	91	86322	21.7	
82 Ethyl methacrylate	69	7.481	7.481	0.0	87	84432	21.1	
79 1,1,2-Trichloroethane	83	7.675	7.675	0.0	91	54137	19.7	
80 Tetrachloroethene	166	7.716	7.716	0.0	92	78152	21.5	
81 1,3-Dichloropropane	76	7.886	7.887	-0.001	88	104349	20.0	
83 2-Hexanone	58	7.945	7.945	0.0	93	117789	115.2	
85 n-Butyl acetate	43	8.056	8.057	-0.001	97	84518	19.7	
84 Chlorodibromomethane	129	8.115	8.116	-0.001	94	61159	17.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
86 Ethylene Dibromide	107	8.274	8.274	0.0	97	69491	20.1	
* 87 Chlorobenzene-d5	117	8.820	8.821	-0.001	81	619212	50.0	
88 Chlorobenzene	112	8.856	8.856	0.0	97	204494	20.7	
89 Ethylbenzene	106	8.955	8.962	-0.007	98	101789	20.8	
90 1,1,1,2-Tetrachloroethane	131	8.979	8.973	0.006	89	61846	21.2	
91 m-Xylene & p-Xylene	106	9.114	9.115	0.0	94	129187	21.4	
93 n-Butyl acrylate	73	9.543	9.543	0.0	93	47705	15.7	
92 o-Xylene	106	9.561	9.561	0.0	95	127342	21.2	
94 Styrene	104	9.590	9.590	0.0	96	226145	22.1	
96 Amyl acetate (mixed isomers)	43	9.772	9.773	-0.001	93	87557	21.1	
97 Bromoform	173	9.796	9.796	0.0	78	40564	16.3	
98 Isopropylbenzene	105	9.907	9.908	-0.001	94	272290	22.1	
$ 99 4-Bromofluorobenzene	174	10.084	10.084	0.0	97	274989	47.3	
95 Camphene	41	10.101	10.102	-0.001	90	12774	24.8	
100 Bromobenzene	156	10.201	10.201	0.0	89	95868	22.1	
101 1,1,2,2-Tetrachloroethane	83	10.242	10.237	0.005	94	85008	21.0	
102 N-Propylbenzene	91	10.260	10.260	0.0	93	309545	23.3	
103 1,2,3-Trichloropropane	110	10.283	10.284	-0.001	97	24705	20.7	
104 trans-1,4-Dichloro-2-butene	53	10.295	10.295	0.0	74	20442	21.3	
105 2-Chlorotoluene	91	10.354	10.354	0.0	95	227707	22.2	
143 4-Ethyltoluene	105	10.354	10.354	0.0	96	284722	22.8	
106 1,3,5-Trimethylbenzene	105	10.413	10.413	0.0	90	231432	23.3	
107 4-Chlorotoluene	91	10.442	10.442	0.0	95	219057	22.1	
108 Butyl Methacrylate	87	10.489	10.489	0.0	86	87773	17.6	
109 tert-Butylbenzene	119	10.648	10.648	0.0	94	181073	24.0	
110 1,2,4-Trimethylbenzene	105	10.695	10.695	0.0	96	244956	22.7	
113 sec-Butylbenzene	105	10.806	10.807	-0.001	99	255911	25.7	
114 4-Isopropyltoluene	119	10.906	10.907	-0.001	93	235057	25.6	
115 1,3-Dichlorobenzene	146	10.912	10.912	0.0	96	159778	21.7	
* 116 1,4-Dichlorobenzene-d4	152	10.959	10.959	0.0	84	349356	50.0	
117 1,4-Dichlorobenzene	146	10.977	10.977	0.0	94	165931	21.5	
118 Benzyl chloride	91	11.076	11.077	-0.001	95	121772	17.3	
119 2,3-Dihydroindene	117	11.123	11.124	-0.001	90	287471	23.3	
133 p-Diethylbenzene	119	11.159	11.159	0.0	94	139855	0	
120 n-Butylbenzene	91	11.176	11.177	-0.001	96	239011	25.4	
121 1,2-Dichlorobenzene	146	11.223	11.224	-0.001	98	159779	21.4	
132 1,2,4,5-Tetramethylbenzene	119	11.635	11.635	0.0	95	224491	0	
122 1,2-Dibromo-3-Chloropropane	75	11.711	11.711	0.0	89	12437	17.2	
145 1,3,5-Trichlorobenzene	180	11.793	11.794	-0.001	96	112326	22.7	
123 Camphor	95	12.140	12.140	0.0	89	46894	103.1	
124 1,2,4-Trichlorobenzene	180	12.193	12.193	0.0	91	112373	21.5	
126 Hexachlorobutadiene	225	12.257	12.258	-0.001	94	54742	31.8	
127 Naphthalene	128	12.369	12.370	-0.001	99	301956	21.0	
128 1,2,3-Trichlorobenzene	180	12.528	12.528	0.0	94	104504	20.3	
S 131 Xylenes, Total	100				0		42.6	

Report Date: 13-Dec-2013 12:18:28 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File: \\EDICHROM\ChromData\CVOAMS8\20131213-7774.b\J06957.D

Injection Date: 13-Dec-2013 11:27:30 Instrument ID: CVOAMS8 Operator ID:

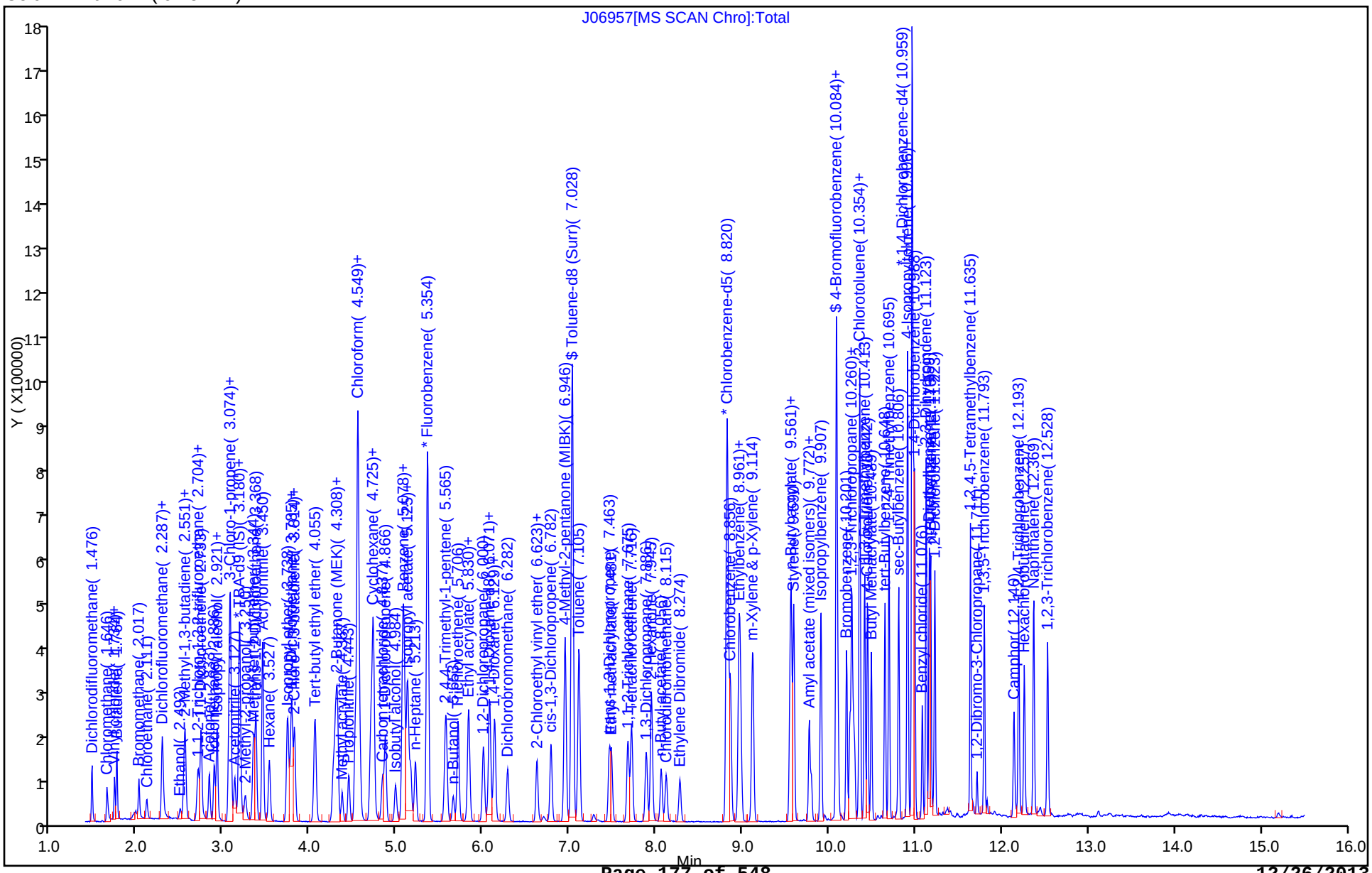
Lims ID: LCSD Lab Sample ID: LCSD 460-197509/5-A Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 50.0000 ALS Bottle#: 4

Method: 8260_W8 Limit Group: VOA - 8260C Water and Solid

Column: Rtx-624 (0.25 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 460-198396/4

Matrix: Solid | Lab File ID: J07044.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 12/18/2013 06:21

Soil Aliquot Vol: 5 (mL) | Dilution Factor: 50

Soil Extract Vol.: 5(mL) | GC Column: Rtx-624 ID: 0.25(mm)

% Moisture: | Level: (low/med) Medium

Analysis Batch No.: 198396 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1020		50	4.8
74-83-9	Bromomethane	1350		50	9.1
75-01-4	Vinyl chloride	1080		50	7.2
75-00-3	Chloroethane	1270		50	8.5
75-09-2	Methylene Chloride	1060		50	9.1
67-64-1	Acetone	5380		250	130
75-15-0	Carbon disulfide	1080		50	6.3
75-69-4	Trichlorofluoromethane	1170		50	7.3
75-35-4	1,1-Dichloroethene	1110		50	4.4
75-34-3	1,1-Dichloroethane	1040		50	6.5
156-60-5	trans-1,2-Dichloroethene	1050		50	6.4
156-59-2	cis-1,2-Dichloroethene	1070		50	8.9
67-66-3	Chloroform	1080		50	3.9
107-06-2	1,2-Dichloroethane	1050		50	9.5
78-93-3	2-Butanone	5660		250	120
71-55-6	1,1,1-Trichloroethane	1130		50	3.1
56-23-5	Carbon tetrachloride	1150		50	2.9
75-27-4	Bromodichloromethane	1050		50	6.3
78-87-5	1,2-Dichloropropane	1030		50	4.3
10061-01-5	cis-1,3-Dichloropropene	976		50	9.2
79-01-6	Trichloroethene	1040		50	4.6
124-48-1	Dibromochloromethane	871		50	10
79-00-5	1,1,2-Trichloroethane	984		50	9.4
71-43-2	Benzene	1050		50	4.1
10061-02-6	trans-1,3-Dichloropropene	1020		50	12
75-25-2	Bromoform	790		50	9.6
108-10-1	4-Methyl-2-pentanone	4710		250	49
591-78-6	2-Hexanone	5620		250	25
127-18-4	Tetrachloroethene	1080		50	4.9
79-34-5	1,1,2,2-Tetrachloroethane	970		50	7.9
108-88-3	Toluene	1050		50	7.5
108-90-7	Chlorobenzene	1010		50	5.5
100-41-4	Ethylbenzene	1020		50	4.8
100-42-5	Styrene	1090		50	5.9
1330-20-7	Xylenes, Total	2070		150	18
76-13-1	Freon TF	1050		50	4.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 460-198396/4
Matrix: Solid
Lab File ID: J07044.D
Analysis Method: 8260C
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 12/18/2013 06:21
Soil Aliquot Vol: 5 (mL)
Dilution Factor: 50
Soil Extract Vol.: 5(mL)
GC Column: Rtx-624 ID: 0.25(mm)
% Moisture:
Level: (low/med) Medium
Analysis Batch No.: 198396
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	MTBE	1020		50	6.9
110-82-7	Cyclohexane	1140		50	7.9
106-93-4	1,2-Dibromoethane	966		50	14
541-73-1	1,3-Dichlorobenzene	1060		50	6.8
106-46-7	1,4-Dichlorobenzene	1030		50	12
95-50-1	1,2-Dichlorobenzene	1050		50	10
75-71-8	Dichlorodifluoromethane	1020		50	11
120-82-1	1,2,4-Trichlorobenzene	968		50	17
123-91-1	1,4-Dioxane	28200		2500	1800
87-61-6	1,2,3-Trichlorobenzene	987		50	26
96-12-8	1,2-Dibromo-3-Chloropropane	826		50	20
74-97-5	Bromochloromethane	1090		50	14
98-82-8	Isopropylbenzene	1100		50	3.8
79-20-9	Methyl acetate	4930		250	17
108-87-2	Methylcyclohexane	1260		50	6.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		75-135
2037-26-5	Toluene-d8 (Surr)	89		59-150
460-00-4	Bromofluorobenzene	88		72-133
1868-53-7	Dibromofluoromethane (Surr)	94		70-130

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07044.D
Lims ID: LCSD Lab Sample ID: LCSD 460-198396/4-A
Client ID:
Sample Type: LCSD
Inject. Date: 18-Dec-2013 06:21:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: LCSD
Misc. Info.: 460-0007957-004
Operator ID: Instrument ID: CVOAMS8

Method: \\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\8260_W8.m
Limit Group: VOA - 8260C Water and Solid
Last Update: 18-Dec-2013 16:45:06 Calib Date: 26-Nov-2013 11:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CVOAMS8\20131126-7188.b\J06481.D

Column 1 : Rtx-624 (0.25 mm) Detector MS SCAN
Process Host: XAWRK026

First Level Reviewer: delpolitov Date: 18-Dec-2013 16:45:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.472	1.473	-0.001	88	69930	20.5	
2 Chloromethane	50	1.648	1.649	-0.001	87	50737	20.3	
4 Vinyl chloride	62	1.736	1.737	-0.001	82	52142	21.7	
149 Butadiene	54	1.766	1.760	0.006	92	40546	0	
6 Bromomethane	94	2.030	2.019	0.011	99	43006	26.9	
7 Chloroethane	64	2.112	2.107	0.005	97	30412	25.5	
9 Dichlorofluoromethane	67	2.289	2.283	0.006	89	89027	22.6	
8 Trichlorofluoromethane	101	2.295	2.295	0.0	84	77511	23.4	
11 Ethanol	46	2.488	2.495	-0.007	91	7362	1397.0	
13 Ethyl ether	59	2.535	2.536	-0.001	89	34645	19.7	
14 2-Methyl-1,3-butadiene	53	2.553	2.554	-0.001	93	39416	19.3	
16 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.700	2.701	-0.001	95	66532	20.9	
17 Acrolein	56	2.706	2.706	0.0	11	4981	23.5	
18 1,1-Dichloroethene	96	2.735	2.736	-0.001	88	65008	22.2	
19 Acetone	43	2.829	2.830	-0.001	87	82959	107.6	
20 Iodomethane	142	2.888	2.889	-0.001	96	116693	22.4	
21 Carbon disulfide	76	2.923	2.924	-0.001	98	187191	21.6	
34 Isopropyl alcohol	45	2.917	2.924	-0.007	36	27961	222.4	
147 3-Chloro-1-propene	76	3.058	3.059	-0.001	89	35916	0	
23 Methyl acetate	43	3.070	3.071	-0.001	98	206756	98.5	
22 Cyclopentene	67	3.076	3.077	-0.001	76	179561	22.8	
24 Acetonitrile	41	3.123	3.129	-0.006	95	77066	227.4	
* 151 TBA-d9 (IS)	65	3.176	3.182	-0.006	88	270268	1000.0	
25 Methylene Chloride	84	3.188	3.182	0.006	81	72070	21.3	
26 2-Methyl-2-propanol	59	3.246	3.247	-0.001	97	53293	228.8	
27 Methyl tert-butyl ether	73	3.346	3.347	-0.001	96	183006	20.5	
29 trans-1,2-Dichloroethene	96	3.370	3.370	0.0	83	69857	21.0	
30 Acrylonitrile	53	3.446	3.447	-0.001	93	226151	198.6	
32 Hexane	57	3.528	3.523	0.005	91	58064	24.0	
35 Isopropyl ether	45	3.740	3.735	0.005	97	187635	21.6	
36 1,1-Dichloroethane	63	3.775	3.776	-0.001	94	117884	20.8	

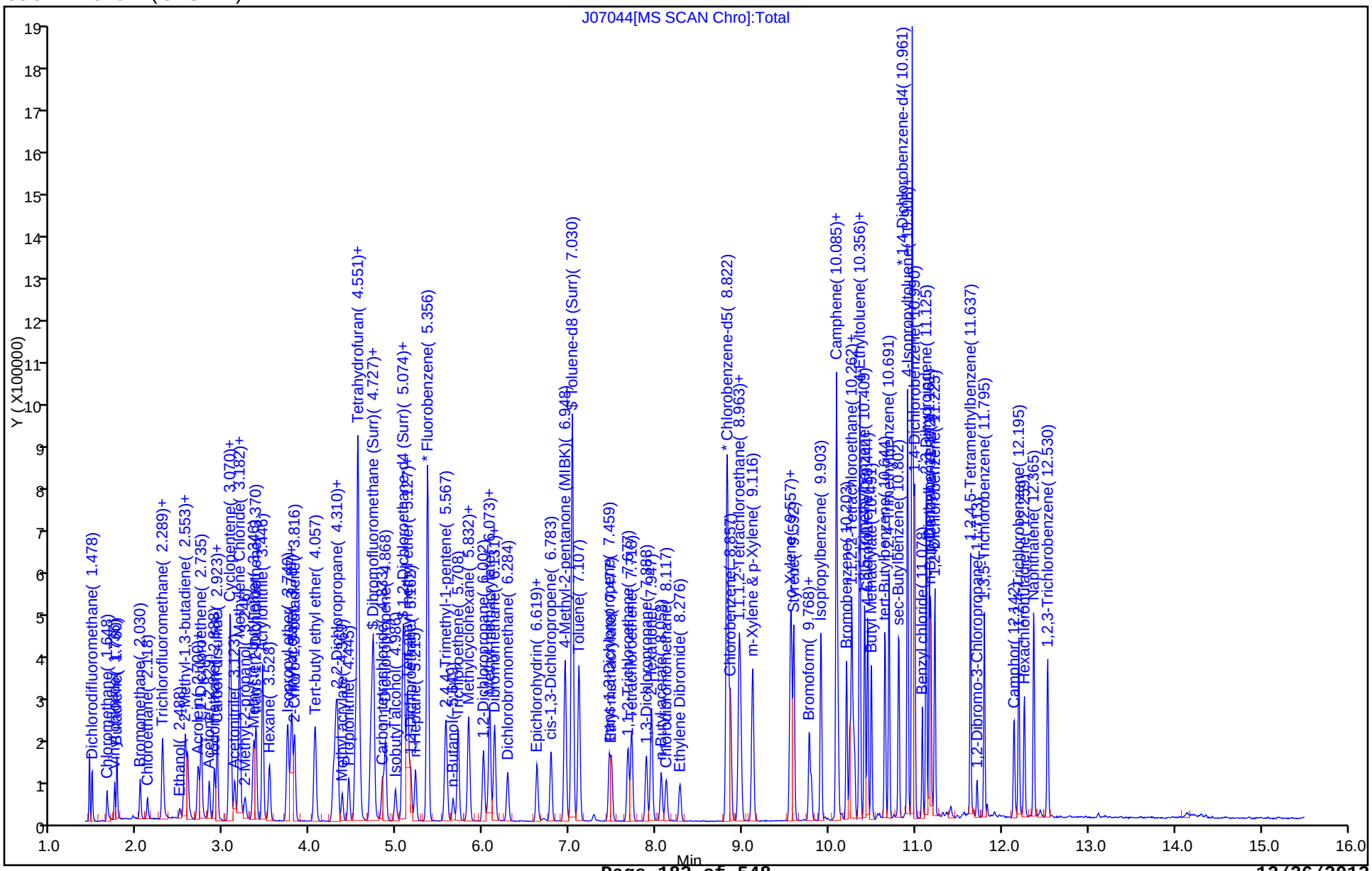
Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
37 Vinyl acetate	43	3.787	3.787	0.0	99	211112	44.1	
33 2-Chloro-1,3-butadiene	88	3.816	3.817	-0.001	86	68879	23.3	
40 Tert-butyl ethyl ether	59	4.057	4.052	0.005	89	196646	21.5	
41 2,2-Dichloropropane	77	4.275	4.269	0.006	91	81549	22.0	
42 cis-1,2-Dichloroethene	96	4.292	4.293	-0.001	93	77556	21.3	
43 2-Butanone (MEK)	72	4.310	4.310	0.0	96	39159	113.3	
44 Ethyl acetate	43	4.316	4.316	0.0	97	231281	40.2	
39 Methyl acrylate	55	4.369	4.369	0.0	97	60167	21.7	
48 Propionitrile	54	4.445	4.446	-0.001	97	95957	239.9	
46 Chlorobromomethane	128	4.521	4.522	-0.001	55	41572	21.9	
45 Tetrahydrofuran	42	4.521	4.522	-0.001	73	45017	44.5	
31 Methacrylonitrile	67	4.551	4.551	0.0	88	310832	222.6	
47 Chloroform	83	4.574	4.575	-0.001	92	114453	21.5	
49 Cyclohexane	56	4.698	4.698	0.0	87	87853	22.9	
50 1,1,1-Trichloroethane	97	4.715	4.722	-0.007	94	92176	22.6	
$ 152 Dibromofluoromethane (Surr)	113	4.733	4.733	0.0	95	181844	47.1	
51 Carbon tetrachloride	117	4.833	4.833	0.0	86	68884	23.1	
52 1,1-Dichloropropene	75	4.868	4.869	-0.001	95	85496	22.3	
56 Isobutyl alcohol	43	4.986	4.986	0.0	98	43311	529.0	
53 Benzene	78	5.068	5.068	0.0	90	279002	21.1	
$ 54 1,2-Dichloroethane-d4 (Surr)	65	5.085	5.086	-0.001	90	190699	46.2	
57 Isopropyl acetate	43	5.121	5.121	0.0	98	151447	20.7	
142 Tert-amyl methyl ether	73	5.127	5.127	0.0	90	186393	21.2	
55 1,2-Dichloroethane	62	5.162	5.162	0.0	96	83095	21.0	
58 n-Heptane	57	5.215	5.215	0.0	89	26825	26.5	
* 59 Fluorobenzene	96	5.356	5.356	0.0	99	766822	50.0	
60 2,4,4-Trimethyl-1-pentene	57	5.567	5.568	-0.001	94	195443	50.1	
62 n-Butanol	56	5.649	5.656	-0.007	82	32025	587.5	
61 Trichloroethene	95	5.708	5.709	-0.001	91	70343	20.8	
64 Ethyl acrylate	55	5.826	5.832	-0.006	96	138586	22.8	
63 Methylcyclohexane	83	5.832	5.832	0.0	73	78668	25.2	
65 1,2-Dichloropropane	63	6.002	6.003	-0.001	91	66138	20.5	
* 150 1,4-Dioxane-d8	96	6.061	6.061	0.0	59	44330	1000.0	
66 Methyl methacrylate	100	6.078	6.073	0.005	81	43655	42.4	
67 1,4-Dioxane	88	6.120	6.120	0.0	69	19004	564.6	
69 n-Propyl acetate	43	6.131	6.132	-0.001	97	83845	20.2	
68 Dibromomethane	93	6.131	6.132	-0.001	69	43628	20.8	
70 Dichlorobromomethane	83	6.284	6.279	0.005	96	78300	20.9	
73 Epichlorohydrin	57	6.625	6.619	0.006	39	10083	31.9	
71 2-Nitropropane	41	6.625	6.619	0.006	73	19359	38.9	
72 2-Chloroethyl vinyl ether	63	6.619	6.619	0.0	87	46981	20.5	
74 cis-1,3-Dichloropropene	75	6.783	6.784	-0.001	84	98395	19.5	
75 4-Methyl-2-pentanone (MIBK)	43	6.948	6.948	0.0	93	254792	94.3	
$ 76 Toluene-d8 (Surr)	98	7.030	7.031	-0.001	99	727756	44.4	
77 Toluene	91	7.107	7.107	0.0	92	297416	21.0	
78 trans-1,3-Dichloropropene	75	7.459	7.460	-0.001	92	81671	20.4	
82 Ethyl methacrylate	69	7.483	7.483	0.0	86	80140	20.0	
79 1,1,2-Trichloroethane	83	7.677	7.671	0.006	91	54334	19.7	
80 Tetrachloroethene	166	7.718	7.718	0.0	95	79013	21.7	
81 1,3-Dichloropropane	76	7.888	7.889	-0.001	89	104784	20.0	
83 2-Hexanone	58	7.947	7.947	0.0	93	111657	112.4	
85 n-Butyl acetate	43	8.058	8.059	-0.001	97	83334	19.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/l	Flags
84 Chlorodibromomethane	129	8.117	8.118	-0.001	93	61263	17.4	
86 Ethylene Dibromide	107	8.276	8.276	0.0	99	67250	19.3	
* 87 Chlorobenzene-d5	117	8.822	8.823	-0.001	80	622327	50.0	
88 Chlorobenzene	112	8.857	8.858	-0.001	96	199894	20.2	
89 Ethylbenzene	106	8.963	8.958	0.005	97	100011	20.3	
90 1,1,1,2-Tetrachloroethane	131	8.975	8.976	-0.001	89	60861	20.7	
91 m-Xylene & p-Xylene	106	9.116	9.117	-0.001	93	125458	20.7	
93 n-Butyl acrylate	73	9.545	9.545	0.0	92	47833	15.7	
92 o-Xylene	106	9.563	9.563	0.0	94	125209	20.7	
94 Styrene	104	9.592	9.592	0.0	98	224698	21.9	
96 Amyl acetate (mixed isomers)	43	9.768	9.769	-0.001	93	87827	20.5	
97 Bromoform	173	9.792	9.792	0.0	84	39494	15.8	
98 Isopropylbenzene	105	9.903	9.904	-0.001	95	272570	22.0	
$ 99 4-Bromofluorobenzene	174	10.085	10.086	-0.001	98	258128	44.2	
95 Camphene	41	10.103	10.104	-0.001	90	13611	26.3	
100 Bromobenzene	156	10.203	10.203	0.0	89	95307	21.2	
101 1,1,2,2-Tetrachloroethane	83	10.238	10.239	-0.001	85	81494	19.4	
102 N-Propylbenzene	91	10.262	10.262	0.0	95	305315	22.2	
103 1,2,3-Trichloropropane	110	10.279	10.280	-0.001	97	23968	19.4	
104 trans-1,4-Dichloro-2-butene	53	10.297	10.298	-0.001	59	20322	20.5	
105 2-Chlorotoluene	91	10.356	10.350	0.006	90	226358	21.4	
143 4-Ethyltoluene	105	10.356	10.356	0.0	88	293361	22.7	
106 1,3,5-Trimethylbenzene	105	10.409	10.409	0.0	82	223980	21.8	
107 4-Chlorotoluene	91	10.444	10.444	0.0	95	214997	20.9	
108 Butyl Methacrylate	87	10.491	10.491	0.0	85	90506	17.5	
109 tert-Butylbenzene	119	10.644	10.644	0.0	93	179738	23.0	
110 1,2,4-Trimethylbenzene	105	10.697	10.691	0.005	89	241953	21.6	
113 sec-Butylbenzene	105	10.808	10.803	0.005	95	244571	23.8	
114 4-Isopropyltoluene	119	10.908	10.909	-0.001	94	226543	23.8	
115 1,3-Dichlorobenzene	146	10.908	10.909	-0.001	97	160592	21.1	
* 116 1,4-Dichlorobenzene-d4	152	10.961	10.961	0.0	86	361747	50.0	
117 1,4-Dichlorobenzene	146	10.979	10.979	0.0	95	164826	20.6	
118 Benzyl chloride	91	11.078	11.079	-0.001	96	118138	16.2	
119 2,3-Dihydroindene	117	11.125	11.126	-0.001	89	296358	23.2	
133 p-Diethylbenzene	119	11.161	11.161	0.0	92	142104	0	
120 n-Butylbenzene	91	11.172	11.173	-0.001	94	222777	22.8	
121 1,2-Dichlorobenzene	146	11.225	11.226	-0.001	98	162003	21.0	
132 1,2,4,5-Tetramethylbenzene	119	11.637	11.637	0.0	95	226780	0	
122 1,2-Dibromo-3-Chloropropane	75	11.713	11.708	0.005	91	12389	16.5	
145 1,3,5-Trichlorobenzene	180	11.795	11.796	-0.001	96	115097	22.4	
123 Camphor	95	12.142	12.137	0.005	88	51147	108.6	
124 1,2,4-Trichlorobenzene	180	12.195	12.195	0.0	92	104734	19.4	
126 Hexachlorobutadiene	225	12.259	12.260	-0.001	92	47240	26.6	
127 Naphthalene	128	12.365	12.366	-0.001	99	301416	20.2	
128 1,2,3-Trichlorobenzene	180	12.530	12.530	0.0	94	105391	19.7	
S 131 Xylenes, Total	100				0		41.4	

Report Date: 18-Dec-2013 16:45:07 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CVOAMS8\20131218-7957.b\J07044.D				
Injection Date:	18-Dec-2013 06:21:30	Instrument ID:	CVOAMS8	Operator ID:	
Lims ID:	LCSD	Lab Sample ID:	LCSD 460-198396/4-A	Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	3
Method:	8260_W8	Limit Group:	VOA - 8260C Water and Solid		
Column: Rtx-624 (0.25 mm)					



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CVOAMS8 Start Date: 11/26/2013 06:17

Analysis Batch Number: 194389 End Date: 11/26/2013 14:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 460-194389/1		11/26/2013 06:17	1	J06467.D	Rtx-624 0.25(mm)
STD1 460-194389/5 IC		11/26/2013 07:46	1	J06471.D	Rtx-624 0.25(mm)
ICIS 460-194389/7		11/26/2013 08:36	1	J06473.D	Rtx-624 0.25(mm)
STD50 460-194389/8 IC		11/26/2013 09:01	1	J06474.D	Rtx-624 0.25(mm)
STD200 460-194389/9 IC		11/26/2013 09:26	1	J06475.D	Rtx-624 0.25(mm)
STD500 460-194389/10 IC		11/26/2013 09:51	1	J06476.D	Rtx-624 0.25(mm)
STD5 460-194389/15 IC		11/26/2013 11:55	1	J06481.D	Rtx-624 0.25(mm)
ICV 460-194389/19		11/26/2013 14:42	50		Rtx-624 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CVOAMS8 Start Date: 12/13/2013 08:16

Analysis Batch Number: 197509 End Date: 12/13/2013 17:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 460-197509/1		12/13/2013 08:16	1	J06953.D	Rtx-624 0.25(mm)
CCVIS 460-197509/3		12/13/2013 09:52	1	J06955.D	Rtx-624 0.25(mm)
LCS 460-197509/4		12/13/2013 10:17	50	J06956.D	Rtx-624 0.25(mm)
LCSD 460-197509/5		12/13/2013 11:27	50	J06957.D	Rtx-624 0.25(mm)
MB 460-197509/7		12/13/2013 12:16	50	J06959.D	Rtx-624 0.25(mm)
460-67815-2	E-GP-E3 (10-15')	12/13/2013 14:45	100	J06965.D	Rtx-624 0.25(mm)
ZZZZZ		12/13/2013 16:49	50		Rtx-624 0.25(mm)
ZZZZZ		12/13/2013 17:14	50		Rtx-624 0.25(mm)

8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CVOAMS8 Start Date: 12/18/2013 04:11

Analysis Batch Number: 198396 End Date: 12/18/2013 16:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 460-198396/1		12/18/2013 04:11	1	J07041.D	Rtx-624 0.25(mm)
CCVIS 460-198396/2		12/18/2013 05:06	1	J07042.D	Rtx-624 0.25(mm)
LCS 460-198396/3		12/18/2013 05:31	50	J07043.D	Rtx-624 0.25(mm)
LCSD 460-198396/4		12/18/2013 06:21	50	J07044.D	Rtx-624 0.25(mm)
MB 460-198396/7		12/18/2013 07:36	50	J07047.D	Rtx-624 0.25(mm)
ZZZZZ		12/18/2013 09:11	50		Rtx-624 0.25(mm)
ZZZZZ		12/18/2013 09:35	50		Rtx-624 0.25(mm)
ZZZZZ		12/18/2013 11:15	250		Rtx-624 0.25(mm)
ZZZZZ		12/18/2013 11:40	50		Rtx-624 0.25(mm)
ZZZZZ		12/18/2013 13:44	50		Rtx-624 0.25(mm)
ZZZZZ		12/18/2013 14:08	50		Rtx-624 0.25(mm)
460-67815-1	E-GP-C4 (15-17.5')	12/18/2013 14:33	50	J07063.D	Rtx-624 0.25(mm)
ZZZZZ		12/18/2013 15:48	50		Rtx-624 0.25(mm)
ZZZZZ		12/18/2013 16:12	50		Rtx-624 0.25(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Batch Number: 196154 Batch Start Date: 12/06/13 10:21 Batch Analyst: Khalid, Omar

Batch Method: 5035 Batch End Date: 12/06/13 10:22

Lab Sample ID	Client Sample ID	Method Chain	Basis	TareWeight	Vial&SampleWt	InitialAmount	FinalAmount	VMC8PrepSU 00018	
460-67815-A-1	E-GP-C4 (15-17.5')	5035, 8260C	T	36.92 g	43.52 g	6.6 g	10 mL	10 mL	
460-67815-A-2	E-GP-E3 (10-15')	5035, 8260C	T	36.72 g	43.50 g	6.78 g	10 mL	10 mL	

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270D

Semivolatile Organic Compounds (GC/MS)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): Rtx-5MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
E-GP-C4 (15-17.5')	460-67815-1	0 *	0 *	0 *	0 *	0 *	0 *
E-GP-E3 (10-15')	460-67815-2	0 *	0 *	0 *	0 *	0 *	0 *
	MB 460-196934/1-A	81	74	79	86	83	114
	LCS 460-196934/2-A	76	72	76	85	90	110
	LCS 460-196934/12-A	84	85	77	82	114	105
	460-67884-E-2-A MS	86	89	82	87	107	103
	460-67884-E-2-B MSD	85	90	83	92	112	106

	QC LIMITS
2FP = 2-Fluorophenol	37-125
PHL = Phenol-d5	41-118
NBZ = Nitrobenzene-d5	38-105
FBP = 2-Fluorobiphenyl	40-109
TBP = 2,4,6-Tribromophenol	10-120
TPH = Terphenyl-d14	16-151

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: L1145368.D

Lab ID: LCS 460-196934/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Phenol	3330	2440	73	54-115	
2-Chlorophenol	3330	2560	77	56-110	
2-Methylphenol	3330	2480	75	54-117	
4-Methylphenol	3330	2260	68	47-103	
2-Nitrophenol	3330	2820	85	55-101	
2,4-Dimethylphenol	3330	2480	74	56-112	
2,4-Dichlorophenol	3330	2690	81	58-115	
4-Chloro-3-methylphenol	3330	2650	79	55-117	
2,4,6-Trichlorophenol	3330	2770	83	53-118	
2,4,5-Trichlorophenol	3330	2670	80	50-115	
2,4-Dinitrophenol	6660	5780	87	10-129	
4-Nitrophenol	6660	3990	60	45-114	
4,6-Dinitro-2-methylphenol	6660	6170	93	10-110	
Pentachlorophenol	6660	5040	76	19-113	
Bis(2-chloroethyl)ether	3330	2470	74	44-101	
N-Nitrosodi-n-propylamine	3330	2540	76	42-107	
Hexachloroethane	3330	2630	79	45-90	
Nitrobenzene	3330	1830	55	42-106	
Isophorone	3330	2640	79	48-97	
Bis(2-chloroethoxy)methane	3330	2470	74	51-100	
Naphthalene	3330	2550	77	53-94	
4-Chloroaniline	3330	696	21	10-96	
Hexachlorobutadiene	3330	3000	90	45-98	
2-Methylnaphthalene	3330	2760	83	51-98	
Hexachlorocyclopentadiene	3330	2840	85	24-98	
2-Chloronaphthalene	3330	2770	83	51-102	
2-Nitroaniline	3330	2020	61	51-109	
Dimethyl phthalate	3330	2740	82	52-112	
Acenaphthylene	3330	2700	81	51-103	
2,6-Dinitrotoluene	3330	2870	86	51-115	
3-Nitroaniline	3330	1120	34	32-104	
Acenaphthene	3330	2480	74	46-100	
Dibenzofuran	3330	2710	82	52-106	
2,4-Dinitrotoluene	3330	2760	83	53-110	
Diethyl phthalate	3330	2740	82	52-114	
4-Chlorophenyl phenyl ether	3330	2710	82	50-106	
Fluorene	3330	2650	79	51-108	
4-Nitroaniline	3330	2230	67	45-106	
N-Nitrosodiphenylamine	3330	2810	84	49-106	
4-Bromophenyl phenyl ether	3330	3000	90	44-102	
Hexachlorobenzene	3330	3040	91	43-104	
Phenanthrene	3330	2700	81	48-108	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: L1145368.D

Lab ID: LCS 460-196934/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Anthracene	3330	2710	81	50-107	
Carbazole	3330	2590	78	49-104	
Di-n-butyl phthalate	3330	2690	81	50-108	
Fluoranthene	3330	2550	77	49-108	
Pyrene	3330	3400	102	49-116	
Butyl benzyl phthalate	3330	3050	92	49-117	
3,3'-Dichlorobenzidine	3330	932	28	24-105	
Benzo[a]anthracene	3330	2720	82	46-112	
Chrysene	3330	2660	80	45-114	
Bis(2-ethylhexyl) phthalate	3330	2620	79	49-119	
Di-n-octyl phthalate	3330	2890	87	40-106	
Benzo[b]fluoranthene	3330	2990	90	33-96	
Benzo[k]fluoranthene	3330	3060	92	35-115	
Benzo[a]pyrene	3330	3110	93	36-89	*
Indeno[1,2,3-cd]pyrene	3330	3230	97	43-109	
Dibenz(a,h)anthracene	3330	3100	93	43-107	
Benzo[g,h,i]perylene	3330	3130	94	43-106	
Diphenyl	3330	2780	84	50-105	
Acetophenone	3330	2620	79	40-95	
1,4-Dioxane	3330	1430	43	10-70	
Caprolactam	3330	2480	74	10-127	
Atrazine	3330	2500	75	30-100	
2,2'-oxybis[1-chloropropane]	3330	1690	51	45-102	
1,2,4,5-Tetrachlorobenzene	3330	2830	85	70-130	
2,3,4,6-Tetrachlorophenol	3330	2870	86	70-130	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: x6607.D

Lab ID: LCS 460-196934/12-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Benzaldehyde	6660	5640	85	10-160	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: x6617.D

Lab ID: 460-67884-E-2-A MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Phenol	3830	380 U	3240	85	54-115	
2-Chlorophenol	3830	380 U	3380	88	56-110	
2-Methylphenol	3830	380 U	3470	91	54-117	
4-Methylphenol	3830	380 U	3710	97	47-103	
2-Nitrophenol	3830	380 U	3360	88	55-101	
2,4-Dimethylphenol	3830	380 U	3360	88	56-112	
2,4-Dichlorophenol	3830	380 U	3600	94	58-115	
4-Chloro-3-methylphenol	3830	380 U	3630	95	55-117	
2,4,6-Trichlorophenol	3830	380 U	3360	88	53-118	
2,4,5-Trichlorophenol	3830	380 U	3250	85	50-115	
2,4-Dinitrophenol	7660	1100 U	7630	100	10-129	
4-Nitrophenol	7660	1100 U	1100 U	0	45-114	*
4,6-Dinitro-2-methylphenol	7660	1100 U	7430	97	10-110	
Pentachlorophenol	7660	1100 U	7560	99	19-113	
Bis(2-chloroethyl)ether	3830	38 U	2950	77	44-101	
N-Nitrosodi-n-propylamine	3830	38 U	3560	93	42-107	
Hexachloroethane	3830	38 U	2940	77	45-90	
Nitrobenzene	3830	38 U	2290	60	42-106	
Isophorone	3830	380 U	3620	95	48-97	
Bis(2-chloroethoxy)methane	3830	380 U	3240	85	51-100	
Naphthalene	3830	380 U	3250	85	53-94	
4-Chloroaniline	3830	380 U	1480	39	10-96	
Hexachlorobutadiene	3830	77 U	3650	95	45-98	
2-Methylnaphthalene	3830	380 U	3740	98	51-98	
Hexachlorocyclopentadiene	3830	380 U	3560	93	24-98	
2-Chloronaphthalene	3830	380 U	3200	84	51-102	
2-Nitroaniline	3830	770 U	2670	70	51-109	
Dimethyl phthalate	3830	380 U	3400	89	52-112	
Acenaphthylene	3830	380 U	3200	84	51-103	
2,6-Dinitrotoluene	3830	77 U	3420	89	51-115	
3-Nitroaniline	3830	770 U	1860	49	32-104	
Acenaphthene	3830	380 U	3410	89	46-100	
Dibenzofuran	3830	380 U	3340	87	52-106	
2,4-Dinitrotoluene	3830	77 U	3400	89	53-110	
Diethyl phthalate	3830	380 U	3280	86	52-114	
4-Chlorophenyl phenyl ether	3830	380 U	3490	91	50-106	
Fluorene	3830	380 U	3320	87	51-108	
4-Nitroaniline	3830	770 U	2760	72	45-106	
N-Nitrosodiphenylamine	3830	380 U	3390	89	49-106	
4-Bromophenyl phenyl ether	3830	380 U	3760	98	44-102	
Hexachlorobenzene	3830	38 U	4000	105	43-104	*
Phenanthrene	3830	380 U	3320	87	48-108	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: x6617.D

Lab ID: 460-67884-E-2-A MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Anthracene	3830	380 U	3350	88	50-107	
Carbazole	3830	380 U	3320	87	49-104	
Di-n-butyl phthalate	3830	380 U	3120	82	50-108	
Fluoranthene	3830	380 U	3330	87	49-108	
Pyrene	3830	380 U	3480	91	49-116	
Butyl benzyl phthalate	3830	380 U	3210	84	49-117	
3,3'-Dichlorobenzidine	3830	770 U	2120	55	24-105	
Benzo[a]anthracene	3830	38 U	3240	85	46-112	
Chrysene	3830	380 U	3150	82	45-114	
Bis(2-ethylhexyl) phthalate	3830	380 U	3170	83	49-119	
Di-n-octyl phthalate	3830	380 U	3160	83	40-106	
Benzo[b]fluoranthene	3830	38 U	3420	89	33-96	
Benzo[k]fluoranthene	3830	38 U	3340	87	35-115	
Benzo[a]pyrene	3830	38 U	3610	94	36-89	*
Indeno[1,2,3-cd]pyrene	3830	38 U	3560	93	43-109	
Dibenz(a,h)anthracene	3830	38 U	3330	87	43-107	
Benzo[g,h,i]perylene	3830	380 U	3510	92	43-106	
Diphenyl	3830	380 U	3440	90	50-105	
Acetophenone	3830	380 U	3420	89	40-95	
1,4-Dioxane	3830	380 U	1450	38	10-70	
Benzaldehyde	7660	380 U	4920	64	10-160	
Caprolactam	3830	380 U	2710	71	10-127	
Atrazine	3830	380 U	3460	90	30-100	
2,2'-oxybis[1-chloropropane]	3830	380 U	2940	77	45-102	
1,2,4,5-Tetrachlorobenzene	3830	380 U	3320	87	70-130	
2,3,4,6-Tetrachlorophenol	3830	380 U	3730	97	70-130	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: x6618.D

Lab ID: 460-67884-E-2-B MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Phenol	3830	3230	84	0	30	54-115	
2-Chlorophenol	3830	3340	87	1	30	56-110	
2-Methylphenol	3830	3550	93	2	30	54-117	
4-Methylphenol	3830	3710	97	0	30	47-103	
2-Nitrophenol	3830	3440	90	2	30	55-101	
2,4-Dimethylphenol	3830	3470	91	3	30	56-112	
2,4-Dichlorophenol	3830	3680	96	2	30	58-115	
4-Chloro-3-methylphenol	3830	3790	99	4	30	55-117	
2,4,6-Trichlorophenol	3830	3450	90	3	30	53-118	
2,4,5-Trichlorophenol	3830	3410	89	5	30	50-115	
2,4-Dinitrophenol	7660	7990	104	5	30	10-129	
4-Nitrophenol	7660	260 J	3	NC	30	45-114	*
4,6-Dinitro-2-methylphenol	7660	8090	106	9	30	10-110	
Pentachlorophenol	7660	7830	102	4	30	19-113	
Bis(2-chloroethyl)ether	3830	2950	77	0	30	44-101	
N-Nitrosodi-n-propylamine	3830	3500	91	2	30	42-107	
Hexachloroethane	3830	3050	80	4	30	45-90	
Nitrobenzene	3830	2260	59	2	30	42-106	
Isophorone	3830	3660	95	1	30	48-97	
Bis(2-chloroethoxy)methane	3830	3250	85	0	30	51-100	
Naphthalene	3830	3290	86	1	30	53-94	
4-Chloroaniline	3830	1600	42	8	30	10-96	
Hexachlorobutadiene	3830	3710	97	2	30	45-98	
2-Methylnaphthalene	3830	3760	98	0	30	51-98	
Hexachlorocyclopentadiene	3830	3740	98	5	30	24-98	
2-Chloronaphthalene	3830	3260	85	2	30	51-102	
2-Nitroaniline	3830	2800	73	5	30	51-109	
Dimethyl phthalate	3830	3620	94	6	30	52-112	
Acenaphthylene	3830	3340	87	4	30	51-103	
2,6-Dinitrotoluene	3830	3530	92	3	30	51-115	
3-Nitroaniline	3830	1960	51	5	30	32-104	
Acenaphthene	3830	3420	89	0	30	46-100	
Dibenzofuran	3830	3500	91	4	30	52-106	
2,4-Dinitrotoluene	3830	3690	96	8	30	53-110	
Diethyl phthalate	3830	3410	89	4	30	52-114	
4-Chlorophenyl phenyl ether	3830	3570	93	2	30	50-106	
Fluorene	3830	3510	92	6	30	51-108	
4-Nitroaniline	3830	2810	73	2	30	45-106	
N-Nitrosodiphenylamine	3830	3630	95	7	30	49-106	
4-Bromophenyl phenyl ether	3830	3850	101	2	30	44-102	
Hexachlorobenzene	3830	4210	110	5	30	43-104	*
Phenanthrene	3830	3500	91	5	30	48-108	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: x6618.D

Lab ID: 460-67884-E-2-B MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Anthracene	3830	3510	92	5	30	50-107	
Carbazole	3830	3430	90	3	30	49-104	
Di-n-butyl phthalate	3830	3330	87	6	30	50-108	
Fluoranthene	3830	3380	88	1	30	49-108	
Pyrene	3830	3620	95	4	30	49-116	
Butyl benzyl phthalate	3830	3300	86	3	30	49-117	
3,3'-Dichlorobenzidine	3830	2040	53	4	30	24-105	
Benzo[a]anthracene	3830	3310	86	2	30	46-112	
Chrysene	3830	3360	88	6	30	45-114	
Bis(2-ethylhexyl) phthalate	3830	3320	87	5	30	49-119	
Di-n-octyl phthalate	3830	3300	86	4	30	40-106	
Benzo[b]fluoranthene	3830	3680	96	7	30	33-96	
Benzo[k]fluoranthene	3830	3670	96	9	30	35-115	
Benzo[a]pyrene	3830	3870	101	7	30	36-89	*
Indeno[1,2,3-cd]pyrene	3830	3860	101	8	30	43-109	
Dibenz(a,h)anthracene	3830	3640	95	9	30	43-107	
Benzo[g,h,i]perylene	3830	3750	98	7	30	43-106	
Diphenyl	3830	3500	91	2	30	50-105	
Acetophenone	3830	3270	85	4	30	40-95	
1,4-Dioxane	3830	1500	39	3	30	10-70	
Benzaldehyde	7660	5680	74	14	30	10-160	
Caprolactam	3830	88.3 J	2	187	30	10-127	*
Atrazine	3830	3710	97	7	30	30-100	
2,2'-oxybis[1-chloropropane]	3830	2930	76	0	30	45-102	
1,2,4,5-Tetrachlorobenzene	3830	3450	90	4	30	70-130	
2,3,4,6-Tetrachlorophenol	3830	4060	106	8	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab File ID: L1145369.D Lab Sample ID: MB 460-196934/1-A

Matrix: Solid Date Extracted: 12/10/2013 23:54

Instrument ID: CBNAMS12 Date Analyzed: 12/12/2013 10:43

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 460-196934/12-A	x6607.D	12/11/2013 19:34
	460-67884-E-2-A MS	x6617.D	12/11/2013 23:29
	460-67884-E-2-B MSD	x6618.D	12/11/2013 23:53
	LCS 460-196934/2-A	L1145368.D	12/12/2013 10:17
E-GP-C4 (15-17.5')	460-67815-1	L1145780.D	12/24/2013 15:13
E-GP-E3 (10-15')	460-67815-2	L1145781.D	12/24/2013 15:39

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab File ID: L1144759.D DFTPP Injection Date: 11/26/2013

Instrument ID: CBNAMS12 DFTPP Injection Time: 19:18

Analysis Batch No.: 194625

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	51.8	
68	Less than 2.0 % of mass 69	0.3	(0.6)1
69	Mass 69 relative abundance	41.5	
70	Less than 2.0 % of mass 69	0.0	(0.0)1
127	40.0 - 60.0 % of mass 198	50.2	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.7	
275	10.0 - 30.0 % of mass 198	25.5	
365	Greater than 1.0 % of mass 198	3.3	
441	Present but less than mass 443	11.5	(79.0)3
442	Greater than 40.0 % of mass 198	78.9	
443	17.0 - 23.0 % of mass 442	14.6	(18.5)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 460-194625/2	L1144760.D	11/26/2013	19:36
	IC 460-194625/3	L1144761.D	11/26/2013	20:04
	IC 460-194625/4	L1144762.D	11/26/2013	20:29
	IC 460-194625/5	L1144763.D	11/26/2013	20:55
	IC 460-194625/6	L1144764.D	11/26/2013	21:21
	IC 460-194625/7	L1144765.D	11/26/2013	21:46
	IC 460-194625/8	L1144766.D	11/26/2013	22:12
	IC 460-194625/9	L1144767.D	11/26/2013	22:37
	IC 460-194625/10	L1144768.D	11/26/2013	23:04
	IC 460-194625/11	L1144769.D	11/26/2013	23:29
	IC 460-194625/12	L1144770.D	11/26/2013	23:55
	IC 460-194625/13	L1144771.D	11/27/2013	00:21

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab File ID: L1145362.D DFTPP Injection Date: 12/12/2013

Instrument ID: CBNAMS12 DFTPP Injection Time: 07:50

Analysis Batch No.: 197230

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	36.3	
68	Less than 2.0 % of mass 69	0.7	(1.9)1
69	Mass 69 relative abundance	34.9	
70	Less than 2.0 % of mass 69	0.0	(0.0)1
127	40.0 - 60.0 % of mass 198	46.9	
197	Less than 1.0 % of mass 198	0.2	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	7.3	
275	10.0 - 30.0 % of mass 198	29.1	
365	Greater than 1.0 % of mass 198	4.0	
441	Present but less than mass 443	15.8	(85.3)3
442	Greater than 40.0 % of mass 198	98.3	
443	17.0 - 23.0 % of mass 442	18.5	(18.8)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 460-197230/2	L1145363.D	12/12/2013	08:08
	CCV 460-197230/3	L1145364.D	12/12/2013	08:34
	LCS 460-196934/2-A	L1145368.D	12/12/2013	10:17
	MB 460-196934/1-A	L1145369.D	12/12/2013	10:43

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab File ID: L1145432.D DFTPP Injection Date: 12/15/2013

Instrument ID: CBNAMS12 DFTPP Injection Time: 09:48

Analysis Batch No.: 197830

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	45.0	
68	Less than 2.0 % of mass 69	0.7	(1.8)1
69	Mass 69 relative abundance	38.0	
70	Less than 2.0 % of mass 69	0.0	(0.0)1
127	40.0 - 60.0 % of mass 198	46.5	
197	Less than 1.0 % of mass 198	0.5	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.5	
275	10.0 - 30.0 % of mass 198	26.0	
365	Greater than 1.0 % of mass 198	3.3	
441	Present but less than mass 443	11.2	(82.2)3
442	Greater than 40.0 % of mass 198	72.7	
443	17.0 - 23.0 % of mass 442	13.7	(18.8)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 460-197830/2	L1145433.D	12/15/2013	10:10
	IC 460-197830/3	L1145434.D	12/15/2013	10:36
	IC 460-197830/4	L1145435.D	12/15/2013	11:02
	IC 460-197830/5	L1145436.D	12/15/2013	11:28
	IC 460-197830/6	L1145437.D	12/15/2013	11:53
	IC 460-197830/7	L1145438.D	12/15/2013	12:19
	IC 460-197830/8	L1145439.D	12/15/2013	12:45
	IC 460-197830/9	L1145440.D	12/15/2013	13:11
	IC 460-197830/10	L1145441.D	12/15/2013	13:37
	IC 460-197830/11	L1145442.D	12/15/2013	14:02
	IC 460-197830/12	L1145443.D	12/15/2013	14:28
	IC 460-197830/13	L1145444.D	12/15/2013	14:54

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab File ID: L1145771.D DFTPP Injection Date: 12/24/2013

Instrument ID: CBNAMS12 DFTPP Injection Time: 11:12

Analysis Batch No.: 199750

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	42.6	
68	Less than 2.0 % of mass 69	0.4	(1.2)1
69	Mass 69 relative abundance	35.8	
70	Less than 2.0 % of mass 69	0.0	(0.0)1
127	40.0 - 60.0 % of mass 198	43.1	
197	Less than 1.0 % of mass 198	0.5	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.4	
275	10.0 - 30.0 % of mass 198	25.7	
365	Greater than 1.0 % of mass 198	3.2	
441	Present but less than mass 443	11.3	(77.2)3
442	Greater than 40.0 % of mass 198	78.0	
443	17.0 - 23.0 % of mass 442	14.7	(18.8)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 460-199750/2	L1145772.D	12/24/2013	11:32
	CCV 460-199750/4	L1145774.D	12/24/2013	12:36
E-GP-C4 (15-17.5')	460-67815-1	L1145780.D	12/24/2013	15:13
E-GP-E3 (10-15')	460-67815-2	L1145781.D	12/24/2013	15:39

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab File ID: x6205.D DFTPP Injection Date: 12/03/2013

Instrument ID: CBNAMS5 DFTPP Injection Time: 15:40

Analysis Batch No.: 195553

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	52.5	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	44.9	
70	Less than 2.0 % of mass 69	0.0	(0.0)1
127	40.0 - 60.0 % of mass 198	56.9	
197	Less than 1.0 % of mass 198	0.3	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.8	
275	10.0 - 30.0 % of mass 198	28.6	
365	Greater than 1.0 % of mass 198	5.5	
441	Present but less than mass 443	12.1	(77.1)3
442	Greater than 40.0 % of mass 198	77.5	
443	17.0 - 23.0 % of mass 442	15.7	(20.2)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 460-195553/2	x6206.D	12/03/2013	15:57
	STD120 460-195553/3	x6207.D	12/03/2013	16:21
	STD80 460-195553/4	x6208.D	12/03/2013	16:44
	STD20 460-195553/5	x6209.D	12/03/2013	17:07
	STD10 460-195553/6	x6210.D	12/03/2013	17:30
	STD5 460-195553/7	x6211.D	12/03/2013	17:54
	STD50 460-195553/8	x6212.D	12/03/2013	18:17
	STD120 460-195553/9	x6213.D	12/03/2013	18:41
	STD80 460-195553/10	x6214.D	12/03/2013	19:05
	STD20 460-195553/11	x6215.D	12/03/2013	19:28
	STD10 460-195553/12	x6216.D	12/03/2013	19:52
	STD5 460-195553/13	x6217.D	12/03/2013	20:16

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab File ID: x6595.D DFTPP Injection Date: 12/11/2013

Instrument ID: CBNAMS5 DFTPP Injection Time: 14:41

Analysis Batch No.: 197085

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	44.3	
68	Less than 2.0 % of mass 69	0.3	(0.8)1
69	Mass 69 relative abundance	37.6	
70	Less than 2.0 % of mass 69	0.0	(0.0)1
127	40.0 - 60.0 % of mass 198	52.6	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.8	
275	10.0 - 30.0 % of mass 198	29.6	
365	Greater than 1.0 % of mass 198	5.5	
441	Present but less than mass 443	14.8	(84.3)3
442	Greater than 40.0 % of mass 198	95.7	
443	17.0 - 23.0 % of mass 442	17.5	(18.3)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 460-197085/2	x6596.D	12/11/2013	14:57
	CCV 460-197085/3	x6597.D	12/11/2013	15:22
	LCS 460-196934/12-A	x6607.D	12/11/2013	19:34
	460-67884-E-2-A MS	x6617.D	12/11/2013	23:29
	460-67884-E-2-B MSD	x6618.D	12/11/2013	23:53

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Sample No.: CCVIS 460-197230/2 Date Analyzed: 12/12/2013 08:08

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm)

Lab File ID (Standard): L1145363.D Heated Purge: (Y/N) N

Calibration ID: 33180

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		33010	4.23	129773	5.52	66483	7.27
UPPER LIMIT		66020	4.73	259546	6.02	132966	7.77
LOWER LIMIT		16505	3.73	64887	5.02	33242	6.77
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 460-197230/3		38978	4.23	154012	5.51	78867	7.27
LCS 460-196934/2-A		37015	4.23	142016	5.52	71172	7.27
MB 460-196934/1-A		41547	4.23	164041	5.51	85217	7.27

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Sample No.: CCVIS 460-197230/2 Date Analyzed: 12/12/2013 08:08

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm)

Lab File ID (Standard): L1145363.D Heated Purge: (Y/N) N

Calibration ID: 33180

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		106539	8.74	100170	11.51	118894	13.43
UPPER LIMIT		213078	9.24	200340	12.01	237788	13.93
LOWER LIMIT		53270	8.24	50085	11.01	59447	12.93
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 460-197230/3		122569	8.74	96424	11.50	94540	13.42
LCS 460-196934/2-A		108916	8.74	84633	11.50	87305	13.42
MB 460-196934/1-A		129040	8.74	96635	11.50	83811	13.42

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Sample No.: CCVIS 460-199750/2 Date Analyzed: 12/24/2013 11:32

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm)

Lab File ID (Standard): L1145772.D Heated Purge: (Y/N) N

Calibration ID: 33728

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		63246	3.91	216837	5.20	113160	6.95
UPPER LIMIT		126492	4.41	433674	5.70	226320	7.45
LOWER LIMIT		31623	3.41	108419	4.70	56580	6.45
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 460-199750/4		81708	3.90	276657	5.20	147995	6.95
460-67815-1	E-GP-C4 (15-17.5')	69130	3.90	253017	5.20	141349	6.95
460-67815-2	E-GP-E3 (10-15')	67657	3.91	246433	5.20	139307	6.95

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Sample No.: CCVIS 460-199750/2 Date Analyzed: 12/24/2013 11:32

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm)

Lab File ID (Standard): L1145772.D Heated Purge: (Y/N) N

Calibration ID: 33728

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		159847	8.41	144078	11.10	159972	12.94
UPPER LIMIT		319694	8.91	288156	11.60	319944	13.44
LOWER LIMIT		79924	7.91	72039	10.60	79986	12.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 460-199750/4		208956	8.41	145935	11.09	135012	12.94
460-67815-1	E-GP-C4 (15-17.5')	205027	8.42	201752	11.10	245833	12.95
460-67815-2	E-GP-E3 (10-15')	202895	8.41	204840	11.10	248954	12.94

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Sample No.: CCVIS 460-197085/2 Date Analyzed: 12/11/2013 14:57

Instrument ID: CBNAMS5 GC Column: Rtxi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): x6596.D Heated Purge: (Y/N) N

Calibration ID: 33308

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		280056	3.76	994888	5.06	492752	6.81
UPPER LIMIT		560112	4.26	1989776	5.56	985504	7.31
LOWER LIMIT		140028	3.26	497444	4.56	246376	6.31
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 460-197085/3		336070	3.76	1213197	5.05	651545	6.81
LCS 460-196934/12-A		290021	3.76	1096124	5.05	572848	6.81
460-67884-E-2-A MS		284093	3.76	1010284	5.06	507718	6.81
460-67884-E-2-B MSD		284812	3.76	1000483	5.06	494802	6.81

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Sample No.: CCVIS 460-197085/2 Date Analyzed: 12/11/2013 14:57

Instrument ID: CBNAMS5 GC Column: Rtxi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): x6596.D Heated Purge: (Y/N) N

Calibration ID: 33308

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		639032	8.26	310340	10.92	226305	12.69
UPPER LIMIT		1278064	8.76	620680	11.42	452610	13.19
LOWER LIMIT		319516	7.76	155170	10.42	113153	12.19
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 460-197085/3		983846	8.26	495883	10.92	339097	12.69
LCS 460-196934/12-A		889986	8.26	482568	10.91	334201	12.69
460-67884-E-2-A MS		649780	8.26	305831	10.92	248598	12.69
460-67884-E-2-B MSD		634140	8.26	307283	10.92	245801	12.69

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') | Lab Sample ID: 460-67815-1

Matrix: Solid | Lab File ID: L1145780.D

Analysis Method: 8270D | Date Collected: 12/04/2013 12:30

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 14.97(g) | Date Analyzed: 12/24/2013 15:13

Con. Extract Vol.: 1(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 199750 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
108-95-2	Phenol	7400	U	7400	1000
95-57-8	2-Chlorophenol	7400	U	7400	980
95-48-7	2-Methylphenol	7400	U	7400	1300
106-44-5	4-Methylphenol	7400	U	7400	1500
88-75-5	2-Nitrophenol	7400	U	7400	830
105-67-9	2,4-Dimethylphenol	7400	U	7400	1800
120-83-2	2,4-Dichlorophenol	7400	U	7400	1100
59-50-7	4-Chloro-3-methylphenol	7400	U	7400	1100
88-06-2	2,4,6-Trichlorophenol	7400	U	7400	870
95-95-4	2,4,5-Trichlorophenol	7400	U	7400	960
51-28-5	2,4-Dinitrophenol	23000	U	23000	4200
100-02-7	4-Nitrophenol	23000	U	23000	4800
534-52-1	4,6-Dinitro-2-methylphenol	23000	U	23000	2000
87-86-5	Pentachlorophenol	23000	U	23000	2200
111-44-4	Bis(2-chloroethyl)ether	740	U	740	100
621-64-7	N-Nitrosodi-n-propylamine	740	U	740	120
67-72-1	Hexachloroethane	740	U	740	83
98-95-3	Nitrobenzene	740	U	740	110
78-59-1	Isophorone	7400	U	7400	910
111-91-1	Bis(2-chloroethoxy)methane	7400	U	7400	960
91-20-3	Naphthalene	3000	J	7400	860
106-47-8	4-Chloroaniline	7400	U	7400	2000
87-68-3	Hexachlorobutadiene	1500	U	1500	180
91-57-6	2-Methylnaphthalene	18000		7400	960
77-47-4	Hexachlorocyclopentadiene	7400	U	7400	880
91-58-7	2-Chloronaphthalene	7400	U	7400	830
88-74-4	2-Nitroaniline	15000	U	15000	3100
131-11-3	Dimethyl phthalate	7400	U	7400	880
208-96-8	Acenaphthylene	7400	U	7400	880
606-20-2	2,6-Dinitrotoluene	1500	U	1500	230
99-09-2	3-Nitroaniline	15000	U	15000	2600
83-32-9	Acenaphthene	7400	U	7400	1100
132-64-9	Dibenzofuran	7400	U	7400	880
121-14-2	2,4-Dinitrotoluene	1500	U	1500	250

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') | Lab Sample ID: 460-67815-1

Matrix: Solid | Lab File ID: L1145780.D

Analysis Method: 8270D | Date Collected: 12/04/2013 12:30

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 14.97(g) | Date Analyzed: 12/24/2013 15:13

Con. Extract Vol.: 1(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 199750 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
84-66-2	Diethyl phthalate	7400	U	7400	890
7005-72-3	4-Chlorophenyl phenyl ether	7400	U	7400	880
86-73-7	Fluorene	7400	U	7400	950
100-01-6	4-Nitroaniline	15000	U	15000	2300
86-30-6	N-Nitrosodiphenylamine	7400	U	7400	740
101-55-3	4-Bromophenyl phenyl ether	7400	U	7400	740
118-74-1	Hexachlorobenzene	740	U	740	100
85-01-8	Phenanthrene	7800		7400	950
120-12-7	Anthracene	7400	U	7400	910
86-74-8	Carbazole	7400	U	7400	880
84-74-2	Di-n-butyl phthalate	7400	U	7400	920
206-44-0	Fluoranthene	7400	U	7400	1000
129-00-0	Pyrene	1800	J	7400	630
85-68-7	Butyl benzyl phthalate	7400	U	7400	680
91-94-1	3,3'-Dichlorobenzidine	15000	U	15000	2600
56-55-3	Benzo[a]anthracene	740	U	740	52
218-01-9	Chrysene	7400	U	7400	870
117-81-7	Bis(2-ethylhexyl) phthalate	7400	U	7400	2500
117-84-0	Di-n-octyl phthalate	7400	U	7400	480
205-99-2	Benzo[b]fluoranthene	740	U	740	47
207-08-9	Benzo[k]fluoranthene	740	U	740	57
50-32-8	Benzo[a]pyrene	740	U *	740	53
193-39-5	Indeno[1,2,3-cd]pyrene	740	U	740	140
53-70-3	Dibenz(a,h)anthracene	740	U	740	94
191-24-2	Benzo[g,h,i]perylene	7400	U	7400	550
92-52-4	Diphenyl	3500	J	7400	1000
98-86-2	Acetophenone	7400	U	7400	1100
123-91-1	1,4-Dioxane	7400	U	7400	540
100-52-7	Benzaldehyde	7400	U	7400	880
105-60-2	Caprolactam	7400	U	7400	1700
1912-24-9	Atrazine	7400	U	7400	1200
108-60-1	2,2'-oxybis[1-chloropropane]	7400	U	7400	830
95-94-3	1,2,4,5-Tetrachlorobenzene	7400	U	7400	1000
58-90-2	2,3,4,6-Tetrachlorophenol	7400	U	7400	970

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') | Lab Sample ID: 460-67815-1

Matrix: Solid | Lab File ID: L1145780.D

Analysis Method: 8270D | Date Collected: 12/04/2013 12:30

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 14.97(g) | Date Analyzed: 12/24/2013 15:13

Con. Extract Vol.: 1(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 199750 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	0	*	38-105
4165-62-2	Phenol-d5	0	*	41-118
1718-51-0	Terphenyl-d14	0	*	16-151
118-79-6	2,4,6-Tribromophenol	0	*	10-120
367-12-4	2-Fluorophenol	0	*	37-125
321-60-8	2-Fluorobiphenyl	0	*	40-109

Report Date: 24-Dec-2013 16:55:14 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145780.D
Lims ID: 460-67815-E-1-D Lab Sample ID: 460-67815-1
Client ID: E-GP-C4 (15-17.5')
Sample Type: Client
Inject. Date: 24-Dec-2013 15:13:30 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 20.0000
Sample Info: 460-0008228-010
Operator ID: BNA 12 Instrument ID: CBNAMS12

Method: \\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\8270_12.m
Limit Group: SV 8270D ICAL
Last Update: 24-Dec-2013 16:55:13 Calib Date: 15-Dec-2013 14:54:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAMS12\20131215-7832.b\L1145444.D

Column 1 : Detector MS SCAN
Process Host: XAWRK027

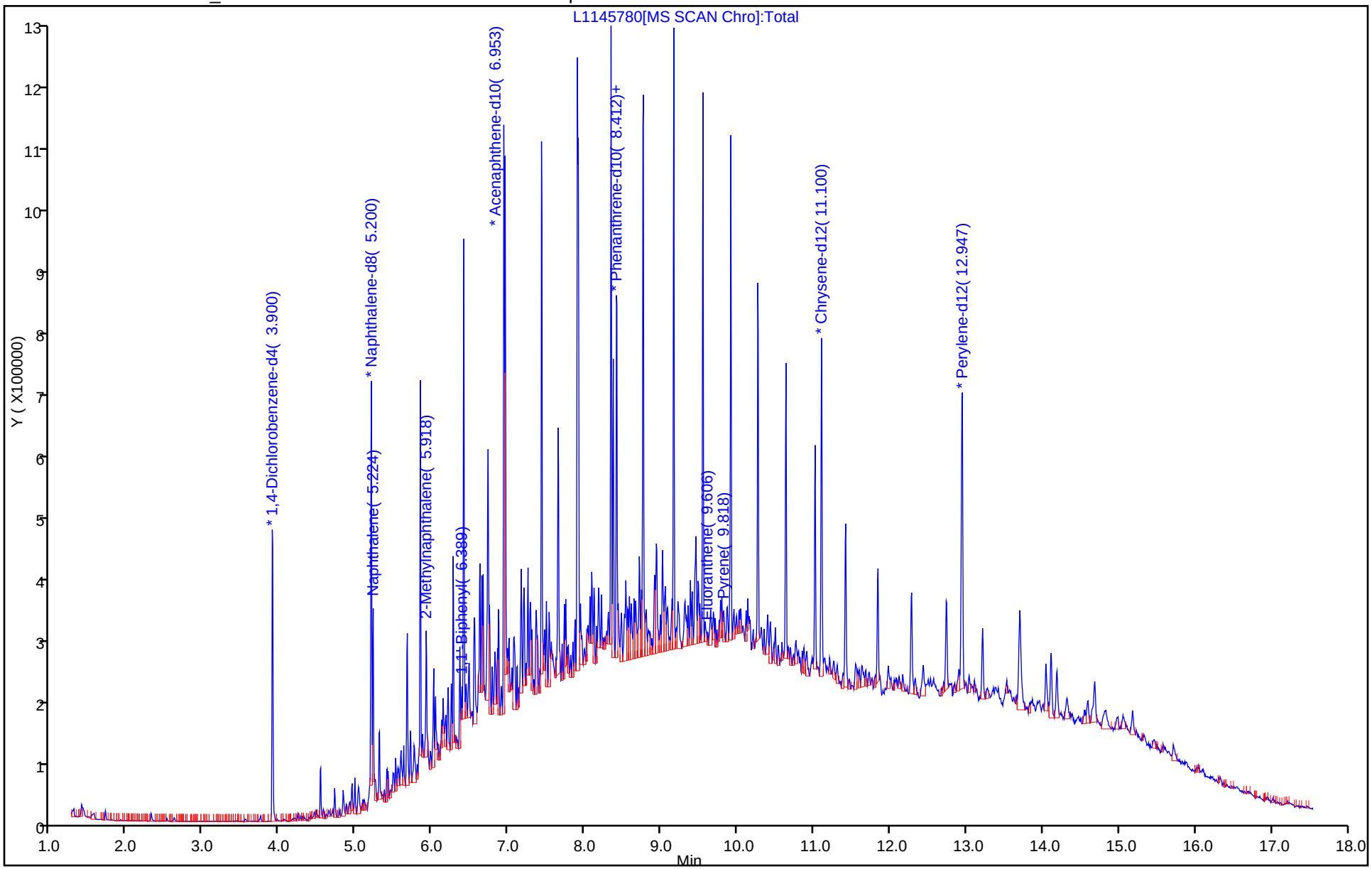
First Level Reviewer: bayoumiw Date: 24-Dec-2013 16:53:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/ml	Flags
* 13 1,4-Dichlorobenzene-d4	152	3.900	3.900	0.0	96	69130	40.0	
* 35 Naphthalene-d8	136	5.200	5.200	0.0	100	253017	40.0	
36 Naphthalene	128	5.218	5.224	-0.006	90	13204	1.99	
41 2-Methylnaphthalene	142	5.918	5.924	-0.006	85	49583	12.0	
49 1,1'-Biphenyl	154	6.389	6.394	-0.005	88	12237	2.30	
* 61 Acenaphthene-d10	164	6.953	6.953	0.0	93	141349	40.0	
* 83 Phenanthrene-d10	188	8.418	8.412	0.006	98	205027	40.0	
84 Phenanthrene	178	8.435	8.435	0.0	87	29865	5.19	
88 Fluoranthene	202	9.600	9.600	0.0	50	1989	0.3712	
90 Pyrene	202	9.824	9.818	0.006	88	7857	1.23	
* 96 Chrysene-d12	240	11.100	11.094	0.006	100	201752	40.0	
* 103 Perylene-d12	264	12.947	12.935	0.012	99	245833	40.0	

Report Date: 24-Dec-2013 16:55:14 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145780.D				
Injection Date:	24-Dec-2013 15:13:30	Instrument ID:	CBNAMS12	Operator ID:	BNA 12
Lims ID:	460-67815-E-1-D	Lab Sample ID:	460-67815-1	Worklist Smp#:	10
Client ID:	E-GP-C4 (15-17.5')				
Injection Vol:	1.0 ul	Dil. Factor:	20.0000	ALS Bottle#:	10
Method:	8270_12	Limit Group:	SV 8270D ICAL		

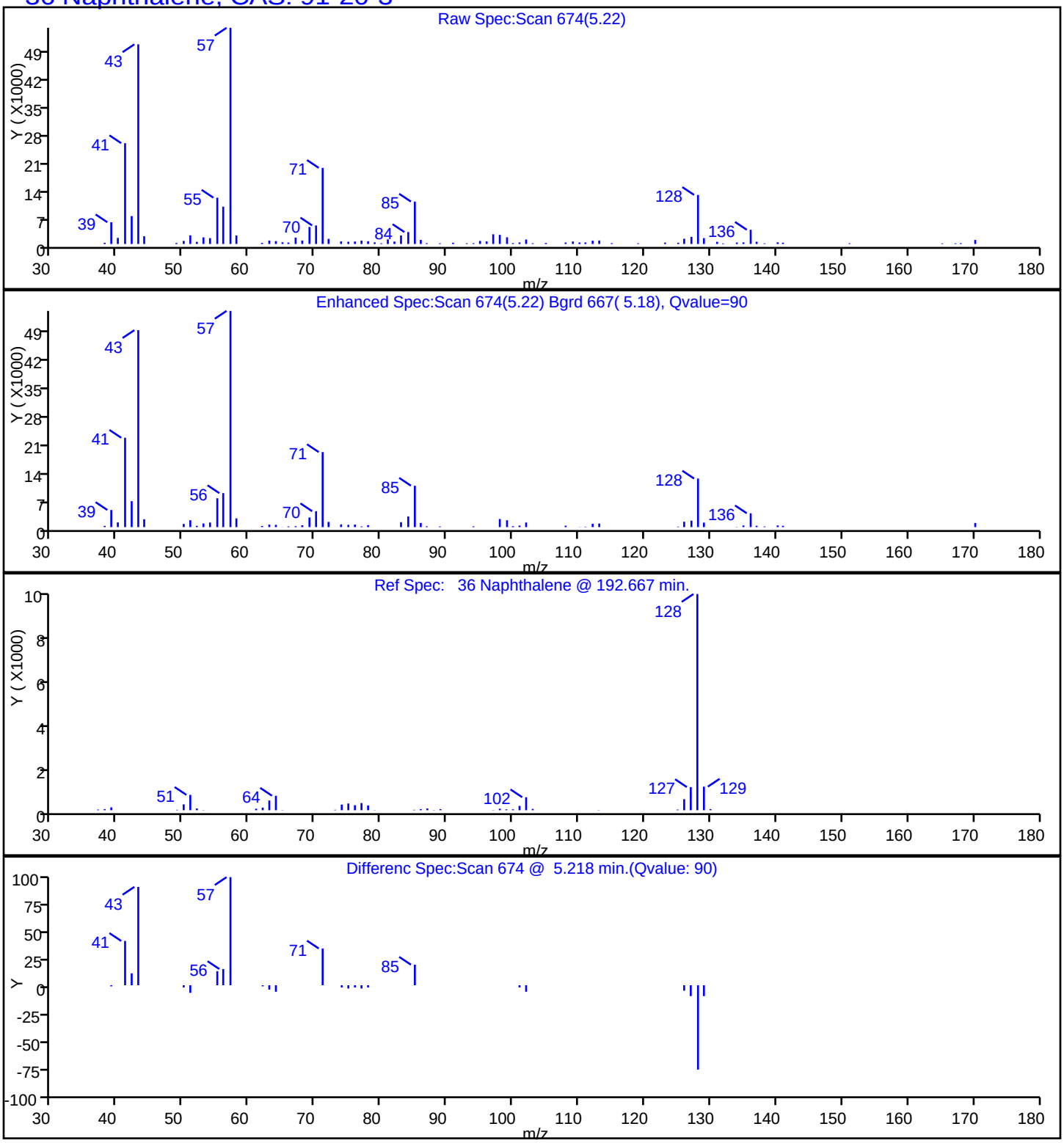


Report Date: 24-Dec-2013 16:55:14 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145780.D				
Injection Date:	24-Dec-2013 15:13:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-1-D	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Operator ID:	BNA 12	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

36 Naphthalene, CAS: 91-20-3

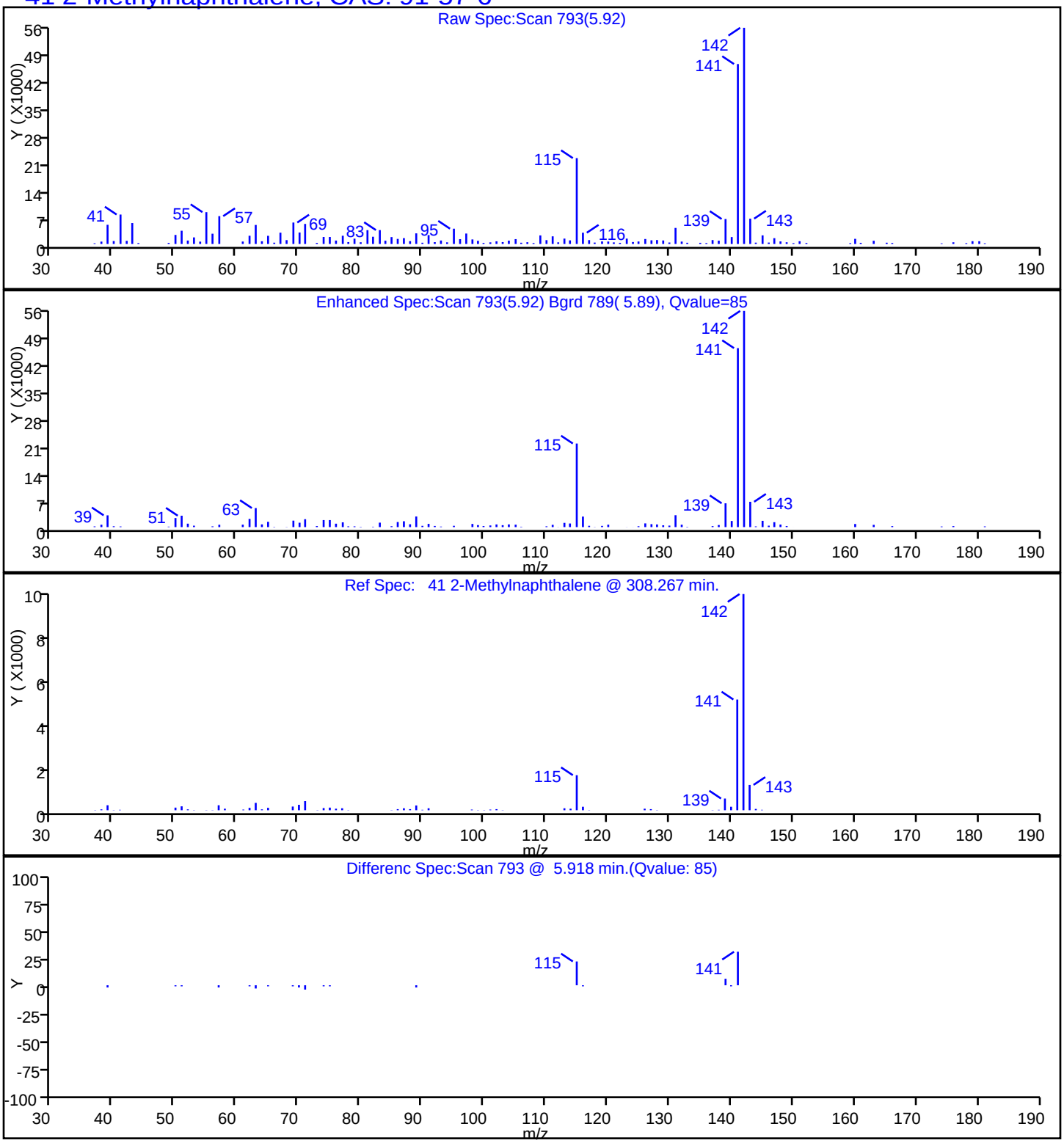


Report Date: 24-Dec-2013 16:55:14 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145780.D				
Injection Date:	24-Dec-2013 15:13:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-1-D	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Operator ID:	BNA 12	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

41 2-Methylnaphthalene, CAS: 91-57-6

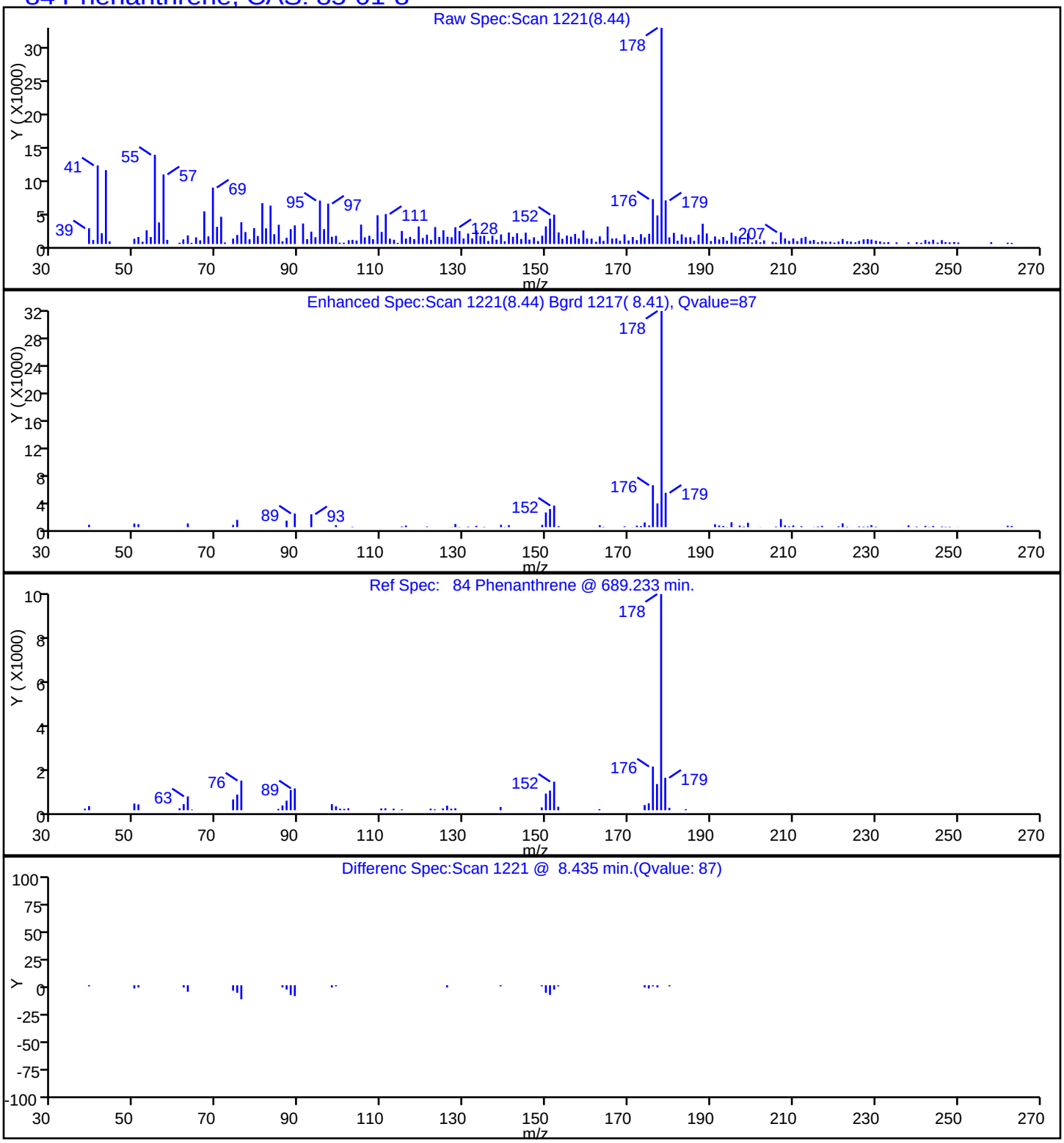


Report Date: 24-Dec-2013 16:55:14 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145780.D				
Injection Date:	24-Dec-2013 15:13:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-1-D	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Operator ID:	BNA 12	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

84 Phenanthrene, CAS: 85-01-8

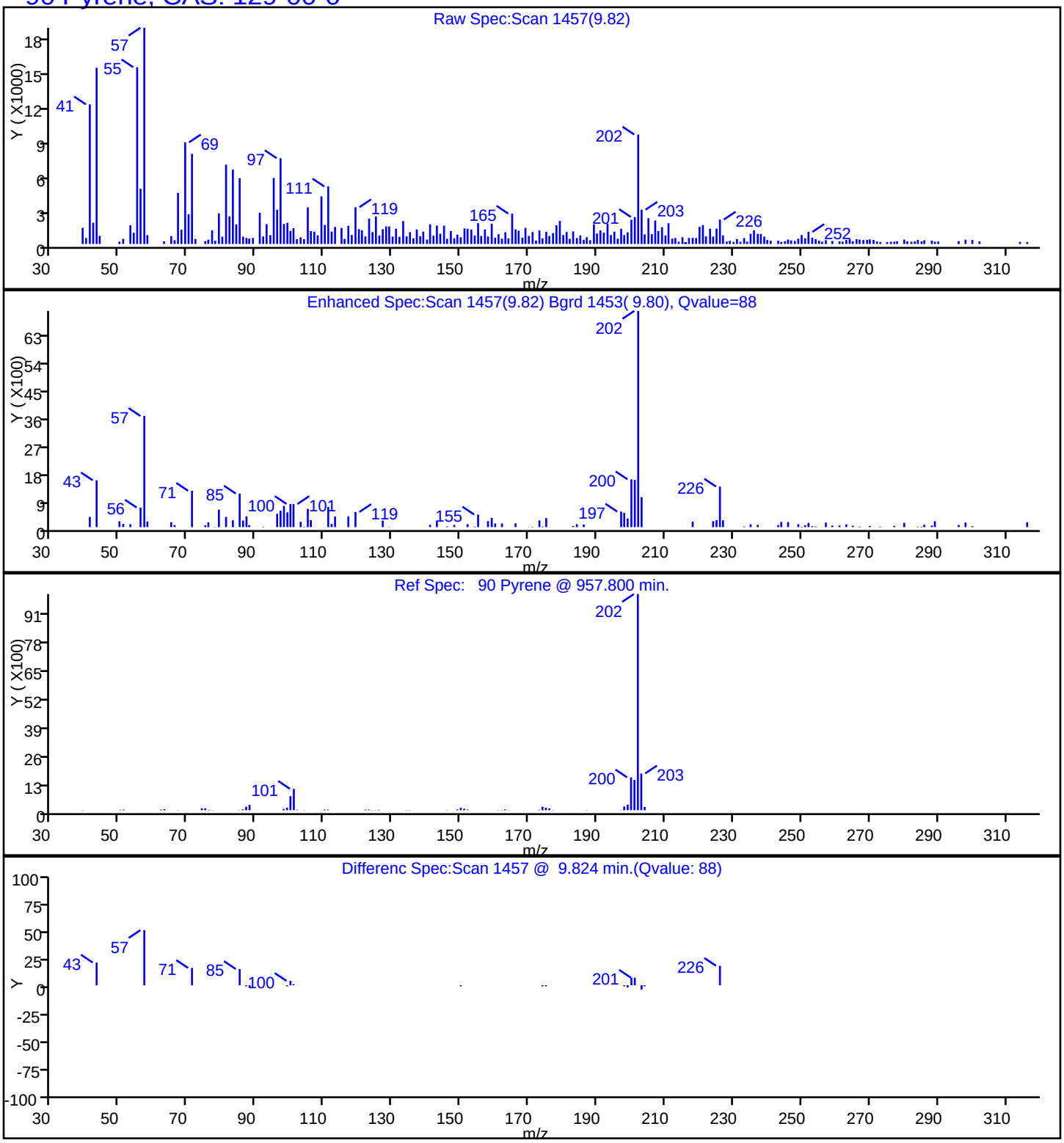


Report Date: 24-Dec-2013 16:55:14 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145780.D				
Injection Date:	24-Dec-2013 15:13:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-1-D	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Operator ID:	BNA 12	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

90 Pyrene, CAS: 129-00-0

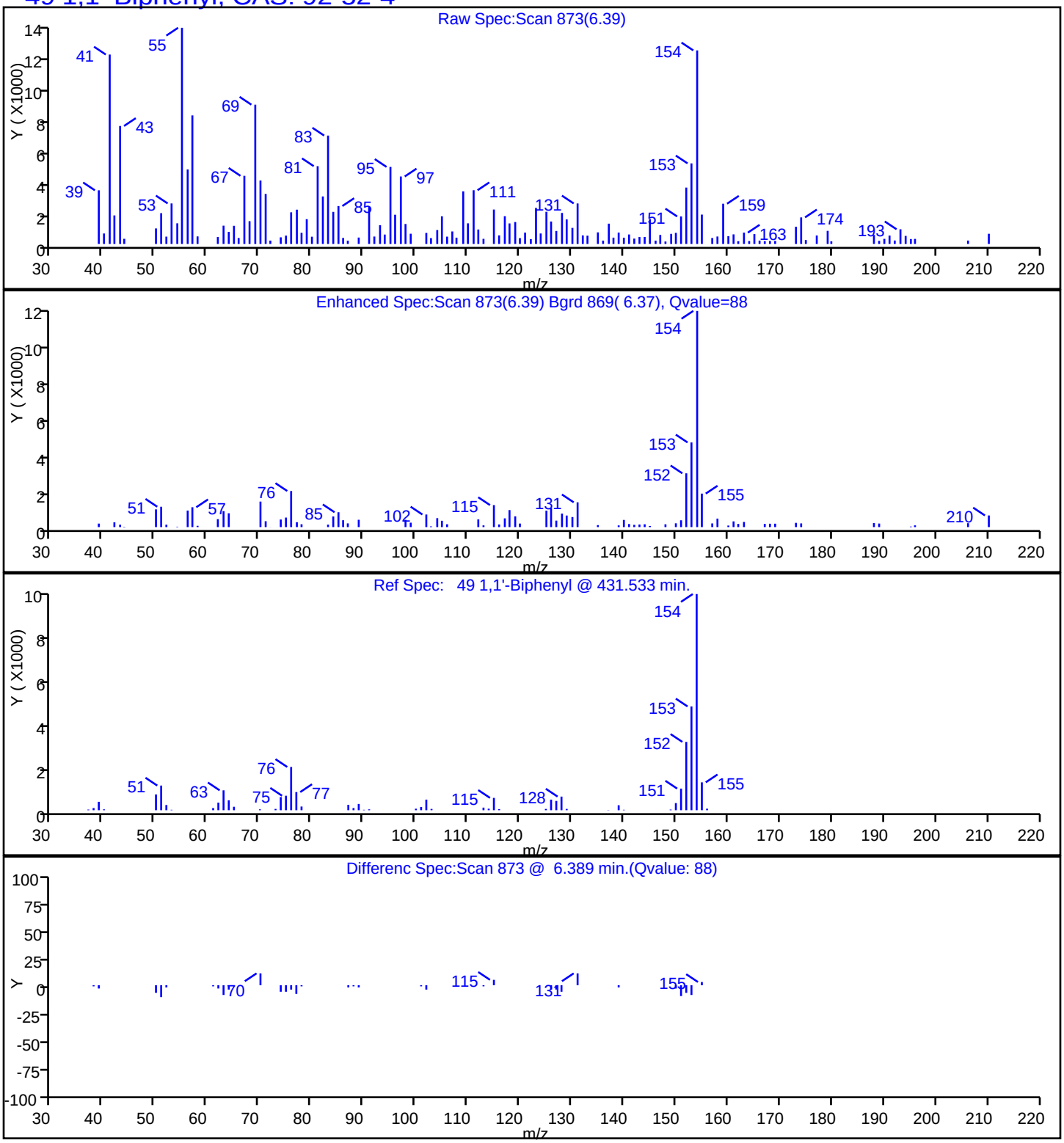


Report Date: 24-Dec-2013 16:55:14 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145780.D				
Injection Date:	24-Dec-2013 15:13:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-1-D	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Operator ID:	BNA 12	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

49 1,1'-Biphenyl, CAS: 92-52-4



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-E3 (10-15') | Lab Sample ID: 460-67815-2

Matrix: Solid | Lab File ID: L1145781.D

Analysis Method: 8270D | Date Collected: 12/04/2013 14:30

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 15.02(g) | Date Analyzed: 12/24/2013 15:39

Con. Extract Vol.: 1(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 199750 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
108-95-2	Phenol	7400	U	7400	990
95-57-8	2-Chlorophenol	7400	U	7400	970
95-48-7	2-Methylphenol	7400	U	7400	1300
106-44-5	4-Methylphenol	7400	U	7400	1500
88-75-5	2-Nitrophenol	7400	U	7400	820
105-67-9	2,4-Dimethylphenol	7400	U	7400	1800
120-83-2	2,4-Dichlorophenol	7400	U	7400	1100
59-50-7	4-Chloro-3-methylphenol	7400	U	7400	1100
88-06-2	2,4,6-Trichlorophenol	7400	U	7400	860
95-95-4	2,4,5-Trichlorophenol	7400	U	7400	950
51-28-5	2,4-Dinitrophenol	22000	U	22000	4200
100-02-7	4-Nitrophenol	22000	U	22000	4700
534-52-1	4,6-Dinitro-2-methylphenol	22000	U	22000	2000
87-86-5	Pentachlorophenol	22000	U	22000	2200
111-44-4	Bis(2-chloroethyl)ether	740	U	740	100
621-64-7	N-Nitrosodi-n-propylamine	740	U	740	120
67-72-1	Hexachloroethane	740	U	740	82
98-95-3	Nitrobenzene	740	U	740	100
78-59-1	Isophorone	7400	U	7400	890
111-91-1	Bis(2-chloroethoxy)methane	7400	U	7400	950
91-20-3	Naphthalene	3800	J	7400	850
106-47-8	4-Chloroaniline	7400	U	7400	2000
87-68-3	Hexachlorobutadiene	1500	U	1500	180
91-57-6	2-Methylnaphthalene	52000		7400	950
77-47-4	Hexachlorocyclopentadiene	7400	U	7400	870
91-58-7	2-Chloronaphthalene	7400	U	7400	820
88-74-4	2-Nitroaniline	15000	U	15000	3100
131-11-3	Dimethyl phthalate	7400	U	7400	870
208-96-8	Acenaphthylene	7400	U	7400	870
606-20-2	2,6-Dinitrotoluene	1500	U	1500	220
99-09-2	3-Nitroaniline	15000	U	15000	2600
83-32-9	Acenaphthene	3400	J	7400	1100
132-64-9	Dibenzofuran	7400	U	7400	860
121-14-2	2,4-Dinitrotoluene	1500	U	1500	240

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-E3 (10-15') | Lab Sample ID: 460-67815-2

Matrix: Solid | Lab File ID: L1145781.D

Analysis Method: 8270D | Date Collected: 12/04/2013 14:30

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 15.02(g) | Date Analyzed: 12/24/2013 15:39

Con. Extract Vol.: 1(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 199750 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
84-66-2	Diethyl phthalate	7400	U	7400	880
7005-72-3	4-Chlorophenyl phenyl ether	7400	U	7400	860
86-73-7	Fluorene	5100	J	7400	940
100-01-6	4-Nitroaniline	15000	U	15000	2300
86-30-6	N-Nitrosodiphenylamine	7400	U	7400	730
101-55-3	4-Bromophenyl phenyl ether	7400	U	7400	730
118-74-1	Hexachlorobenzene	740	U	740	100
85-01-8	Phenanthrene	21000		7400	940
120-12-7	Anthracene	1800	J	7400	900
86-74-8	Carbazole	7400	U	7400	870
84-74-2	Di-n-butyl phthalate	7400	U	7400	910
206-44-0	Fluoranthene	7400	U	7400	980
129-00-0	Pyrene	3600	J	7400	620
85-68-7	Butyl benzyl phthalate	7400	U	7400	680
91-94-1	3,3'-Dichlorobenzidine	15000	U	15000	2600
56-55-3	Benzo[a]anthracene	1400		740	51
218-01-9	Chrysene	3200	J	7400	860
117-81-7	Bis(2-ethylhexyl) phthalate	7400	U	7400	2500
117-84-0	Di-n-octyl phthalate	7400	U	7400	470
205-99-2	Benzo[b]fluoranthene	740	U	740	47
207-08-9	Benzo[k]fluoranthene	740	U	740	56
50-32-8	Benzo[a]pyrene	680	J *	740	52
193-39-5	Indeno[1,2,3-cd]pyrene	740	U	740	140
53-70-3	Dibenz(a,h)anthracene	740	U	740	93
191-24-2	Benzo[g,h,i]perylene	7400	U	7400	550
92-52-4	Diphenyl	2900	J	7400	990
98-86-2	Acetophenone	7400	U	7400	1100
123-91-1	1,4-Dioxane	7400	U	7400	540
100-52-7	Benzaldehyde	7400	U	7400	870
105-60-2	Caprolactam	7400	U	7400	1700
1912-24-9	Atrazine	7400	U	7400	1100
108-60-1	2,2'-oxybis[1-chloropropane]	7400	U	7400	820
95-94-3	1,2,4,5-Tetrachlorobenzene	7400	U	7400	990
58-90-2	2,3,4,6-Tetrachlorophenol	7400	U	7400	960

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-E3 (10-15') | Lab Sample ID: 460-67815-2

Matrix: Solid | Lab File ID: L1145781.D

Analysis Method: 8270D | Date Collected: 12/04/2013 14:30

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 15.02(g) | Date Analyzed: 12/24/2013 15:39

Con. Extract Vol.: 1(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 199750 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	0	*	38-105
4165-62-2	Phenol-d5	0	*	41-118
1718-51-0	Terphenyl-d14	0	*	16-151
118-79-6	2,4,6-Tribromophenol	0	*	10-120
367-12-4	2-Fluorophenol	0	*	37-125
321-60-8	2-Fluorobiphenyl	0	*	40-109

Report Date: 24-Dec-2013 16:58:40 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145781.D
Lims ID: 460-67815-E-2-B Lab Sample ID: 460-67815-2
Client ID: E-GP-E3 (10-15')
Sample Type: Client
Inject. Date: 24-Dec-2013 15:39:30 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 20.0000
Sample Info: 460-0008228-011
Operator ID: BNA 12 Instrument ID: CBNAMS12

Method: \\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\8270_12.m
Limit Group: SV 8270D ICAL
Last Update: 24-Dec-2013 16:58:40 Calib Date: 15-Dec-2013 14:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAMS12\20131215-7832.b\L1145444.D

Column 1 : Detector MS SCAN
Process Host: XAWRK027

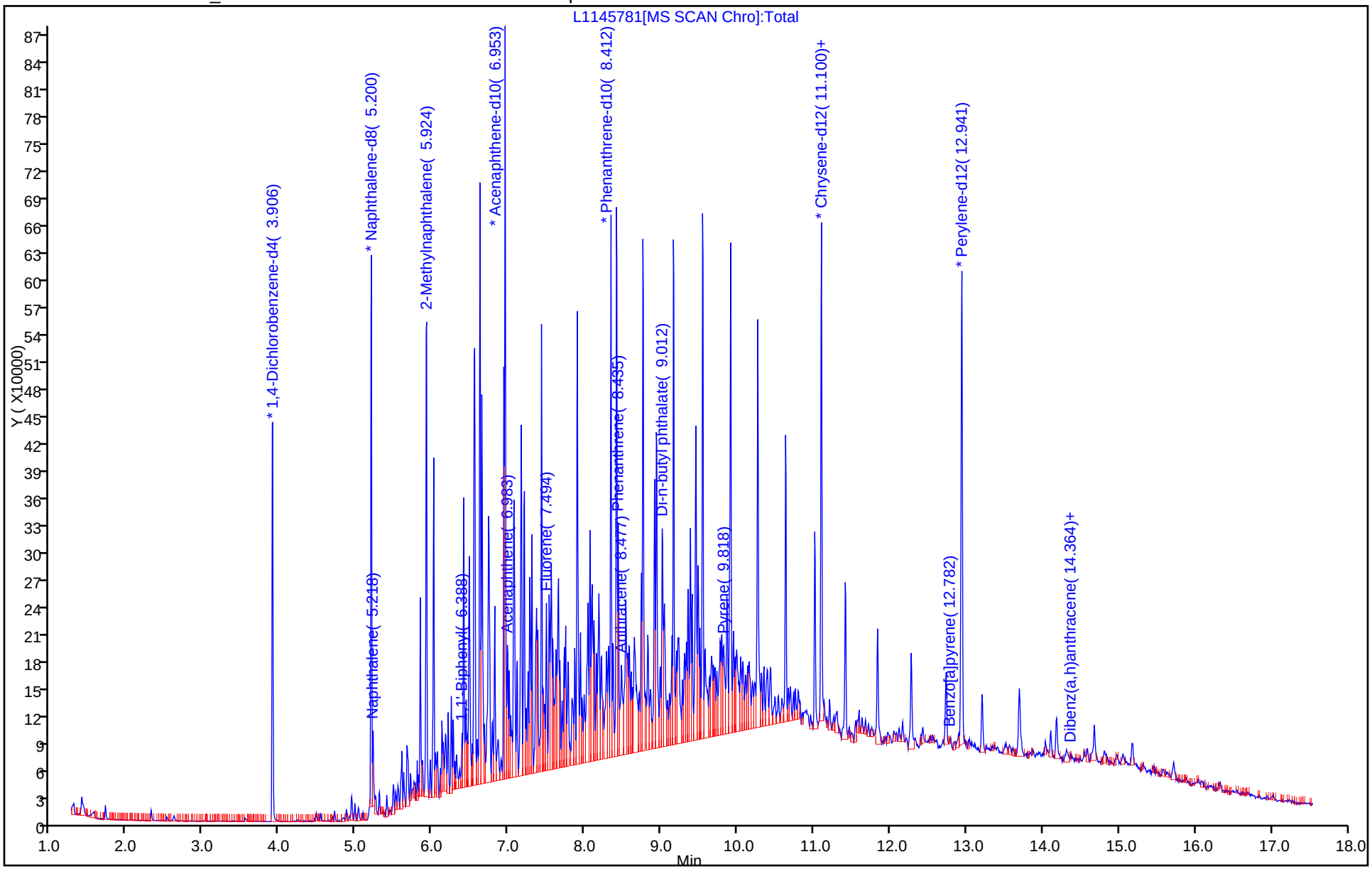
First Level Reviewer: bayoumiw Date: 24-Dec-2013 16:58:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/ml	Flags
* 13 1,4-Dichlorobenzene-d4	152	3.906	3.900	0.006	96	67657	40.0	
* 35 Naphthalene-d8	136	5.200	5.200	0.0	99	246433	40.0	
36 Naphthalene	128	5.218	5.224	-0.006	93	16440	2.54	
41 2-Methylnaphthalene	142	5.924	5.924	0.0	84	140299	34.9	
49 1,1'-Biphenyl	154	6.388	6.394	-0.006	91	10401	1.98	
* 61 Acenaphthene-d10	164	6.953	6.953	0.0	94	139307	40.0	
62 Acenaphthene	154	6.983	6.988	-0.005	78	8607	2.29	
70 Fluorene	166	7.494	7.494	0.0	93	14892	3.43	
* 83 Phenanthrene-d10	188	8.412	8.412	0.0	99	202895	40.0	
84 Phenanthrene	178	8.435	8.435	0.0	94	79478	14.0	
85 Anthracene	178	8.488	8.488	0.0	80	7164	1.24	
87 Di-n-butyl phthalate	149	9.012	9.012	0.0	24	523	0.0976	
88 Fluoranthene	202	9.600	9.600	0.0	79	2742	0.5171	
90 Pyrene	202	9.818	9.818	0.0	94	15519	2.39	
95 Benzo[a]anthracene	228	11.088	11.088	0.0	67	5860	0.9331	
* 96 Chrysene-d12	240	11.100	11.094	0.006	99	204840	40.0	
97 Chrysene	228	11.129	11.129	0.0	85	12793	2.14	
102 Benzo[a]pyrene	252	12.788	12.864	-0.076	77	2752	0.4572	
* 103 Perylene-d12	264	12.941	12.935	0.006	98	248954	40.0	
104 Indeno[1,2,3-cd]pyrene	276	14.353	14.359	-0.005	1	606	0.0788	
105 Dibenz(a,h)anthracene	278	14.376	14.388	-0.012	8	450	0.0570	
106 Benzo[g,h,i]perylene	276	14.694	14.700	-0.006	1	928	0.1125	

Report Date: 24-Dec-2013 16:58:41 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145781.D				
Injection Date:	24-Dec-2013 15:39:30	Instrument ID:	CBNAMS12	Operator ID:	BNA 12
Lims ID:	460-67815-E-2-B	Lab Sample ID:	460-67815-2	Worklist Smp#:	11
Client ID:	E-GP-E3 (10-15')				
Injection Vol:	1.0 ul	Dil. Factor:	20.0000	ALS Bottle#:	11
Method:	8270_12	Limit Group:	SV 8270D ICAL		

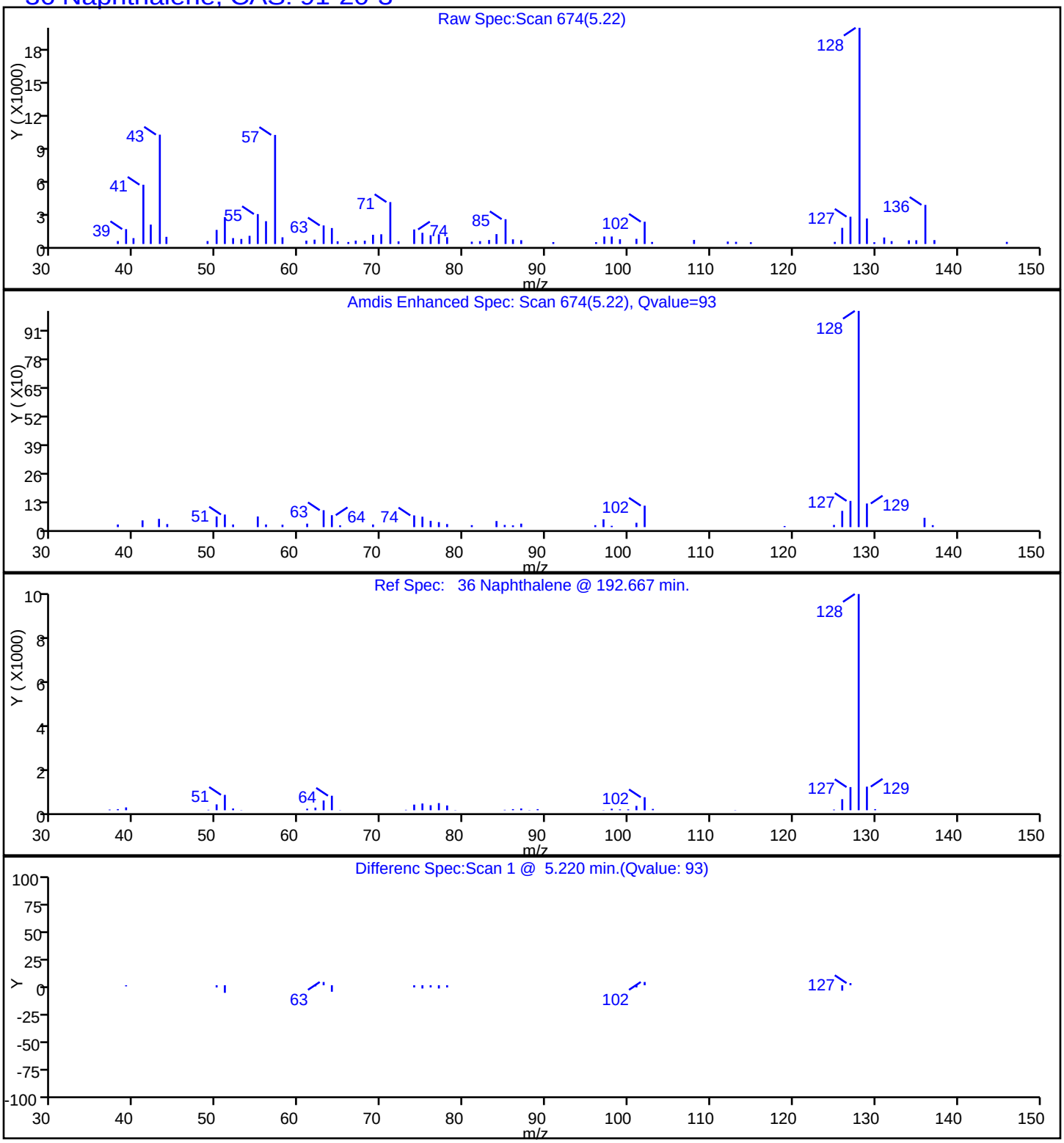


Report Date: 24-Dec-2013 16:58:41 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145781.D				
Injection Date:	24-Dec-2013 15:39:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-2-B	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:	BNA 12	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

36 Naphthalene, CAS: 91-20-3

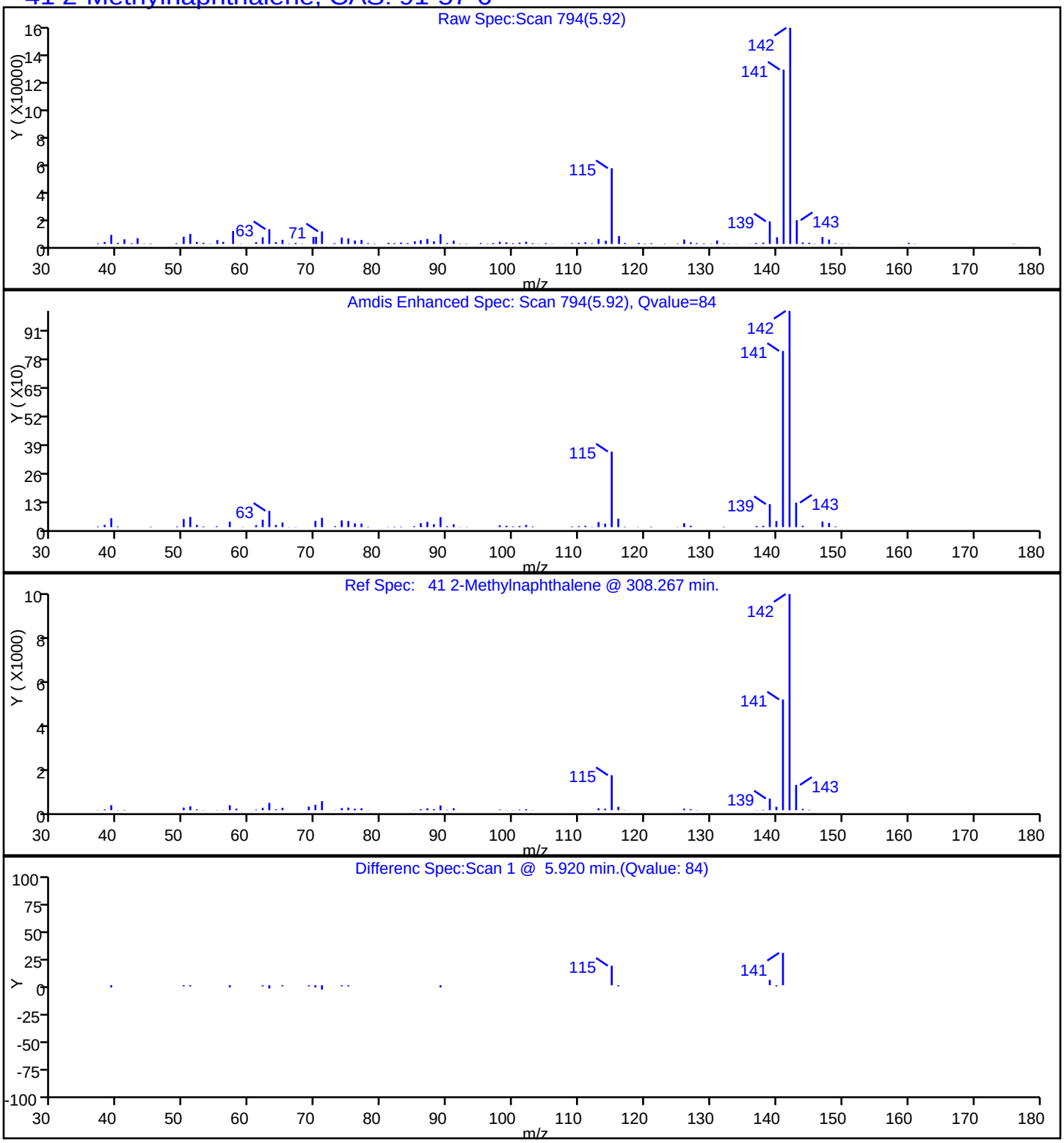


Report Date: 24-Dec-2013 16:58:41 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145781.D				
Injection Date:	24-Dec-2013 15:39:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-2-B	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:	BNA 12	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

41 2-Methylnaphthalene, CAS: 91-57-6

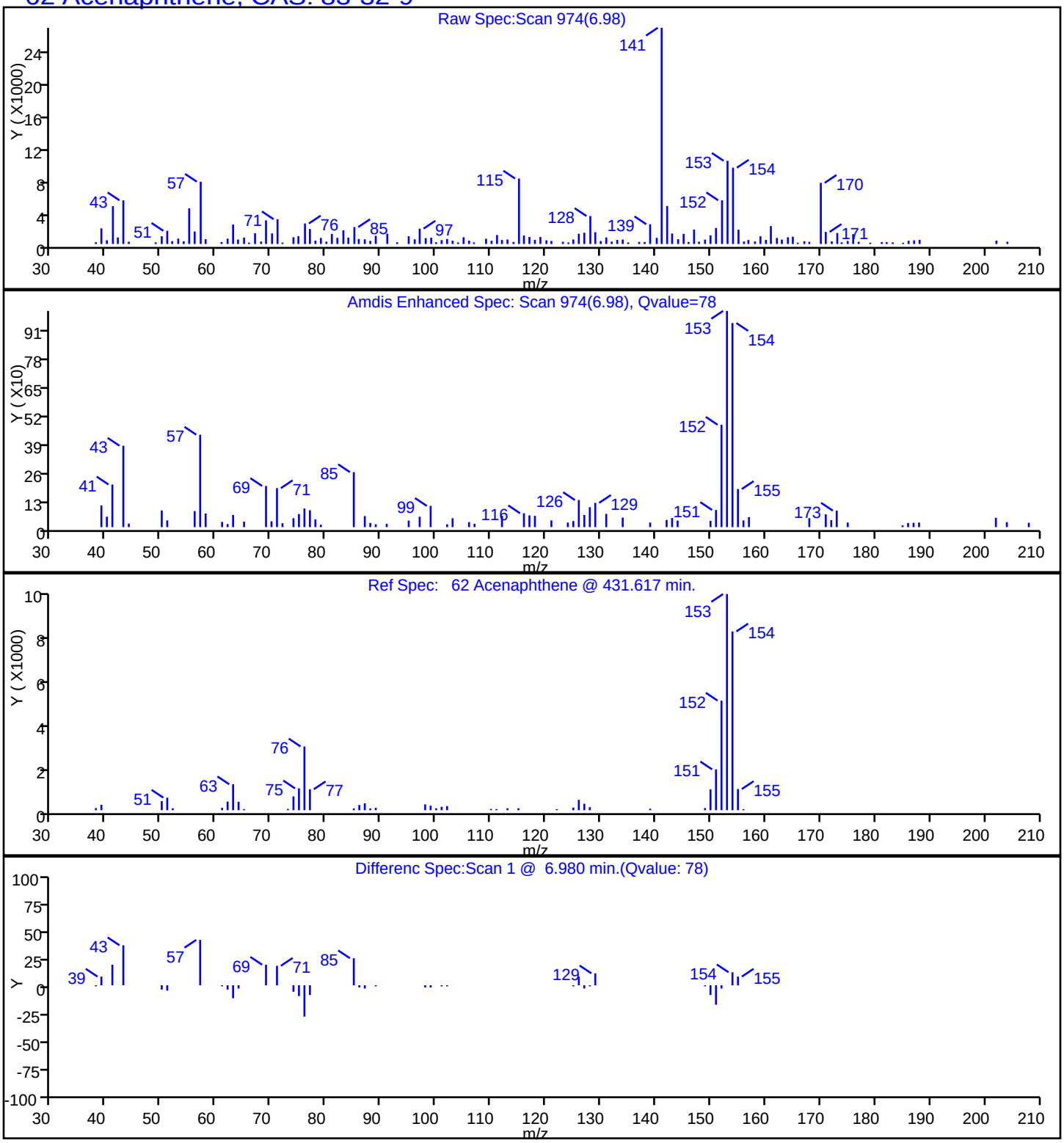


Report Date: 24-Dec-2013 16:58:41 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145781.D				
Injection Date:	24-Dec-2013 15:39:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-2-B	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:	BNA 12	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

62 Acenaphthene, CAS: 83-32-9

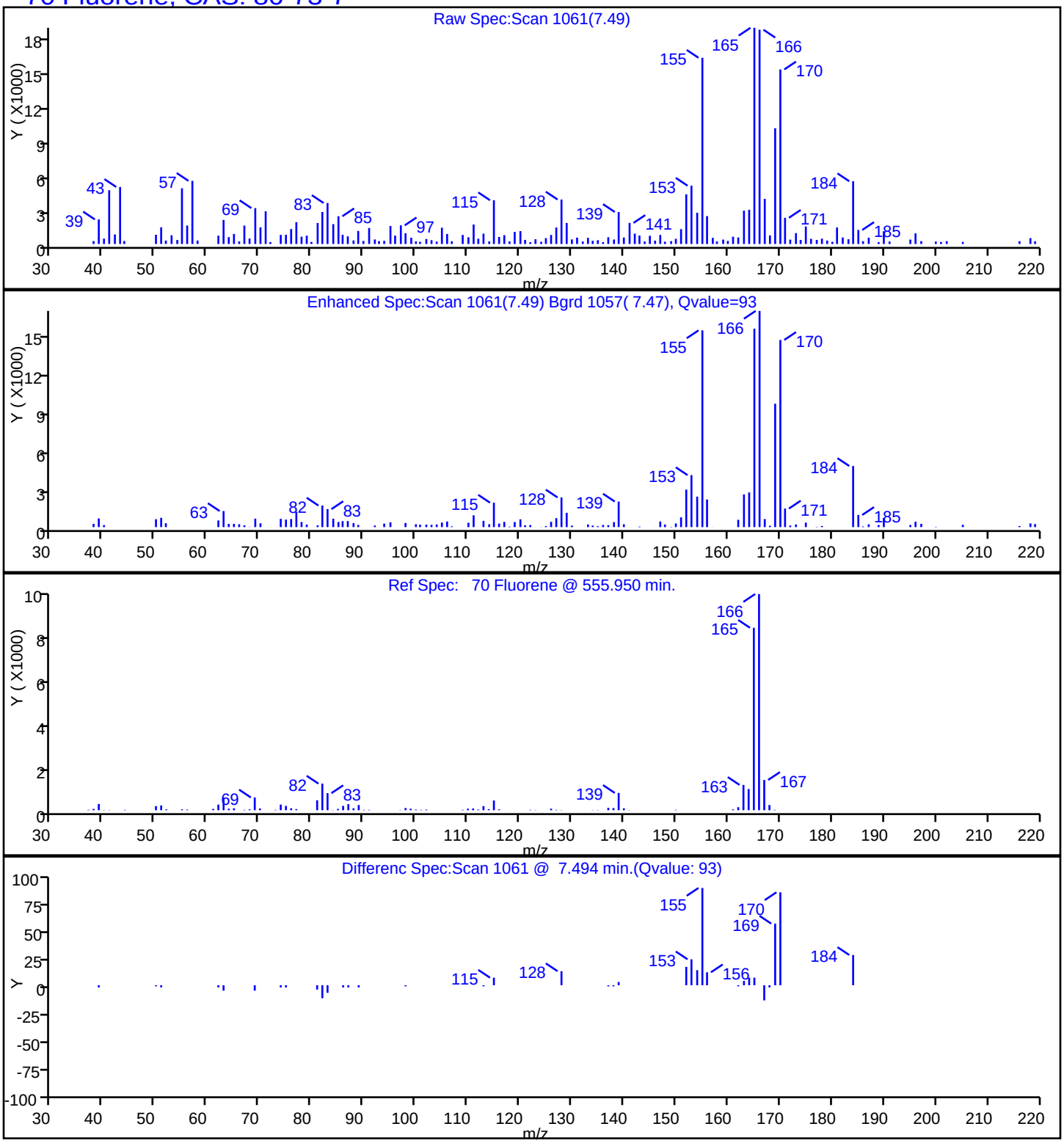


Report Date: 24-Dec-2013 16:58:41 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145781.D				
Injection Date:	24-Dec-2013 15:39:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-2-B	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:	BNA 12	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

70 Fluorene, CAS: 86-73-7

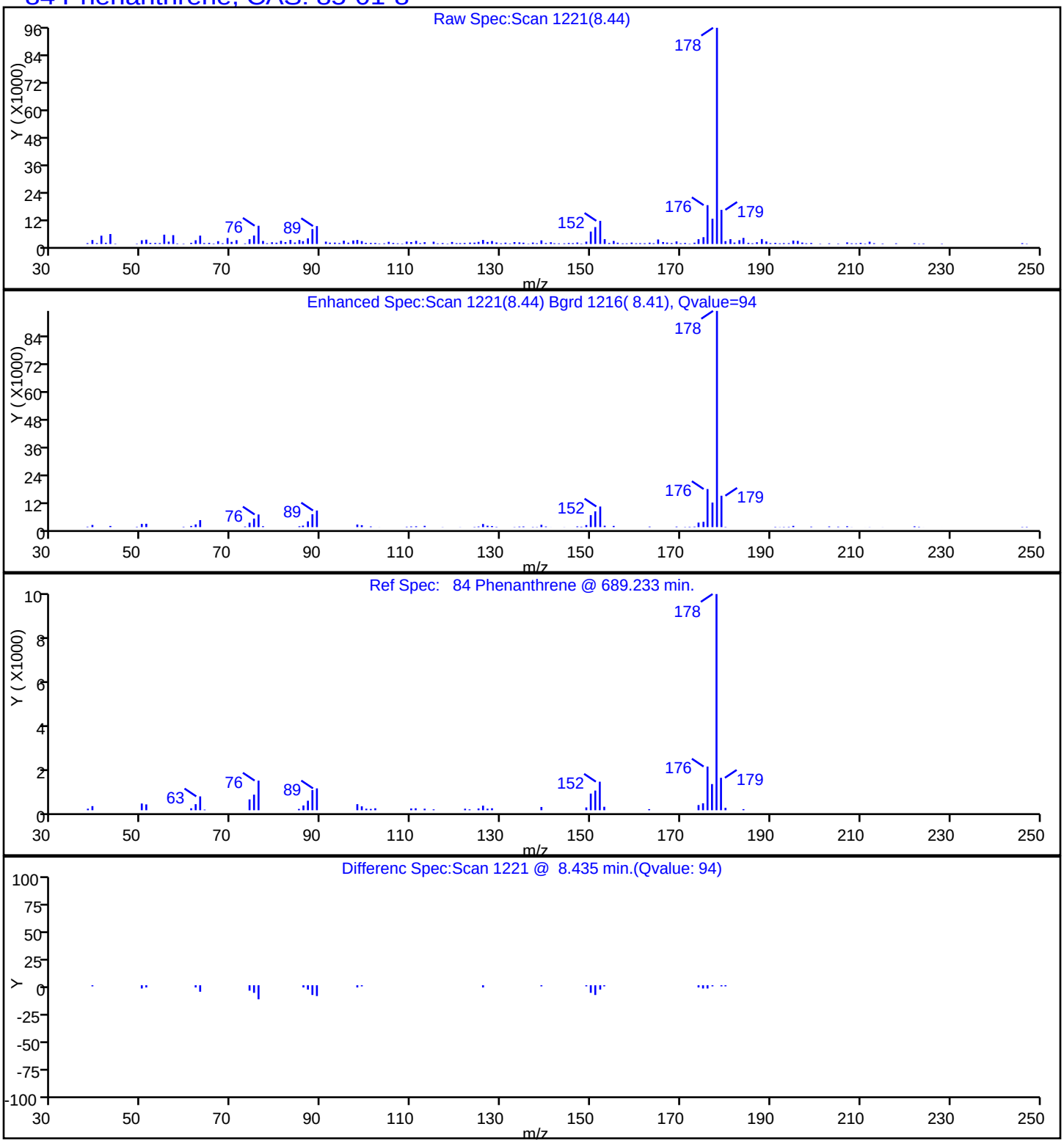


Report Date: 24-Dec-2013 16:58:41 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145781.D				
Injection Date:	24-Dec-2013 15:39:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-2-B	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:	BNA 12	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

84 Phenanthrene, CAS: 85-01-8

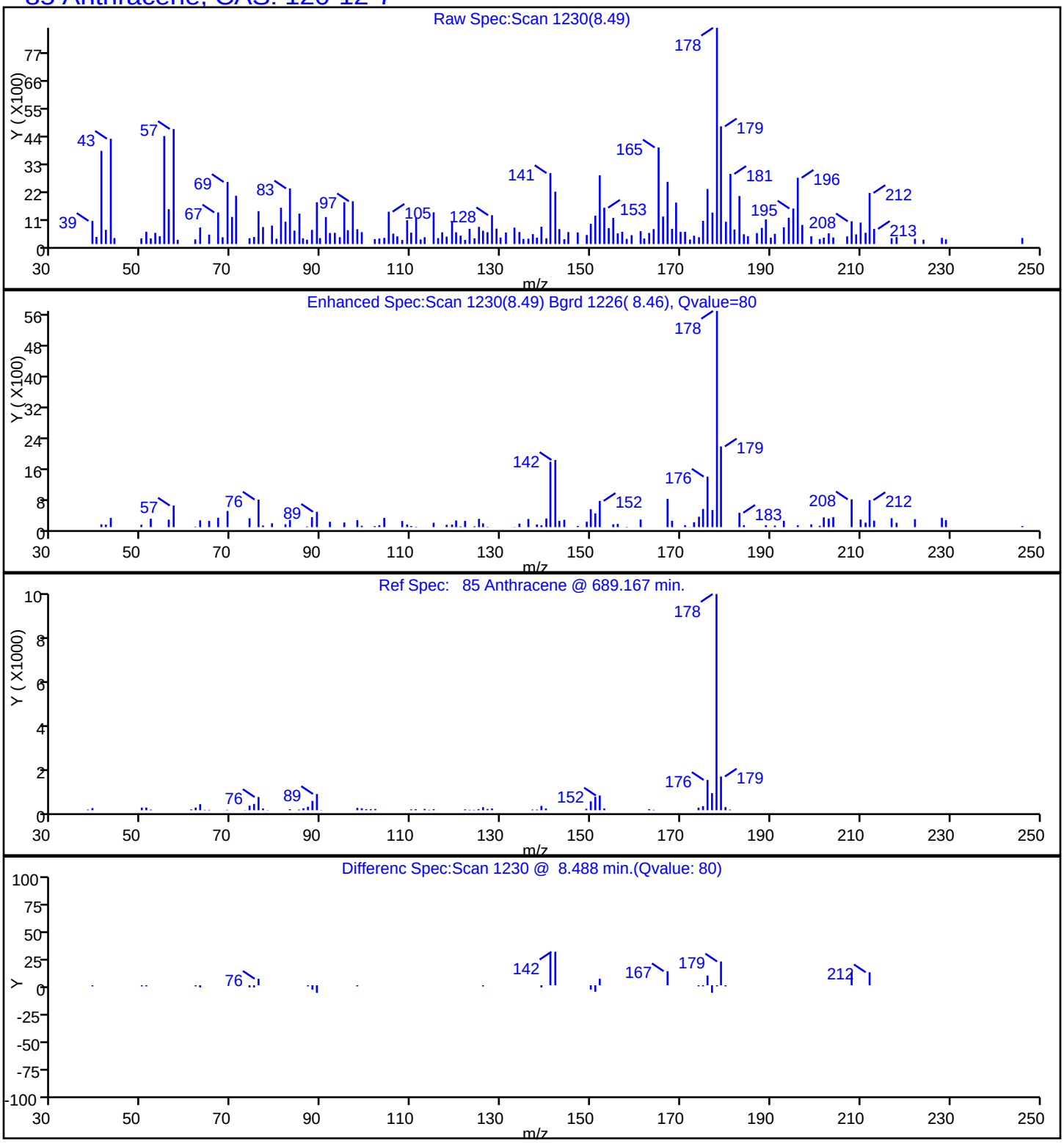


Report Date: 24-Dec-2013 16:58:41 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145781.D				
Injection Date:	24-Dec-2013 15:39:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-2-B	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:	BNA 12	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

85 Anthracene, CAS: 120-12-7

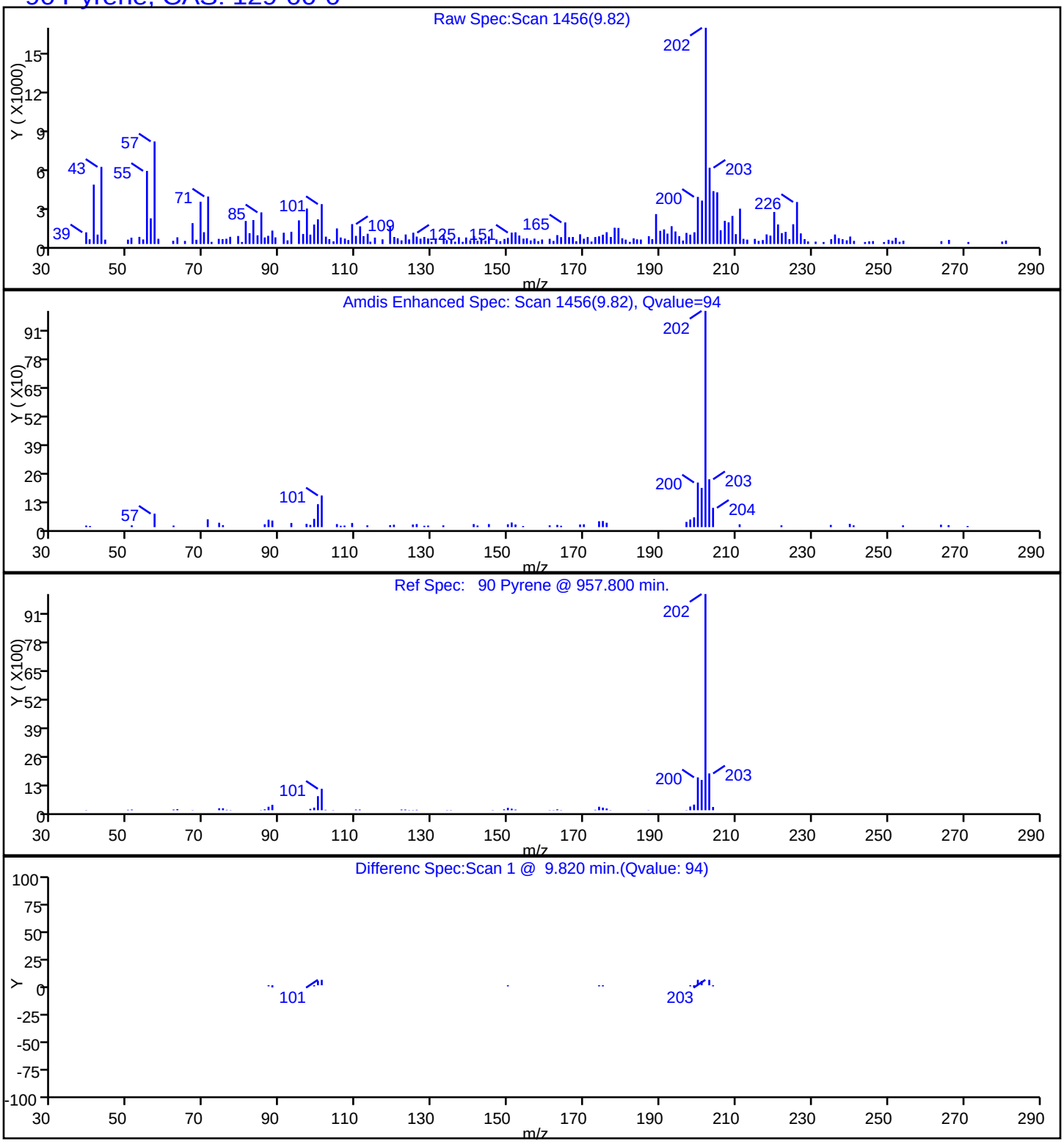


Report Date: 24-Dec-2013 16:58:41 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145781.D				
Injection Date:	24-Dec-2013 15:39:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-2-B	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:	BNA 12	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

90 Pyrene, CAS: 129-00-0

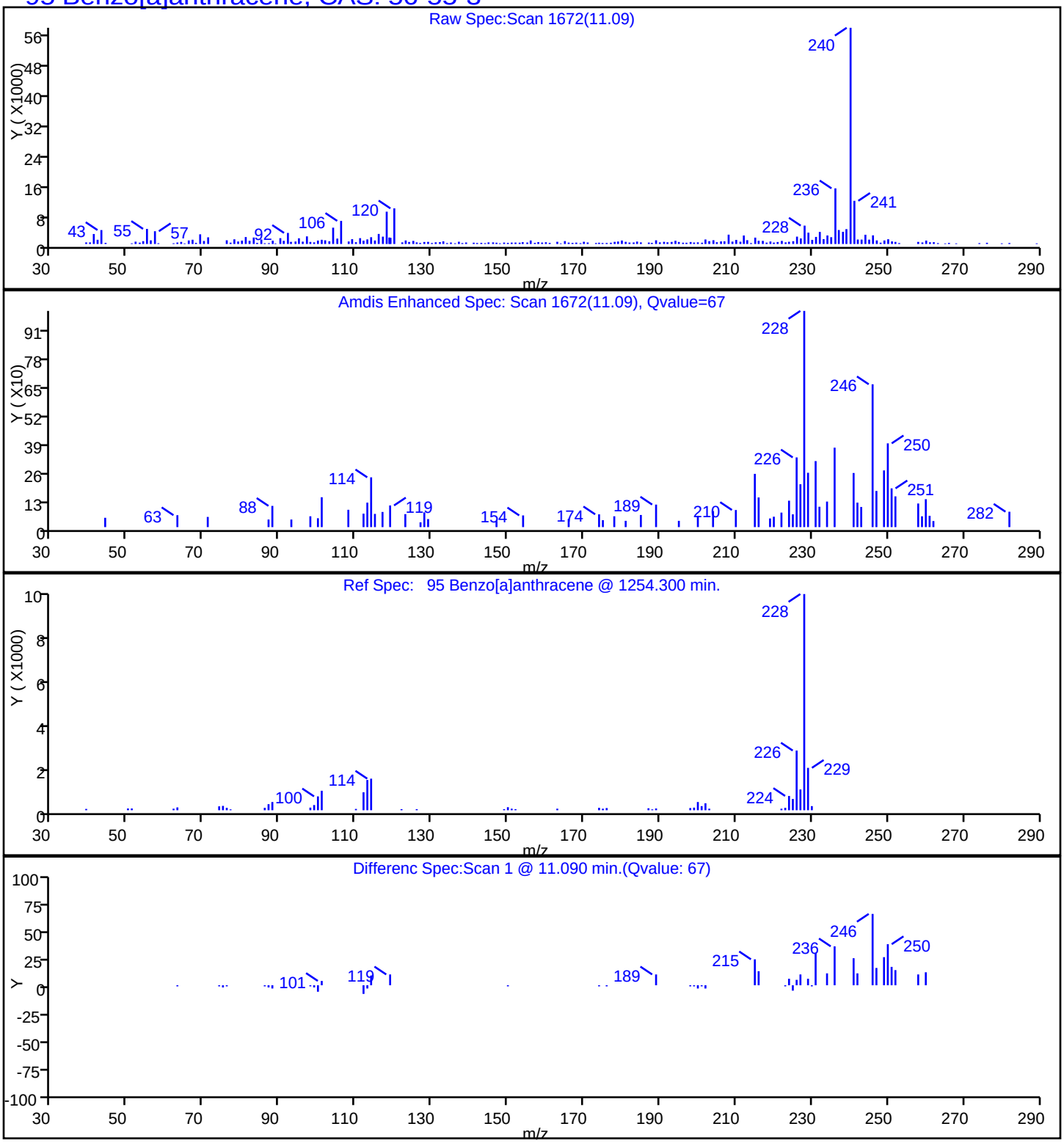


Report Date: 24-Dec-2013 16:58:41 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145781.D				
Injection Date:	24-Dec-2013 15:39:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-2-B	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:	BNA 12	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

95 Benzo[a]anthracene, CAS: 56-55-3

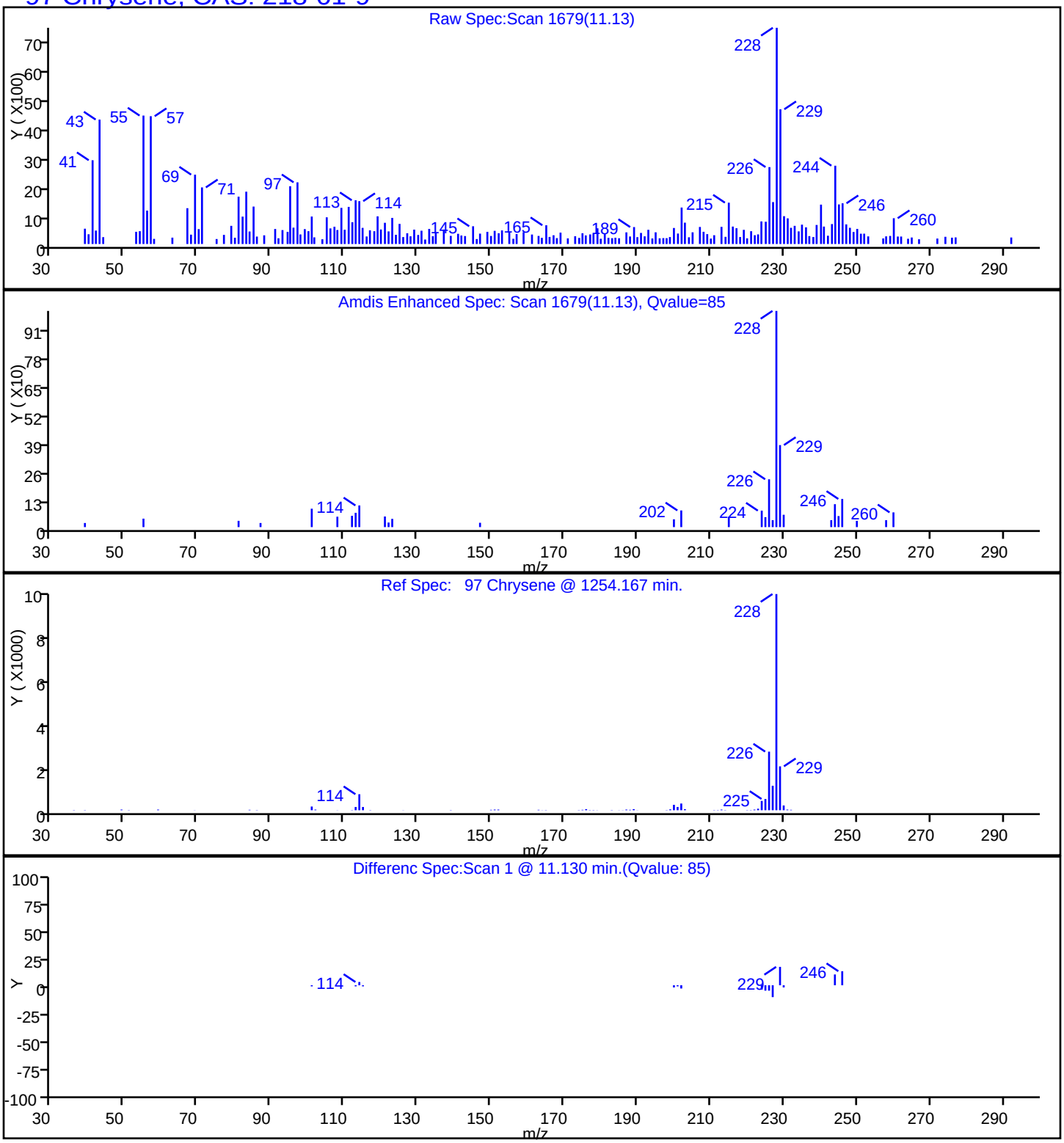


Report Date: 24-Dec-2013 16:58:41 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145781.D				
Injection Date:	24-Dec-2013 15:39:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-2-B	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:	BNA 12	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

97 Chrysene, CAS: 218-01-9

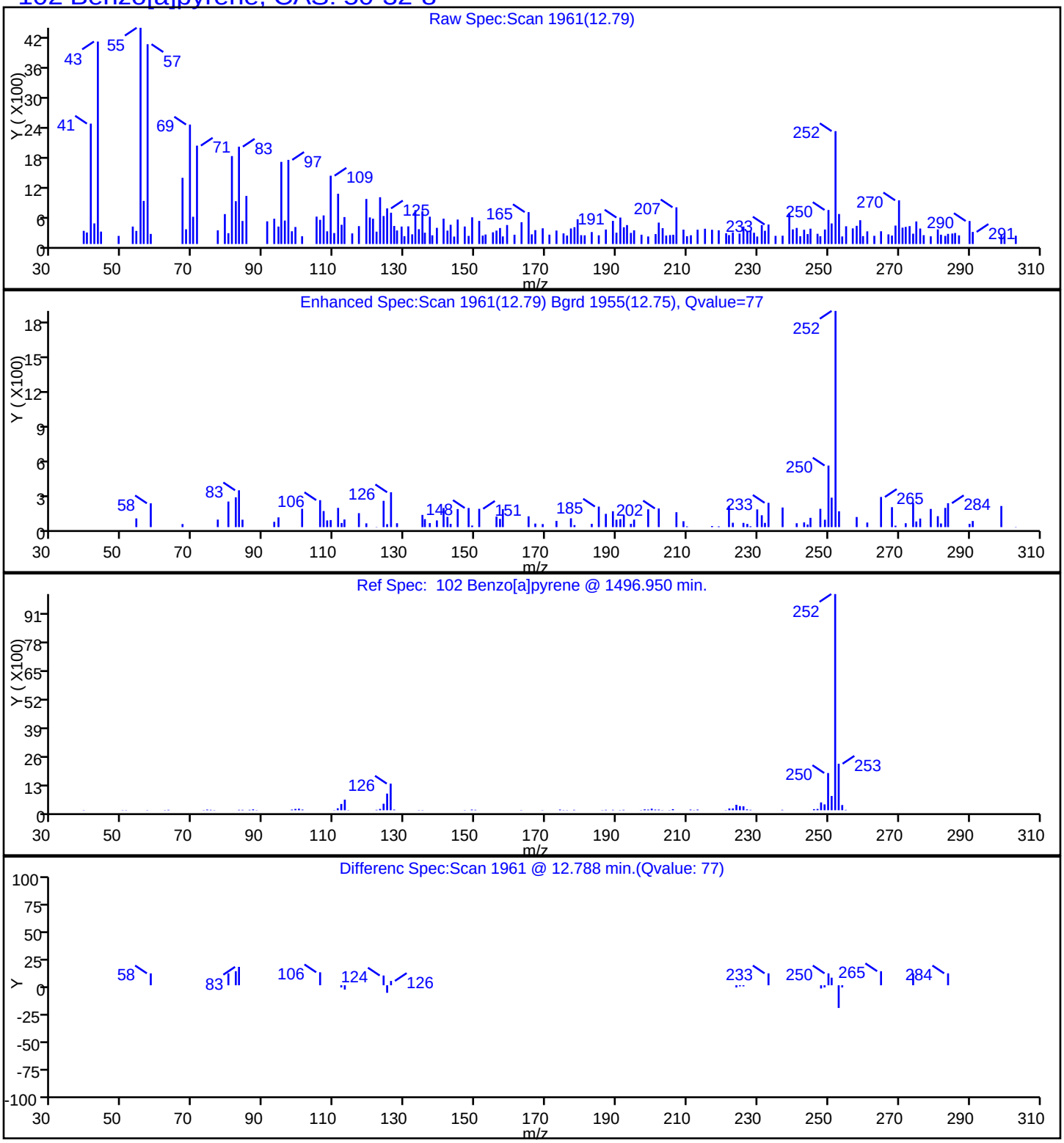


Report Date: 24-Dec-2013 16:58:41 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145781.D				
Injection Date:	24-Dec-2013 15:39:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-2-B	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:	BNA 12	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

102 Benzo[a]pyrene, CAS: 50-32-8

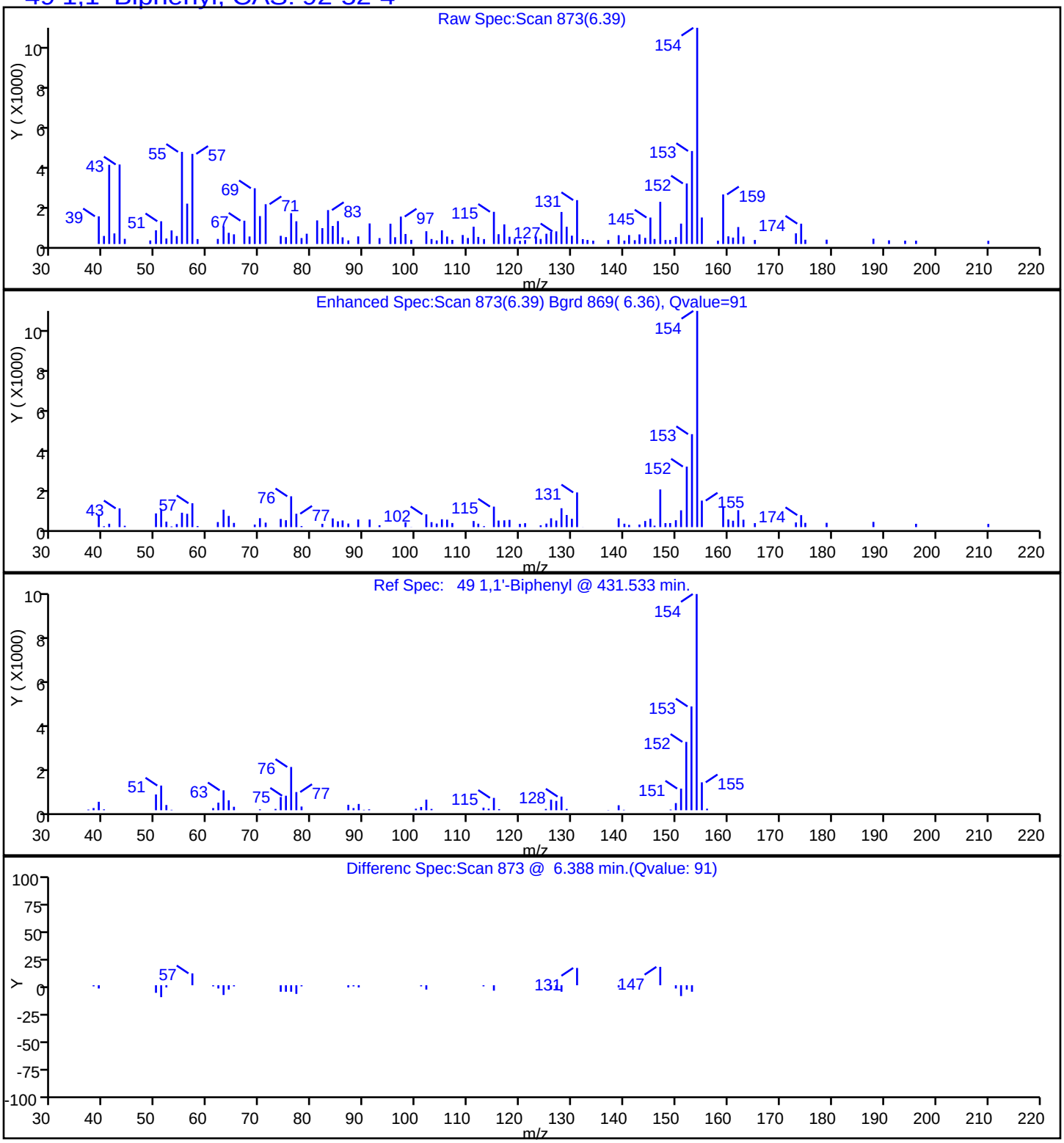


Report Date: 24-Dec-2013 16:58:41 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145781.D				
Injection Date:	24-Dec-2013 15:39:30	Instrument ID:	CBNAMS12		
Lims ID:	460-67815-E-2-B	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Operator ID:	BNA 12	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Column:		Detector	MS SCAN		

49 1,1'-Biphenyl, CAS: 92-52-4



FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194625

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 19:36 Calibration End Date: 11/26/2013 21:46 Calibration ID: 33175

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-194625/7	L1144765.D
Level 2	IC 460-194625/6	L1144764.D
Level 3	IC 460-194625/5	L1144763.D
Level 4	ICIS 460-194625/2	L1144760.D
Level 5	IC 460-194625/4	L1144762.D
Level 6	IC 460-194625/3	L1144761.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.4875 0.4788	0.4915	0.5387	0.4706	0.4791	Ave		0.4910				5.0		20.0			
N-Nitrosodimethylamine	0.3334 0.6573	0.4496	0.5960	0.6095	0.5995	Lin2	-1.619	0.6464			0.0100				0.9970		0.9900
Pyridine	0.9960 1.2711	1.0985	1.2942	1.2513	1.2175	Ave		1.1881				9.8		20.0			
Phenol	1.4912 1.5727	1.5239	1.6001	1.4972	1.5198	Ave		1.5342			0.8000	2.8		20.0			
Aniline	1.8337 1.8288	1.6966	1.8079	1.6712	1.7581	Ave		1.7661				3.9		20.0			
Bis(2-chloroethyl)ether	0.9517 1.2448	1.1778	1.2959	1.1961	1.2002	Ave		1.1778			0.7000	10.0		20.0			
2-Chlorophenol	1.3187 1.3747	1.3108	1.4168	1.3275	1.3493	Ave		1.3496			0.8000	3.0		20.0			
n-Decane	1.8762 1.8831	1.8434	1.9712	1.9691	1.8903	Ave		1.9055				2.8		20.0			
1,3-Dichlorobenzene	1.5255 1.6151	1.5626	1.7049	1.6029	1.5870	Ave		1.5996				3.8		20.0			
1,4-Dichlorobenzene	1.5796 1.6402	1.5770	1.7159	1.6178	1.6078	Ave		1.6230				3.2		20.0			
Benzyl alcohol	0.7967 0.8357	0.7992	0.8627	0.7676	0.8027	Ave		0.8107				4.1		20.0			
1,2-Dichlorobenzene	1.4675 1.5585	1.5126	1.6124	1.5367	1.5114	Ave		1.5332				3.2		20.0			
2-Methylphenol	1.0892 1.1427	1.0945	1.1642	1.0820	1.1224	Ave		1.1158			0.7000	2.9		20.0			
2,2'-oxybis[1-chloropropane]	2.3661 2.3989	2.3718	2.5625	2.3510	2.3616	Ave		2.4020			0.0100	3.3		20.0			
3 & 4 Methylphenol	1.2612 1.3271	1.2350	1.3314	1.2073	1.2809	Ave		1.2738				3.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194625

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 19:36 Calibration End Date: 11/26/2013 21:46 Calibration ID: 33175

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
4-Methylphenol	1.2612 1.3271	1.2350	1.3314	1.2073	1.2809	Ave		1.2738			0.6000	3.9		20.0			
N-Nitrosodi-n-propylamine	0.6643 0.9134	0.8460	0.9440	0.8151	0.8771	Ave		0.8433			0.5000	12.0		20.0			
Hexachloroethane	0.4276 0.6042	0.5903	0.6319	0.5970	0.6017	Ave		0.5754			0.3000	13.0		20.0			
Nitrobenzene	0.4186 0.4577	0.4213	0.4655	0.4494	0.4462	Ave		0.4431			0.2000	4.3		20.0			
n,n'-Dimethylaniline	1.7513 2.0305	1.9118	2.0342	1.8658	1.9763	Ave		1.9283				5.7		20.0			
Isophorone	0.5274 0.5537	0.4897	0.5401	0.4882	0.5355	Ave		0.5224			0.4000	5.2		20.0			
2-Nitrophenol	0.1682 0.1915	0.1705	0.1872	0.1839	0.1856	Ave		0.1811			0.1000	5.2		20.0			
2,4-Dimethylphenol	0.2947 0.3011	0.2846	0.3039	0.2887	0.2964	Ave		0.2949			0.2000	2.5		20.0			
Benzoic acid	0.1305 0.2089	0.1565	0.1885	0.1753	0.1970	Ave		0.1761				16.0		20.0			
Bis(2-chloroethoxy)methane	0.3620 0.3751	0.3453	0.3798	0.3579	0.3672	Ave		0.3646			0.3000	3.4		20.0			
2,4-Dichlorophenol	0.2576 0.2776	0.2558	0.2750	0.2654	0.2704	Ave		0.2670			0.2000	3.4		20.0			
1,2,4-Trichlorobenzene	0.2645 0.3231	0.3067	0.3359	0.3227	0.3124	Ave		0.3109				8.0		20.0			
Naphthalene	0.9875 1.0141	0.9789	1.0671	1.0057	0.9876	Ave		1.0068			0.7000	3.2		20.0			
4-Chloroaniline	0.3972 0.3998	0.3610	0.4049	0.3641	0.3883	Ave		0.3859			0.0100	4.9		20.0			
Hexachlorobutadiene	0.1692 0.1826	0.1704	0.1834	0.1792	0.1748	Ave		0.1766			0.0100	3.4		20.0			
4-Chloro-3-methylphenol	0.2421 0.2632	0.2336	0.2539	0.2268	0.2540	Ave		0.2456			0.2000	5.6		20.0			
2-Methylnaphthalene	0.6417 0.6651	0.6188	0.6765	0.6233	0.6451	Ave		0.6451			0.4000	3.5		20.0			
1-Methylnaphthalene	0.6704 0.7017	0.6529	0.7014	0.6660	0.6844	Ave		0.6795				2.9		20.0			
Hexachlorocyclopentadiene	0.3655 0.3836	0.2772	0.3205	0.3665	0.3723	Ave		0.3476			0.0500	12.0		20.0			
1,2,4,5-Tetrachlorobenzene	0.5636 0.5900	0.5809	0.5966	0.6405	0.5864	Ave		0.5930			0.0100	4.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194625

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 19:36 Calibration End Date: 11/26/2013 21:46 Calibration ID: 33175

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-tertbutyl-4-methylphenol	0.4307 0.4666	0.4220	0.4532	0.4172	0.4492	Ave		0.4398				4.4		20.0			
2,4,6-Trichlorophenol	0.3527 0.3826	0.3494	0.3777	0.3817	0.3793	Ave		0.3706			0.2000	4.1		20.0			
2,4,5-Trichlorophenol	0.3724 0.4244	0.3779	0.4102	0.3975	0.4029	Ave		0.3975			0.2000	4.9		20.0			
2-Chloronaphthalene	1.1474 1.1776	1.1266	1.2362	1.2048	1.1585	Ave		1.1752			0.8000	3.4		20.0			
Phenyl ether	0.7771 0.8163	0.7833	0.8351	0.8307	0.7917	Ave		0.8057				3.1		20.0			
2-Nitroaniline	0.3408 0.4165	0.3833	0.4184	0.3866	0.3976	Ave		0.3905			0.0100	7.3		20.0			
1,3-Dimethylnaphthalene	0.9408 0.9874	0.9286	1.0045	1.0137	0.9768	Ave		0.9753				3.5		20.0			
Dimethyl phthalate	1.1951 1.2872	1.2003	1.3183	1.1637	1.2484	Ave		1.2355			0.0100	4.8		20.0			
Coumarin	0.2145 0.2428	0.2258	0.2363	0.1898	0.2351	Ave		0.2241				8.7		20.0			
2,6-Dinitrotoluene	0.2391 0.3008	0.2655	0.2951	0.2615	0.2865	Ave		0.2748			0.2000	8.5		20.0			
Acenaphthylene	1.8584 1.9230	1.7432	1.9217	1.8262	1.8986	Ave		1.8619			0.9000	3.7		20.0			
3-Nitroaniline	0.2975 0.3387	0.3061	0.3418	0.2944	0.3251	Ave		0.3173			0.0100	6.6		20.0			
3,5-di-tert-butyl-4-hydroxytol	0.9760 1.0644	0.9737	1.0795	1.0664	1.0438	Ave		1.0340				4.6		20.0			
Acenaphthene	1.2552 1.1407	1.2167	1.2974	1.1492	1.1500	Ave		1.2015			0.9000	5.4		20.0			
2,4-Dinitrophenol	0.1292 0.1980	0.1514	0.1717	0.1559	0.1882	Ave		0.1657			0.0100	15.0		20.0			
4-Nitrophenol	0.2069 0.2377	0.2298	0.2364	0.2008	0.2376	Ave		0.2249			0.0100	7.4		20.0			
2,4-Dinitrotoluene	0.3358 0.3999	0.3518	0.3988	0.3335	0.3849	Ave		0.3674			0.2000	8.4		20.0			
Dibenzofuran	1.5510 1.6453	1.5668	1.7312	1.5661	1.6033	Ave		1.6106			0.8000	4.2		20.0			
2,3,4,6-Tetrachlorophenol	0.2699 0.3122	0.2837	0.3038	0.2909	0.3224	Ave		0.2972			0.0100	6.5		20.0			
Diethyl phthalate	1.1600 1.3022	1.1903	1.3232	1.0997	1.2628	Ave		1.2230			0.0100	7.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194625

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 19:36 Calibration End Date: 11/26/2013 21:46 Calibration ID: 33175

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
4-Chlorophenyl phenyl ether	0.6022 0.6373	0.6065	0.6649	0.5933	0.6231	Ave		0.6212			0.4000	4.3		20.0			
Fluorene	1.2737 1.3820	1.2837	1.4477	1.2742	1.3522	Ave		1.3356			0.9000	5.3		20.0			
4-Nitroaniline	0.2851 0.3607	0.3175	0.3611	0.2909	0.3562	Ave		0.3286			0.0100	11.0		20.0			
4,6-Dinitro-2-methylphenol	0.1139 0.1455	0.1217	0.1329	0.1329	0.1412	Ave		0.1314			0.0100	9.0		20.0			
N-Nitrosodiphenylamine	0.5503 0.5681	0.5416	0.5614	0.5924	0.5607	Ave		0.5624			0.0100	3.1		20.0			
1,2-Diphenylhydrazine	0.6966 0.7422	0.6974	0.7464	0.7814	0.7093	Ave		0.7289				4.6		20.0			
4-Bromophenyl phenyl ether	0.2040 0.2318	0.2177	0.2389	0.2384	0.2229	Ave		0.2256			0.1000	6.0		20.0			
Hexachlorobenzene	0.2096 0.2473	0.2323	0.2531	0.2490	0.2397	Ave		0.2385			0.1000	6.7		20.0			
Pentachlorophenol	0.1411 0.1668	0.1489	0.1570	0.1567	0.1625	Ave		0.1555			0.0500	6.0		20.0			
Pentachloronitrobenzene	0.0957 0.0972	0.0887	0.1036	0.0938	0.0966	Ave		0.0959				5.0		20.0			
n-Octadecane	0.5520 0.6140	0.5512	0.5989	0.6677	0.5913	Ave		0.5958				7.3		20.0			
Phenanthrene	1.1285 1.1722	1.1267	1.2205	1.1560	1.1407	Ave		1.1574			0.7000	3.1		20.0			
Anthracene	1.1076 1.2132	1.1345	1.2454	1.1711	1.1772	Ave		1.1748			0.7000	4.3		20.0			
Carbazole	0.9687 1.0694	0.9956	1.0903	0.9775	1.0457	Ave		1.0245			0.0100	5.0		20.0			
Di-n-butyl phthalate	1.1454 1.3491	1.1961	1.3406	1.1573	1.3076	Ave		1.2493			0.0100	7.5		20.0			
Fluoranthene	1.1033 1.2777	1.1505	1.3011	1.1206	1.2572	Ave		1.2017			0.6000	7.2		20.0			
Benzidine	0.6954 0.5862	0.7787	0.7124	0.5399	0.6524	Ave		0.6608				13.0		20.0			
Pyrene	1.1027 1.1693	1.1094	1.2305	1.0977	1.1252	Ave		1.1391			0.6000	4.5		20.0			
Butyl benzyl phthalate	0.4835 0.5711	0.5047	0.5725	0.5187	0.5517	Ave		0.5337			0.0100	6.9		20.0			
2,3,7,8-TCDD				0.0571		Ave		0.0571						20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194625

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 19:36 Calibration End Date: 11/26/2013 21:46 Calibration ID: 33175

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbamazepine	0.4394 0.5868	0.4997	0.5558	0.5919	0.5598	Ave		0.5389				11.0		20.0			
3,3'-Dichlorobenzidine	0.4459 0.4564	0.4568	0.4588	0.4856	0.4855	Ave		0.4648			0.0100	3.6		20.0			
Benzo[a]anthracene	1.3034 1.2036	1.1356	1.2406	1.1788	1.1745	Ave		1.2061			0.8000	4.9		20.0			
Bis(2-ethylhexyl) phthalate	0.7665 0.8677	0.7912	0.8848	0.8407	0.8477	Ave		0.8331			0.0100	5.5		20.0			
Chrysene	1.0881 1.1697	1.1350	1.2401	1.1637	1.1468	Ave		1.1572			0.7000	4.3		20.0			
Di-n-octyl phthalate	1.0580 1.2548	1.1305	1.2784	1.2380	1.2660	Ave		1.2043			0.0100	7.4		20.0			
Benzo[b]fluoranthene	0.9446 1.0926	0.9831	1.0526	1.0292	1.0437	Ave		1.0243			0.7000	5.2		20.0			
Benzo[k]fluoranthene	0.9243 1.0711	1.0234	1.1355	1.0881	1.0727	Ave		1.0525			0.7000	6.9		20.0			
Benzo[a]pyrene	0.8202 1.0062	0.9226	1.0170	0.9961	0.9872	Ave		0.9582			0.7000	7.9		20.0			
Indeno[1,2,3-cd]pyrene	0.8417 1.2889	0.9756	1.1173	1.1176	1.0831	Ave		1.0707			0.5000	14.0		20.0			
Dibenz(a,h)anthracene	0.8304 1.2150	0.9987	1.2032	1.1833	1.1390	Ave		1.0949			0.4000	14.0		20.0			
Benzo[g,h,i]perylene	1.0222 1.3092	1.0502	1.2084	1.1950	1.1477	Ave		1.1554			0.5000	9.2		20.0			
2-Fluorophenol (Surr)	1.2044 1.2718	1.2001	1.2970	1.2420	1.2222	Ave		1.2396				3.1		20.0			
Phenol-d5 (Surr)	1.5216 1.5825	1.4877	1.6129	1.4861	1.5167	Ave		1.5346				3.4		20.0			
Nitrobenzene-d5 (Surr)	0.3152 0.3418	0.3193	0.3544	0.3403	0.3328	Ave		0.3340				4.4		20.0			
2-Fluorobiphenyl	1.2976 1.3563	1.2980	1.4298	1.4176	1.3041	Ave		1.3506				4.5		20.0			
2,4,6-Tribromophenol (Surr)	0.1765 0.2204	0.1892	0.2068	0.1822	0.2092	Ave		0.1974				8.8		20.0			
Terphenyl-d14 (Surr)	0.7746 0.8327	0.7770	0.8745	0.7573	0.7963	Ave		0.8020				5.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194625

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 19:36 Calibration End Date: 11/26/2013 21:46 Calibration ID: 33175

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-194625/7	L1144765.D
Level 2	IC 460-194625/6	L1144764.D
Level 3	IC 460-194625/5	L1144763.D
Level 4	ICIS 460-194625/2	L1144760.D
Level 5	IC 460-194625/4	L1144762.D
Level 6	IC 460-194625/3	L1144761.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,4-Dioxane	DCB	Ave	2018 45573	3822	8229	24697	26535	5.00 120	10.0	20.0	50.0	80.0
N-Nitrosodimethylamine	DCB	Lin2	1380 62564	3496	9105	31985	33206	5.00 120	10.0	20.0	50.0	80.0
Pyridine	DCB	Ave	4123 120983	8541	19771	65663	67434	5.00 120	10.0	20.0	50.0	80.0
Phenol	DCB	Ave	6173 149694	11849	24445	78571	84178	5.00 120	10.0	20.0	50.0	80.0
Aniline	DCB	Ave	7591 174071	13192	27620	87702	97376	5.00 120	10.0	20.0	50.0	80.0
Bis(2-chloroethyl)ether	DCB	Ave	394 118486	9158	19797	62769	66476	0.500 120	10.0	20.0	50.0	80.0
2-Chlorophenol	DCB	Ave	5459 130846	10192	21644	69664	74734	5.00 120	10.0	20.0	50.0	80.0
n-Decane	DCB	Ave	7767 179233	14333	30114	103336	104695	5.00 120	10.0	20.0	50.0	80.0
1,3-Dichlorobenzene	DCB	Ave	6315 153725	12150	26046	84114	87897	5.00 120	10.0	20.0	50.0	80.0
1,4-Dichlorobenzene	DCB	Ave	6539 156113	12262	26214	84898	89047	5.00 120	10.0	20.0	50.0	80.0
Benzyl alcohol	DCB	Ave	3298 79540	6214	13179	40280	44461	5.00 120	10.0	20.0	50.0	80.0
1,2-Dichlorobenzene	DCB	Ave	6075 148343	11761	24633	80642	83708	5.00 120	10.0	20.0	50.0	80.0
2-Methylphenol	DCB	Ave	4509 108766	8510	17785	56781	62167	5.00 120	10.0	20.0	50.0	80.0
2,2'-oxybis[1-chloropropane]	DCB	Ave	9795 228328	18442	39147	123372	130799	5.00 120	10.0	20.0	50.0	80.0
3 & 4 Methylphenol	DCB	Ave	5221 126316	9603	20340	63356	70942	5.00 120	10.0	20.0	50.0	80.0
4-Methylphenol	DCB	Ave	5221 126316	9603	20340	63356	70942	5.00 120	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194625

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 19:36 Calibration End Date: 11/26/2013 21:46 Calibration ID: 33175

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
N-Nitrosodi-n-propylamine	DCB	Ave	275 86937	6578	14422	42775	48579	0.500 120	10.0	20.0	50.0	80.0
Hexachloroethane	DCB	Ave	177 57511	4590	9653	31327	33327	0.500 120	10.0	20.0	50.0	80.0
Nitrobenzene	NPT	Ave	668 170080	13028	28276	86580	96166	0.500 120	10.0	20.0	50.0	80.0
n,n'-Dimethylaniline	DCB	Ave	725 193265	14865	31077	97910	109461	0.500 120	10.0	20.0	50.0	80.0
Isophorone	NPT	Ave	8415 205727	15143	32810	94057	115422	5.00 120	10.0	20.0	50.0	80.0
2-Nitrophenol	NPT	Ave	2684 71142	5271	11373	35437	39996	5.00 120	10.0	20.0	50.0	80.0
2,4-Dimethylphenol	NPT	Ave	4702 111868	8800	18459	55625	63878	5.00 120	10.0	20.0	50.0	80.0
Benzoic acid	NPT	Ave	2083 77609	4840	11449	33774	42452	5.00 120	10.0	20.0	50.0	80.0
Bis(2-chloroethoxy)methane	NPT	Ave	5777 139393	10677	23072	68949	79155	5.00 120	10.0	20.0	50.0	80.0
2,4-Dichlorophenol	NPT	Ave	4110 103167	7911	16705	51132	58294	5.00 120	10.0	20.0	50.0	80.0
1,2,4-Trichlorobenzene	NPT	Ave	422 120060	9485	20406	62162	67346	0.500 120	10.0	20.0	50.0	80.0
Naphthalene	NPT	Ave	15758 376803	30268	64826	193759	212869	5.00 120	10.0	20.0	50.0	80.0
4-Chloroaniline	NPT	Ave	6338 148560	11164	24599	70149	83693	5.00 120	10.0	20.0	50.0	80.0
Hexachlorobutadiene	NPT	Ave	540 67835	5270	11141	34516	37667	1.00 120	10.0	20.0	50.0	80.0
4-Chloro-3-methylphenol	NPT	Ave	3863 97791	7222	15423	43688	54738	5.00 120	10.0	20.0	50.0	80.0
2-Methylnaphthalene	NPT	Ave	10240 247131	19135	41096	120077	139056	5.00 120	10.0	20.0	50.0	80.0
1-Methylnaphthalene	NPT	Ave	10697 260739	20190	42609	128302	147509	5.00 120	10.0	20.0	50.0	80.0
Hexachlorocyclopentadiene	ANT	Ave	3064 75964	4420	10180	32712	42234	5.00 120	10.0	20.0	50.0	80.0
1,2,4,5-Tetrachlorobenzene	ANT	Ave	4725 116838	9263	18947	57171	66528	5.00 120	10.0	20.0	50.0	80.0
2-tertbutyl-4-methylphenol	NPT	Ave	6873 173395	13050	27532	80377	96824	5.00 120	10.0	20.0	50.0	80.0
2,4,6-Trichlorophenol	ANT	Ave	2957 75756	5571	11994	34070	43038	5.00 120	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194625

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 19:36 Calibration End Date: 11/26/2013 21:46 Calibration ID: 33175

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,4,5-Trichlorophenol	ANT	Ave	3122 84034	6026	13027	35476	45715	5.00 120	10.0	20.0	50.0	80.0
2-Chloronaphthalene	ANT	Ave	9620 233182	17963	39262	107535	131429	5.00 120	10.0	20.0	50.0	80.0
Phenyl ether	ANT	Ave	6515 161639	12489	26523	74139	89817	5.00 120	10.0	20.0	50.0	80.0
2-Nitroaniline	ANT	Ave	5715 82484	6111	13289	34509	45106	10.0 120	10.0	20.0	50.0	80.0
1,3-Dimethylnaphthalene	ANT	Ave	7888 195521	14806	31901	90480	110820	5.00 120	10.0	20.0	50.0	80.0
Dimethyl phthalate	ANT	Ave	10020 254884	19139	41869	103862	141635	5.00 120	10.0	20.0	50.0	80.0
Coumarin	NPT	Ave	3423 90221	6982	14352	36572	50682	5.00 120	10.0	20.0	50.0	80.0
2,6-Dinitrotoluene	ANT	Ave	401 59563	4233	9372	23342	32505	1.00 120	10.0	20.0	50.0	80.0
Acenaphthylene	ANT	Ave	15581 380803	27795	61031	162998	215399	5.00 120	10.0	20.0	50.0	80.0
3-Nitroaniline	ANT	Ave	4989 67077	4880	10855	26280	36883	10.0 120	10.0	20.0	50.0	80.0
3,5-di-tert-butyl-4-hydroxytol	ANT	Ave	8183 210766	15526	34283	95182	118416	5.00 120	10.0	20.0	50.0	80.0
Acenaphthene	ANT	Ave	10524 225876	19400	41203	102567	130469	5.00 120	10.0	20.0	50.0	80.0
2,4-Dinitrophenol	ANT	Ave	3249 39216	4827	8179	13913	21347	15.0 120	20.0	30.0	50.0	80.0
4-Nitrophenol	ANT	Ave	5204 47066	7327	11261	17920	26957	15.0 120	20.0	30.0	50.0	80.0
2,4-Dinitrotoluene	ANT	Ave	563 79184	5610	12664	29764	43667	1.00 120	10.0	20.0	50.0	80.0
Dibenzofuran	ANT	Ave	13004 325808	24983	54981	139776	181902	5.00 120	10.0	20.0	50.0	80.0
2,3,4,6-Tetrachlorophenol	ANT	Ave	2263 61832	4524	9649	25965	36577	5.00 120	10.0	20.0	50.0	80.0
Diethyl phthalate	ANT	Ave	9726 257860	18979	42025	98149	143269	5.00 120	10.0	20.0	50.0	80.0
4-Chlorophenyl phenyl ether	ANT	Ave	5049 126196	9670	21116	52958	70690	5.00 120	10.0	20.0	50.0	80.0
Fluorene	ANT	Ave	10679 273659	20468	45979	113728	153407	5.00 120	10.0	20.0	50.0	80.0
4-Nitroaniline	ANT	Ave	4780 71428	5063	11467	25960	40416	10.0 120	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194625

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 19:36 Calibration End Date: 11/26/2013 21:46 Calibration ID: 33175

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
4,6-Dinitro-2-methylphenol	PHN	Ave	4565 48107	6404	10631	16774	26995	15.0 120	20.0	30.0	50.0	80.0
N-Nitrosodiphenylamine	PHN	Ave	7352 187865	14253	29935	74748	107163	5.00 120	10.0	20.0	50.0	80.0
1,2-Diphenylhydrazine	PHN	Ave	9306 245426	18355	39798	98604	135576	5.00 120	10.0	20.0	50.0	80.0
4-Bromophenyl phenyl ether	PHN	Ave	2726 76644	5730	12740	30086	42610	5.00 120	10.0	20.0	50.0	80.0
Hexachlorobenzene	PHN	Ave	280 81779	6114	13496	31419	45811	0.500 120	10.0	20.0	50.0	80.0
Pentachlorophenol	PHN	Ave	5655 55157	7840	12557	19772	31051	15.0 120	20.0	30.0	50.0	80.0
Pentachloronitrobenzene	PHN	Ave	1278 32127	4670	5522	11839	18462	5.00 120	20.0	20.0	50.0	80.0
n-Octadecane	PHN	Ave	7374 203044	14507	31933	84247	113009	5.00 120	10.0	20.0	50.0	80.0
Phenanthrene	PHN	Ave	15076 387629	29652	65081	145869	218020	5.00 120	10.0	20.0	50.0	80.0
Anthracene	PHN	Ave	14797 401185	29857	66409	147770	224997	5.00 120	10.0	20.0	50.0	80.0
Carbazole	PHN	Ave	12942 353625	26201	58138	123346	199873	5.00 120	10.0	20.0	50.0	80.0
Di-n-butyl phthalate	PHN	Ave	15303 446119	31478	71485	146027	249925	5.00 120	10.0	20.0	50.0	80.0
Fluoranthene	PHN	Ave	14740 422524	30278	69377	141395	240292	5.00 120	10.0	20.0	50.0	80.0
Benzidine	PHN	Ave	9290 193842	40987	56984	68128	124690	5.00 120	20.0	30.0	50.0	80.0
Pyrene	CRY	Ave	15001 430850	31696	69836	142231	243026	5.00 120	10.0	20.0	50.0	80.0
Butyl benzyl phthalate	CRY	Ave	6577 210446	14419	32490	67208	119164	5.00 120	10.0	20.0	50.0	80.0
2,3,7,8-TCDD	CRY	Ave				74					0.500	
Carbamazepine	CRY	Ave	5977 216225	14276	31546	76687	120906	5.00 120	10.0	20.0	50.0	80.0
3,3'-Dichlorobenzidine	CRY	Ave	12132 168174	26104	39057	62916	104868	10.0 120	20.0	30.0	50.0	80.0
Benzo[a]anthracene	CRY	Ave	1773 443485	32444	70408	152729	253676	0.500 120	10.0	20.0	50.0	80.0
Bis(2-ethylhexyl) phthalate	CRY	Ave	10427 319738	22604	50217	108928	183084	5.00 120	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194625

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 19:36 Calibration End Date: 11/26/2013 21:46 Calibration ID: 33175

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Chrysene	CRY	Ave	14802 430987	32427	70383	150776	247678	5.00 120	10.0	20.0	50.0	80.0
Di-n-octyl phthalate	PRY	Ave	17787 575085	38988	87124	208694	325055	5.00 120	10.0	20.0	50.0	80.0
Benzo[b]fluoranthene	PRY	Ave	1588 500745	33905	71739	173499	267980	0.500 120	10.0	20.0	50.0	80.0
Benzo[k]fluoranthene	PRY	Ave	1554 490884	35294	77391	183437	275424	0.500 120	10.0	20.0	50.0	80.0
Benzo[a]pyrene	PRY	Ave	1379 461146	31819	69313	167916	253462	0.500 120	10.0	20.0	50.0	80.0
Indeno[1,2,3-cd]pyrene	PRY	Ave	1415 590726	33647	76150	188408	278079	0.500 120	10.0	20.0	50.0	80.0
Dibenz(a,h)anthracene	PRY	Ave	1396 556838	34442	81999	199475	292432	0.500 120	10.0	20.0	50.0	80.0
Benzo[g,h,i]perylene	PRY	Ave	17185 600012	36219	82357	201458	294665	5.00 120	10.0	20.0	50.0	80.0
2-Fluorophenol (Surr)	DCB	Ave	4986 121055	9331	19815	65175	67692	5.00 120	10.0	20.0	50.0	80.0
Phenol-d5 (Surr)	DCB	Ave	6299 150624	11568	24641	77989	84003	5.00 120	10.0	20.0	50.0	80.0
Nitrobenzene-d5 (Surr)	NPT	Ave	5029 127003	9872	21528	65562	71739	5.00 120	10.0	20.0	50.0	80.0
2-Fluorobiphenyl	ANT	Ave	10879 268570	20696	45409	126526	147957	5.00 120	10.0	20.0	50.0	80.0
2,4,6-Tribromophenol (Surr)	ANT	Ave	1480 43652	3017	6569	16265	23733	5.00 120	10.0	20.0	50.0	80.0
Terphenyl-d14 (Surr)	CRY	Ave	10537 306810	22199	49630	98117	171991	5.00 120	10.0	20.0	50.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194625

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 22:12 Calibration End Date: 11/27/2013 00:21 Calibration ID: 33180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-194625/13	L1144771.D
Level 2	IC 460-194625/12	L1144770.D
Level 3	IC 460-194625/11	L1144769.D
Level 4	IC 460-194625/8	L1144766.D
Level 5	IC 460-194625/10	L1144768.D
Level 6	IC 460-194625/9	L1144767.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzaldehyde	0.9895 1.0066	0.9846	1.0209	1.0280	1.0395	Ave		1.0115			0.0100	2.2		20.0			
Acetophenone	1.6321 1.6283	1.6242	1.6728	1.6883	1.6840	Ave		1.6549			0.0100	1.8		20.0			
Caprolactam	0.0771 0.0876	0.0794	0.0792	0.0929	0.0955	Ave		0.0853			0.0100	9.1		20.0			
1,1'-Biphenyl	1.5667 1.4625	1.5079	1.6074	1.5189	1.5010	Ave		1.5274			0.0100	3.4		20.0			
Atrazine	0.1663 0.1913	0.1829	0.1872	0.1993	0.1997	Ave		0.1878			0.0100	6.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 194625

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2013 22:12 Calibration End Date: 11/27/2013 00:21 Calibration ID: 33180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-194625/13	L1144771.D
Level 2	IC 460-194625/12	L1144770.D
Level 3	IC 460-194625/11	L1144769.D
Level 4	IC 460-194625/8	L1144766.D
Level 5	IC 460-194625/10	L1144768.D
Level 6	IC 460-194625/9	L1144767.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Benzaldehyde	DCB	Ave	3479 93601	7975	20692	40119	67292	5.00 120	10.0	20.0	50.0	80.0
Acetophenone	DCB	Ave	5738 151416	13156	33903	65884	109020	5.00 120	10.0	20.0	50.0	80.0
Caprolactam	NPT	Ave	1082 33010	2506	6158	14629	24974	5.00 120	10.0	20.0	50.0	80.0
1,1'-Biphenyl	ANT	Ave	11206 282035	24451	61070	127581	207201	5.00 120	10.0	20.0	50.0	80.0
Atrazine	PHN	Ave	1947 61414	4802	10593	28622	46976	5.00 120	10.0	20.0	50.0	80.0

Curve Type Legend:

Ave = Average ISTD

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 197830

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2013 10:10 Calibration End Date: 12/15/2013 12:19 Calibration ID: 33723

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-197830/7	L1145438.D
Level 2	IC 460-197830/6	L1145437.D
Level 3	IC 460-197830/5	L1145436.D
Level 4	ICIS 460-197830/2	L1145433.D
Level 5	IC 460-197830/4	L1145435.D
Level 6	IC 460-197830/3	L1145434.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.5036 0.5229	0.4488	0.4958	0.4987	0.4932	Ave		0.4938				5.0		20.0			
N-Nitrosodimethylamine	0.5992 0.7023	0.6094	0.6173	0.6509	0.6426	Ave		0.6370				5.9		20.0			
Pyridine	0.9530 1.2299	1.0203	1.1380	1.1947	1.1731	Ave		1.1182				9.7		20.0			
Phenol	1.4633 1.4601	1.4190	1.5340	1.4519	1.3807	Ave		1.4515			0.8000	3.5		20.0			
Aniline	1.8053 1.6721	1.5744	1.7453	1.6131	1.6309	Ave		1.6735				5.2		20.0			
Bis(2-chloroethyl)ether	1.2358 1.2177	1.1289	1.2991	1.2092	1.1738	Ave		1.2107			0.7000	4.8		20.0			
2-Chlorophenol	1.3083 1.2175	1.2457	1.3541	1.2935	1.2192	Ave		1.2730			0.8000	4.3		20.0			
n-Decane	2.2928 2.4243	2.2379	2.3528	2.4260	2.3696	Ave		2.3506				3.2		20.0			
1,3-Dichlorobenzene	1.5926 1.6210	1.5732	1.7124	1.6570	1.5948	Ave		1.6252				3.2		20.0			
1,4-Dichlorobenzene	1.5821 1.6515	1.5787	1.7194	1.6731	1.5968	Ave		1.6336				3.5		20.0			
Benzyl alcohol	0.7160 0.7262	0.7487	0.8198	0.7363	0.7065	Ave		0.7422				5.5		20.0			
1,2-Dichlorobenzene	1.4957 1.5306	1.5127	1.6250	1.5705	1.5006	Ave		1.5392				3.2		20.0			
2-Methylphenol	1.0688 1.0016	1.0503	1.1638	1.0585	0.9814	Ave		1.0540			0.7000	6.0		20.0			
2,2'-oxybis[1-chloropropane]	2.7471 2.7811	2.7201	2.9986	2.8429	2.7167	Ave		2.8011			0.0100	3.8		20.0			
3 & 4 Methylphenol	1.2052 1.1098	1.1602	1.2845	1.1709	1.0896	Ave		1.1700				6.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 197830

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2013 10:10 Calibration End Date: 12/15/2013 12:19 Calibration ID: 33723

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
4-Methylphenol	1.2052 1.1048	1.1602	1.2845	1.1709	1.0896	Ave		1.1692			0.6000	6.1		20.0			
N-Nitrosodi-n-propylamine	0.8024 0.8342	0.8457	0.9248	0.8782	0.8064	Ave		0.8486			0.5000	5.5		20.0			
Hexachloroethane	0.5953 0.6559	0.6069	0.6847	0.6670	0.6377	Ave		0.6412			0.3000	5.4		20.0			
Nitrobenzene	0.5043 0.5222	0.4927	0.5273	0.5052	0.5013	Ave		0.5088			0.2000	2.6		20.0			
n,n'-Dimethylaniline	1.7287 1.8345	1.7817	1.9228	1.8057	1.7897	Ave		1.8105				3.6		20.0			
Isophorone	0.5694 0.5614	0.5350	0.5966	0.5524	0.5542	Ave		0.5615			0.4000	3.7		20.0			
2-Nitrophenol	0.1710 0.1887	0.1714	0.1867	0.1881	0.1833	Ave		0.1815			0.1000	4.5		20.0			
2,4-Dimethylphenol	0.2870 0.2820	0.2851	0.3038	0.2930	0.2793	Ave		0.2883			0.2000	3.1		20.0			
Bis(2-chloroethoxy)methane	0.3747 0.3917	0.3760	0.4157	0.3898	0.3823	Ave		0.3884			0.3000	3.9		20.0			
Benzoic acid	+++++ 0.1593	0.0400	0.0803	0.1226	0.1365	Lin2	-1.209	0.1539			0.0100				0.9900		0.9900
2,4-Dichlorophenol	0.2768 0.2723	0.2693	0.2979	0.2839	0.2698	Ave		0.2783			0.2000	4.0		20.0			
1,2,4-Trichlorobenzene	0.3269 0.3667	0.3543	0.3780	0.3629	0.3506	Ave		0.3566				4.9		20.0			
Naphthalene	1.0446 1.0502	1.0179	1.0962	1.0584	1.0278	Ave		1.0492			0.7000	2.6		20.0			
4-Chloroaniline	0.3806 0.3693	0.3501	0.4065	0.3652	0.3544	Ave		0.3710			0.0100	5.5		20.0			
Hexachlorobutadiene	0.2211 0.2388	0.2109	0.2422	0.2294	0.2269	Ave		0.2282			0.0100	5.0		20.0			
4-Chloro-3-methylphenol	0.2434 0.2461	0.2419	0.2752	0.2529	0.2378	Ave		0.2495			0.2000	5.4		20.0			
2-Methylnaphthalene	0.6552 0.6470	0.6414	0.6951	0.6536	0.6267	Ave		0.6532			0.4000	3.5		20.0			
1-Methylnaphthalene	0.6769 0.6666	0.6720	0.7190	0.6960	0.6521	Ave		0.6805				3.5		20.0			
Hexachlorocyclopentadiene	0.2772 0.4597	0.2352	0.2901	0.3526	0.4269	QuaF		0.2971	0.0014		0.0500				0.9980		0.9900
1,2,4,5-Tetrachlorobenzene	0.6604 0.6920	0.6588	0.6982	0.6983	0.7026	Ave		0.6851			0.0100	2.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 197830

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2013 10:10 Calibration End Date: 12/15/2013 12:19 Calibration ID: 33723

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-tertbutyl-4-methylphenol	0.4418 0.4182	0.4232	0.4728	0.4361	0.4092	Ave		0.4336				5.2		20.0			
2,4,6-Trichlorophenol	0.3344 0.3820	0.3417	0.3720	0.3891	0.3837	Ave		0.3672			0.2000	6.3		20.0			
2,4,5-Trichlorophenol	0.3463 0.3874	0.3679	0.4014	0.3909	0.3786	Ave		0.3787			0.2000	5.2		20.0			
2-Chloronaphthalene	1.1476 1.1804	1.1301	1.1924	1.1992	1.1750	Ave		1.1708			0.8000	2.3		20.0			
Phenyl ether	0.7815 0.8379	0.7683	0.8662	0.8460	0.8346	Ave		0.8224				4.7		20.0			
2-Nitroaniline	0.3472 0.3293	0.3707	0.4070	0.4035	0.3962	Ave		0.3757			0.0100	8.6		20.0			
1,3-Dimethylnaphthalene	0.9471 0.9614	0.9236	0.9825	0.9880	0.9815	Ave		0.9640				2.6		20.0			
Dimethyl phthalate	1.0208 1.1042	1.0898	1.1873	1.1438	1.0805	Ave		1.1044			0.0100	5.2		20.0			
Coumarin	0.1699 0.1717	0.1807	0.1951	0.1889	0.1651	Ave		0.1786				6.6		20.0			
2,6-Dinitrotoluene	0.2194 0.2667	0.2544	0.2786	0.2779	0.2631	Ave		0.2600			0.2000	8.4		20.0			
Acenaphthylene	1.7540 1.7477	1.6751	1.7825	1.7278	1.7333	Ave		1.7367			0.9000	2.1		20.0			
3-Nitroaniline	0.2295 0.2478	0.2445	0.2568	0.2565	0.2365	Ave		0.2453			0.0100	4.4		20.0			
3,5-di-tert-butyl-4-hydroxytol	1.0372 1.0727	1.0688	1.1274	1.1199	1.0840	Ave		1.0850				3.1		20.0			
Acenaphthene	1.0606 1.0766	1.0737	1.1043	1.0962	1.0736	Ave		1.0808			0.9000	1.5		20.0			
2,4-Dinitrophenol	0.0530 0.1374	0.0896	0.1059	0.1247	0.1259	Lin2	-1.335	0.1485			0.0100				0.9960		0.9900
4-Nitrophenol	0.1256 0.1689	0.1562	0.1661	0.1801	0.1642	Ave		0.1602			0.0100	12.0		20.0			
2,4-Dinitrotoluene	0.2965 0.3132	0.3102	0.3404	0.3426	0.3079	Ave		0.3185			0.2000	5.9		20.0			
Dibenzofuran	1.5590 1.5367	1.5300	1.6789	1.5946	1.5372	Ave		1.5727			0.8000	3.6		20.0			
2,3,4,6-Tetrachlorophenol	0.2232 0.2706	0.2719	0.2825	0.3073	0.2878	Ave		0.2739			0.0100	10.0		20.0			
Diethyl phthalate	0.9977 1.0137	1.0385	1.1142	1.1003	0.9954	Ave		1.0433			0.0100	5.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 197830

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2013 10:10 Calibration End Date: 12/15/2013 12:19 Calibration ID: 33723

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Fluorene	1.2193 1.2199	1.2389	1.3291	1.2807	1.1977	Ave		1.2476			0.9000	3.9		20.0			
4-Chlorophenyl phenyl ether	0.5962 0.5902	0.6155	0.6348	0.6079	0.5783	Ave		0.6038			0.4000	3.3		20.0			
4-Nitroaniline	0.1923 0.2084	0.2261	0.2390	0.2174	0.2002	Ave		0.2139			0.0100	8.0		20.0			
4,6-Dinitro-2-methylphenol	0.0923 0.1354	0.1134	0.1161	0.1334	0.1312	Ave		0.1203			0.0100	14.0		20.0			
N-Nitrosodiphenylamine	0.5302 0.5839	0.5389	0.5583	0.5730	0.5724	Ave		0.5595			0.0100	3.8		20.0			
1,2-Diphenylhydrazine	0.7849 0.8486	0.7448	0.8305	0.8124	0.8312	Ave		0.8087				4.7		20.0			
4-Bromophenyl phenyl ether	0.2290 0.2577	0.2340	0.2547	0.2493	0.2508	Ave		0.2459			0.1000	4.7		20.0			
Hexachlorobenzene	0.2050 0.2630	0.2358	0.2745	0.2549	0.2572	Ave		0.2484			0.1000	10.0		20.0			
Pentachlorophenol	0.0898 0.1403	0.1045	0.1177	0.1348	0.1350	Ave		0.1204			0.0500	17.0		20.0			
Pentachloronitrobenzene	0.1033 0.0987	0.0949	0.1151	0.1042	0.1015	Ave		0.1030				6.6		20.0			
n-Octadecane	0.6523 0.8157	0.6675	0.7552	0.7575	0.8030	Ave		0.7419				9.2		20.0			
Phenanthrene	1.1150 1.1032	1.0905	1.1842	1.1377	1.1020	Ave		1.1221			0.7000	3.1		20.0			
Anthracene	1.1162 1.1354	1.0748	1.2098	1.1549	1.1161	Ave		1.1345			0.7000	4.0		20.0			
Carbazole	0.8287 0.8911	0.8881	0.9548	0.9373	0.8925	Ave		0.8988			0.0100	4.9		20.0			
Di-n-butyl phthalate	0.9186 1.0732	1.0161	1.1398	1.1320	1.0568	Ave		1.0561			0.0100	7.8		20.0			
Fluoranthene	0.9562 1.0196	1.0392	1.1097	1.1198	1.0283	Ave		1.0455			0.6000	5.8		20.0			
Benzidine	0.5142 0.4055	0.5708	0.5533	0.4736	0.4594	Ave		0.4961				12.0		20.0			
Pyrene	1.4516 1.1929	1.2777	1.3407	1.1612	1.1792	Ave		1.2672			0.6000	8.9		20.0			
Butyl benzyl phthalate	0.4784 0.5176	0.4792	0.5425	0.4921	0.5046	Ave		0.5024			0.0100	4.9		20.0			
2,3,7,8-TCDD				0.1494		Ave		0.1494						20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 197830

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2013 10:10 Calibration End Date: 12/15/2013 12:19 Calibration ID: 33723

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbamazepine	0.4605 0.5694	0.4486	0.5460	0.5569	0.5718	Ave		0.5255				11.0		20.0			
3,3'-Dichlorobenzidine	0.4914 0.4623	0.4454	0.4621	0.4883	0.5067	Ave		0.4760			0.0100	4.8		20.0			
Benzo[a]anthracene	1.3813 1.2073	1.1593	1.2330	1.1967	1.1806	Ave		1.2264			0.8000	6.5		20.0			
Chrysene	1.1244 1.1747	1.1189	1.2220	1.1976	1.1782	Ave		1.1693			0.7000	3.5		20.0			
Bis(2-ethylhexyl) phthalate	0.7437 0.7389	0.7400	0.8085	0.7210	0.7162	Ave		0.7447			0.0100	4.5		20.0			
Di-n-octyl phthalate	1.2943 0.9937	1.2225	1.2655	1.1407	0.9576	Ave		1.1457			0.0100	12.0		20.0			
Benzo[b]fluoranthene	0.8792 0.9964	0.9518	1.0219	1.0728	0.9697	Ave		0.9820			0.7000	6.7		20.0			
Benzo[k]fluoranthene	1.0154 1.0508	1.0314	1.1658	1.0739	1.0064	Ave		1.0573			0.7000	5.5		20.0			
Benzo[a]pyrene	0.8558 1.0080	0.9343	1.0264	1.0067	0.9721	Ave		0.9672			0.7000	6.6		20.0			
Indeno[1,2,3-cd]pyrene	1.0693 1.4305	1.0708	1.2331	1.2662	1.3459	Ave		1.2360			0.5000	12.0		20.0			
Dibenz(a,h)anthracene	1.1138 1.3792	1.2030	1.3245	1.2816	1.3058	Ave		1.2680			0.4000	7.5		20.0			
Benzo[g,h,i]perylene	1.2168 1.4521	1.1936	1.3456	1.3360	1.4071	Ave		1.3252			0.5000	7.7		20.0			
2-Fluorophenol	1.1820 1.1198	1.1442	1.2275	1.1844	1.0831	Ave		1.1568				4.5		20.0			
Phenol-d5	1.4918 1.3731	1.4164	1.5404	1.4439	1.3286	Ave		1.4324				5.4		20.0			
Nitrobenzene-d5	0.3749 0.3938	0.3780	0.4062	0.3890	0.3789	Ave		0.3868				3.1		20.0			
2-Fluorobiphenyl	1.3281 1.4298	1.3315	1.4763	1.4299	1.3992	Ave		1.3991				4.2		20.0			
2,4,6-Tribromophenol	0.1570 0.1746	0.1633	0.1737	0.1804	0.1662	Ave		0.1692				5.1		20.0			
Terphenyl-d14	0.9286 0.7894	0.8528	0.8931	0.7899	0.7776	Ave		0.8385				7.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 197830

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2013 10:10 Calibration End Date: 12/15/2013 12:19 Calibration ID: 33723

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-197830/7	L1145438.D
Level 2	IC 460-197830/6	L1145437.D
Level 3	IC 460-197830/5	L1145436.D
Level 4	ICIS 460-197830/2	L1145433.D
Level 5	IC 460-197830/4	L1145435.D
Level 6	IC 460-197830/3	L1145434.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,4-Dioxane	DCB	Ave	6590 172360	10013	20845	51070	96805	5.00 120	10.0	20.0	50.0	80.0
N-Nitrosodimethylamine	DCB	Ave	7840 231493	13598	25953	66654	126149	5.00 120	10.0	20.0	50.0	80.0
Pyridine	DCB	Ave	12470 405406	22766	47841	122332	230278	5.00 120	10.0	20.0	50.0	80.0
Phenol	DCB	Ave	19147 481300	31662	64489	148673	271019	5.00 120	10.0	20.0	50.0	80.0
Aniline	DCB	Ave	23623 551176	35129	73372	165177	320141	5.00 120	10.0	20.0	50.0	80.0
Bis(2-chloroethyl)ether	DCB	Ave	1617 401379	25188	54615	123820	230405	0.500 120	10.0	20.0	50.0	80.0
2-Chlorophenol	DCB	Ave	17119 401321	27794	56927	132449	239320	5.00 120	10.0	20.0	50.0	80.0
n-Decane	DCB	Ave	30001 799125	49934	98912	248417	465141	5.00 120	10.0	20.0	50.0	80.0
1,3-Dichlorobenzene	DCB	Ave	20840 534345	35103	71989	169674	313059	5.00 120	10.0	20.0	50.0	80.0
1,4-Dichlorobenzene	DCB	Ave	20702 544401	35226	72285	171324	313447	5.00 120	10.0	20.0	50.0	80.0
Benzyl alcohol	DCB	Ave	9369 239375	16706	34464	75392	138678	5.00 120	10.0	20.0	50.0	80.0
1,2-Dichlorobenzene	DCB	Ave	19571 504522	33753	68316	160815	294568	5.00 120	10.0	20.0	50.0	80.0
2-Methylphenol	DCB	Ave	13985 330146	23434	48927	108386	192644	5.00 120	10.0	20.0	50.0	80.0
2,2'-oxybis[1-chloropropane]	DCB	Ave	35946 916721	60692	126063	291103	533268	5.00 120	10.0	20.0	50.0	80.0
3 & 4 Methylphenol	DCB	Ave	15770 365832	25887	54002	119896	213879	5.00 120	10.0	20.0	50.0	80.0
4-Methylphenol	DCB	Ave	15770 364176	25887	54002	119896	213879	5.00 120	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 197830

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2013 10:10 Calibration End Date: 12/15/2013 12:19 Calibration ID: 33723

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
N-Nitrosodi-n-propylamine	DCB	Ave	1050 274976	18869	38877	89926	158289	0.500 120	10.0	20.0	50.0	80.0
Hexachloroethane	DCB	Ave	779 216192	13541	28785	68303	125173	0.500 120	10.0	20.0	50.0	80.0
Nitrobenzene	NPT	Ave	2285 576863	38566	78442	179710	330233	0.500 120	10.0	20.0	50.0	80.0
n,n'-Dimethylaniline	DCB	Ave	2262 604705	39755	80836	184893	351320	0.500 120	10.0	20.0	50.0	80.0
Isophorone	NPT	Ave	25798 620200	41874	88748	196504	365077	5.00 120	10.0	20.0	50.0	80.0
2-Nitrophenol	NPT	Ave	7748 208400	13414	27768	66895	120771	5.00 120	10.0	20.0	50.0	80.0
2,4-Dimethylphenol	NPT	Ave	13002 311483	22319	45186	104231	183949	5.00 120	10.0	20.0	50.0	80.0
Bis(2-chloroethoxy)methane	NPT	Ave	16976 432670	29428	61846	138677	251850	5.00 120	10.0	20.0	50.0	80.0
Benzoic acid	NPT	Lin2	+++++ 176021	3129	11952	43611	89921	+++++ 120	10.0	20.0	50.0	80.0
2,4-Dichlorophenol	NPT	Ave	12540 300792	21077	44309	100979	177732	5.00 120	10.0	20.0	50.0	80.0
1,2,4-Trichlorobenzene	NPT	Ave	1481 405117	27729	56226	129099	230936	0.500 120	10.0	20.0	50.0	80.0
Naphthalene	NPT	Ave	47333 1160066	79669	163074	376507	677060	5.00 120	10.0	20.0	50.0	80.0
4-Chloroaniline	NPT	Ave	17243 407896	27399	60467	129924	233419	5.00 120	10.0	20.0	50.0	80.0
Hexachlorobutadiene	NPT	Ave	2004 263811	16504	36022	81598	149449	1.00 120	10.0	20.0	50.0	80.0
4-Chloro-3-methylphenol	NPT	Ave	11030 271881	18931	40935	89974	156612	5.00 120	10.0	20.0	50.0	80.0
2-Methylnaphthalene	NPT	Ave	29686 714667	50203	103406	232515	412845	5.00 120	10.0	20.0	50.0	80.0
1-Methylnaphthalene	NPT	Ave	30671 736386	52602	106965	247583	429585	5.00 120	10.0	20.0	50.0	80.0
Hexachlorocyclopentadiene	ANT	QuaF	6709 249128	9761	23260	62851	135171	5.00 120	10.0	20.0	50.0	80.0
1,2,4,5-Tetrachlorobenzene	ANT	Ave	15981 375051	27345	55982	124485	222453	5.00 120	10.0	20.0	50.0	80.0
2-tertbutyl-4-methylphenol	NPT	Ave	20019 461917	33122	70338	155140	269564	5.00 120	10.0	20.0	50.0	80.0
2,4,6-Trichlorophenol	ANT	Ave	8093 207008	14185	29830	69363	121491	5.00 120	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 197830

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2013 10:10 Calibration End Date: 12/15/2013 12:19 Calibration ID: 33723

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,4,5-Trichlorophenol	ANT	Ave	8379 209964	15272	32183	69692	119859	5.00 120	10.0	20.0	50.0	80.0
2-Chloronaphthalene	ANT	Ave	27771 639731	46908	95607	213786	372028	5.00 120	10.0	20.0	50.0	80.0
Phenyl ether	ANT	Ave	18910 454133	31891	69451	150815	264251	5.00 120	10.0	20.0	50.0	80.0
2-Nitroaniline	ANT	Ave	16804 178447	15388	32631	71938	125449	10.0 120	10.0	20.0	50.0	80.0
1,3-Dimethylnaphthalene	ANT	Ave	22918 521069	38337	78774	176133	310758	5.00 120	10.0	20.0	50.0	80.0
Dimethyl phthalate	ANT	Ave	24703 598428	45234	95198	203910	342090	5.00 120	10.0	20.0	50.0	80.0
Coumarin	NPT	Ave	7698 189707	14147	29030	67207	108742	5.00 120	10.0	20.0	50.0	80.0
2,6-Dinitrotoluene	ANT	Ave	1062 144520	10560	22335	49536	83292	1.00 120	10.0	20.0	50.0	80.0
Acenaphthylene	ANT	Ave	42443 947218	69530	142918	308031	548787	5.00 120	10.0	20.0	50.0	80.0
3-Nitroaniline	ANT	Ave	11109 134299	10148	20592	45734	74884	10.0 120	10.0	20.0	50.0	80.0
3,5-di-tert-butyl-4-hydroxytol	ANT	Ave	25098 581390	44364	90393	199655	343205	5.00 120	10.0	20.0	50.0	80.0
Acenaphthene	ANT	Ave	25665 583473	44566	88544	195420	339915	5.00 120	10.0	20.0	50.0	80.0
2,4-Dinitrophenol	ANT	Lin2	3846 74445	7441	12734	22222	39875	15.0 120	20.0	30.0	50.0	80.0
4-Nitrophenol	ANT	Ave	9118 91546	12969	19974	32108	51975	15.0 120	20.0	30.0	50.0	80.0
2,4-Dinitrotoluene	ANT	Ave	1435 169729	12874	27292	61074	97494	1.00 120	10.0	20.0	50.0	80.0
Dibenzofuran	ANT	Ave	37726 832823	63506	134610	284274	486692	5.00 120	10.0	20.0	50.0	80.0
2,3,4,6-Tetrachlorophenol	ANT	Ave	5401 146643	11285	22651	54779	91121	5.00 120	10.0	20.0	50.0	80.0
Diethyl phthalate	ANT	Ave	24144 549392	43104	89336	196149	315152	5.00 120	10.0	20.0	50.0	80.0
Fluorene	ANT	Ave	29506 661153	51425	106563	228320	379219	5.00 120	10.0	20.0	50.0	80.0
4-Chlorophenyl phenyl ether	ANT	Ave	14427 319850	25547	50896	108377	183106	5.00 120	10.0	20.0	50.0	80.0
4-Nitroaniline	ANT	Ave	9305 112938	9383	19160	38762	63381	10.0 120	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 197830

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2013 10:10 Calibration End Date: 12/15/2013 12:19 Calibration ID: 33723

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
4,6-Dinitro-2-methylphenol	PHN	Ave	9345 94170	13676	19627	33556	53207	15.0 120	20.0	30.0	50.0	80.0
N-Nitrosodiphenylamine	PHN	Ave	17895 406010	32491	62915	144124	232143	5.00 120	10.0	20.0	50.0	80.0
1,2-Diphenylhydrazine	PHN	Ave	26492 590098	44906	93586	204336	337101	5.00 120	10.0	20.0	50.0	80.0
4-Bromophenyl phenyl ether	PHN	Ave	7730 179193	14107	28699	62696	101715	5.00 120	10.0	20.0	50.0	80.0
Hexachlorobenzene	PHN	Ave	692 182923	14215	30930	64104	104297	0.500 120	10.0	20.0	50.0	80.0
Pentachlorophenol	PHN	Ave	9097 97578	12606	19892	33911	54758	15.0 120	20.0	30.0	50.0	80.0
Pentachloronitrobenzene	PHN	Ave	3488 68670	11447	12971	26205	41181	5.00 120	20.0	20.0	50.0	80.0
n-Octadecane	PHN	Ave	22015 567237	40247	85098	190516	325637	5.00 120	10.0	20.0	50.0	80.0
Phenanthrene	PHN	Ave	37635 767198	65748	133439	286146	446928	5.00 120	10.0	20.0	50.0	80.0
Anthracene	PHN	Ave	37673 789591	64798	136328	290463	452626	5.00 120	10.0	20.0	50.0	80.0
Carbazole	PHN	Ave	27970 619675	53545	107594	235739	361957	5.00 120	10.0	20.0	50.0	80.0
Di-n-butyl phthalate	PHN	Ave	31004 746306	61262	128435	284710	428585	5.00 120	10.0	20.0	50.0	80.0
Fluoranthene	PHN	Ave	32275 709015	62654	125039	281649	417020	5.00 120	10.0	20.0	50.0	80.0
Benzidine	PHN	Ave	17357 282003	68822	93525	119116	186324	5.00 120	20.0	30.0	50.0	80.0
Pyrene	CRY	Ave	32063 711388	62568	127728	287617	417004	5.00 120	10.0	20.0	50.0	80.0
Butyl benzyl phthalate	CRY	Ave	10567 308711	23468	51685	121899	178433	5.00 120	10.0	20.0	50.0	80.0
2,3,7,8-TCDD	CRY	Ave				370					0.500	
Carbamazepine	CRY	Ave	10172 339565	21966	52021	137946	202215	5.00 120	10.0	20.0	50.0	80.0
3,3'-Dichlorobenzidine	CRY	Ave	21709 275692	43627	66029	120939	179183	10.0 120	20.0	30.0	50.0	80.0
Benzo[a]anthracene	CRY	Ave	3051 719978	56774	117469	296412	417518	0.500 120	10.0	20.0	50.0	80.0
Chrysene	CRY	Ave	24835 700582	54792	116421	296622	416647	5.00 120	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 197830

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2013 10:10 Calibration End Date: 12/15/2013 12:19 Calibration ID: 33723

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	16427 440653	36240	77024	178589	253261	5.00 120	10.0	20.0	50.0	80.0
Di-n-octyl phthalate	PRY	Ave	34316 851869	69701	146399	358782	505299	5.00 120	10.0	20.0	50.0	80.0
Benzo[b]fluoranthene	PRY	Ave	2331 854252	54270	118213	337423	511676	0.500 120	10.0	20.0	50.0	80.0
Benzo[k]fluoranthene	PRY	Ave	2692 900846	58805	134862	337765	531047	0.500 120	10.0	20.0	50.0	80.0
Benzo[a]pyrene	PRY	Ave	2269 864200	53270	118735	316624	512920	0.500 120	10.0	20.0	50.0	80.0
Indeno[1,2,3-cd]pyrene	PRY	Ave	2835 1226393	61053	142650	398254	710175	0.500 120	10.0	20.0	50.0	80.0
Dibenz(a,h)anthracene	PRY	Ave	2953 1182429	68587	153219	403087	688993	0.500 120	10.0	20.0	50.0	80.0
Benzo[g,h,i]perylene	PRY	Ave	32260 1244902	68055	155668	420207	742488	5.00 120	10.0	20.0	50.0	80.0
2-Fluorophenol	DCB	Ave	15466 369116	25530	51603	121280	212615	5.00 120	10.0	20.0	50.0	80.0
Phenol-d5	DCB	Ave	19520 452631	31603	64758	147850	260790	5.00 120	10.0	20.0	50.0	80.0
Nitrobenzene-d5	NPT	Ave	16988 435039	29583	60422	138379	249594	5.00 120	10.0	20.0	50.0	80.0
2-Fluorobiphenyl	ANT	Ave	32138 774879	55267	118365	254916	443000	5.00 120	10.0	20.0	50.0	80.0
2,4,6-Tribromophenol	ANT	Ave	3798 94654	6778	13929	32169	52611	5.00 120	10.0	20.0	50.0	80.0
Terphenyl-d14	CRY	Ave	20511 470758	41761	85081	195642	274994	5.00 120	10.0	20.0	50.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD
QuaF = Quadratic ISTD forced zero

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 197830

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2013 12:45 Calibration End Date: 12/15/2013 14:54 Calibration ID: 33728

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-197830/13	L1145444.D
Level 2	IC 460-197830/12	L1145443.D
Level 3	IC 460-197830/11	L1145442.D
Level 4	IC 460-197830/8	L1145439.D
Level 5	IC 460-197830/10	L1145441.D
Level 6	IC 460-197830/9	L1145440.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzaldehyde	1.0015 1.0024	1.0344	1.0739	1.0257	1.0522	Ave		1.0317			0.0100	2.7		20.0			
Acetophenone	1.6251 1.5632	1.6285	1.6795	1.5856	1.6190	Ave		1.6168			0.0100	2.5		20.0			
Caprolactam	0.0438 0.0689	0.0473	0.0586	0.0678	0.0711	Ave		0.0596			0.0100	20.0		20.0			
Diphenyl	1.5446 1.4119	1.5312	1.5945	1.4834	1.4757	Ave		1.5069			0.0100	4.2		20.0			
Atrazine	0.1546 0.1635	0.1554	0.1778	0.1760	0.1729	Ave		0.1667			0.0100	6.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 197830

SDG No.:

Instrument ID: CBNAMS12 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2013 12:45 Calibration End Date: 12/15/2013 14:54 Calibration ID: 33728

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-197830/13	L1145444.D
Level 2	IC 460-197830/12	L1145443.D
Level 3	IC 460-197830/11	L1145442.D
Level 4	IC 460-197830/8	L1145439.D
Level 5	IC 460-197830/10	L1145441.D
Level 6	IC 460-197830/9	L1145440.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Benzaldehyde	DCB	Ave	12489 319998	27494	58411	131648	238594	5.00 120	10.0	20.0	50.0	80.0
Acetophenone	DCB	Ave	20265 499022	43284	91346	203512	367121	5.00 120	10.0	20.0	50.0	80.0
Caprolactam	NPT	Ave	1948 77705	4488	11101	30020	57032	5.00 120	10.0	20.0	50.0	80.0
Diphenyl	ANT	Ave	36329 854308	77734	153277	349206	636566	5.00 120	10.0	20.0	50.0	80.0
Atrazine	PHN	Ave	4960 138831	11021	24386	59983	106818	5.00 120	10.0	20.0	50.0	80.0

Curve Type Legend:

Ave = Average ISTD

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 195553

SDG No.:

Instrument ID: CBNAMS5 GC Column: Rtxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/03/2013 15:57 Calibration End Date: 12/03/2013 17:54 Calibration ID: 33303

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD5 460-195553/7	x6211.D
Level 2	STD10 460-195553/6	x6210.D
Level 3	STD20 460-195553/5	x6209.D
Level 4	ICIS 460-195553/2	x6206.D
Level 5	STD80 460-195553/4	x6208.D
Level 6	STD120 460-195553/3	x6207.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.5300 0.6226	0.4840	0.5497	0.5670	0.5625	Ave		0.5526				8.3		20.0			
N-Nitrosodimethylamine	0.7938 0.8180	0.7702	0.8332	0.8289	0.8010	Ave		0.8075				3.0		20.0			
Pyridine	1.4478 1.4348	1.3398	1.4443	1.4147	1.4072	Ave		1.4148				2.8		20.0			
Aniline	2.0391 +++++	1.7563	1.8524	1.6968	1.6832	Ave		1.8056				8.1		20.0			
Phenol	1.8264 1.4389	1.6447	1.7020	1.5373	1.4288	Ave		1.5963			0.8000	9.8		20.0			
Bis(2-chloroethyl)ether	1.4189 1.7383	1.2343	1.3353	1.2690	1.2461	Ave		1.3737			0.7000	14.0		20.0			
2-Chlorophenol	1.4611 1.1292	1.3573	1.3675	1.2647	1.1920	Ave		1.2953			0.8000	9.5		20.0			
n-Decane	1.9476 1.6137	1.7689	1.8712	1.7382	1.6765	Ave		1.7693				7.0		20.0			
1,3-Dichlorobenzene	1.5104 1.5321	1.4172	1.5822	1.4954	1.5280	Ave		1.5109				3.6		20.0			
1,4-Dichlorobenzene	1.5505 1.5291	1.4294	1.5836	1.5279	1.5401	Ave		1.5268				3.4		20.0			
Benzyl alcohol	0.7775 0.5991	0.7575	0.8220	0.6961	0.7118	Ave		0.7273				11.0		20.0			
1,2-Dichlorobenzene	1.3926 1.3829	1.3271	1.4874	1.3910	1.4048	Ave		1.3976				3.7		20.0			
2-Methylphenol	1.2135 0.9147	1.0905	1.1187	1.0156	0.9570	Ave		1.0517			0.7000	11.0		20.0			
2,2'-oxybis[1-chloropropane]	2.1942 1.6242	2.0188	2.0953	1.8449	1.7040	Ave		1.9136			0.0100	12.0		20.0			
N-Nitrosodi-n-propylamine	0.8749 0.7059	0.8149	0.8389	0.7692	0.7391	Ave		0.7905			0.5000	8.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 195553

SDG No.:

Instrument ID: CBNAMS5 GC Column: Rtxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/03/2013 15:57 Calibration End Date: 12/03/2013 17:54 Calibration ID: 33303

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3 & 4 Methylphenol	1.2010 0.9217	1.0944	1.1165	1.0277	0.9680	Ave		1.0549				9.7		20.0			
4-Methylphenol	1.1968 0.9170	1.0877	1.0976	1.0132	0.9606	Ave		1.0455			0.6000	9.8		20.0			
Hexachloroethane	0.7849 0.6222	0.6174	0.6669	0.6450	0.6279	Ave		0.6607			0.3000	9.6		20.0			
Nitrobenzene	0.5196 0.5200	0.5476	0.5681	0.5207	0.5182	Ave		0.5324			0.2000	3.9		20.0			
n,n'-Dimethylaniline	1.9316 1.6674	1.6678	1.8133	1.6839	1.7359	Ave		1.7500				6.0		20.0			
Isophorone	0.6057 0.5641	0.5640	0.5965	0.5674	0.5619	Ave		0.5766			0.4000	3.3		20.0			
2-Nitrophenol	0.1826 0.1886	0.1841	0.1933	0.1886	0.1840	Ave		0.1869			0.1000	2.2		20.0			
2,4-Dimethylphenol	0.3170 0.2818	0.3005	0.3177	0.2827	0.2790	Ave		0.2964			0.2000	6.0		20.0			
Bis(2-chloroethoxy)methane	0.3837 0.3812	0.3849	0.4153	0.3886	0.3783	Ave		0.3886			0.3000	3.5		20.0			
Benzoic acid	0.1323 0.1660	0.1421	0.1701	0.1887	0.1753	Ave		0.1624				13.0		20.0			
2,4-Dichlorophenol	0.2695 0.2458	0.2545	0.2713	0.2530	0.2439	Ave		0.2563			0.2000	4.5		20.0			
1,2,4-Trichlorobenzene	0.3292 0.3416	0.3239	0.3373	0.3237	0.3290	Ave		0.3308				2.2		20.0			
Naphthalene	1.0045 1.0677	1.0076	1.0761	1.0246	1.0219	Ave		1.0337			0.7000	3.0		20.0			
4-Chloroaniline	0.3954 0.3630	0.3818	0.3974	0.3620	0.3563	Ave		0.3760			0.0100	4.8		20.0			
Hexachlorobutadiene	0.2026 0.2200	0.2016	0.2193	0.2072	0.2072	Ave		0.2097			0.0100	3.8		20.0			
4-Chloro-3-methylphenol	0.2668 0.2463	0.2576	0.2642	0.2490	0.2447	Ave		0.2548			0.2000	3.7		20.0			
2-Methylnaphthalene	0.5931 0.6000	0.5897	0.6226	0.5850	0.5790	Ave		0.5949			0.4000	2.6		20.0			
1-Methylnaphthalene	0.6144 0.6161	0.6050	0.6333	0.6212	0.6084	Ave		0.6164				1.6		20.0			
Hexachlorocyclopentadiene	0.3419 0.4719	0.2777	0.3485	0.3703	0.4372	Ave		0.3746			0.0500	19.0		20.0			
1,2,4,5-Tetrachlorobenzene	0.6297 0.7275	0.6436	0.6963	0.6871	0.6808	Ave		0.6775			0.0100	5.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 195553

SDG No.:

Instrument ID: CBNAMS5 GC Column: Rtxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/03/2013 15:57 Calibration End Date: 12/03/2013 17:54 Calibration ID: 33303

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-tertbutyl-4-methylphenol	0.4411 0.4133	0.4350	0.4558	0.4220	0.4198	Ave		0.4312				3.7		20.0			
2,4,6-Trichlorophenol	0.3860 0.4252	0.3759	0.4113	0.4042	0.3918	Ave		0.3990			0.2000	4.5		20.0			
2,4,5-Trichlorophenol	0.4046 0.4238	0.3993	0.4224	0.4111	0.3955	Ave		0.4094			0.2000	2.9		20.0			
2-Chloronaphthalene	1.2443 1.3177	1.2180	1.3717	1.2772	1.2290	Ave		1.2763			0.8000	4.6		20.0			
Phenyl ether	0.8885 0.9289	0.8483	0.9377	0.8828	0.8718	Ave		0.8930				3.8		20.0			
2-Nitroaniline	0.4429 0.3372	0.4696	0.5078	0.4006	0.3683	Ave		0.4211			0.0100	15.0		20.0			
1,3-Dimethylnaphthalene	1.0092 1.0697	0.9975	1.0961	1.0784	1.0235	Ave		1.0457				3.9		20.0			
Dimethyl phthalate	1.2080 1.1890	1.0927	1.2159	1.1930	1.1355	Ave		1.1724			0.0100	4.1		20.0			
Coumarin	0.1493 0.1491	0.1645	0.1642	0.1592	0.1494	Ave		0.1560				4.9		20.0			
2,6-Dinitrotoluene	0.2566 0.2670	0.2404	0.2753	0.2648	0.2532	Ave		0.2595			0.2000	4.7		20.0			
Acenaphthylene	1.9390 1.9473	1.7449	1.9130	1.8469	1.8449	Ave		1.8727			0.9000	4.1		20.0			
3-Nitroaniline	0.2751 0.2792	0.2559	0.2965	0.2911	0.2655	Ave		0.2772			0.0100	5.5		20.0			
Acenaphthene	1.0890 1.1542	1.0778	1.1503	1.1417	1.0988	Ave		1.1186			0.9000	3.0		20.0			
3,5-di-tert-butyl-4-hydroxytol	1.1185 1.2343	1.1177	1.2254	1.1979	1.1864	Ave		1.1800				4.3		20.0			
2,4-Dinitrophenol	0.1064 0.1533	0.1158	0.1346	0.1556	0.1536	Ave		0.1365			0.0100	16.0		20.0			
4-Nitrophenol	0.1986 0.2100	0.1927	0.1988	0.2124	0.2042	Ave		0.2028			0.0100	3.7		20.0			
2,4-Dinitrotoluene	0.2923 0.3285	0.2979	0.3311	0.3238	0.3164	Ave		0.3150			0.2000	5.2		20.0			
Dibenzofuran	1.5953 1.6431	1.4850	1.6827	1.5956	1.5528	Ave		1.5924			0.8000	4.3		20.0			
2,3,4,6-Tetrachlorophenol	0.2464 0.2825	0.2552	0.2762	0.2907	0.2817	Ave		0.2721			0.0100	6.4		20.0			
Diethyl phthalate	1.2009 1.2104	1.1324	1.2754	1.2171	1.1514	Ave		1.1979			0.0100	4.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 195553

SDG No.:

Instrument ID: CBNAMS5 GC Column: Rtxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/03/2013 15:57 Calibration End Date: 12/03/2013 17:54 Calibration ID: 33303

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Fluorene	1.2516 1.3095	1.1990	1.3477	1.3007	1.2483	Ave		1.2761			0.9000	4.2		20.0			
4-Chlorophenyl phenyl ether	0.6123 0.6594	0.6046	0.6628	0.6413	0.6289	Ave		0.6349			0.4000	3.8		20.0			
4-Nitroaniline	0.2164 0.2457	0.2155	0.2394	0.2321	0.2181	Ave		0.2279			0.0100	5.7		20.0			
4,6-Dinitro-2-methylphenol	0.1080 0.1362	0.1232	0.1281	0.1323	0.1319	Ave		0.1266			0.0100	8.0		20.0			
N-Nitrosodiphenylamine	0.5970 0.6471	0.6058	0.6063	0.6238	0.6555	Ave		0.6226			0.0100	3.9		20.0			
1,2-Diphenylhydrazine	0.9293 1.0289	0.9387	1.0128	0.9265	0.9212	Ave		0.9596				5.0		20.0			
4-Bromophenyl phenyl ether	0.2388 0.2960	0.2480	0.2634	0.2587	0.2719	Ave		0.2628			0.1000	7.6		20.0			
Hexachlorobenzene	0.2533 0.3183	0.2764	0.2962	0.2756	0.3019	Ave		0.2870			0.1000	8.0		20.0			
Pentachlorophenol	0.1245 0.1679	0.1314	0.1431	0.1536	0.1630	Ave		0.1472			0.0500	12.0		20.0			
Pentachloronitrobenzene	0.1198 0.1126	0.1096	0.1291	0.1165	0.1156	Ave		0.1172				5.8		20.0			
n-Octadecane	0.6600 0.7156	0.7267	0.7325	0.7043	0.6832	Ave		0.7037				3.9		20.0			
Phenanthrene	1.0710 1.1176	1.0345	1.1294	1.0522	1.0995	Ave		1.0840			0.7000	3.5		20.0			
Anthracene	1.0540 1.1117	1.0562	1.1261	1.0529	1.1006	Ave		1.0836			0.7000	3.0		20.0			
Carbazole	0.8612 0.8909	0.8478	0.9233	0.8613	0.8725	Ave		0.8762			0.0100	3.1		20.0			
Di-n-butyl phthalate	1.1988 1.2555	1.1767	1.2848	1.2208	1.2336	Ave		1.2284			0.0100	3.2		20.0			
Fluoranthene	0.9496 0.9662	0.9250	0.9852	0.9265	0.9704	Ave		0.9538			0.6000	2.6		20.0			
Benzidine	0.3290 +++++	0.3596	0.2969	0.2115	0.2592	Ave		0.2912				20.0		20.0			
Pyrene	1.6854 1.8950	1.6884	1.9276	1.8807	1.7606	Ave		1.8063			0.6000	6.0		20.0			
Butyl benzyl phthalate	0.7012 0.7636	0.6802	0.7517	0.7466	0.7086	Ave		0.7253			0.0100	4.6		20.0			
2,3,7,8-TCDD				0.1698		Ave		0.1698						20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 195553

SDG No.:

Instrument ID: CBNAMS5 GC Column: Rtxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/03/2013 15:57 Calibration End Date: 12/03/2013 17:54 Calibration ID: 33303

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbamazepine	0.3251 0.4564	0.3425	0.4087	0.4321	0.4406	Ave		0.4009				14.0		20.0			
3,3'-Dichlorobenzidine	0.3686 0.4205	0.3746	0.3933	0.4199	0.4204	Ave		0.3996			0.0100	6.0		20.0			
Benzo[a]anthracene	1.5393 1.3089	1.2080	1.3309	1.2497	1.1938	Ave		1.3051			0.8000	9.7		20.0			
Chrysene	1.1375 1.2037	1.1094	1.2007	1.1465	1.1311	Ave		1.1548			0.7000	3.4		20.0			
Bis(2-ethylhexyl) phthalate	0.8719 1.0146	0.8693	0.9630	0.9815	0.9346	Ave		0.9391			0.0100	6.3		20.0			
Di-n-octyl phthalate	1.5399 1.8863	1.6641	1.6781	1.7911	1.8114	Ave		1.7285			0.0100	7.2		20.0			
Benzo[b]fluoranthene	1.1251 1.1852	1.0977	1.1345	1.1409	1.1343	Ave		1.1363			0.7000	2.5		20.0			
Benzo[k]fluoranthene	1.2402 1.2777	1.1902	1.2679	1.2073	1.2413	Ave		1.2374			0.7000	2.7		20.0			
Benzo[a]pyrene	0.8826 1.0718	0.9591	1.0108	1.0035	1.0296	Ave		0.9929			0.7000	6.6		20.0			
Indeno[1,2,3-cd]pyrene	0.9233 0.9794	0.8122	0.9066	0.8924	0.9114	Ave		0.9042			0.5000	6.0		20.0			
Dibenz(a,h)anthracene	1.1215 1.0292	0.8537	0.9686	0.9386	0.9408	Ave		0.9754			0.4000	9.4		20.0			
Benzo[g,h,i]perylene	0.8674 1.0319	0.9032	1.0195	0.9532	0.9684	Ave		0.9573			0.5000	6.7		20.0			
2-Fluorophenol (Surr)	1.4224 1.1954	1.3244	1.4248	1.2941	1.2104	Ave		1.3119				7.6		20.0			
Phenol-d5 (Surr)	1.5880 1.2644	1.4777	1.5200	1.3872	1.2930	Ave		1.4217				9.1		20.0			
Nitrobenzene-d5 (Surr)	0.4007 0.3891	0.4036	0.4291	0.3902	0.3840	Ave		0.3995				4.1		20.0			
2-Fluorobiphenyl	1.4173 1.5967	1.4173	1.5957	1.5007	1.4807	Ave		1.5014				5.4		20.0			
2,4,6-Tribromophenol (Surr)	0.1881 0.2174	0.1653	0.1912	0.1975	0.2039	Ave		0.1939				9.0		20.0			
Terphenyl-d14 (Surr)	1.1442 1.3609	1.1413	1.3168	1.2885	1.2247	Ave		1.2461				7.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 195553

SDG No.:

Instrument ID: CBNAMS5 GC Column: Rtxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/03/2013 15:57 Calibration End Date: 12/03/2013 17:54 Calibration ID: 33303

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD5 460-195553/7	x6211.D
Level 2	STD10 460-195553/6	x6210.D
Level 3	STD20 460-195553/5	x6209.D
Level 4	ICIS 460-195553/2	x6206.D
Level 5	STD80 460-195553/4	x6208.D
Level 6	STD120 460-195553/3	x6207.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,4-Dioxane	DCB	Ave	20901 570171	38729	82210	223822	312298	5.00 120	10.0	20.0	50.0	80.0
N-Nitrosodimethylamine	DCB	Ave	31302 749089	61633	124605	327203	444707	5.00 120	10.0	20.0	50.0	80.0
Pyridine	DCB	Ave	57090 1313962	107223	216009	558438	781199	5.00 120	10.0	20.0	50.0	80.0
Aniline	DCB	Ave	80407 +++++	140553	277034	669792	934439	5.00 +++++	10.0	20.0	50.0	80.0
Phenol	DCB	Ave	72020 1317654	131616	254545	606815	793214	5.00 120	10.0	20.0	50.0	80.0
Bis(2-chloroethyl)ether	DCB	Ave	5595 1591908	98779	199707	500905	691765	0.500 120	10.0	20.0	50.0	80.0
2-Chlorophenol	DCB	Ave	57614 1034051	108616	204512	499211	661728	5.00 120	10.0	20.0	50.0	80.0
n-Decane	DCB	Ave	76799 1477804	141556	279843	686110	930736	5.00 120	10.0	20.0	50.0	80.0
1,3-Dichlorobenzene	DCB	Ave	59560 1403069	113414	236626	590270	848271	5.00 120	10.0	20.0	50.0	80.0
1,4-Dichlorobenzene	DCB	Ave	61141 1400295	114391	236838	603112	855004	5.00 120	10.0	20.0	50.0	80.0
Benzyl alcohol	DCB	Ave	30660 548591	60618	122935	274755	395177	5.00 120	10.0	20.0	50.0	80.0
1,2-Dichlorobenzene	DCB	Ave	54916 1266403	106201	222445	549069	779894	5.00 120	10.0	20.0	50.0	80.0
2-Methylphenol	DCB	Ave	47852 837604	87267	167309	400893	531309	5.00 120	10.0	20.0	50.0	80.0
2,2'-oxybis[1-chloropropane]	DCB	Ave	86523 1487405	161560	313358	728257	946001	5.00 120	10.0	20.0	50.0	80.0
N-Nitrosodi-n-propylamine	DCB	Ave	3450 646422	65217	125465	303616	410325	0.500 120	10.0	20.0	50.0	80.0
3 & 4 Methylphenol	DCB	Ave	47360 844053	87578	166977	405672	537384	5.00 120	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 195553

SDG No.:

Instrument ID: CBNAMS5 GC Column: Rtxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/03/2013 15:57 Calibration End Date: 12/03/2013 17:54 Calibration ID: 33303

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
4-Methylphenol	DCB	Ave	47194 839793	87046	164154	399956	533257	5.00 120	10.0	20.0	50.0	80.0
Hexachloroethane	DCB	Ave	3095 569763	49410	99739	254584	348561	0.500 120	10.0	20.0	50.0	80.0
Nitrobenzene	NPT	Ave	7225 1433004	144541	280322	670314	915953	0.500 120	10.0	20.0	50.0	80.0
n,n'-Dimethylaniline	DCB	Ave	7617 1526914	133465	271189	664689	963697	0.500 120	10.0	20.0	50.0	80.0
Isophorone	NPT	Ave	84217 1554550	148871	294320	730536	993292	5.00 120	10.0	20.0	50.0	80.0
2-Nitrophenol	NPT	Ave	25383 519894	48583	95377	242785	325207	5.00 120	10.0	20.0	50.0	80.0
2,4-Dimethylphenol	NPT	Ave	44072 776657	79311	156753	363932	493103	5.00 120	10.0	20.0	50.0	80.0
Bis(2-chloroethoxy)methane	NPT	Ave	53343 1050489	101611	204895	500258	668687	5.00 120	10.0	20.0	50.0	80.0
Benzoic acid	NPT	Ave	18394 457541	37498	83942	242895	309902	5.00 120	10.0	20.0	50.0	80.0
2,4-Dichlorophenol	NPT	Ave	37472 677553	67179	133849	325693	431203	5.00 120	10.0	20.0	50.0	80.0
1,2,4-Trichlorobenzene	NPT	Ave	4577 941530	85492	166414	416803	581479	0.500 120	10.0	20.0	50.0	80.0
Naphthalene	NPT	Ave	139668 2942683	265963	530953	1319138	1806303	5.00 120	10.0	20.0	50.0	80.0
4-Chloroaniline	NPT	Ave	54974 1000308	100794	196084	466013	629835	5.00 120	10.0	20.0	50.0	80.0
Hexachlorobutadiene	NPT	Ave	5634 606314	53228	108210	266786	366321	1.00 120	10.0	20.0	50.0	80.0
4-Chloro-3-methylphenol	NPT	Ave	37091 678691	67992	130386	320609	432561	5.00 120	10.0	20.0	50.0	80.0
2-Methylnaphthalene	NPT	Ave	82466 1653685	155659	307181	753199	1023414	5.00 120	10.0	20.0	50.0	80.0
1-Methylnaphthalene	NPT	Ave	85419 1697834	159687	312475	799775	1075518	5.00 120	10.0	20.0	50.0	80.0
Hexachlorocyclopentadiene	ANT	Ave	20641 515555	32576	71819	198633	323610	5.00 120	10.0	20.0	50.0	80.0
1,2,4,5-Tetrachlorobenzene	ANT	Ave	38017 794854	75488	143519	368549	503958	5.00 120	10.0	20.0	50.0	80.0
2-tertbutyl-4-methylphenol	NPT	Ave	61323 1139124	114828	224915	543247	741997	5.00 120	10.0	20.0	50.0	80.0
2,4,6-Trichlorophenol	ANT	Ave	23304 464531	44085	84770	216797	290006	5.00 120	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 195553

SDG No.:

Instrument ID: CBNAMS5 GC Column: Rtxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/03/2013 15:57 Calibration End Date: 12/03/2013 17:54 Calibration ID: 33303

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,4,5-Trichlorophenol	ANT	Ave	24429 462978	46831	87067	220501	292740	5.00 120	10.0	20.0	50.0	80.0
2-Chloronaphthalene	ANT	Ave	75128 1439628	142860	282711	685103	909754	5.00 120	10.0	20.0	50.0	80.0
Phenyl ether	ANT	Ave	53645 1014912	99497	193254	473548	645295	5.00 120	10.0	20.0	50.0	80.0
2-Nitroaniline	ANT	Ave	53487 368444	55076	104650	214904	272650	10.0 120	10.0	20.0	50.0	80.0
1,3-Dimethylnaphthalene	ANT	Ave	60930 1168694	116995	225904	578457	757644	5.00 120	10.0	20.0	50.0	80.0
Dimethyl phthalate	ANT	Ave	72938 1299087	128163	250598	639948	840526	5.00 120	10.0	20.0	50.0	80.0
Coumarin	NPT	Ave	20756 410988	43429	81043	205008	264052	5.00 120	10.0	20.0	50.0	80.0
2,6-Dinitrotoluene	ANT	Ave	3098 291706	28194	56743	142030	187424	1.00 120	10.0	20.0	50.0	80.0
Acenaphthylene	ANT	Ave	117070 2127552	204651	394267	990727	1365615	5.00 120	10.0	20.0	50.0	80.0
3-Nitroaniline	ANT	Ave	33225 304993	30015	61111	156149	196546	10.0 120	10.0	20.0	50.0	80.0
Acenaphthene	ANT	Ave	65751 1261014	126413	237081	612396	813363	5.00 120	10.0	20.0	50.0	80.0
3,5-di-tert-butyl-4-hydroxytol	ANT	Ave	67530 1348598	131089	252561	642549	878209	5.00 120	10.0	20.0	50.0	80.0
2,4-Dinitrophenol	ANT	Ave	19270 167436	27153	41613	83447	113716	15.0 120	20.0	30.0	50.0	80.0
4-Nitrophenol	ANT	Ave	35975 229435	45197	61471	113948	151149	15.0 120	20.0	30.0	50.0	80.0
2,4-Dinitrotoluene	ANT	Ave	3530 358872	34941	68238	173688	234187	1.00 120	10.0	20.0	50.0	80.0
Dibenzofuran	ANT	Ave	96322 1795143	174168	346819	855922	1149439	5.00 120	10.0	20.0	50.0	80.0
2,3,4,6-Tetrachlorophenol	ANT	Ave	14875 308631	29931	56917	155953	208553	5.00 120	10.0	20.0	50.0	80.0
Diethyl phthalate	ANT	Ave	72510 1322481	132815	262873	652845	852261	5.00 120	10.0	20.0	50.0	80.0
Fluorene	ANT	Ave	75569 1430761	140626	277762	697703	923995	5.00 120	10.0	20.0	50.0	80.0
4-Chlorophenyl phenyl ether	ANT	Ave	36969 720483	70911	136613	344017	465504	5.00 120	10.0	20.0	50.0	80.0
4-Nitroaniline	ANT	Ave	26128 268443	25276	49347	124515	161426	10.0 120	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 195553

SDG No.:

Instrument ID: CBNAMS5 GC Column: Rtxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/03/2013 15:57 Calibration End Date: 12/03/2013 17:54 Calibration ID: 33303

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
4,6-Dinitro-2-methylphenol	PHN	Ave	26620 186263	36421	51188	94537	120850	15.0 120	20.0	30.0	50.0	80.0
N-Nitrosodiphenylamine	PHN	Ave	49068 884796	89550	161543	445855	600793	5.00 120	10.0	20.0	50.0	80.0
1,2-Diphenylhydrazine	PHN	Ave	76379 1406830	138745	269873	662164	844241	5.00 120	10.0	20.0	50.0	80.0
4-Bromophenyl phenyl ether	PHN	Ave	19627 404737	36655	70182	184924	249173	5.00 120	10.0	20.0	50.0	80.0
Hexachlorobenzene	PHN	Ave	2082 435196	40857	78937	196981	276705	0.500 120	10.0	20.0	50.0	80.0
Pentachlorophenol	PHN	Ave	30689 229537	38837	57214	109768	149428	15.0 120	20.0	30.0	50.0	80.0
Pentachloronitrobenzene	PHN	Ave	9849 154015	32399	34410	83242	105992	5.00 120	20.0	20.0	50.0	80.0
n-Octadecane	PHN	Ave	54239 978435	107415	195170	503347	626122	5.00 120	10.0	20.0	50.0	80.0
Phenanthrene	PHN	Ave	88018 1528128	152916	300928	751992	1007674	5.00 120	10.0	20.0	50.0	80.0
Anthracene	PHN	Ave	86623 1520102	156114	300053	752498	1008677	5.00 120	10.0	20.0	50.0	80.0
Carbazole	PHN	Ave	70777 1218096	125321	246015	615585	799657	5.00 120	10.0	20.0	50.0	80.0
Di-n-butyl phthalate	PHN	Ave	98523 1716695	173932	342333	872487	1130610	5.00 120	10.0	20.0	50.0	80.0
Fluoranthene	PHN	Ave	78043 1321099	136730	262504	662137	889393	5.00 120	10.0	20.0	50.0	80.0
Benzidine	PHN	Ave	27043 +++++	106297	118676	151158	237544	5.00 +++++	20.0	30.0	50.0	80.0
Pyrene	CRY	Ave	76633 1265262	133050	265852	660096	856671	5.00 120	10.0	20.0	50.0	80.0
Butyl benzyl phthalate	CRY	Ave	31885 509883	53600	103681	262036	344797	5.00 120	10.0	20.0	50.0	80.0
2,3,7,8-TCDD	CRY	Ave				596					0.500	
Carbamazepine	CRY	Ave	14784 304715	26991	56370	151662	214411	5.00 120	10.0	20.0	50.0	80.0
3,3'-Dichlorobenzidine	CRY	Ave	33518 280749	59047	81371	147377	204564	10.0 120	20.0	30.0	50.0	80.0
Benzo[a]anthracene	CRY	Ave	6999 873970	95195	183562	438616	580891	0.500 120	10.0	20.0	50.0	80.0
Chrysene	CRY	Ave	51721 803730	87426	165604	402390	550353	5.00 120	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 195553

SDG No.:

Instrument ID: CBNAMS5 GC Column: Rtxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/03/2013 15:57 Calibration End Date: 12/03/2013 17:54 Calibration ID: 33303

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	39643 677425	68507	132818	344497	454751	5.00 120	10.0	20.0	50.0	80.0
Di-n-octyl phthalate	PRY	Ave	55937 1007630	98121	186850	501459	691142	5.00 120	10.0	20.0	50.0	80.0
Benzo[b]fluoranthene	PRY	Ave	4087 633132	64722	126322	319438	432802	0.500 120	10.0	20.0	50.0	80.0
Benzo[k]fluoranthene	PRY	Ave	4505 682525	70178	141177	338026	473609	0.500 120	10.0	20.0	50.0	80.0
Benzo[a]pyrene	PRY	Ave	3206 572568	56552	112548	280959	392867	0.500 120	10.0	20.0	50.0	80.0
Indeno[1,2,3-cd]pyrene	PRY	Ave	3354 523213	47891	100950	249858	347733	0.500 120	10.0	20.0	50.0	80.0
Dibenz(a,h)anthracene	PRY	Ave	4074 549786	50338	107849	262786	358978	0.500 120	10.0	20.0	50.0	80.0
Benzo[g,h,i]perylene	PRY	Ave	31508 551232	53259	113517	266861	369509	5.00 120	10.0	20.0	50.0	80.0
2-Fluorophenol (Surr)	DCB	Ave	56090 1094692	105986	213094	510824	671968	5.00 120	10.0	20.0	50.0	80.0
Phenol-d5 (Surr)	DCB	Ave	62618 1157873	118251	227319	547583	717808	5.00 120	10.0	20.0	50.0	80.0
Nitrobenzene-d5 (Surr)	NPT	Ave	55717 1072325	106545	211740	502320	678730	5.00 120	10.0	20.0	50.0	80.0
2-Fluorobiphenyl	ANT	Ave	85576 1744527	166226	328882	805020	1096019	5.00 120	10.0	20.0	50.0	80.0
2,4,6-Tribromophenol (Surr)	ANT	Ave	11356 237478	19389	39411	105965	150951	5.00 120	10.0	20.0	50.0	80.0
Terphenyl-d14 (Surr)	CRY	Ave	52027 908675	89935	181618	452238	595943	5.00 120	10.0	20.0	50.0	80.0

Curve Type Legend:
Ave = Average ISTD

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 195553

SDG No.:

Instrument ID: CBNAMS5 GC Column: Rtxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/03/2013 18:17 Calibration End Date: 12/03/2013 20:16 Calibration ID: 33308

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD5 460-195553/13	x6217.D
Level 2	STD10 460-195553/12	x6216.D
Level 3	STD20 460-195553/11	x6215.D
Level 4	STD50 460-195553/8	x6212.D
Level 5	STD80 460-195553/10	x6214.D
Level 6	STD120 460-195553/9	x6213.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzaldehyde	1.1209 0.9628	1.1031	1.1107	1.0615	1.0248	Ave		1.0640			0.0100	5.8		20.0			
Acetophenone	1.7853 1.5802	1.8072	1.7918	1.7153	1.6788	Ave		1.7264			0.0100	5.1		20.0			
Caprolactam	0.0664 0.0700	0.0745	0.0738	0.0777	0.0758	Ave		0.0730			0.0100	5.7		20.0			
1,1'-Biphenyl	1.6140 1.5169	1.6233	1.6323	1.6217	1.5822	Ave		1.5984			0.0100	2.7		20.0			
Atrazine	0.1782 0.1704	0.1836	0.1830	0.1805	0.1764	Ave		0.1787			0.0100	2.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 195553

SDG No.:

Instrument ID: CBNAMS5 GC Column: Rtxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/03/2013 18:17 Calibration End Date: 12/03/2013 20:16 Calibration ID: 33308

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD5 460-195553/13	x6217.D
Level 2	STD10 460-195553/12	x6216.D
Level 3	STD20 460-195553/11	x6215.D
Level 4	STD50 460-195553/8	x6212.D
Level 5	STD80 460-195553/10	x6214.D
Level 6	STD120 460-195553/9	x6213.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Benzaldehyde	DCB	Ave	45159 941235	92021	185403	454561	716705	5.00 120	10.0	20.0	50.0	80.0
Acetophenone	DCB	Ave	71923 1544816	150748	299087	734577	1174071	5.00 120	10.0	20.0	50.0	80.0
Caprolactam	NPT	Ave	9088 229618	21394	42041	114314	181795	5.00 120	10.0	20.0	50.0	80.0
1,1'-Biphenyl	ANT	Ave	95119 2211101	206143	401512	1069663	1686661	5.00 120	10.0	20.0	50.0	80.0
Atrazine	PHN	Ave	14114 332529	32379	61919	170462	257896	5.00 120	10.0	20.0	50.0	80.0

Curve Type Legend:

Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-197230/2 Calibration Date: 12/12/2013 08:08

Instrument ID: CBNAMS12 Calib Start Date: 11/26/2013 19:36

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 11/26/2013 21:46

Lab File ID: L1145363.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.4910	0.4463	0.0100	45400	50000	-9.1	20.0
N-Nitrosodimethylamine	Lin2		0.6192		50400	50000	0.8	20.0
Pyridine	Ave	1.188	1.182		49800	50000	-0.5	20.0
Phenol	Ave	1.534	1.513	0.8000	49300	50000	-1.4	20.0
Aniline	Ave	1.766	1.694		48000	50000	-4.1	20.0
Bis(2-chloroethyl)ether	Ave	1.178	1.170	0.7000	49700	50000	-0.6	20.0
2-Chlorophenol	Ave	1.350	1.414	0.8000	52400	50000	4.8	20.0
n-Decane	Ave	1.906	1.330	0.0100	34900	50000	-30.2*	20.0
1,3-Dichlorobenzene	Ave	1.600	1.672		52300	50000	4.5	20.0
1,4-Dichlorobenzene	Ave	1.623	1.719		53000	50000	5.9	20.0
Benzyl alcohol	Ave	0.8107	0.7810	0.0100	48200	50000	-3.7	20.0
1,2-Dichlorobenzene	Ave	1.533	1.618		52800	50000	5.5	20.0
2-Methylphenol	Ave	1.116	1.120	0.7000	50200	50000	0.4	20.0
2,2'-oxybis[1-chloropropane]	Ave	2.402	1.653	0.0100	34400	50000	-31.2*	20.0
3 & 4 Methylphenol	Ave	1.274	1.261		49500	50000	-1.0	20.0
4-Methylphenol	Ave	1.274	1.261	0.6000	49500	50000	-1.0	20.0
N-Nitrosodi-n-propylamine	Ave	0.8433	0.8317	0.5000	49300	50000	-1.4	20.0
Hexachloroethane	Ave	0.5754	0.6271	0.3000	54500	50000	9.0	20.0
n,n'-Dimethylaniline	Ave	1.928	2.010	0.0100	52100	50000	4.3	20.0
Nitrobenzene	Ave	0.4431	0.4375	0.2000	49400	50000	-1.3	20.0
Isophorone	Ave	0.5224	0.4945	0.4000	47300	50000	-5.3	20.0
2-Nitrophenol	Ave	0.1811	0.1990	0.1000	54900	50000	9.9	20.0
2,4-Dimethylphenol	Ave	0.2949	0.2858	0.2000	48500	50000	-3.1	20.0
Bis(2-chloroethoxy)methane	Ave	0.3646	0.3532	0.3000	48400	50000	-3.1	20.0
Benzoic acid	Ave	0.1761	0.1834		52100	50000	4.1	20.0
2,4-Dichlorophenol	Ave	0.2670	0.2818	0.2000	52800	50000	5.5	20.0
1,2,4-Trichlorobenzene	Ave	0.3109	0.3351		53900	50000	7.8	20.0
Naphthalene	Ave	1.007	1.017	0.7000	50500	50000	1.0	20.0
4-Chloroaniline	Ave	0.3859	0.3848	0.0100	49900	50000	-0.3	20.0
Hexachlorobutadiene	Ave	0.1766	0.2084	0.0100	59000	50000	18.0	20.0
4-Chloro-3-methylphenol	Ave	0.2456	0.2592		52800	50000	5.5	20.0
2-Methylnaphthalene	Ave	0.6451	0.6570	0.4000	50900	50000	1.9	20.0
1-Methylnaphthalene	Ave	0.6795	0.6825	0.0100	50200	50000	0.4	20.0
Hexachlorocyclopentadiene	Ave	0.3476	0.3265	0.0500	47000	50000	-6.1	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5930	0.6332	0.0100	53400	50000	6.8	20.0
2-tertbutyl-4-methylphenol	Ave	0.4398	0.4605	0.0100	52400	50000	4.7	20.0
2,4,6-Trichlorophenol	Ave	0.3706	0.3935	0.2000	53100	50000	6.2	20.0
2,4,5-Trichlorophenol	Ave	0.3975	0.4233	0.2000	53200	50000	6.5	20.0
2-Chloronaphthalene	Ave	1.175	1.234	0.8000	52500	50000	5.0	20.0
Phenyl ether	Ave	0.8057	0.8388	0.0100	52100	50000	4.1	20.0
2-Nitroaniline	Ave	0.3905	0.3501	0.0100	44800	50000	-10.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-197230/2 Calibration Date: 12/12/2013 08:08

Instrument ID: CBNAMS12 Calib Start Date: 11/26/2013 19:36

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 11/26/2013 21:46

Lab File ID: L1145363.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3-Dimethylnaphthalene	Ave	0.9753	0.9918	0.0100	50800	50000	1.7	20.0
Dimethyl phthalate	Ave	1.236	1.291	0.0100	52200	50000	4.5	20.0
Coumarin	Ave	0.2241	0.2192	0.0100	48900	50000	-2.2	20.0
2,6-Dinitrotoluene	Ave	0.2748	0.3032	0.2000	55200	50000	10.4	20.0
Acenaphthylene	Ave	1.862	1.912	0.9000	51300	50000	2.7	20.0
3-Nitroaniline	Ave	0.3173	0.3250	0.0100	51200	50000	2.4	20.0
3,5-di-tert-butyl-4-hydroxytol	Ave	1.034	1.087	0.0100	52600	50000	5.2	20.0
Acenaphthene	Ave	1.202	1.145	0.9000	47600	50000	-4.7	20.0
2,4-Dinitrophenol	Ave	0.1657	0.1893	0.0100	57100	50000	14.2	20.0
4-Nitrophenol	Ave	0.2249	0.1957	0.0100	43500	50000	-13.0	20.0
2,4-Dinitrotoluene	Ave	0.3674	0.3979	0.2000	54100	50000	8.3	20.0
Dibenzofuran	Ave	1.611	1.664	0.8000	51700	50000	3.3	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2972	0.3441	0.0100	57900	50000	15.8	20.0
Diethyl phthalate	Ave	1.223	1.295	0.0100	53000	50000	5.9	20.0
4-Chlorophenyl phenyl ether	Ave	0.6212	0.6480	0.4000	52200	50000	4.3	20.0
Fluorene	Ave	1.336	1.355	0.9000	50700	50000	1.4	20.0
4-Nitroaniline	Ave	0.3286	0.3166	0.0100	48200	50000	-3.6	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1314	0.1456	0.0100	55400	50000	10.9	20.0
N-Nitrosodiphenylamine	Ave	0.5624	0.5716	0.0100	50800	50000	1.6	20.0
1,2-Diphenylhydrazine	Ave	0.7289	0.6856	0.0100	47000	50000	-5.9	20.0
4-Bromophenyl phenyl ether	Ave	0.2256	0.2495	0.1000	55300	50000	10.6	20.0
Hexachlorobenzene	Ave	0.2385	0.2701	0.1000	56600	50000	13.3	20.0
Pentachlorophenol	Ave	0.1555	0.1541	0.0500	49500	50000	-0.9	20.0
Pentachloronitrobenzene	Ave	0.0959	0.1079	0.0100	56300	50000	12.5	20.0
n-Octadecane	Ave	0.5958	0.4783	0.0100	40100	50000	-19.7	20.0
Phenanthrene	Ave	1.157	1.169	0.7000	50500	50000	1.0	20.0
Anthracene	Ave	1.175	1.199	0.7000	51000	50000	2.1	20.0
Carbazole	Ave	1.025	1.015	0.0100	49500	50000	-0.9	20.0
Di-n-butyl phthalate	Ave	1.249	1.272	0.0100	50900	50000	1.8	20.0
Fluoranthene	Ave	1.202	1.198	0.6000	49800	50000	-0.3	20.0
Benzidine	Ave	0.6608	0.4280		32400	50000	-35.2*	20.0
Pyrene	Ave	1.139	1.262	0.6000	55400	50000	10.8	20.0
Butyl benzyl phthalate	Ave	0.5337	0.5613	0.0100	52600	50000	5.2	20.0
2,3,7,8-TCDD	Ave	0.0571	0.1645	0.0100	1440	500	188.1*	20.0
Carbamazepine	Ave	0.5389	0.5156	0.0100	47800	50000	-4.3	20.0
3,3'-Dichlorobenzidine	Ave	0.4648	0.4835	0.0100	52000	50000	4.0	20.0
Benzo[a]anthracene	Ave	1.206	1.235	0.8000	51200	50000	2.4	20.0
Chrysene	Ave	1.157	1.183	0.7000	51100	50000	2.3	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8331	0.7921	0.0100	47500	50000	-4.9	20.0
Di-n-octyl phthalate	Ave	1.204	1.194	0.0100	49600	50000	-0.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-197230/2 Calibration Date: 12/12/2013 08:08

Instrument ID: CBNAMS12 Calib Start Date: 11/26/2013 19:36

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 11/26/2013 21:46

Lab File ID: L1145363.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	1.024	1.087	0.7000	53100	50000	6.2	20.0
Benzo[k]fluoranthene	Ave	1.053	1.135	0.7000	53900	50000	7.8	20.0
Benzo[a]pyrene	Ave	0.9582	1.026	0.7000	53600	50000	7.1	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.071	1.216	0.5000	56800	50000	13.5	20.0
Dibenz(a,h)anthracene	Ave	1.095	1.261	0.4000	57600	50000	15.1	20.0
Benzo[g,h,i]perylene	Ave	1.155	1.285	0.5000	55600	50000	11.2	20.0
2-Fluorophenol (Surr)	Ave	1.240	1.229	0.0100	49600	50000	-0.9	20.0
Phenol-d5 (Surr)	Ave	1.535	1.488	0.0100	48500	50000	-3.1	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3340	0.3338	0.0100	50000	50000	-0.0	20.0
2-Fluorobiphenyl	Ave	1.351	1.393	0.0100	51600	50000	3.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1974	0.2253	0.0100	57100	50000	14.2	20.0
Terphenyl-d14 (Surr)	Ave	0.8020	0.9047	0.0100	56400	50000	12.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-197230/3 Calibration Date: 12/12/2013 08:34

Instrument ID: CBNAMS12 Calib Start Date: 11/26/2013 22:12

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 11/27/2013 00:21

Lab File ID: L1145364.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzaldehyde	Ave	1.012	0.9650	0.0100	47700	50000	-4.6	20.0
Acetophenone	Ave	1.655	1.680	0.0100	50800	50000	1.5	20.0
Caprolactam	Ave	0.0853	0.0737	0.0100	43200	50000	-13.6	20.0
1,1'-Biphenyl	Ave	1.527	1.537	0.0100	50300	50000	0.6	20.0
Atrazine	Ave	0.1878	0.1920	0.0100	51100	50000	2.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-199750/2 Calibration Date: 12/24/2013 11:32

Instrument ID: CBNAMS12 Calib Start Date: 12/15/2013 10:10

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 12/15/2013 12:19

Lab File ID: L1145772.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.4938	0.4974	0.0100	50400	50000	0.7	20.0
N-Nitrosodimethylamine	Ave	0.6370	0.6641		52100	50000	4.3	20.0
Pyridine	Ave	1.118	1.091		48800	50000	-2.4	20.0
Phenol	Ave	1.451	1.467	0.8000	50500	50000	1.1	20.0
Aniline	Ave	1.674	1.497		44700	50000	-10.5	20.0
Bis(2-chloroethyl)ether	Ave	1.211	1.152	0.7000	47600	50000	-4.9	20.0
2-Chlorophenol	Ave	1.273	1.263	0.8000	49600	50000	-0.8	20.0
n-Decane	Ave	2.351	2.366	0.0100	50300	50000	0.7	20.0
1,3-Dichlorobenzene	Ave	1.625	1.605		49400	50000	-1.3	20.0
1,4-Dichlorobenzene	Ave	1.634	1.623		49700	50000	-0.7	20.0
Benzyl alcohol	Ave	0.7422	0.6175	0.0100	41600	50000	-16.8	20.0
1,2-Dichlorobenzene	Ave	1.539	1.521		49400	50000	-1.2	20.0
2-Methylphenol	Ave	1.054	0.999	0.7000	47400	50000	-5.2	20.0
2,2'-oxybis[1-chloropropane]	Ave	2.801	2.798	0.0100	49900	50000	-0.1	20.0
N-Nitrosodi-n-propylamine	Ave	0.8486	0.8541	0.5000	50300	50000	0.7	20.0
3 & 4 Methylphenol	Ave	1.170	1.076		46000	50000	-8.1	20.0
4-Methylphenol	Ave	1.169	1.016	0.6000	43400	50000	-13.1	20.0
Hexachloroethane	Ave	0.6412	0.6643	0.3000	51800	50000	3.6	20.0
n,n'-Dimethylaniline	Ave	1.811	1.753	0.0100	48400	50000	-3.2	20.0
Nitrobenzene	Ave	0.5088	0.5037	0.2000	49500	50000	-1.0	20.0
Isophorone	Ave	0.5615	0.5554	0.4000	49500	50000	-1.1	20.0
2-Nitrophenol	Ave	0.1815	0.1872	0.1000	51600	50000	3.1	20.0
2,4-Dimethylphenol	Ave	0.2883	0.2900	0.2000	50300	50000	0.6	20.0
Bis(2-chloroethoxy)methane	Ave	0.3884	0.3918	0.3000	50400	50000	0.9	20.0
Benzoic acid	Lin2		0.1243		48200	50000	-3.5	20.0
2,4-Dichlorophenol	Ave	0.2783	0.2794	0.2000	50200	50000	0.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3566	0.3652		51200	50000	2.4	20.0
Naphthalene	Ave	1.049	1.037	0.7000	49400	50000	-1.2	20.0
4-Chloroaniline	Ave	0.3710	0.3550	0.0100	47800	50000	-4.3	20.0
Hexachlorobutadiene	Ave	0.2282	0.2342	0.0100	51300	50000	2.6	20.0
4-Chloro-3-methylphenol	Ave	0.2495	0.2579		51700	50000	3.3	20.0
2-Methylnaphthalene	Ave	0.6532	0.6385	0.4000	48900	50000	-2.2	20.0
1-Methylnaphthalene	Ave	0.6805	0.6791	0.0100	49900	50000	-0.2	20.0
Hexachlorocyclopentadiene	QuaF		0.2953	0.0500	41600	50000	-16.8	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.6851	0.6796	0.0100	49600	50000	-0.8	20.0
2-tertbutyl-4-methylphenol	Ave	0.4336	0.4458	0.0100	51400	50000	2.8	20.0
2,4,6-Trichlorophenol	Ave	0.3672	0.3796	0.2000	51700	50000	3.4	20.0
2,4,5-Trichlorophenol	Ave	0.3787	0.3800	0.2000	50200	50000	0.3	20.0
2-Chloronaphthalene	Ave	1.171	1.169	0.8000	49900	50000	-0.1	20.0
Phenyl ether	Ave	0.8224	0.8126	0.0100	49400	50000	-1.2	20.0
2-Nitroaniline	Ave	0.3757	0.3407	0.0100	45300	50000	-9.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-199750/2 Calibration Date: 12/24/2013 11:32

Instrument ID: CBNAMS12 Calib Start Date: 12/15/2013 10:10

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 12/15/2013 12:19

Lab File ID: L1145772.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3-Dimethylnaphthalene	Ave	0.9640	0.9624	0.0100	49900	50000	-0.2	20.0
Dimethyl phthalate	Ave	1.104	1.146	0.0100	51900	50000	3.8	20.0
Coumarin	Ave	0.1786	0.1876	0.0100	52500	50000	5.0	20.0
2,6-Dinitrotoluene	Ave	0.2600	0.2764	0.2000	53200	50000	6.3	20.0
Acenaphthylene	Ave	1.737	1.668	0.9000	48000	50000	-4.0	20.0
3-Nitroaniline	Ave	0.2453	0.2442	0.0100	49800	50000	-0.4	20.0
Acenaphthene	Ave	1.081	1.061	0.9000	49100	50000	-1.8	20.0
3,5-di-tert-butyl-4-hydroxytol	Ave	1.085	1.073	0.0100	49500	50000	-1.1	20.0
2,4-Dinitrophenol	Lin2		0.1072	0.0100	45100	50000	-9.9	20.0
4-Nitrophenol	Ave	0.1602	0.1180	0.0100	36800	50000	-26.3*	20.0
Dibenzofuran	Ave	1.573	1.552	0.8000	49300	50000	-1.3	20.0
2,4-Dinitrotoluene	Ave	0.3185	0.3432	0.2000	53900	50000	7.8	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2739	0.2956	0.0100	54000	50000	7.9	20.0
Diethyl phthalate	Ave	1.043	1.139	0.0100	54600	50000	9.2	20.0
Fluorene	Ave	1.248	1.243	0.9000	49800	50000	-0.3	20.0
4-Chlorophenyl phenyl ether	Ave	0.6038	0.6072	0.4000	50300	50000	0.6	20.0
4-Nitroaniline	Ave	0.2139	0.2014	0.0100	47100	50000	-5.8	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1203	0.1299	0.0100	54000	50000	8.0	20.0
N-Nitrosodiphenylamine	Ave	0.5595	0.5786	0.0100	51700	50000	3.4	20.0
1,2-Diphenylhydrazine	Ave	0.8087	0.8145	0.0100	50400	50000	0.7	20.0
4-Bromophenyl phenyl ether	Ave	0.2459	0.2431	0.1000	49400	50000	-1.1	20.0
Hexachlorobenzene	Ave	0.2484	0.2573	0.1000	51800	50000	3.6	20.0
Pentachlorophenol	Ave	0.1204	0.1325	0.0500	55000	50000	10.1	20.0
Pentachloronitrobenzene	Ave	0.1030	0.1060	0.0100	51400	50000	2.9	20.0
n-Octadecane	Ave	0.7419	0.7568	0.0100	51000	50000	2.0	20.0
Phenanthrene	Ave	1.122	1.105	0.7000	49200	50000	-1.5	20.0
Anthracene	Ave	1.135	1.150	0.7000	50700	50000	1.4	20.0
Carbazole	Ave	0.8988	0.9072	0.0100	50500	50000	0.9	20.0
Di-n-butyl phthalate	Ave	1.056	1.217	0.0100	57600	50000	15.3	20.0
Fluoranthene	Ave	1.045	1.102	0.6000	52700	50000	5.4	20.0
Benzidine	Ave	0.4961	0.3579		36100	50000	-27.9*	20.0
Pyrene	Ave	1.267	1.243	0.6000	49100	50000	-1.9	20.0
Butyl benzyl phthalate	Ave	0.5024	0.5834	0.0100	58100	50000	16.1	20.0
2,3,7,8-TCDD	Ave	0.1494	0.1155	0.0100	387	500	-22.7*	20.0
Carbamazepine	Ave	0.5255	0.5258	0.0100	50000	50000	0.0	20.0
3,3'-Dichlorobenzidine	Ave	0.4760	0.4760	0.0100	50000	50000	-0.0	20.0
Benzo[a]anthracene	Ave	1.226	1.223	0.8000	49800	50000	-0.3	20.0
Chrysene	Ave	1.169	1.191	0.7000	50900	50000	1.9	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7447	0.8514	0.0100	57200	50000	14.3	20.0
Di-n-octyl phthalate	Ave	1.146	1.374	0.0100	60000	50000	19.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-199750/2 Calibration Date: 12/24/2013 11:32

Instrument ID: CBNAMS12 Calib Start Date: 12/15/2013 10:10

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 12/15/2013 12:19

Lab File ID: L1145772.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	0.9820	1.082	0.7000	55100	50000	10.2	20.0
Benzo[k]fluoranthene	Ave	1.057	1.137	0.7000	53800	50000	7.6	20.0
Benzo[a]pyrene	Ave	0.9672	1.030	0.7000	53200	50000	6.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.236	1.176	0.5000	47600	50000	-4.9	20.0
Dibenz(a,h)anthracene	Ave	1.268	1.210	0.4000	47700	50000	-4.6	20.0
Benzo[g,h,i]perylene	Ave	1.325	1.267	0.5000	47800	50000	-4.4	20.0
2-Fluorophenol	Ave	1.157	1.109	0.0100	47900	50000	-4.1	20.0
Phenol-d5	Ave	1.432	1.392	0.0100	48600	50000	-2.8	20.0
Nitrobenzene-d5	Ave	0.3868	0.3869	0.0100	50000	50000	0.0	20.0
2-Fluorobiphenyl	Ave	1.399	1.372	0.0100	49000	50000	-2.0	20.0
2,4,6-Tribromophenol	Ave	0.1692	0.1832	0.0100	54100	50000	8.2	20.0
Terphenyl-d14	Ave	0.8385	0.8493	0.0100	50600	50000	1.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-199750/4 Calibration Date: 12/24/2013 12:36

Instrument ID: CBNAMS12 Calib Start Date: 12/15/2013 12:45

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 12/15/2013 14:54

Lab File ID: L1145774.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzaldehyde	Ave	1.032	1.020	0.0100	49400	50000	-1.1	20.0
Acetophenone	Ave	1.617	1.586	0.0100	49000	50000	-1.9	20.0
Caprolactam	Ave	0.0596	0.0553	0.0100	46400	50000	-7.3	20.0
Diphenyl	Ave	1.507	1.439	0.0100	47800	50000	-4.5	20.0
Atrazine	Ave	0.1667	0.1763	0.0100	52900	50000	5.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-197085/2 Calibration Date: 12/11/2013 14:57

Instrument ID: CBNAMS5 Calib Start Date: 12/03/2013 15:57

GC Column: Rtxi-5Sil MS ID: 0.25(mm) Calib End Date: 12/03/2013 17:54

Lab File ID: x6596.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5526	0.4847	0.0100	43900	50000	-12.3	20.0
N-Nitrosodimethylamine	Ave	0.8075	0.7634		47300	50000	-5.5	20.0
Pyridine	Ave	1.415	1.295		45800	50000	-8.5	20.0
Aniline	Ave	1.806	1.792		49600	50000	-0.7	20.0
Phenol	Ave	1.596	1.655	0.8000	51900	50000	3.7	20.0
Bis(2-chloroethyl)ether	Ave	1.374	1.279	0.7000	46600	50000	-6.9	20.0
2-Chlorophenol	Ave	1.295	1.368	0.8000	52800	50000	5.6	20.0
n-Decane	Ave	1.769	1.508	0.0100	42600	50000	-14.8	20.0
1,3-Dichlorobenzene	Ave	1.511	1.570		52000	50000	3.9	20.0
1,4-Dichlorobenzene	Ave	1.527	1.587		52000	50000	4.0	20.0
Benzyl alcohol	Ave	0.7273	0.8636	0.0100	59400	50000	18.7	20.0
1,2-Dichlorobenzene	Ave	1.398	1.475		52800	50000	5.5	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.914	1.781	0.0100	46500	50000	-6.9	20.0
2-Methylphenol	Ave	1.052	1.156	0.7000	54900	50000	9.9	20.0
N-Nitrosodi-n-propylamine	Ave	0.7905	0.8474	0.5000	53600	50000	7.2	20.0
3 & 4 Methylphenol	Ave	1.055	1.160		55000	50000	9.9	20.0
4-Methylphenol	Ave	1.045	1.149	0.6000	54900	50000	9.9	20.0
Hexachloroethane	Ave	0.6607	0.6400	0.3000	48400	50000	-3.1	20.0
Nitrobenzene	Ave	0.5324	0.5201	0.2000	48800	50000	-2.3	20.0
n,n'-Dimethylaniline	Ave	1.750	1.904	0.0100	54400	50000	8.8	20.0
Isophorone	Ave	0.5766	0.6154	0.4000	53400	50000	6.7	20.0
2-Nitrophenol	Ave	0.1869	0.1922	0.1000	51400	50000	2.9	20.0
2,4-Dimethylphenol	Ave	0.2964	0.3044	0.2000	51300	50000	2.7	20.0
Bis(2-chloroethoxy)methane	Ave	0.3886	0.3921	0.3000	50400	50000	0.9	20.0
2,4-Dichlorophenol	Ave	0.2563	0.2838	0.2000	55400	50000	10.7	20.0
Benzoic acid	Ave	0.1624	0.1699		52300	50000	4.6	20.0
1,2,4-Trichlorobenzene	Ave	0.3308	0.3528		53300	50000	6.7	20.0
Naphthalene	Ave	1.034	1.062	0.7000	51400	50000	2.7	20.0
4-Chloroaniline	Ave	0.3760	0.3921	0.0100	52100	50000	4.3	20.0
Hexachlorobutadiene	Ave	0.2097	0.2244	0.0100	53500	50000	7.0	20.0
4-Chloro-3-methylphenol	Ave	0.2548	0.2896		56800	50000	13.7	20.0
2-Methylnaphthalene	Ave	0.5949	0.6524	0.4000	54800	50000	9.7	20.0
1-Methylnaphthalene	Ave	0.6164	0.6822	0.0100	55300	50000	10.7	20.0
Hexachlorocyclopentadiene	Ave	0.3746	0.3749	0.0500	50000	50000	0.0	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.6775	0.6827	0.0100	50400	50000	0.8	20.0
2-tertbutyl-4-methylphenol	Ave	0.4312	0.4926	0.0100	57100	50000	14.2	20.0
2,4,6-Trichlorophenol	Ave	0.3990	0.4206	0.2000	52700	50000	5.4	20.0
2,4,5-Trichlorophenol	Ave	0.4094	0.4352	0.2000	53100	50000	6.3	20.0
2-Chloronaphthalene	Ave	1.276	1.247	0.8000	48900	50000	-2.3	20.0
Phenyl ether	Ave	0.8930	0.8840	0.0100	49500	50000	-1.0	20.0
2-Nitroaniline	Ave	0.4211	0.3635	0.0100	43200	50000	-13.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-197085/2 Calibration Date: 12/11/2013 14:57

Instrument ID: CBNAMS5 Calib Start Date: 12/03/2013 15:57

GC Column: Rtxi-5Sil MS ID: 0.25(mm) Calib End Date: 12/03/2013 17:54

Lab File ID: x6596.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3-Dimethylnaphthalene	Ave	1.046	1.031	0.0100	49300	50000	-1.4	20.0
Dimethyl phthalate	Ave	1.172	1.184	0.0100	50500	50000	1.0	20.0
Coumarin	Ave	0.1560	0.1815	0.0100	58200	50000	16.3	20.0
2,6-Dinitrotoluene	Ave	0.2595	0.2663	0.2000	51300	50000	2.6	20.0
Acenaphthylene	Ave	1.873	1.847	0.9000	49300	50000	-1.4	20.0
3-Nitroaniline	Ave	0.2772	0.2678	0.0100	48300	50000	-3.4	20.0
Acenaphthene	Ave	1.119	1.133	0.9000	50700	50000	1.3	20.0
3,5-di-tert-butyl-4-hydroxytol	Ave	1.180	1.209	0.0100	51200	50000	2.5	20.0
2,4-Dinitrophenol	Ave	0.1365	0.1246	0.0100	45600	50000	-8.7	20.0
4-Nitrophenol	Ave	0.2028	0.1807	0.0100	44600	50000	-10.9	20.0
Dibenzofuran	Ave	1.592	1.652	0.8000	51900	50000	3.7	20.0
2,4-Dinitrotoluene	Ave	0.3150	0.3358	0.2000	53300	50000	6.6	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2721	0.3095	0.0100	56900	50000	13.7	20.0
Diethyl phthalate	Ave	1.198	1.208	0.0100	50400	50000	0.8	20.0
Fluorene	Ave	1.276	1.347	0.9000	52800	50000	5.5	20.0
4-Chlorophenyl phenyl ether	Ave	0.6349	0.7050	0.4000	55500	50000	11.0	20.0
4-Nitroaniline	Ave	0.2279	0.2181	0.0100	47900	50000	-4.3	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1266	0.1175	0.0100	46400	50000	-7.2	20.0
N-Nitrosodiphenylamine	Ave	0.6226	0.6556	0.0100	52600	50000	5.3	20.0
1,2-Diphenylhydrazine	Ave	0.9596	0.8767	0.0100	45700	50000	-8.6	20.0
4-Bromophenyl phenyl ether	Ave	0.2628	0.2962	0.1000	56300	50000	12.7	20.0
Hexachlorobenzene	Ave	0.2870	0.3480	0.1000	60600	50000	21.3*	20.0
Pentachlorophenol	Ave	0.1472	0.1698	0.0500	57600	50000	15.3	20.0
Pentachloronitrobenzene	Ave	0.1172	0.1213	0.0100	51800	50000	3.5	20.0
n-Octadecane	Ave	0.7037	0.5904	0.0100	42000	50000	-16.1	20.0
Phenanthrene	Ave	1.084	1.121	0.7000	51700	50000	3.4	20.0
Anthracene	Ave	1.084	1.118	0.7000	51600	50000	3.1	20.0
Carbazole	Ave	0.8762	0.8722	0.0100	49800	50000	-0.5	20.0
Di-n-butyl phthalate	Ave	1.228	1.206	0.0100	49100	50000	-1.8	20.0
Fluoranthene	Ave	0.9538	1.004	0.6000	52600	50000	5.3	20.0
Benzidine	Ave	0.2912	0.1609		27600	50000	-44.7*	20.0
Pyrene	Ave	1.806	1.959	0.6000	54200	50000	8.5	20.0
Butyl benzyl phthalate	Ave	0.7253	0.6881	0.0100	47400	50000	-5.1	20.0
2,3,7,8-TCDD	Ave	0.1698	0.2173	0.0100	640	500	28.0*	20.0
Carbamazepine	Ave	0.4009	0.3631	0.0100	45300	50000	-9.4	20.0
3,3'-Dichlorobenzidine	Ave	0.3996	0.4081	0.0100	51100	50000	2.1	20.0
Benzo[a]anthracene	Ave	1.305	1.234	0.8000	47300	50000	-5.5	20.0
Chrysene	Ave	1.155	1.160	0.7000	50200	50000	0.4	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.9391	0.9188	0.0100	48900	50000	-2.2	20.0
Di-n-octyl phthalate	Ave	1.728	1.814	0.0100	52500	50000	5.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCVIS 460-197085/2 Calibration Date: 12/11/2013 14:57

Instrument ID: CBNAMS5 Calib Start Date: 12/03/2013 15:57

GC Column: Rtxi-5Sil MS ID: 0.25(mm) Calib End Date: 12/03/2013 17:54

Lab File ID: x6596.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[b]fluoranthene	Ave	1.136	1.211	0.7000	53300	50000	6.5	20.0
Benzo[k]fluoranthene	Ave	1.237	1.267	0.7000	51200	50000	2.4	20.0
Benzo[a]pyrene	Ave	0.9929	1.045	0.7000	52600	50000	5.3	20.0
Indeno[1,2,3-cd]pyrene	Ave	0.9042	0.9426	0.5000	52100	50000	4.2	20.0
Dibenz(a,h)anthracene	Ave	0.9754	0.9700	0.4000	49700	50000	-0.6	20.0
Benzo[g,h,i]perylene	Ave	0.9573	0.9276	0.5000	48500	50000	-3.1	20.0
2-Fluorophenol (Surr)	Ave	1.312	1.326	0.0100	50500	50000	1.1	20.0
Phenol-d5 (Surr)	Ave	1.422	1.495	0.0100	52600	50000	5.2	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3995	0.3908	0.0100	48900	50000	-2.2	20.0
2-Fluorobiphenyl	Ave	1.501	1.521	0.0100	50700	50000	1.3	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1939	0.2375	0.0100	61200	50000	22.5*	20.0
Terphenyl-d14 (Surr)	Ave	1.246	1.386	0.0100	55600	50000	11.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-197085/3 Calibration Date: 12/11/2013 15:22

Instrument ID: CBNAMS5 Calib Start Date: 12/03/2013 18:17

GC Column: Rtxi-5Sil MS ID: 0.25(mm) Calib End Date: 12/03/2013 20:16

Lab File ID: x6597.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzaldehyde	Ave	1.064	1.023	0.0100	48100	50000	-3.8	20.0
Acetophenone	Ave	1.726	1.775	0.0100	51400	50000	2.8	20.0
Caprolactam	Ave	0.0730	0.0758	0.0100	51900	50000	3.7	20.0
1,1'-Biphenyl	Ave	1.598	1.545	0.0100	48300	50000	-3.3	20.0
Atrazine	Ave	0.1787	0.1761	0.0100	49300	50000	-1.5	20.0

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAMS12\20131126-7223.b\L1144759.D
Lims ID: DFTPP Lab Sample ID:
Client ID:
Sample Type: DFTPP
Inject. Date: 26-Nov-2013 19:18:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007223-001
Misc. Info.: DFTPP
Operator ID: BNA 12 Instrument ID: CBNAMS12

Method: \\EDICHROM\ChromData\CBNAMS12\20131126-7223.b\8270_12.m
Limit Group: SV 8270D ICAL
Last Update: 27-Nov-2013 09:54:29 Calib Date: 27-Nov-2013 00:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAMS12\20131126-7223.b\L1144771.D

Column 1 : Detector MS SCAN
Process Host: XAWRK050

First Level Reviewer: croccom Date: 26-Nov-2013 19:30:58

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/ml	Flags
80 Pentachlorophenol_T	266	4.993	4.993	0.0	89	38907	0	7
89 Benzidine_T	184	6.792	6.792	0.0	98	116302	0	7
120 DFTPP								
114 4,4'-DDD	235	7.457	7.457	0.0	1	1075	0	7
116 4,4'-DDT	235	7.775	7.775	0.0	95	49475	0	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

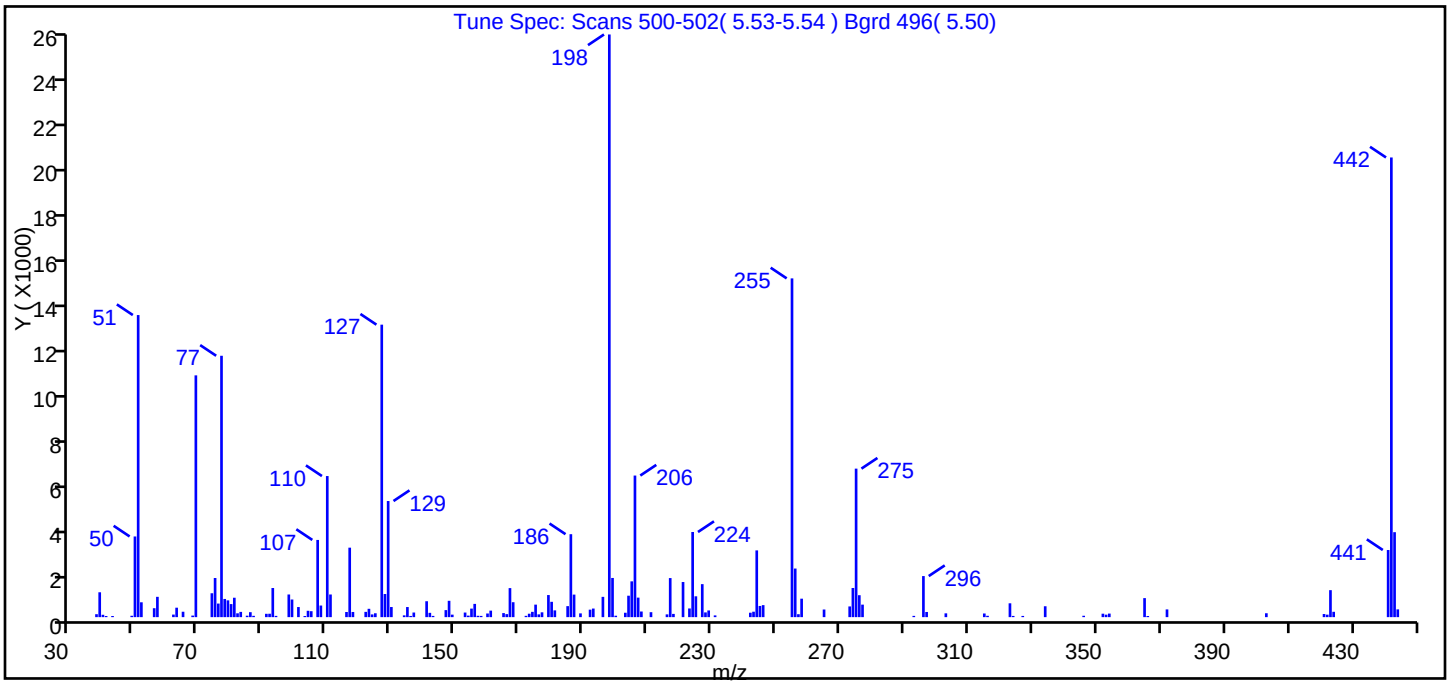
Report Date: 27-Nov-2013 09:54:32 Chrom Revision: 2.1 15-Oct-2013 07:52:24

MS Tune Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131126-7223.b\L1144759.D				
Injection Date:	26-Nov-2013 19:18:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Tune Method:	DFTPP Method 8270				

120 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	51.80
68	Less than 2.00% of mass 69	0.30 (0.60)
69	Present	41.50
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	50.20
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.70
275	10.00 - 30.00% of mass 198	25.50
365	Greater than 1.00% of mass 198	3.30
441	Present, but less than mass 443%	11.50 (79.00)
442	Greater than 40.00% of mass 198	78.90
443	17.00 - 23.00% of mass 442	14.60 (18.50)

Data File: \\EDICHROM\ChromData\CBNAMS12\20131126-7223.b\L1144759.D\8270_12.rslt\spectra.d
Injection Date: 26-Nov-2013 19:18:30
Spectrum: Tune Spec: Scans 500-502(5.53-5.54) Bgrd 496(5.50)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 154

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	131	107.00	3425	174.00	235	246.00	533
39.00	1103	108.00	515	175.00	555	255.00	15028
40.00	105	110.00	6259	176.00	123	256.00	2156
41.00	50	111.00	1005	177.00	214	257.00	130
43.00	50	116.00	228	179.00	980	258.00	819
49.00	61	117.00	3082	180.00	680	265.00	339
50.00	3579	118.00	229	181.00	300	273.00	475
51.00	13401	122.00	234	185.00	488	274.00	1293
52.00	659	123.00	370	186.00	3680	275.00	6588
56.00	396	124.00	121	187.00	1000	276.00	973
57.00	901	125.00	172	189.00	167	277.00	555
62.00	114	127.00	12975	192.00	332	293.00	56
63.00	419	128.00	1026	193.00	381	296.00	1822
65.00	240	129.00	5151	196.00	900	297.00	229
68.00	69	130.00	449	198.00	25848	303.00	169
69.00	10726	134.00	79	199.00	1738	315.00	162
74.00	1060	135.00	448	200.00	63	316.00	60
75.00	1736	136.00	53	203.00	195	323.00	614
76.00	602	137.00	205	204.00	951	324.00	54
77.00	11595	141.00	706	205.00	1588	327.00	54
78.00	807	142.00	191	206.00	6281	334.00	483
79.00	745	143.00	55	207.00	866	346.00	61
80.00	579	147.00	312	208.00	250	352.00	153
81.00	861	148.00	725	211.00	220	353.00	110
82.00	170	149.00	111	216.00	123	354.00	158
83.00	233	153.00	204	217.00	1733	365.00	844
85.00	64	154.00	67	218.00	144	366.00	50
86.00	220	155.00	379	221.00	1558	372.00	343
87.00	58	156.00	588	223.00	385	403.00	173
91.00	148	157.00	60	224.00	3777	421.00	139
92.00	151	158.00	55	225.00	925	422.00	110
93.00	1292	160.00	162	227.00	1464	423.00	1197
94.00	56	161.00	289	228.00	210	424.00	237

Report Date: 27-Nov-2013 09:54:32 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\EDICHROM\ChromData\CBNAMS12\20131126-7223.b\L1144759.D\8270_12.rslt\spectra.d
Injection Date: 26-Nov-2013 19:18:30
Spectrum: Tune Spec: Scans 500-502(5.53-5.54) Bgrd 496(5.50)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 154

m/z	Y	m/z	Y	m/z	Y	m/z	Y
98.00	1005	165.00	180	229.00	297	441.00	2978
99.00	782	166.00	134	231.00	77	442.00	20392
101.00	448	167.00	1288	242.00	196	443.00	3769
103.00	50	168.00	662	243.00	241	444.00	345
104.00	282	172.00	58	244.00	2961		
105.00	264	173.00	152	245.00	496		

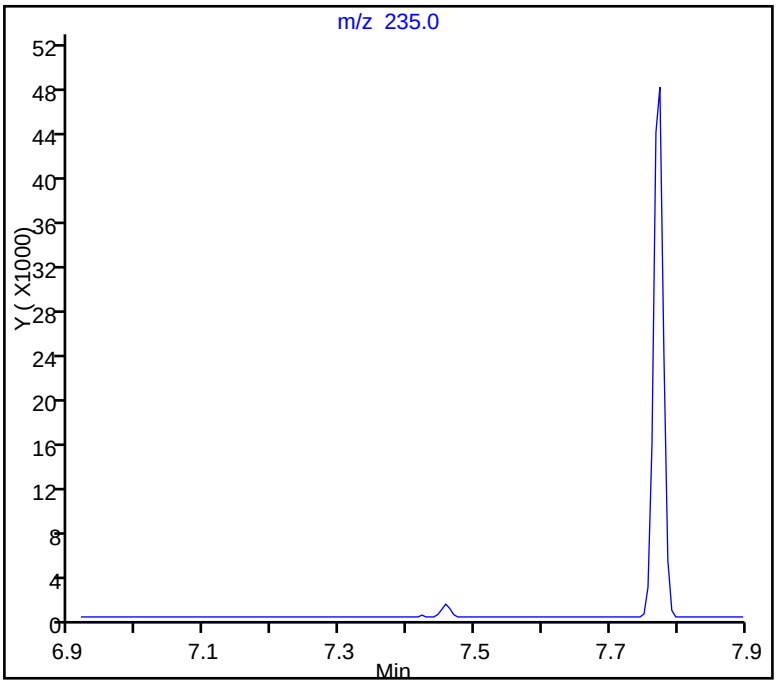
Report Date: 27-Nov-2013 09:54:32 Chrom Revision: 2.1 15-Oct-2013 07:52:24

Breakdown Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131126-7223.b\L1144759.D				
Injection Date:	26-Nov-2013 19:18:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		

116 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

116 4,4'-DDT, Area = 49475
115 4,4'-DDE, Area = 0
114 4,4'-DDD, Area = 1075

%Breakdown: 2.13%, Max Limit: 20.00%
Passed

Peak Tailing Report

TestAmerica Edison

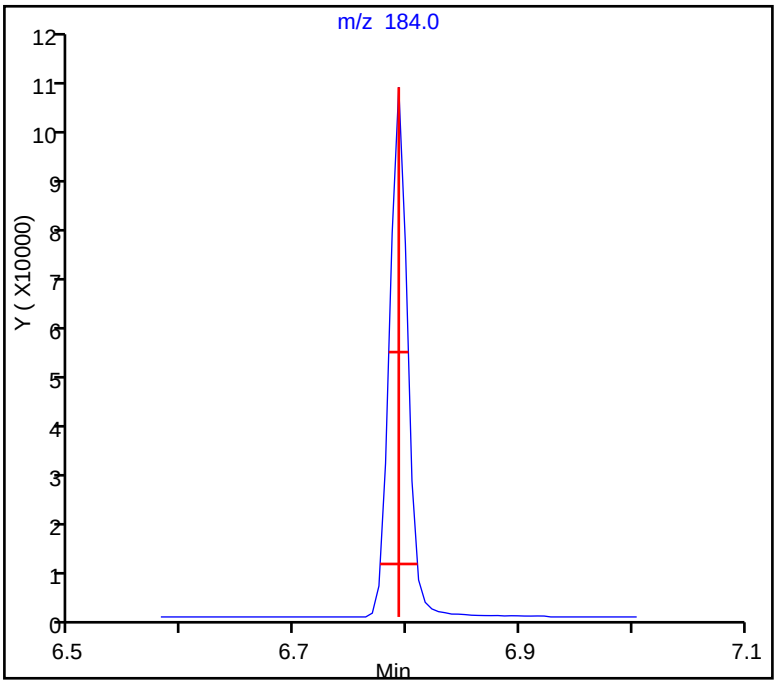
Data File:	\\EDICHROM\ChromData\CBNAMS12\20131126-7223.b\L1144759.D				
Injection Date:	26-Nov-2013 19:18:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		

89 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.017 (min.)
Front Width = 0.017 (min.)

Tailing Factor = 1.0, Max. Tailing < 2.00
Passed



Report Date: 27-Nov-2013 09:54:32 Chrom Revision: 2.1 15-Oct-2013 07:52:24

Peak Tailing Report

TestAmerica Edison

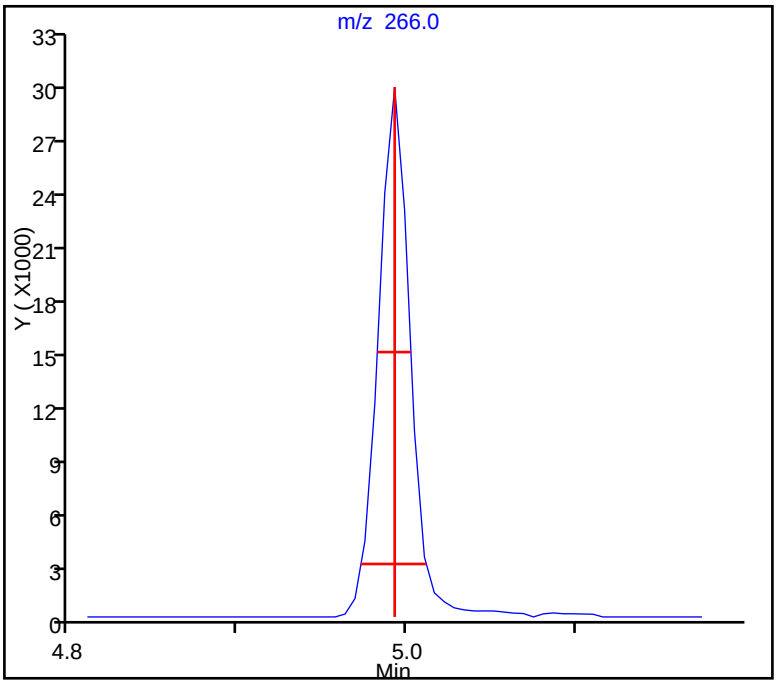
Data File:	\\EDICHROM\ChromData\CBNAMS12\20131126-7223.b\L1144759.D				
Injection Date:	26-Nov-2013 19:18:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		

80 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.019 (min.)
Front Width = 0.020 (min.)

Tailing Factor = 0.9, Max. Tailing < 2.00
Passed



TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAMS12\20131212-7728.b\L1145362.D
Lims ID: DFTPP Lab Sample ID:
Client ID:
Sample Type: DFTPP
Inject. Date: 12-Dec-2013 07:50:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007728-001
Misc. Info.: DFTPP
Operator ID: BNA 12 Instrument ID: CBNAMS12

Method: \\EDICHROM\ChromData\CBNAMS12\20131212-7728.b\8270_12.m
Limit Group: SV 8270D ICAL
Last Update: 12-Dec-2013 14:14:06 Calib Date: 27-Nov-2013 00:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAMS12\20131126-7223.b\L1144771.D

Column 1 : Detector MS SCAN
Process Host: XAWRK005

First Level Reviewer: asfawa Date: 12-Dec-2013 08:04:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/ml	Flags
80 Pentachlorophenol_T	266	4.599	4.599	0.0	86	32978	0	7
89 Benzidine_T	184	6.398	6.398	0.0	97	184090	0	7
120 DFTPP								
114 4,4'-DDD	235	7.057	7.057	0.0	1	2057	0	7
116 4,4'-DDT	235	7.375	7.375	0.0	96	83027	0	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

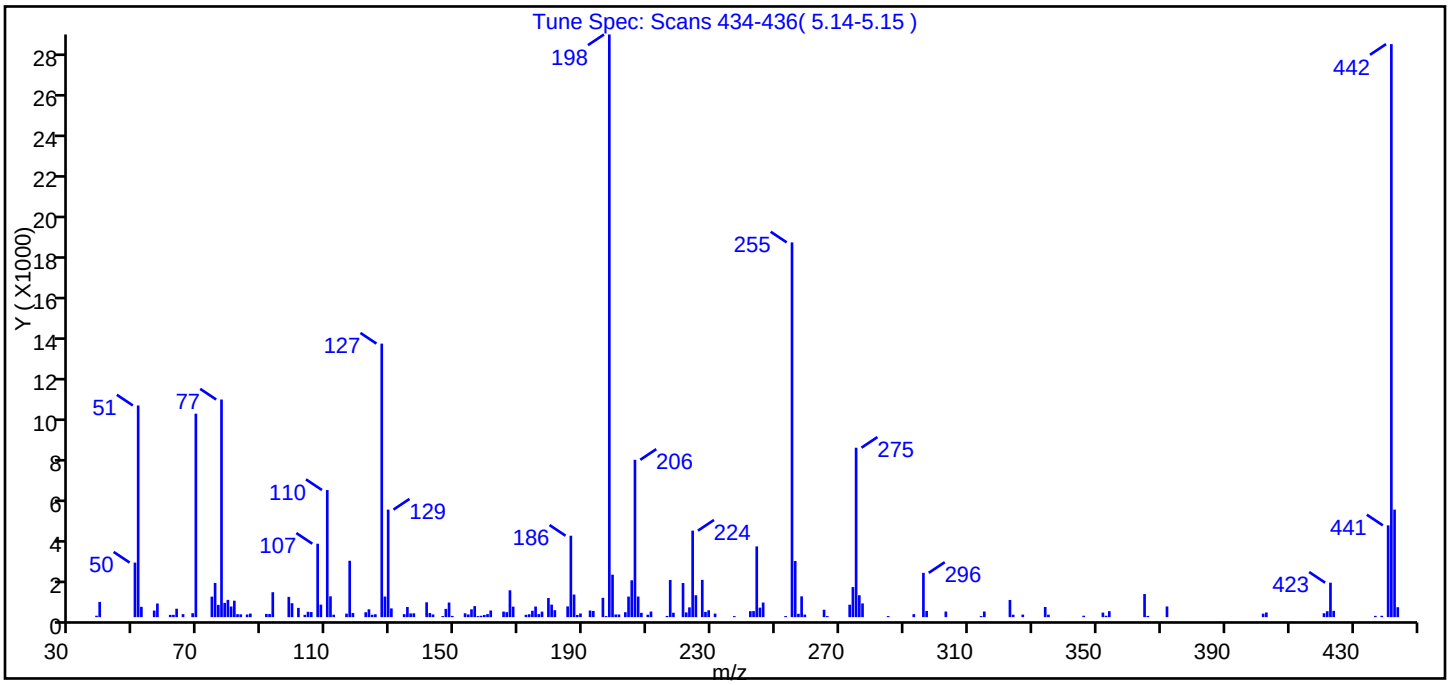
Report Date: 12-Dec-2013 14:14:07 Chrom Revision: 2.1 15-Oct-2013 07:52:24

MS Tune Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131212-7728.b\L1145362.D				
Injection Date:	12-Dec-2013 07:50:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Tune Method:	DFTPP Method 8270				

120 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	36.30
68	Less than 2.00% of mass 69	0.70 (1.90)
69	Present	34.90
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	46.90
197	Less than 1.00% of mass 198	0.20
199	5.00 - 9.00% of mass 198	7.30
275	10.00 - 30.00% of mass 198	29.10
365	Greater than 1.00% of mass 198	4.00
441	Present, but less than mass 443%	15.80 (85.30)
442	Greater than 40.00% of mass 198	98.30
443	17.00 - 23.00% of mass 442	18.50 (18.80)

Data File: \\EDICHROM\ChromData\CBNAMS12\20131212-7728.b\L1145362.D\8270_12.rslt\spectra.d
Injection Date: 12-Dec-2013 07:50:30
Spectrum: Tune Spec: Scans 434-436(5.14-5.15)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 166

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	67	122.00	236	186.00	3916	258.00	1000
39.00	732	123.00	377	187.00	1087	259.00	124
50.00	2624	124.00	115	188.00	105	265.00	357
51.00	10181	125.00	140	189.00	177	266.00	52
52.00	497	127.00	13156	192.00	319	273.00	598
56.00	316	128.00	991	193.00	298	274.00	1446
57.00	656	129.00	5173	196.00	928	275.00	8148
61.00	110	130.00	421	197.00	50	276.00	1054
62.00	111	134.00	143	198.00	28024	277.00	660
63.00	405	135.00	489	199.00	2043	285.00	52
65.00	145	136.00	180	200.00	128	293.00	145
68.00	188	137.00	185	201.00	128	296.00	2130
69.00	9786	141.00	715	203.00	237	297.00	298
74.00	986	142.00	197	204.00	989	303.00	270
75.00	1646	143.00	129	205.00	1773	314.00	52
76.00	589	146.00	50	206.00	7568	315.00	271
77.00	10467	147.00	398	207.00	990	323.00	826
78.00	687	148.00	704	208.00	207	324.00	117
79.00	832	149.00	60	210.00	118	327.00	123
80.00	512	153.00	186	211.00	270	334.00	489
81.00	791	154.00	129	216.00	59	335.00	119
82.00	143	155.00	376	217.00	1786	346.00	67
83.00	135	156.00	531	218.00	212	352.00	219
85.00	126	157.00	51	221.00	1641	353.00	67
86.00	171	158.00	66	222.00	228	354.00	287
91.00	155	159.00	105	223.00	471	365.00	1111
92.00	152	160.00	146	224.00	4161	366.00	58
93.00	1200	161.00	320	225.00	1055	372.00	513
98.00	975	165.00	268	227.00	1792	402.00	169
99.00	671	166.00	240	228.00	252	403.00	224
101.00	445	167.00	1292	229.00	331	421.00	189
103.00	112	168.00	505	231.00	169	422.00	286
104.00	256	172.00	112	237.00	50	423.00	1658

Report Date: 12-Dec-2013 14:14:07 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\EDICHROM\ChromData\CBNAMS12\20131212-7728.b\L1145362.D\8270_12.rslt\spectra.d
Injection Date: 12-Dec-2013 07:50:30
Spectrum: Tune Spec: Scans 434-436(5.14-5.15)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 166

m/z	Y	m/z	Y	m/z	Y	m/z	Y
105.00	244	173.00	139	242.00	289	424.00	302
107.00	3531	174.00	306	243.00	292	437.00	62
108.00	601	175.00	510	244.00	3402	439.00	65
110.00	6114	176.00	146	245.00	457	441.00	4414
111.00	1002	177.00	266	246.00	701	442.00	27560
112.00	116	179.00	919	253.00	53	443.00	5172
116.00	170	180.00	602	255.00	18024	444.00	478
117.00	2711	181.00	335	256.00	2701		
118.00	197	185.00	517	257.00	162		

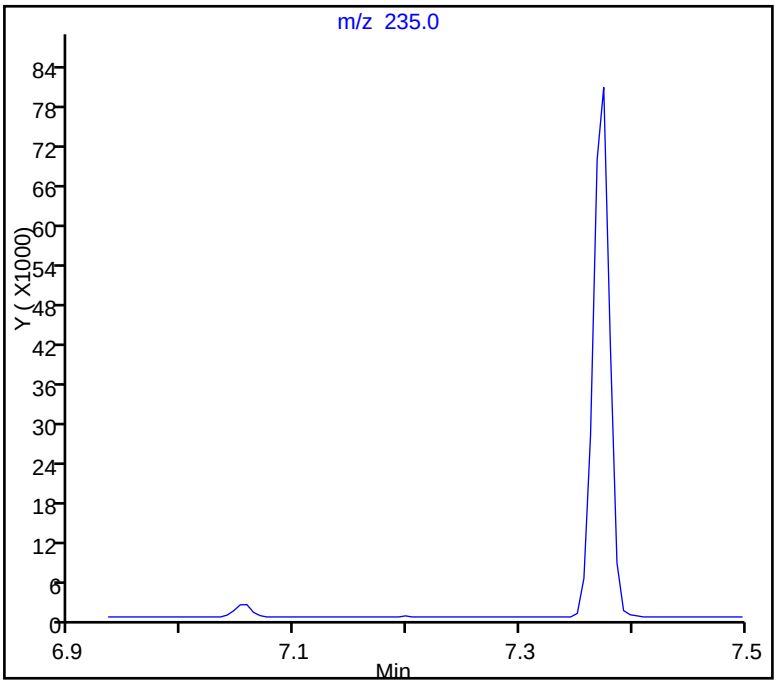
Report Date: 12-Dec-2013 14:14:07 Chrom Revision: 2.1 15-Oct-2013 07:52:24

Breakdown Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131212-7728.b\L1145362.D				
Injection Date:	12-Dec-2013 07:50:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		

116 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

116 4,4'-DDT, Area = 83027
115 4,4'-DDE, Area = 0
114 4,4'-DDD, Area = 2057

%Breakdown: 2.42%, Max Limit: 20.00%
Passed

Report Date: 12-Dec-2013 14:14:07 Chrom Revision: 2.1 15-Oct-2013 07:52:24

Peak Tailing Report

TestAmerica Edison

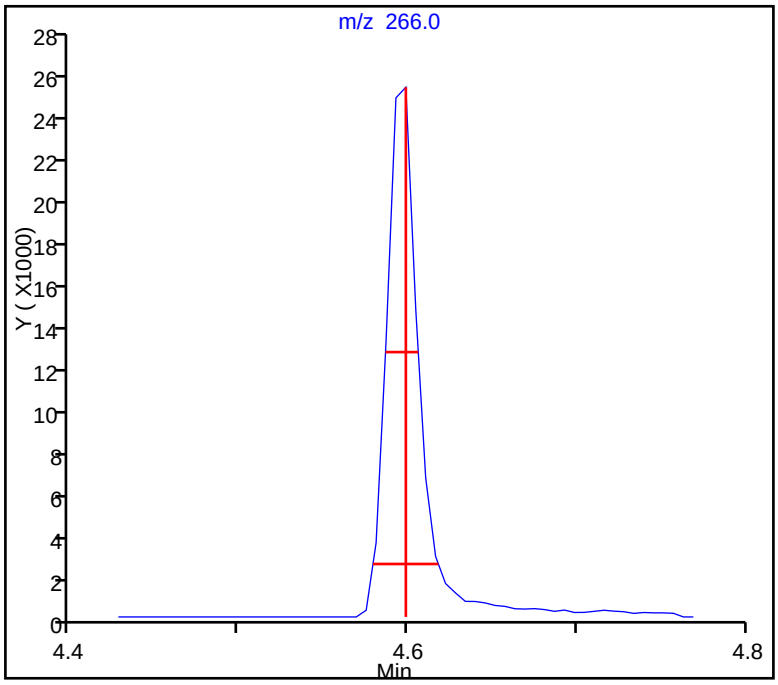
Data File:	\\EDICHROM\ChromData\CBNAMS12\20131212-7728.b\L1145362.D				
Injection Date:	12-Dec-2013 07:50:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		

80 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.019 (min.)
Front Width = 0.020 (min.)

Tailing Factor = 1.0, Max. Tailing < 2.00
Passed



Report Date: 12-Dec-2013 14:14:07 Chrom Revision: 2.1 15-Oct-2013 07:52:24

Peak Tailing Report

TestAmerica Edison

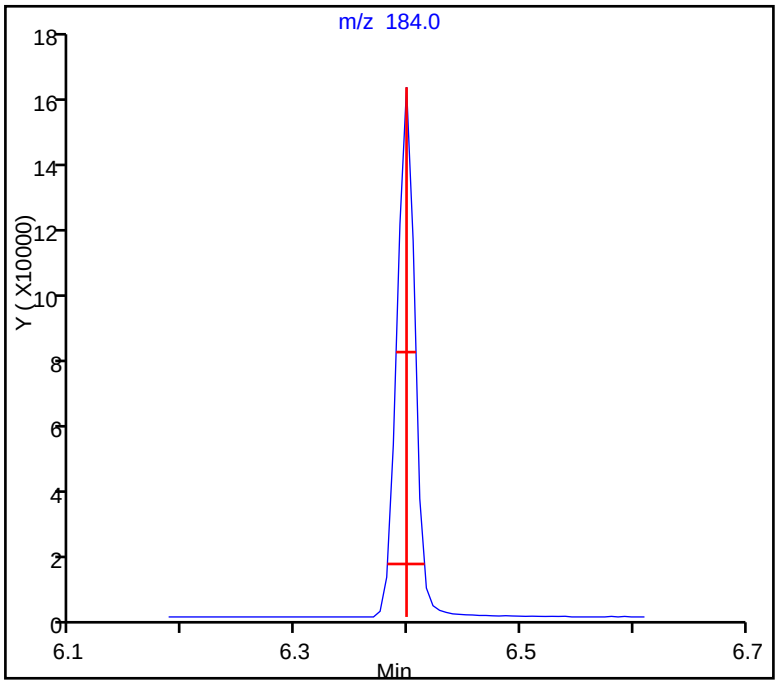
Data File:	\\EDICHROM\ChromData\CBNAMS12\20131212-7728.b\L1145362.D				
Injection Date:	12-Dec-2013 07:50:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		

89 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.016 (min.)
Front Width = 0.017 (min.)

Tailing Factor = 0.9, Max. Tailing < 2.00
Passed



TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAMS12\20131215-7832.b\L1145432.D
Lims ID: DFTPP Lab Sample ID:
Client ID:
Sample Type: DFTPP
Inject. Date: 15-Dec-2013 09:48:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007832-001
Misc. Info.: DFTPP
Operator ID: BNA 12 Instrument ID: CBNAMS12

Method: \\EDICHROM\ChromData\CBNAMS12\20131215-7832.b\8270_12.m
Limit Group: SV 8270D ICAL
Last Update: 16-Dec-2013 10:58:46 Calib Date: 15-Dec-2013 14:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAMS12\20131215-7832.b\L1145444.D

Column 1 : Detector MS SCAN
Process Host: XAWRK011

First Level Reviewer: zhaoc Date: 15-Dec-2013 10:06:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/ml	Flags
80 Pentachlorophenol_T	266	4.557	4.557	0.0	88	30006	0	7
89 Benzidine_T	184	6.363	6.363	0.0	99	458329	0	7
120 DFTPP								
114 4,4'-DDD	235	7.016	7.016	0.0	24	2842	0	7
116 4,4'-DDT	235	7.340	7.340	0.0	96	152857	0	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

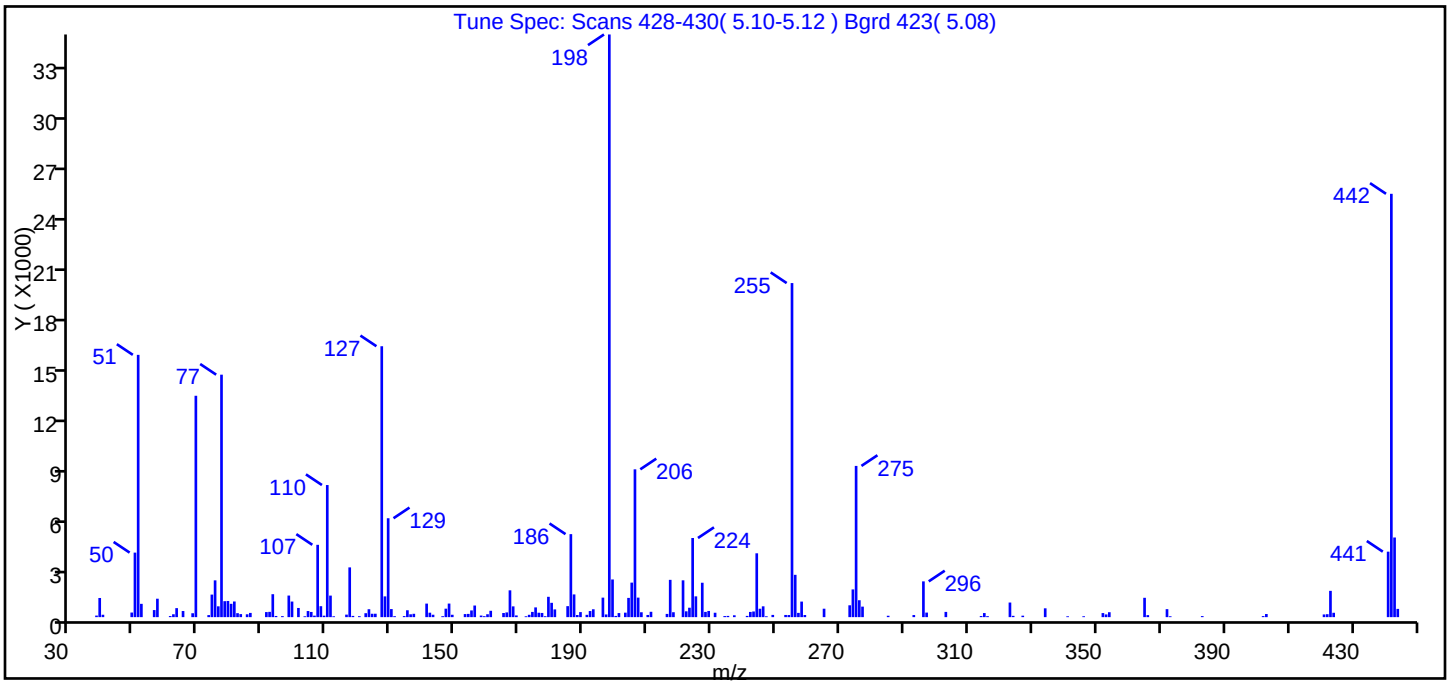
Report Date: 16-Dec-2013 10:58:47 Chrom Revision: 2.1 15-Oct-2013 07:52:24

MS Tune Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131215-7832.b\L1145432.D				
Injection Date:	15-Dec-2013 09:48:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Tune Method:	DFTPP Method 8270				

120 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.00
68	Less than 2.00% of mass 69	0.70 (1.80)
69	Present	38.00
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	46.50
197	Less than 1.00% of mass 198	0.50
199	5.00 - 9.00% of mass 198	6.50
275	10.00 - 30.00% of mass 198	26.00
365	Greater than 1.00% of mass 198	3.30
441	Present, but less than mass 443%	11.20 (82.20)
442	Greater than 40.00% of mass 198	72.70
443	17.00 - 23.00% of mass 442	13.70 (18.80)

Data File: \\EDICHROM\ChromData\CBNAMS12\20131215-7832.b\L1145432.D\8270_12.rslt\spectra.d
Injection Date: 15-Dec-2013 09:48:30
Spectrum: Tune Spec: Scans 428-430(5.10-5.12) Bgrd 423(5.08)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 183

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	93	116.00	149	181.00	458	253.00	129
39.00	1133	117.00	2943	185.00	650	254.00	124
40.00	142	118.00	73	186.00	4910	255.00	19760
49.00	272	120.00	56	187.00	1344	256.00	2503
50.00	3817	122.00	233	188.00	127	257.00	252
51.00	15514	123.00	468	189.00	299	258.00	920
52.00	787	124.00	200	191.00	137	259.00	126
56.00	418	125.00	202	192.00	361	265.00	499
57.00	1090	127.00	16024	193.00	466	273.00	701
61.00	65	128.00	1228	196.00	1154	274.00	1640
62.00	170	129.00	5850	197.00	159	275.00	8945
63.00	533	130.00	477	198.00	34464	276.00	1000
65.00	362	131.00	56	199.00	2229	277.00	622
68.00	231	134.00	62	200.00	71	285.00	82
69.00	13094	135.00	407	201.00	241	293.00	124
73.00	121	136.00	169	203.00	265	296.00	2116
74.00	1334	137.00	198	204.00	1138	297.00	269
75.00	2176	141.00	801	205.00	2042	303.00	310
76.00	640	142.00	263	206.00	8743	314.00	65
77.00	14342	143.00	143	207.00	1155	315.00	242
78.00	944	146.00	56	208.00	289	316.00	58
79.00	957	147.00	501	210.00	129	323.00	864
80.00	788	148.00	803	211.00	317	324.00	77
81.00	926	149.00	141	216.00	191	327.00	86
82.00	235	153.00	182	217.00	2206	334.00	522
83.00	180	154.00	192	218.00	291	341.00	50
85.00	169	155.00	397	221.00	2178	346.00	52
86.00	250	156.00	687	222.00	345	352.00	241
91.00	300	158.00	94	223.00	557	353.00	161
92.00	313	159.00	56	224.00	4681	354.00	291
93.00	1357	160.00	171	225.00	1230	365.00	1144
94.00	69	161.00	376	227.00	2035	366.00	119
96.00	59	165.00	244	228.00	310	372.00	473

Report Date: 16-Dec-2013 10:58:47 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\EDICHROM\ChromData\CBNAMS12\20131215-7832.b\L1145432.D\8270_12.rslt\spectra.d
Injection Date: 15-Dec-2013 09:48:30
Spectrum: Tune Spec: Scans 428-430(5.10-5.12) Bgrd 423(5.08)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 183

m/z	Y	m/z	Y	m/z	Y	m/z	Y
98.00	1277	166.00	280	229.00	366	373.00	51
99.00	922	167.00	1586	231.00	260	383.00	62
101.00	543	168.00	637	234.00	64	402.00	62
103.00	51	169.00	101	235.00	73	403.00	185
104.00	361	172.00	51	237.00	110	421.00	160
105.00	307	173.00	139	241.00	73	422.00	174
106.00	88	174.00	309	242.00	308	423.00	1555
107.00	4278	175.00	576	243.00	335	424.00	258
108.00	648	176.00	261	244.00	3776	441.00	3873
109.00	86	177.00	248	245.00	497	442.00	25040
110.00	7814	178.00	54	246.00	640	443.00	4711
111.00	1274	179.00	1203	247.00	50	444.00	488
112.00	50	180.00	847	249.00	132		

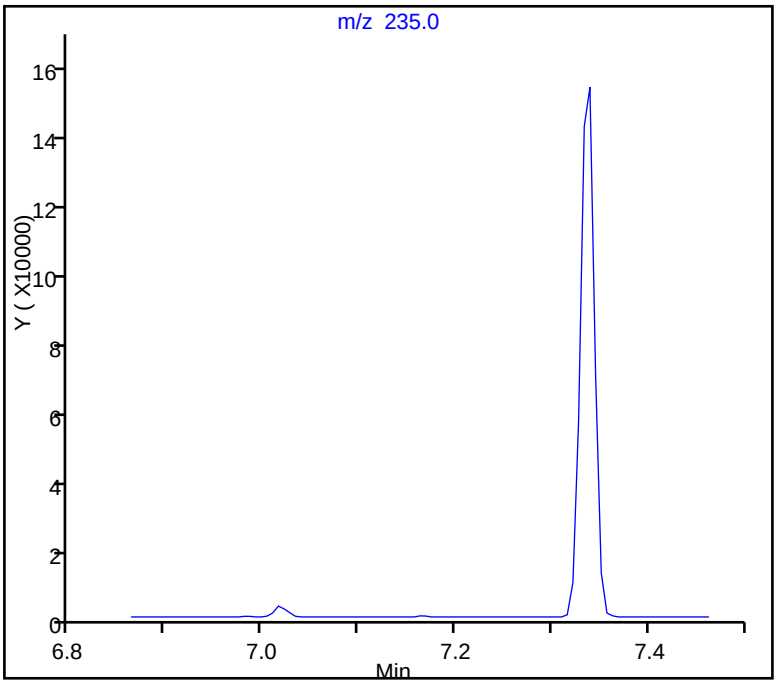
Report Date: 16-Dec-2013 10:58:47 Chrom Revision: 2.1 15-Oct-2013 07:52:24

Breakdown Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131215-7832.b\L1145432.D				
Injection Date:	15-Dec-2013 09:48:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		

116 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

116 4,4'-DDT, Area = 152857
115 4,4'-DDE, Area = 0
114 4,4'-DDD, Area = 2842

%Breakdown: 1.83%, Max Limit: 20.00%
Passed

Report Date: 16-Dec-2013 10:58:47 Chrom Revision: 2.1 15-Oct-2013 07:52:24

Peak Tailing Report

TestAmerica Edison

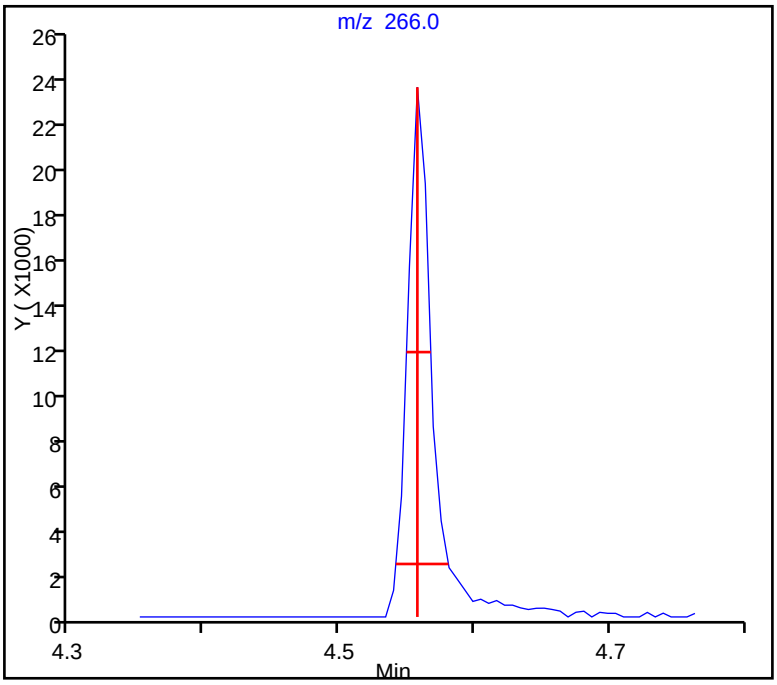
Data File:	\\EDICHROM\ChromData\CBNAMS12\20131215-7832.b\L1145432.D				
Injection Date:	15-Dec-2013 09:48:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		

80 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.023 (min.)
Front Width = 0.016 (min.)

Tailing Factor = 1.4, Max. Tailing < 2.00
Passed



Report Date: 16-Dec-2013 10:58:47 Chrom Revision: 2.1 15-Oct-2013 07:52:24

Peak Tailing Report

TestAmerica Edison

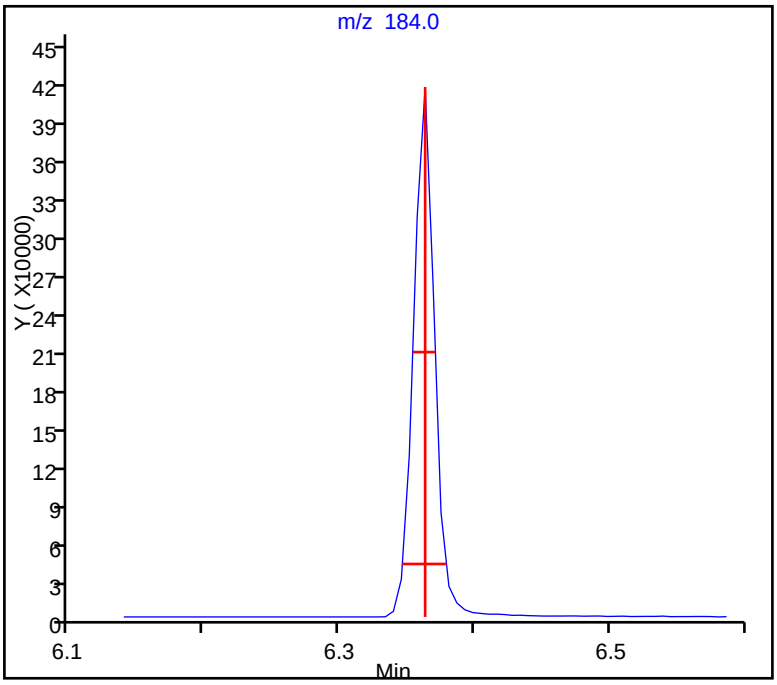
Data File:	\\EDICHROM\ChromData\CBNAMS12\20131215-7832.b\L1145432.D				
Injection Date:	15-Dec-2013 09:48:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		

89 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.016 (min.)
Front Width = 0.017 (min.)

Tailing Factor = 0.9, Max. Tailing < 2.00
Passed



TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145771.D
Lims ID: DFTPP Lab Sample ID:
Client ID:
Sample Type: DFTPP
Inject. Date: 24-Dec-2013 11:12:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0008228-001
Misc. Info.: DFTPP
Operator ID: BNA 12 Instrument ID: CBNAMS12

Method: \\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\8270_12.m
Limit Group: SV 8270D ICAL
Last Update: 24-Dec-2013 16:42:29 Calib Date: 15-Dec-2013 14:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAMS12\20131215-7832.b\L1145444.D

Column 1 : Detector MS SCAN
Process Host: XAWRK027

First Level Reviewer: zhaoc Date: 24-Dec-2013 11:30:54

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/ml	Flags
80 Pentachlorophenol_T	266	4.216	4.216	0.0	87	35256	0	7
89 Benzidine_T	184	6.016	6.016	0.0	99	253175	0	7
120 DFTPP								
114 4,4'-DDD	235	6.669	6.669	0.0	16	2389	0	7
116 4,4'-DDT	235	6.986	6.986	0.0	96	107559	0	7

QC Flag Legend

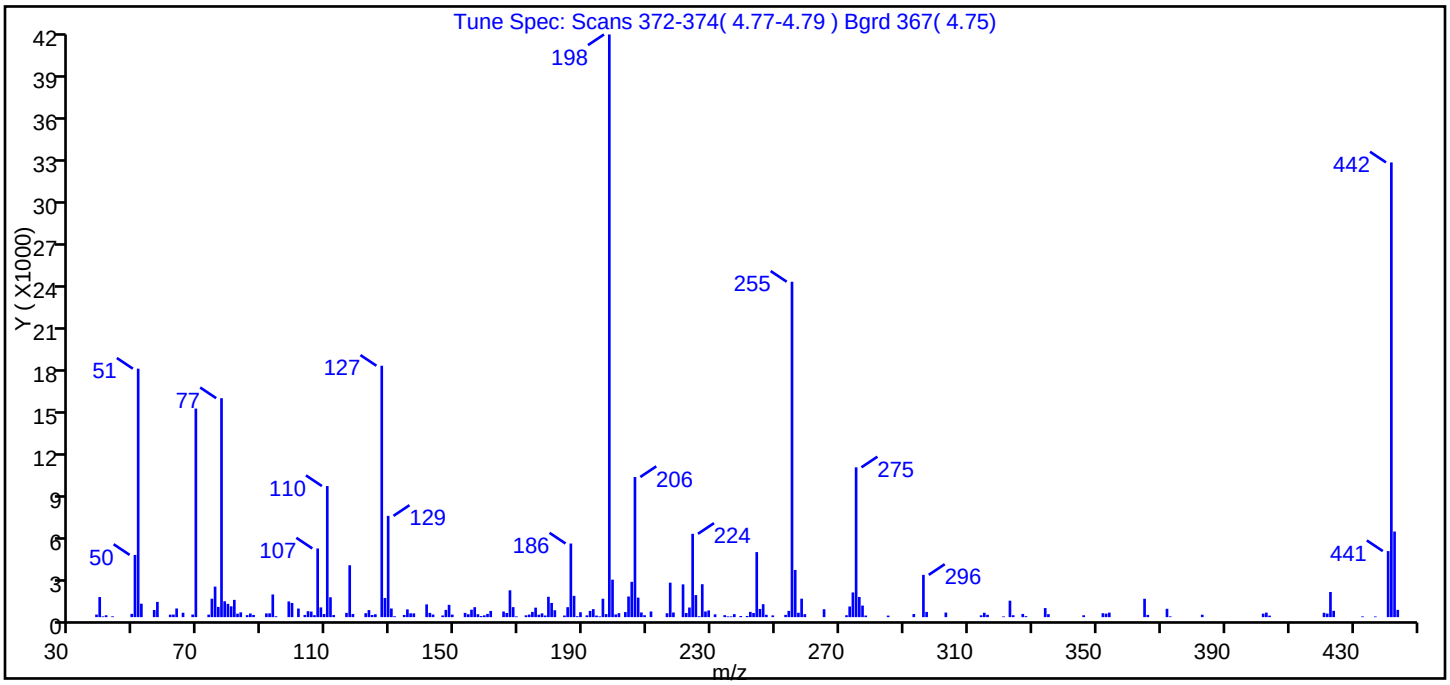
Processing Flags
7 - Failed Limit of Detection

MS Tune Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145771.D				
Injection Date:	24-Dec-2013 11:12:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		
Tune Method:	DFTPP Method 8270				

120 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	42.60
68	Less than 2.00% of mass 69	0.40 (1.20)
69	Present	35.80
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	43.10
197	Less than 1.00% of mass 198	0.50
199	5.00 - 9.00% of mass 198	6.40
275	10.00 - 30.00% of mass 198	25.70
365	Greater than 1.00% of mass 198	3.20
441	Present, but less than mass 443%	11.30 (77.20)
442	Greater than 40.00% of mass 198	78.00
443	17.00 - 23.00% of mass 442	14.70 (18.80)

Data File: \\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145771.D\8270_12.rslt\spectra.d
Injection Date: 24-Dec-2013 11:12:30
Spectrum: Tune Spec: Scans 372-374(4.77-4.79) Bgrd 367(4.75)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 198

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	183	118.00	225	189.00	352	257.00	312
39.00	1438	122.00	281	191.00	127	258.00	1318
40.00	55	123.00	504	192.00	446	259.00	215
41.00	134	124.00	153	193.00	574	265.00	565
43.00	59	125.00	208	194.00	113	272.00	136
49.00	234	127.00	17952	195.00	53	273.00	762
50.00	4444	128.00	1369	196.00	1314	274.00	1764
51.00	17744	129.00	7233	197.00	215	275.00	10697
52.00	959	130.00	616	198.00	41608	276.00	1441
56.00	513	131.00	64	199.00	2677	277.00	827
57.00	1088	134.00	157	200.00	194	278.00	115
61.00	178	135.00	554	201.00	285	285.00	110
62.00	184	136.00	275	203.00	362	293.00	221
63.00	620	137.00	270	204.00	1474	296.00	3019
65.00	315	141.00	911	205.00	2521	297.00	372
68.00	186	142.00	305	206.00	10008	303.00	329
69.00	14895	143.00	185	207.00	1394	314.00	131
73.00	179	146.00	120	208.00	334	315.00	314
74.00	1317	147.00	516	209.00	138	316.00	170
75.00	2180	148.00	879	211.00	406	321.00	51
76.00	730	149.00	182	216.00	278	323.00	1175
77.00	15637	153.00	307	217.00	2461	324.00	138
78.00	1134	154.00	208	218.00	332	327.00	229
79.00	950	155.00	531	221.00	2342	328.00	71
80.00	773	156.00	710	222.00	297	334.00	648
81.00	1233	157.00	208	223.00	687	335.00	212
82.00	246	158.00	78	224.00	5950	346.00	134
83.00	343	159.00	128	225.00	1575	352.00	279
85.00	143	160.00	231	226.00	62	353.00	253
86.00	259	161.00	444	227.00	2353	354.00	321
87.00	157	165.00	404	228.00	404	365.00	1314
91.00	268	166.00	299	229.00	482	366.00	161
92.00	275	167.00	1917	231.00	198	372.00	596

Report Date: 24-Dec-2013 16:42:29 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145771.D\8270_12.rslt\spectra.d
Injection Date: 24-Dec-2013 11:12:30
Spectrum: Tune Spec: Scans 372-374(4.77-4.79) Bgrd 367(4.75)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 198

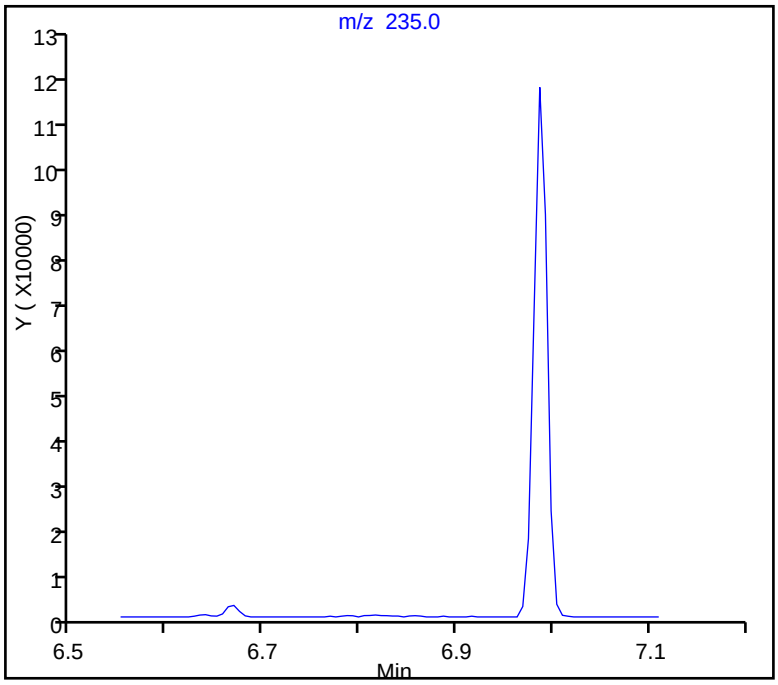
m/z	Y	m/z	Y	m/z	Y	m/z	Y
93.00	1620	168.00	714	234.00	143	373.00	53
94.00	63	169.00	53	235.00	54	383.00	173
98.00	1121	172.00	129	236.00	52	402.00	250
99.00	1013	173.00	182	237.00	216	403.00	324
101.00	615	174.00	374	239.00	82	404.00	109
103.00	156	175.00	679	241.00	84	421.00	312
104.00	425	176.00	169	242.00	375	422.00	254
105.00	399	177.00	269	243.00	297	423.00	1797
106.00	140	178.00	117	244.00	4646	424.00	452
107.00	4905	179.00	1454	245.00	587	433.00	53
108.00	695	180.00	1014	246.00	927	437.00	50
109.00	221	181.00	493	247.00	170	441.00	4717
110.00	9361	184.00	115	249.00	124	442.00	32472
111.00	1420	185.00	712	253.00	162	443.00	6113
112.00	149	186.00	5258	254.00	447	444.00	519
116.00	308	187.00	1521	255.00	23952		
117.00	3705	188.00	66	256.00	3370		

Breakdown Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145771.D				
Injection Date:	24-Dec-2013 11:12:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		

116 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

116 4,4'-DDT, Area = 107559
115 4,4'-DDE, Area = 0
114 4,4'-DDD, Area = 2389

%Breakdown: 2.17%, Max Limit: 20.00%
Passed

Peak Tailing Report

TestAmerica Edison

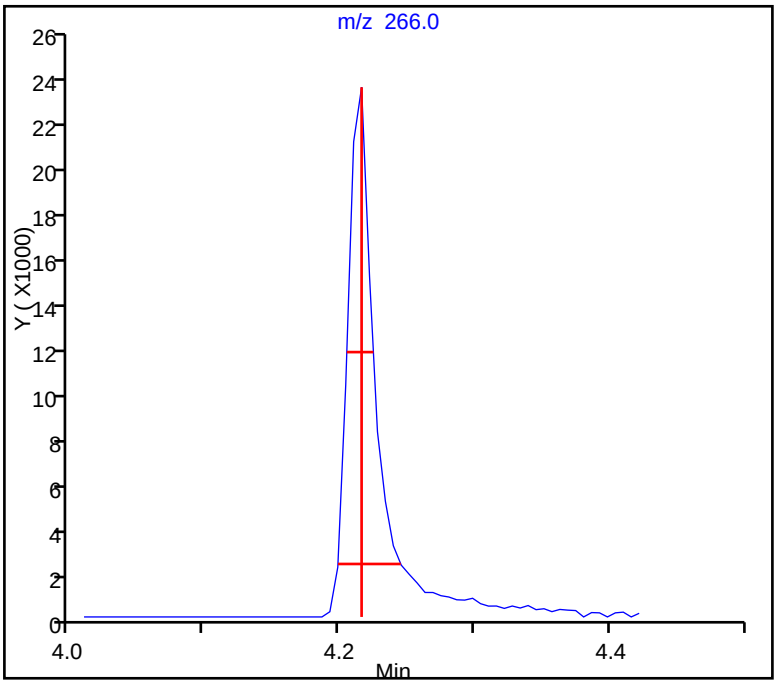
Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145771.D				
Injection Date:	24-Dec-2013 11:12:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		

80 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.029 (min.)
Front Width = 0.018 (min.)

Tailing Factor = 1.7, Max. Tailing < 2.00
Passed



Report Date: 24-Dec-2013 16:42:29 Chrom Revision: 2.1 15-Oct-2013 07:52:24

Peak Tailing Report

TestAmerica Edison

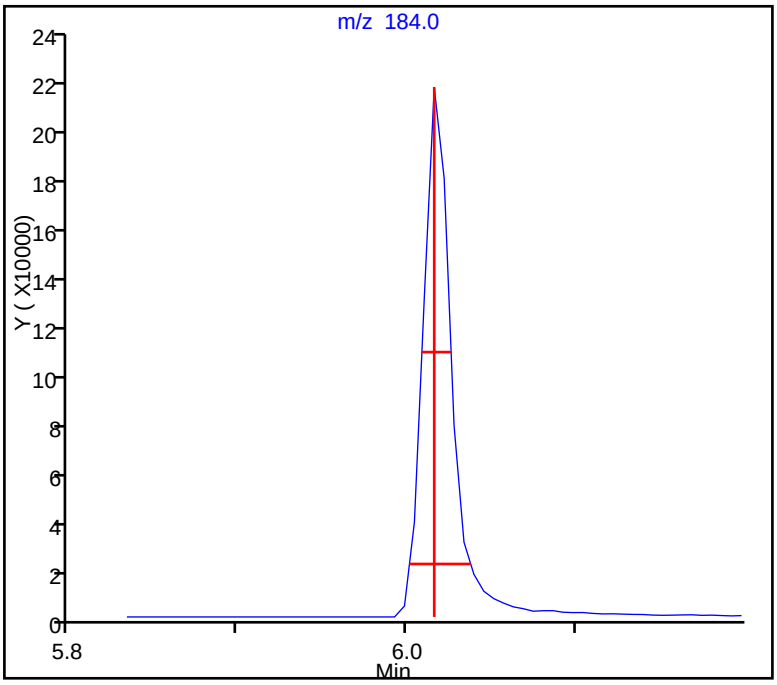
Data File:	\\EDICHROM\ChromData\CBNAMS12\20131224-8228.b\L1145771.D				
Injection Date:	24-Dec-2013 11:12:30	Instrument ID:	CBNAMS12		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:	BNA 12	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_12	Limit Group:	SV 8270D ICAL		

89 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.022 (min.)
Front Width = 0.015 (min.)

Tailing Factor = 1.5, Max. Tailing < 2.00
Passed



TestAmerica Edison
Target Compound Quantitation Report

Data File:	\\EDICHROM\ChromData\CBNAMS5\20131203-7408.b\x6205.D				
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Sample Type:	DFTPP				
Inject. Date:	03-Dec-2013 15:40:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	460-0007408-001				
Misc. Info.:	25 ppm bna 4838				
Operator ID:		Instrument ID:	CBNAMS5		
Method:	\\EDICHROM\ChromData\CBNAMS5\20131203-7408.b\8270_5.m				
Limit Group:	SV 8270D ICAL				
Last Update:	04-Dec-2013 09:42:27	Calib Date:	03-Dec-2013 20:16:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\EDICHROM\ChromData\CBNAMS5\20131203-7408.b\x6217.D				
Column 1 :	Rtxi-5Sil MS (0.25 mm)	Detector	MS SCAN		
Process Host:	XAWRK040				

First Level Reviewer: bayoumiw Date: 03-Dec-2013 15:51:20

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/ml	Flags
80 Pentachlorophenol_T	266	4.628	4.628	0.0	84	29217	0	7
89 Benzidine_T	184	6.469	6.469	0.0	97	185499	0	7
120 DFTPP								
114 4,4'-DDD	235	7.145	7.145	0.0	1	1826	0	
116 4,4'-DDT	235	7.469	7.469	0.0	77	81730	0	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

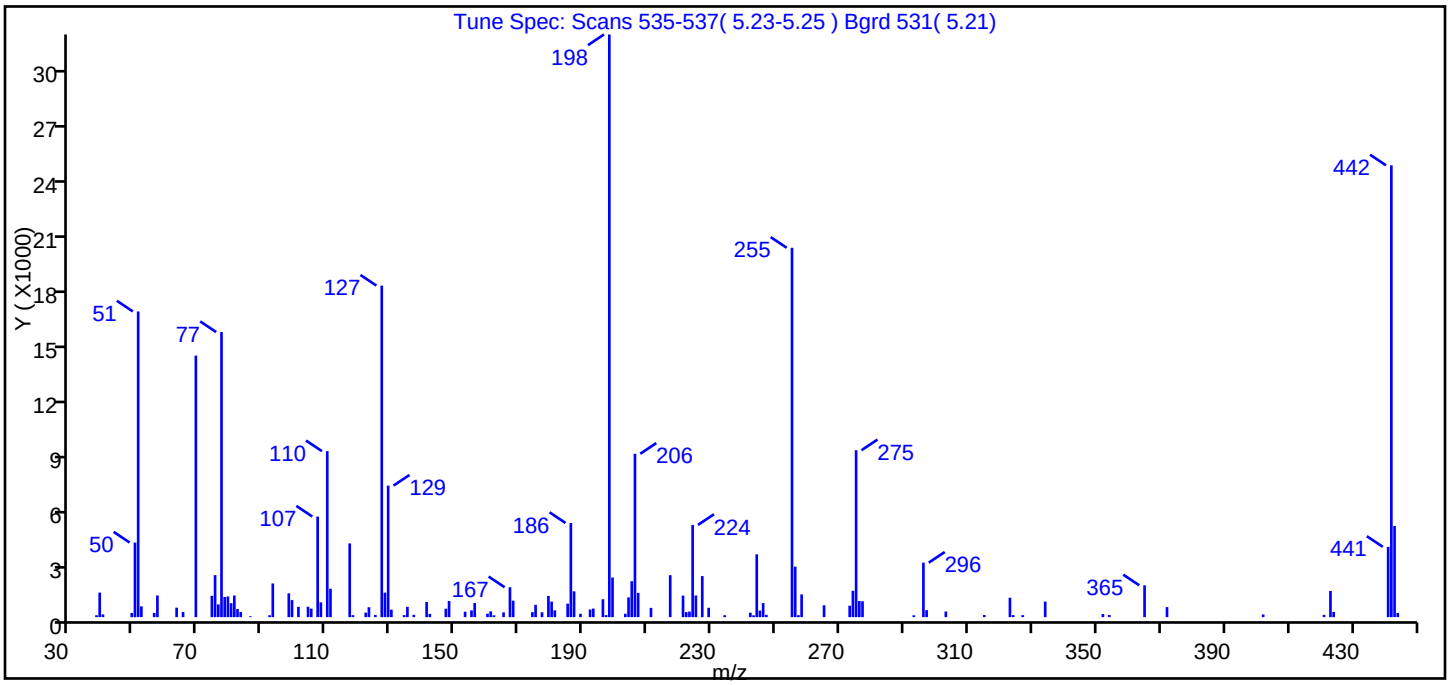
Report Date: 04-Dec-2013 09:42:27 Chrom Revision: 2.1 15-Oct-2013 07:52:24

MS Tune Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS5\20131203-7408.b\x6205.D				
Injection Date:	03-Dec-2013 15:40:30	Instrument ID:	CBNAMS5		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:		ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_5	Limit Group:	SV 8270D ICAL		
Tune Method:	DFTPP Method 8270				

120 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	52.50
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Present	44.90
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	56.90
197	Less than 1.00% of mass 198	0.30
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 30.00% of mass 198	28.60
365	Greater than 1.00% of mass 198	5.50
441	Present, but less than mass 443%	12.10 (77.10)
442	Greater than 40.00% of mass 198	77.50
443	17.00 - 23.00% of mass 442	15.70 (20.20)

Data File: \\EDICHROM\ChromData\CBNAMS5\20131203-7408.b\x6205.D\8270_5.rslt\spectra.d
Injection Date: 03-Dec-2013 15:40:30
Spectrum: Tune Spec: Scans 535-537(5.23-5.25) Bgrd 531(5.21)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 127

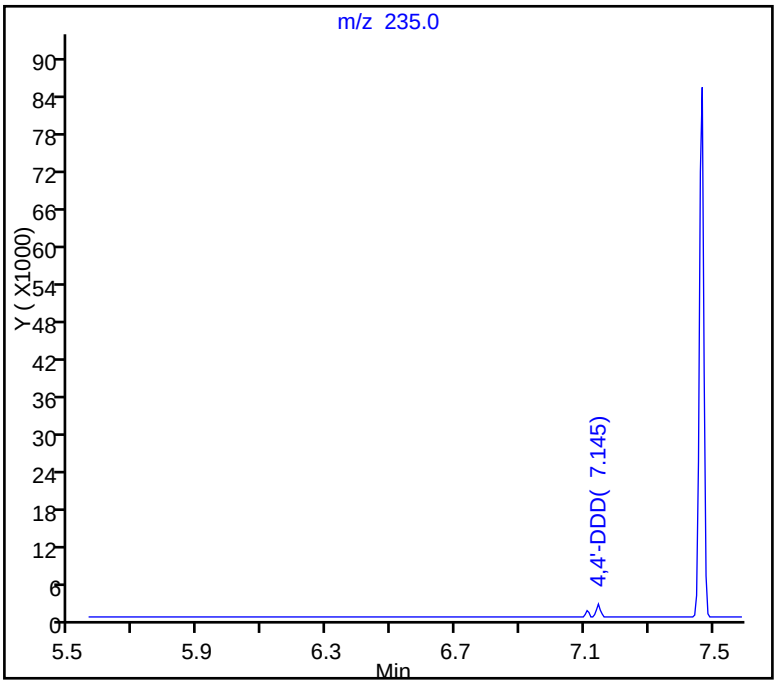
m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	104	110.00	9052	181.00	372	255.00	20144
39.00	1338	111.00	1548	185.00	735	256.00	2754
40.00	149	117.00	4022	186.00	5136	257.00	108
49.00	228	118.00	108	187.00	1407	258.00	1241
50.00	4069	122.00	246	189.00	183	265.00	647
51.00	16672	123.00	540	192.00	417	273.00	623
52.00	588	125.00	115	193.00	468	274.00	1437
56.00	231	127.00	18080	196.00	977	275.00	9101
57.00	1181	128.00	1336	197.00	111	276.00	877
63.00	516	129.00	7173	198.00	31776	277.00	865
65.00	279	130.00	408	199.00	2161	293.00	101
69.00	14262	134.00	110	203.00	185	296.00	2971
74.00	1164	135.00	562	204.00	1077	297.00	382
75.00	2293	137.00	127	205.00	1961	303.00	307
76.00	694	141.00	826	206.00	8910	315.00	119
77.00	15548	142.00	177	207.00	1325	323.00	1059
78.00	1097	147.00	460	211.00	505	324.00	110
79.00	1129	148.00	883	217.00	2289	327.00	110
80.00	760	153.00	295	221.00	1176	334.00	849
81.00	1179	155.00	369	222.00	273	352.00	169
82.00	443	156.00	768	223.00	303	354.00	119
83.00	281	160.00	186	224.00	5030	365.00	1736
86.00	46	161.00	315	225.00	1182	372.00	548
92.00	104	162.00	101	227.00	2240	402.00	148
93.00	1838	165.00	262	229.00	511	421.00	124
98.00	1300	167.00	1631	234.00	106	423.00	1430
99.00	930	168.00	898	242.00	240	424.00	288
101.00	560	174.00	272	243.00	101	441.00	3833
104.00	567	175.00	672	244.00	3426	442.00	24640
105.00	463	177.00	267	245.00	358	443.00	4973
107.00	5485	179.00	1159	246.00	767	444.00	232
108.00	807	180.00	847	247.00	125		

Breakdown Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS5\20131203-7408.b\x6205.D				
Injection Date:	03-Dec-2013 15:40:30	Instrument ID:	CBNAMS5		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:		ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_5	Limit Group:	SV 8270D ICAL		

116 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

116 4,4'-DDT, Area = 81730
114 4,4'-DDD, Area = 1826
115 4,4'-DDE, Area = 0

%Breakdown: 2.19%, Max Limit: 20.00%
Passed

Report Date: 04-Dec-2013 09:42:27 Chrom Revision: 2.1 15-Oct-2013 07:52:24

Peak Tailing Report

TestAmerica Edison

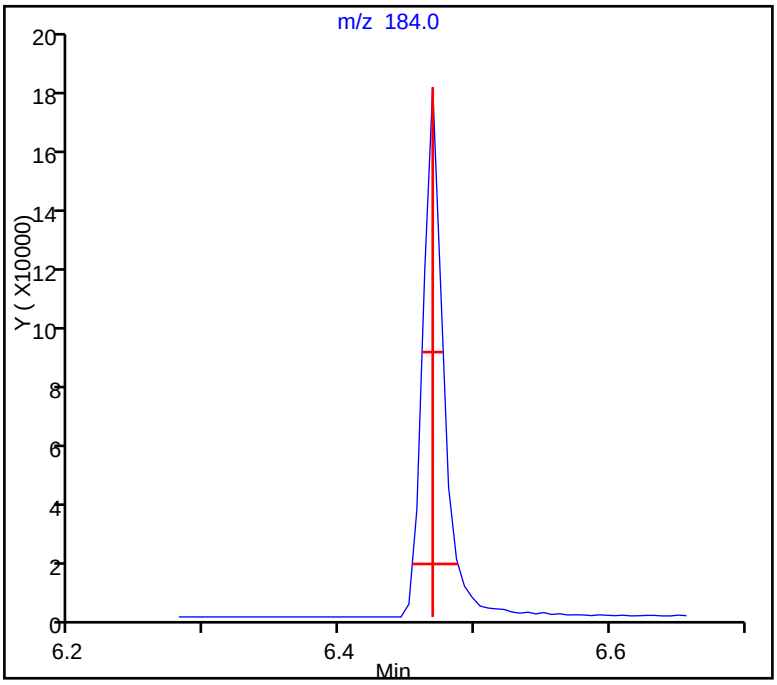
Data File:	\\EDICHROM\ChromData\CBNAMS5\20131203-7408.b\x6205.D				
Injection Date:	03-Dec-2013 15:40:30	Instrument ID:	CBNAMS5		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:		ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_5	Limit Group:	SV 8270D ICAL		

89 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.019 (min.)
Front Width = 0.015 (min.)

Tailing Factor = 1.2, Max. Tailing < 2.00
Passed



Report Date: 04-Dec-2013 09:42:27 Chrom Revision: 2.1 15-Oct-2013 07:52:24

Peak Tailing Report

TestAmerica Edison

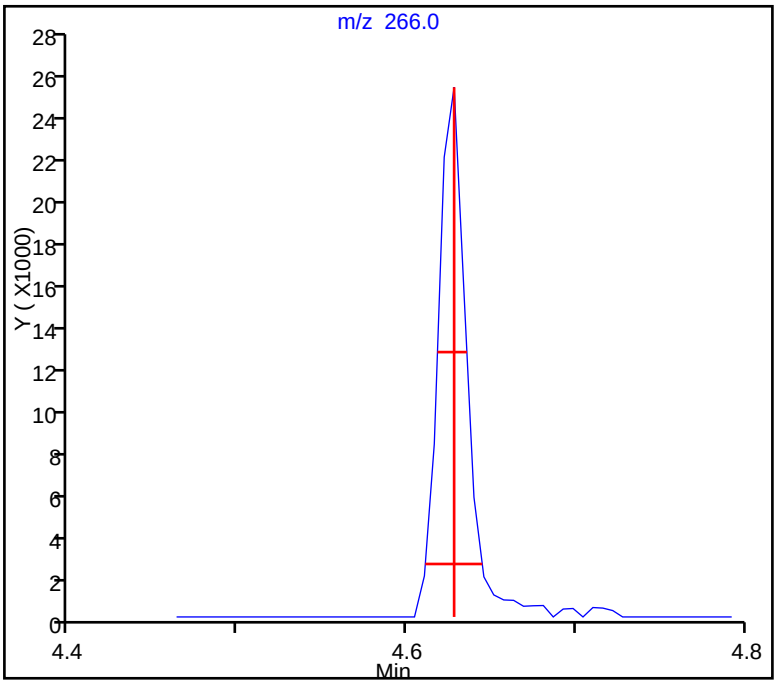
Data File:	\\EDICHROM\ChromData\CBNAMS5\20131203-7408.b\x6205.D				
Injection Date:	03-Dec-2013 15:40:30	Instrument ID:	CBNAMS5		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:		ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_5	Limit Group:	SV 8270D ICAL		

80 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.017 (min.)
Front Width = 0.017 (min.)

Tailing Factor = 1.0, Max. Tailing < 2.00
Passed



TestAmerica Edison
Target Compound Quantitation Report

Data File:	\\EDICHROM\ChromData\CBNAMS5\20131211-7693.b\x6595.D				
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Sample Type:	DFTPP				
Inject. Date:	11-Dec-2013 14:41:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	460-0007693-001				
Misc. Info.:	25 ppm bna 4838				
Operator ID:		Instrument ID:	CBNAMS5		
Method:	\\EDICHROM\ChromData\CBNAMS5\20131211-7693.b\8270_5.m				
Limit Group:	SV 8270D ICAL				
Last Update:	11-Dec-2013 17:02:07	Calib Date:	03-Dec-2013 20:16:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\EDICHROM\ChromData\CBNAMS5\20131203-7408.b\x6217.D				
Column 1 :	Rtxi-5Sil MS (0.25 mm)	Detector	MS SCAN		
Process Host:	XAWRK030				
First Level Reviewer: croccom		Date:	11-Dec-2013 14:52:50		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/ml	Flags
80 Pentachlorophenol_T	266	4.410	4.410	0.0	85	31692	0	7
89 Benzidine_T	184	6.251	6.251	0.0	98	199747	0	7
120 DFTPP								
114 4,4'-DDD	235	6.922	6.922	0.0	1	1759	0	7
116 4,4'-DDT	235	7.245	7.245	0.0	92	93750	0	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

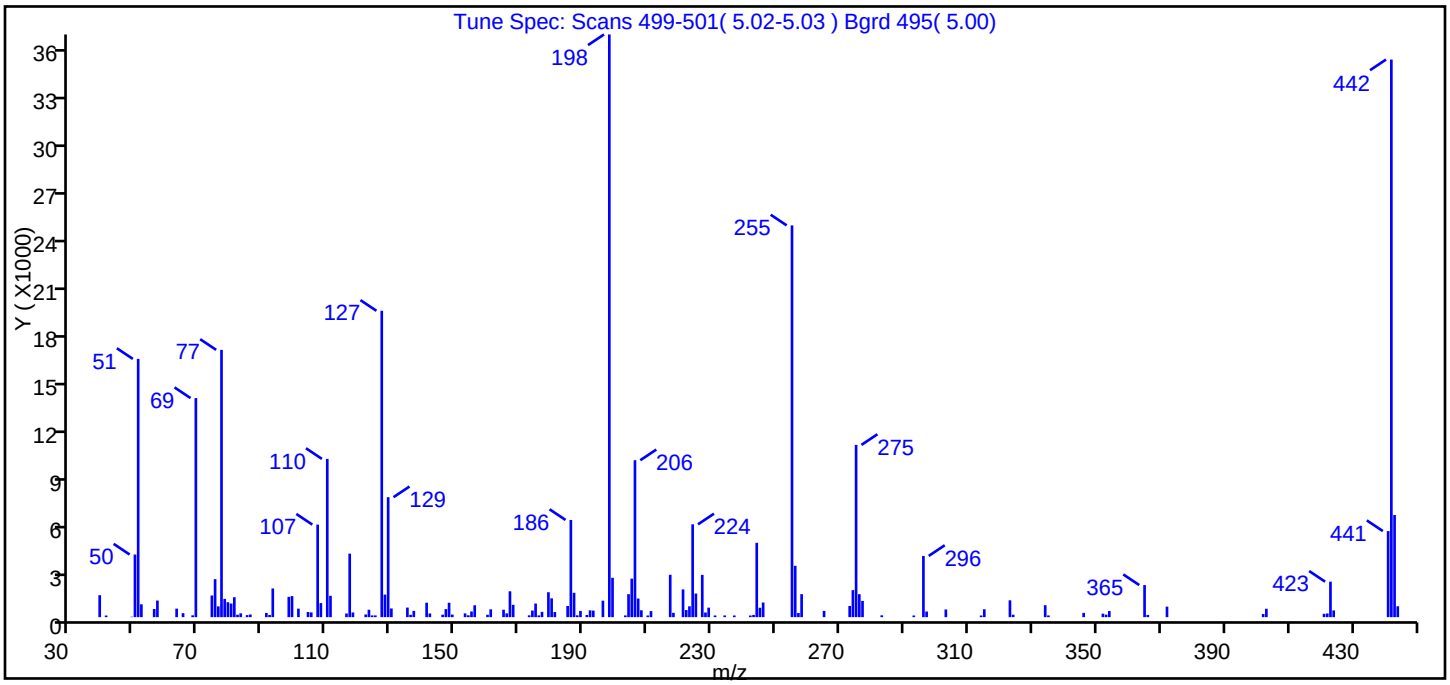
Report Date: 11-Dec-2013 17:02:08 Chrom Revision: 2.1 15-Oct-2013 07:52:24

MS Tune Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS5\20131211-7693.b\x6595.D				
Injection Date:	11-Dec-2013 14:41:30	Instrument ID:	CBNAMS5		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:		ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_5	Limit Group:	SV 8270D ICAL		
Tune Method:	DFTPP Method 8270				

120 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.30
68	Less than 2.00% of mass 69	0.30 (0.80)
69	Present	37.60
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	52.60
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 30.00% of mass 198	29.60
365	Greater than 1.00% of mass 198	5.50
441	Present, but less than mass 443%	14.80 (84.30)
442	Greater than 40.00% of mass 198	95.70
443	17.00 - 23.00% of mass 442	17.50 (18.30)

Data File: \\EDICHROM\ChromData\CBNAMS5\20131211-7693.b\x6595.D\8270_5.rslt\spectra.d
Injection Date: 11-Dec-2013 14:41:30
Spectrum: Tune Spec: Scans 499-501(5.02-5.03) Bgrd 495(5.00)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 150

m/z	Y	m/z	Y	m/z	Y	m/z	Y
39.00	1379	117.00	3991	186.00	6110	257.00	259
41.00	102	118.00	293	187.00	1530	258.00	1446
49.00	26	122.00	168	188.00	115	265.00	395
50.00	3936	123.00	464	189.00	390	273.00	702
51.00	16232	124.00	110	191.00	134	274.00	1699
52.00	809	125.00	109	192.00	428	275.00	10826
56.00	514	127.00	19256	193.00	411	276.00	1442
57.00	1045	128.00	1418	196.00	1036	277.00	1021
63.00	534	129.00	7540	198.00	36624	283.00	114
65.00	251	130.00	546	199.00	2473	293.00	104
68.00	114	135.00	602	203.00	109	296.00	3848
69.00	13769	136.00	146	204.00	1445	297.00	355
74.00	1360	137.00	394	205.00	2419	303.00	484
75.00	2388	141.00	907	206.00	9863	314.00	102
76.00	677	142.00	231	207.00	1170	315.00	495
77.00	16800	146.00	154	208.00	431	323.00	1059
78.00	1147	147.00	506	210.00	104	324.00	152
79.00	939	148.00	906	211.00	381	334.00	751
80.00	855	149.00	161	217.00	2663	335.00	107
81.00	1253	153.00	235	218.00	272	346.00	267
82.00	152	154.00	116	221.00	1743	352.00	218
83.00	239	155.00	356	222.00	445	353.00	156
84.00	8	156.00	746	223.00	682	354.00	384
85.00	127	160.00	149	224.00	5833	365.00	2017
86.00	167	161.00	492	225.00	1484	366.00	141
91.00	264	165.00	466	227.00	2656	372.00	660
92.00	136	166.00	237	228.00	290	402.00	197
93.00	1800	167.00	1626	229.00	596	403.00	527
98.00	1276	168.00	774	231.00	105	421.00	211
99.00	1324	173.00	114	234.00	107	422.00	232
101.00	534	174.00	413	237.00	104	423.00	2229
104.00	323	175.00	855	242.00	102	424.00	422
105.00	297	176.00	109	243.00	139	441.00	5411

Report Date: 11-Dec-2013 17:02:08 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\EDICHROM\ChromData\CBNAMS5\20131211-7693.b\x6595.D\8270_5.rslt\spectra.d
Injection Date: 11-Dec-2013 14:41:30
Spectrum: Tune Spec: Scans 499-501(5.02-5.03) Bgrd 495(5.00)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 150

m/z	Y	m/z	Y	m/z	Y	m/z	Y
107.00	5816	177.00	332	244.00	4672	442.00	35048
108.00	884	179.00	1567	245.00	591	443.00	6420
110.00	9946	180.00	1183	246.00	920	444.00	684
111.00	1342	181.00	323	255.00	24624		
116.00	229	185.00	700	256.00	3226		

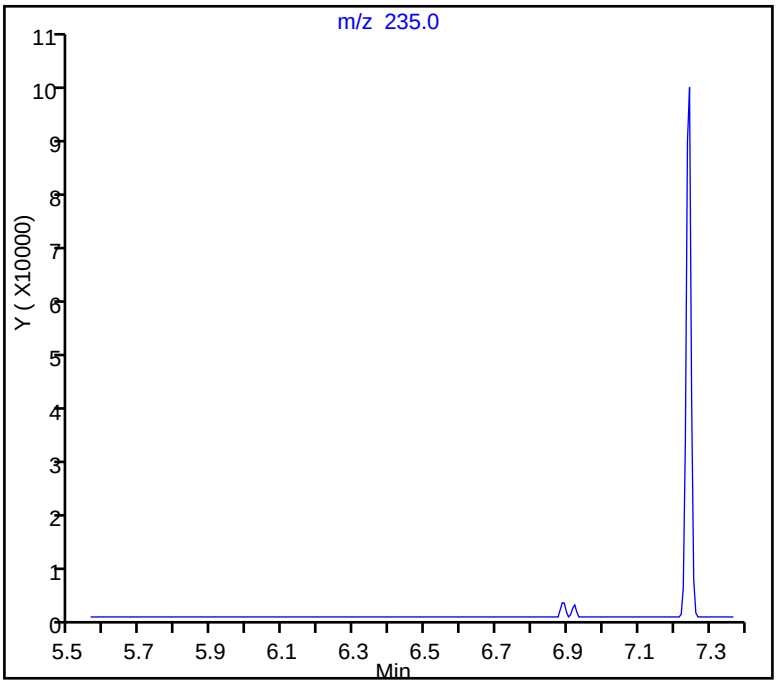
Report Date: 11-Dec-2013 17:02:08 Chrom Revision: 2.1 15-Oct-2013 07:52:24

Breakdown Report

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS5\20131211-7693.b\x6595.D				
Injection Date:	11-Dec-2013 14:41:30	Instrument ID:	CBNAMS5		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:		ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_5	Limit Group:	SV 8270D ICAL		

116 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

116 4,4'-DDT, Area = 93750
114 4,4'-DDD, Area = 1759
115 4,4'-DDE, Area = 0

%Breakdown: 1.84%, Max Limit: 20.00%
Passed

Report Date: 11-Dec-2013 17:02:08 Chrom Revision: 2.1 15-Oct-2013 07:52:24

Peak Tailing Report

TestAmerica Edison

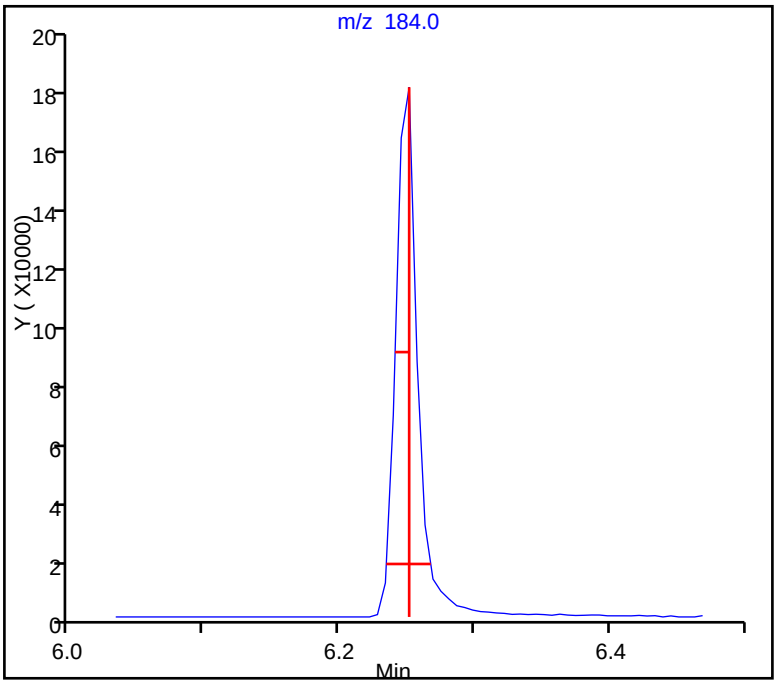
Data File:	\\EDICHROM\ChromData\CBNAMS5\20131211-7693.b\x6595.D				
Injection Date:	11-Dec-2013 14:41:30	Instrument ID:	CBNAMS5		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:		ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_5	Limit Group:	SV 8270D ICAL		

89 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.016 (min.)
Front Width = 0.017 (min.)

Tailing Factor = 0.9, Max. Tailing < 2.00
Passed



Report Date: 11-Dec-2013 17:02:08 Chrom Revision: 2.1 15-Oct-2013 07:52:24

Peak Tailing Report

TestAmerica Edison

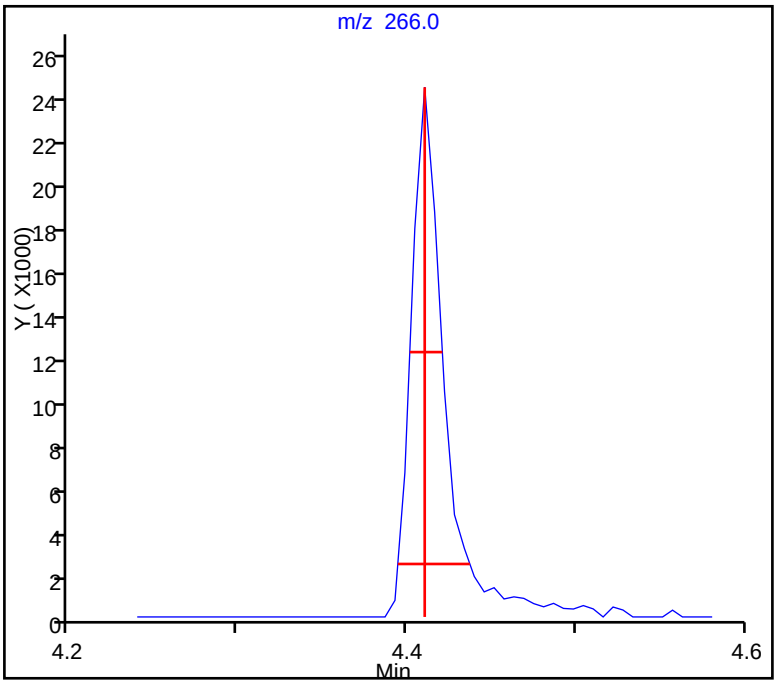
Data File:	\\EDICHROM\ChromData\CBNAMS5\20131211-7693.b\x6595.D				
Injection Date:	11-Dec-2013 14:41:30	Instrument ID:	CBNAMS5		
Lims ID:	DFTPP	Lab Sample ID:			
Client ID:					
Operator ID:		ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270_5	Limit Group:	SV 8270D ICAL		

80 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.027 (min.)
Front Width = 0.016 (min.)

Tailing Factor = 1.7, Max. Tailing < 2.00
Passed



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1
SDG No.:
Client Sample ID: | Lab Sample ID: MB 460-196934/1-A
Matrix: Solid | Lab File ID: L1145369.D
Analysis Method: 8270D | Date Collected:
Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54
Sample wt/vol: 14.98(g) | Date Analyzed: 12/12/2013 10:43
Con. Extract Vol.: 1(mL) | Dilution Factor: 1
Injection Volume: 1(uL) | Level: (low/med) Low
% Moisture: | GPC Cleanup:(Y/N) N
Analysis Batch No.: 197230 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
108-95-2	Phenol	330	U	330	44
95-57-8	2-Chlorophenol	330	U	330	44
95-48-7	2-Methylphenol	330	U	330	56
106-44-5	4-Methylphenol	330	U	330	65
88-75-5	2-Nitrophenol	330	U	330	37
105-67-9	2,4-Dimethylphenol	330	U	330	82
120-83-2	2,4-Dichlorophenol	330	U	330	48
59-50-7	4-Chloro-3-methylphenol	330	U	330	50
88-06-2	2,4,6-Trichlorophenol	330	U	330	39
95-95-4	2,4,5-Trichlorophenol	330	U	330	43
51-28-5	2,4-Dinitrophenol	1000	U	1000	190
100-02-7	4-Nitrophenol	1000	U	1000	210
534-52-1	4,6-Dinitro-2-methylphenol	1000	U	1000	90
87-86-5	Pentachlorophenol	1000	U	1000	99
111-44-4	Bis(2-chloroethyl)ether	33	U	33	4.5
621-64-7	N-Nitrosodi-n-propylamine	33	U	33	5.5
67-72-1	Hexachloroethane	33	U	33	3.7
98-95-3	Nitrobenzene	33	U	33	4.7
78-59-1	Isophorone	330	U	330	40
111-91-1	Bis(2-chloroethoxy)methane	330	U	330	43
91-20-3	Naphthalene	330	U	330	38
106-47-8	4-Chloroaniline	330	U	330	88
87-68-3	Hexachlorobutadiene	67	U	67	8.1
91-57-6	2-Methylnaphthalene	330	U	330	43
77-47-4	Hexachlorocyclopentadiene	330	U	330	39
91-58-7	2-Chloronaphthalene	330	U	330	37
88-74-4	2-Nitroaniline	670	U	670	140
131-11-3	Dimethyl phthalate	330	U	330	39
208-96-8	Acenaphthylene	330	U	330	39
606-20-2	2,6-Dinitrotoluene	67	U	67	10
99-09-2	3-Nitroaniline	670	U	670	120
83-32-9	Acenaphthene	330	U	330	48
132-64-9	Dibenzofuran	330	U	330	39
121-14-2	2,4-Dinitrotoluene	67	U	67	11

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 460-196934/1-A

Matrix: Solid | Lab File ID: L1145369.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 14.98(g) | Date Analyzed: 12/12/2013 10:43

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 197230 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
84-66-2	Diethyl phthalate	330	U	330	39
7005-72-3	4-Chlorophenyl phenyl ether	330	U	330	39
86-73-7	Fluorene	330	U	330	42
100-01-6	4-Nitroaniline	670	U	670	100
86-30-6	N-Nitrosodiphenylamine	330	U	330	33
101-55-3	4-Bromophenyl phenyl ether	330	U	330	33
118-74-1	Hexachlorobenzene	33	U	33	4.5
85-01-8	Phenanthrene	330	U	330	42
120-12-7	Anthracene	330	U	330	40
86-74-8	Carbazole	330	U	330	39
84-74-2	Di-n-butyl phthalate	330	U	330	41
206-44-0	Fluoranthene	330	U	330	44
129-00-0	Pyrene	330	U	330	28
85-68-7	Butyl benzyl phthalate	330	U	330	30
91-94-1	3,3'-Dichlorobenzidine	670	U	670	120
56-55-3	Benzo[a]anthracene	33	U	33	2.3
218-01-9	Chrysene	330	U	330	39
117-81-7	Bis(2-ethylhexyl) phthalate	330	U	330	110
117-84-0	Di-n-octyl phthalate	330	U	330	21
205-99-2	Benzo[b]fluoranthene	33	U	33	2.1
207-08-9	Benzo[k]fluoranthene	33	U	33	2.5
50-32-8	Benzo[a]pyrene	33	U	33	2.3
193-39-5	Indeno[1,2,3-cd]pyrene	33	U	33	6.2
53-70-3	Dibenz(a,h)anthracene	33	U	33	4.2
191-24-2	Benzo[g,h,i]perylene	330	U	330	25
92-52-4	Diphenyl	330	U	330	44
98-86-2	Acetophenone	330	U	330	51
123-91-1	1,4-Dioxane	330	U	330	24
100-52-7	Benzaldehyde	330	U	330	39
105-60-2	Caprolactam	330	U	330	76
1912-24-9	Atrazine	330	U	330	51
108-60-1	2,2'-oxybis[1-chloropropane]	330	U	330	37
95-94-3	1,2,4,5-Tetrachlorobenzene	330	U	330	45
58-90-2	2,3,4,6-Tetrachlorophenol	330	U	330	43

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 460-196934/1-A
Matrix: Solid
Lab File ID: L1145369.D
Analysis Method: 8270D
Date Collected:
Extract. Method: 3541
Date Extracted: 12/10/2013 23:54
Sample wt/vol: 14.98(g)
Date Analyzed: 12/12/2013 10:43
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 197230
Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	79		38-105
4165-62-2	Phenol-d5	74		41-118
1718-51-0	Terphenyl-d14	114		16-151
118-79-6	2,4,6-Tribromophenol	83		10-120
367-12-4	2-Fluorophenol	81		37-125
321-60-8	2-Fluorobiphenyl	86		40-109

Report Date: 12-Dec-2013 14:19:33 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAMS12\20131212-7728.b\L1145369.D
Lims ID: MB 460-196934/1-A Lab Sample ID: MB 460-196934/1-A
Client ID:
Sample Type: MB
Inject. Date: 12-Dec-2013 10:43:30 ALS Bottle#: 8 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007728-040
Operator ID: BNA 12 Instrument ID: CBNAMS12

Method: \\EDICHROM\ChromData\CBNAMS12\20131212-7728.b\8270_12.m
Limit Group: SV 8270D ICAL
Last Update: 12-Dec-2013 14:18:03 Calib Date: 27-Nov-2013 00:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAMS12\20131126-7223.b\L1144771.D

Column 1 : Detector MS SCAN
Process Host: XAWRK005

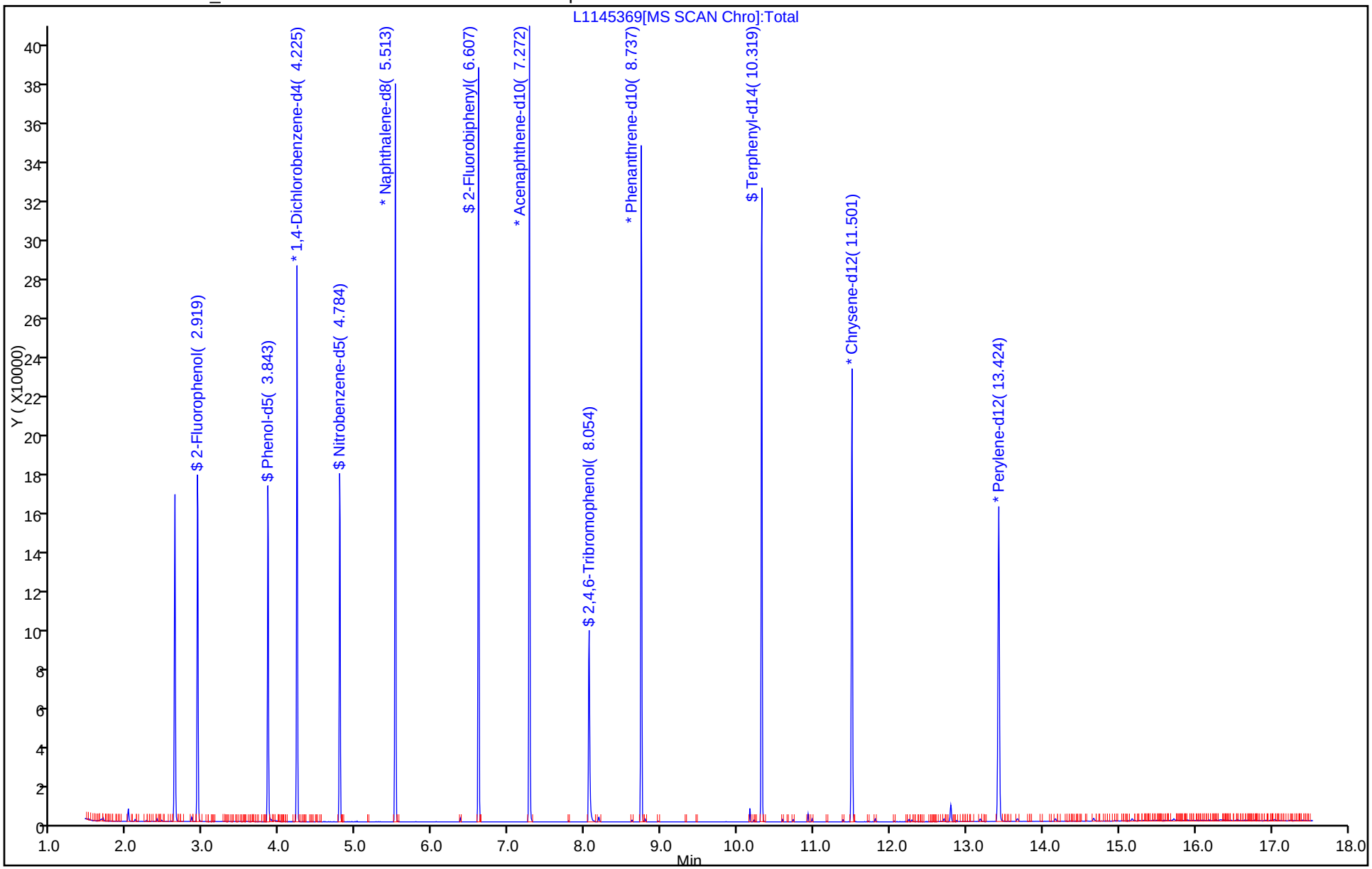
First Level Reviewer: croccom Date: 12-Dec-2013 11:09:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/ml	Flags
$ 4 2-Fluorophenol	112	2.919	2.913	0.006	96	51968	40.4	
$ 6 Phenol-d5	99	3.843	3.854	-0.011	99	58894	36.9	
* 13 1,4-Dichlorobenzene-d4	152	4.225	4.225	0.0	94	41547	40.0	
$ 25 Nitrobenzene-d5	82	4.784	4.790	-0.006	88	54119	39.5	
* 35 Naphthalene-d8	136	5.513	5.513	0.0	99	164041	40.0	
$ 48 2-Fluorobiphenyl	172	6.607	6.607	0.0	98	123695	43.0	
* 61 Acenaphthene-d10	164	7.272	7.272	0.0	93	85217	40.0	
$ 76 2,4,6-Tribromophenol	330	8.054	8.054	0.0	87	17470	41.5	
* 83 Phenanthrene-d10	188	8.737	8.736	0.0	98	129040	40.0	
$ 91 Terphenyl-d14	244	10.319	10.319	0.0	98	110763	57.2	
* 96 Chrysene-d12	240	11.501	11.501	0.0	99	96635	40.0	
* 103 Perylene-d12	264	13.424	13.424	0.0	98	83811	40.0	

Report Date: 12-Dec-2013 14:19:33 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131212-7728.b\L1145369.D				
Injection Date:	12-Dec-2013 10:43:30	Instrument ID:	CBNAMS12	Operator ID:	BNA 12
Lims ID:	MB 460-196934/1-A	Lab Sample ID:	MB 460-196934/1-A	Worklist Smp#:	40
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8270_12	Limit Group:	SV 8270D ICAL		



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 460-196934/2-A

Matrix: Solid | Lab File ID: L1145368.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 15.02(g) | Date Analyzed: 12/12/2013 10:17

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 197230 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
108-95-2	Phenol	2440		330	44
95-57-8	2-Chlorophenol	2560		330	43
95-48-7	2-Methylphenol	2480		330	56
106-44-5	4-Methylphenol	2260		330	65
88-75-5	2-Nitrophenol	2820		330	37
105-67-9	2,4-Dimethylphenol	2480		330	81
120-83-2	2,4-Dichlorophenol	2690		330	48
59-50-7	4-Chloro-3-methylphenol	2650		330	50
88-06-2	2,4,6-Trichlorophenol	2770		330	39
95-95-4	2,4,5-Trichlorophenol	2670		330	43
51-28-5	2,4-Dinitrophenol	5780		1000	190
100-02-7	4-Nitrophenol	3990		1000	210
534-52-1	4,6-Dinitro-2-methylphenol	6170		1000	90
87-86-5	Pentachlorophenol	5040		1000	99
111-44-4	Bis(2-chloroethyl)ether	2470		33	4.5
621-64-7	N-Nitrosodi-n-propylamine	2540		33	5.5
67-72-1	Hexachloroethane	2630		33	3.7
98-95-3	Nitrobenzene	1830		33	4.7
78-59-1	Isophorone	2640		330	40
111-91-1	Bis(2-chloroethoxy)methane	2470		330	43
91-20-3	Naphthalene	2550		330	38
106-47-8	4-Chloroaniline	696		330	87
87-68-3	Hexachlorobutadiene	3000		67	8.1
91-57-6	2-Methylnaphthalene	2760		330	42
77-47-4	Hexachlorocyclopentadiene	2840		330	39
91-58-7	2-Chloronaphthalene	2770		330	37
88-74-4	2-Nitroaniline	2020		670	140
131-11-3	Dimethyl phthalate	2740		330	39
208-96-8	Acenaphthylene	2700		330	39
606-20-2	2,6-Dinitrotoluene	2870		67	10
99-09-2	3-Nitroaniline	1120		670	120
83-32-9	Acenaphthene	2480		330	48
132-64-9	Dibenzofuran	2710		330	39
121-14-2	2,4-Dinitrotoluene	2760		67	11

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 460-196934/2-A

Matrix: Solid | Lab File ID: L1145368.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 15.02(g) | Date Analyzed: 12/12/2013 10:17

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 197230 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
84-66-2	Diethyl phthalate	2740		330	39
7005-72-3	4-Chlorophenyl phenyl ether	2710		330	39
86-73-7	Fluorene	2650		330	42
100-01-6	4-Nitroaniline	2230		670	100
86-30-6	N-Nitrosodiphenylamine	2810		330	33
101-55-3	4-Bromophenyl phenyl ether	3000		330	33
118-74-1	Hexachlorobenzene	3040		33	4.5
85-01-8	Phenanthrene	2700		330	42
120-12-7	Anthracene	2710		330	40
86-74-8	Carbazole	2590		330	39
84-74-2	Di-n-butyl phthalate	2690		330	41
206-44-0	Fluoranthene	2550		330	44
129-00-0	Pyrene	3400		330	28
85-68-7	Butyl benzyl phthalate	3050		330	30
91-94-1	3,3'-Dichlorobenzidine	932		670	120
56-55-3	Benzo[a]anthracene	2720		33	2.3
218-01-9	Chrysene	2660		330	39
117-81-7	Bis(2-ethylhexyl) phthalate	2620		330	110
117-84-0	Di-n-octyl phthalate	2890		330	21
205-99-2	Benzo[b]fluoranthene	2990		33	2.1
207-08-9	Benzo[k]fluoranthene	3060		33	2.5
50-32-8	Benzo[a]pyrene	3110		33	2.3
193-39-5	Indeno[1,2,3-cd]pyrene	3230		33	6.1
53-70-3	Dibenz(a,h)anthracene	3100		33	4.2
191-24-2	Benzo[g,h,i]perylene	3130		330	24
92-52-4	Diphenyl	2780		330	44
98-86-2	Acetophenone	2620		330	51
123-91-1	1,4-Dioxane	1430		330	24
105-60-2	Caprolactam	2480		330	76
1912-24-9	Atrazine	2500		330	51
108-60-1	2,2'-oxybis[1-chloropropane]	1690		330	37
95-94-3	1,2,4,5-Tetrachlorobenzene	2830		330	44
58-90-2	2,3,4,6-Tetrachlorophenol	2870		330	43

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 460-196934/2-A
Matrix: Solid
Lab File ID: L1145368.D
Analysis Method: 8270D
Date Collected:
Extract. Method: 3541
Date Extracted: 12/10/2013 23:54
Sample wt/vol: 15.02(g)
Date Analyzed: 12/12/2013 10:17
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 197230
Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	76		38-105
4165-62-2	Phenol-d5	72		41-118
1718-51-0	Terphenyl-d14	110		16-151
118-79-6	2,4,6-Tribromophenol	90		10-120
367-12-4	2-Fluorophenol	76		37-125
321-60-8	2-Fluorobiphenyl	85		40-109

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAMS12\20131212-7728.b\L1145368.D
Lims ID: LCS 460-196934/2-A Lab Sample ID: LCS 460-196934/2-A
Client ID:
Sample Type: LCS
Inject. Date: 12-Dec-2013 10:17:30 ALS Bottle#: 7 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007728-039
Operator ID: BNA 12 Instrument ID: CBNAMS12

Method: \\EDICHROM\ChromData\CBNAMS12\20131212-7728.b\8270_12.m
Limit Group: SV 8270D ICAL
Last Update: 12-Dec-2013 14:14:12 Calib Date: 27-Nov-2013 00:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAMS12\20131126-7223.b\L1144771.D

Column 1 : Detector MS SCAN
Process Host: XAWRK005

First Level Reviewer: bayoumiw Date: 12-Dec-2013 14:15:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/ml	Flags
1 1,4-Dioxane	88	1.549	1.525	0.024	97	9734	21.4	
2 N-Nitrosodimethylamine	74	1.772	1.760	0.012	77	20396	36.6	
3 Pyridine	79	1.807	1.790	0.017	83	31475	28.6	
$ 4 2-Fluorophenol	112	2.925	2.913	0.012	95	43708	38.1	
$ 6 Phenol-d5	99	3.848	3.854	-0.006	99	51165	36.0	
7 Phenol	94	3.866	3.866	0.0	99	51931	36.6	
8 Aniline	93	3.890	3.890	0.0	89	20692	12.7	
9 Bis(2-chloroethyl)ether	93	3.960	3.960	0.0	95	40401	37.1	
10 2-Chlorophenol	128	4.013	4.013	0.0	96	48051	38.5	
11 n-Decane	43	4.060	4.060	0.0	90	41006	23.3	
12 1,3-Dichlorobenzene	146	4.166	4.166	0.0	96	55224	37.3	
* 13 1,4-Dichlorobenzene-d4	152	4.225	4.225	0.0	94	37015	40.0	
14 1,4-Dichlorobenzene	146	4.242	4.243	-0.001	94	55674	37.1	
15 Benzyl alcohol	108	4.366	4.366	0.0	91	23668	31.5	
16 1,2-Dichlorobenzene	146	4.395	4.395	0.0	95	53433	37.7	
17 2-Methylphenol	108	4.484	4.484	0.0	88	38479	37.3	
18 2,2'-oxybis[1-chloropropane]	45	4.507	4.507	0.0	91	56300	25.3	
19 Acetophenone	105	4.637	4.637	0.0	93	60342	39.4	
22 3 & 4 Methylphenol	108	4.642	4.643	-0.001	0	40053	34.0	
21 4-Methylphenol	108	4.642	4.643	-0.001	94	40053	34.0	
20 N-Nitrosodi-n-propylamine	70	4.642	4.643	-0.001	84	29800	38.2	
24 Hexachloroethane	117	4.737	4.737	0.0	92	21042	39.5	
$ 25 Nitrobenzene-d5	82	4.790	4.790	0.0	87	45050	38.0	
26 Nitrobenzene	77	4.807	4.813	-0.006	92	43280	27.5	
28 Isophorone	82	5.054	5.054	0.0	96	73557	39.7	
29 2-Nitrophenol	139	5.131	5.131	0.0	94	27255	42.4	
30 2,4-Dimethylphenol	122	5.184	5.184	0.0	92	38959	37.2	
31 Bis(2-chloroethoxy)methane	93	5.278	5.284	-0.006	99	48008	37.1	
32 Benzoic acid	122	5.295	5.313	-0.018	81	20048	32.1	
33 2,4-Dichlorophenol	162	5.378	5.378	0.0	96	38311	40.4	
34 1,2,4-Trichlorobenzene	180	5.460	5.460	0.0	90	46852	42.4	
* 35 Naphthalene-d8	136	5.519	5.513	0.006	99	142016	40.0	

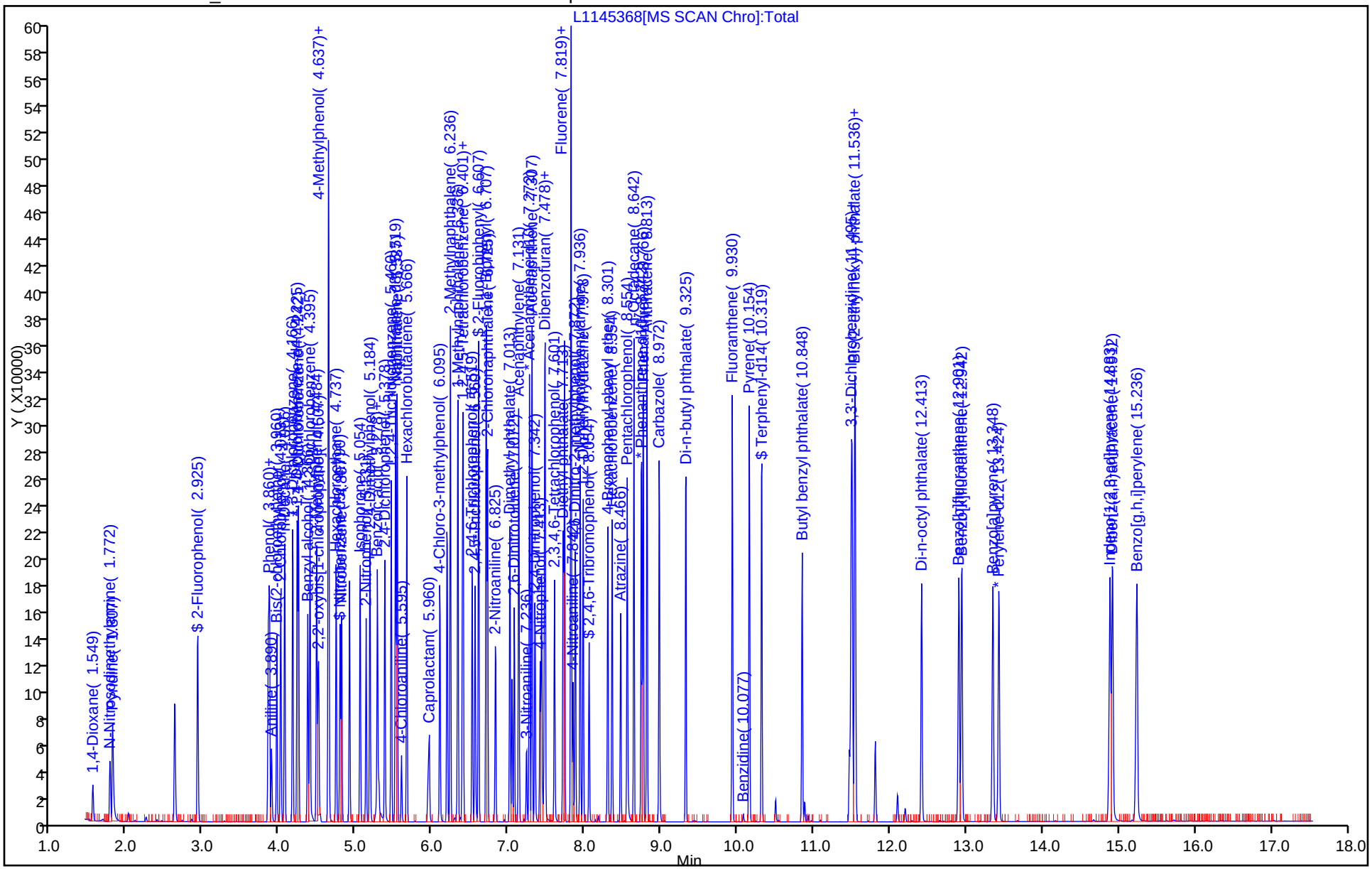
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/ml	Flags
36 Naphthalene	128	5.537	5.542	-0.006	98	137165	38.4	
37 4-Chloroaniline	127	5.595	5.595	0.0	95	14325	10.5	
38 Hexachlorobutadiene	225	5.666	5.666	0.0	95	28279	45.1	
39 Caprolactam	113	5.960	5.931	0.029	89	11262	37.2	
40 4-Chloro-3-methylphenol	107	6.095	6.089	0.006	90	34649	39.7	
41 2-Methylnaphthalene	142	6.236	6.237	-0.001	85	94887	41.4	
42 1-Methylnaphthalene	142	6.336	6.337	-0.001	90	88373	36.6	
43 Hexachlorocyclopentadiene	237	6.395	6.395	0.0	85	26383	42.7	
44 1,2,4,5-Tetrachlorobenzene	216	6.401	6.407	-0.006	96	44792	42.5	
46 2,4,6-Trichlorophenol	196	6.519	6.519	0.0	91	27400	41.6	
47 2,4,5-Trichlorophenol	196	6.560	6.554	0.006	95	28328	40.0	
$ 48 2-Fluorobiphenyl	172	6.607	6.607	0.0	98	102135	42.5	
49 1,1'-Biphenyl	154	6.707	6.707	0.0	94	113600	41.8	
50 2-Chloronaphthalene	162	6.725	6.725	0.0	97	86960	41.6	
54 2-Nitroaniline	65	6.825	6.831	-0.006	95	21037	30.3	
56 Dimethyl phthalate	163	7.013	7.013	0.0	99	90540	41.2	
58 2,6-Dinitrotoluene	165	7.072	7.078	-0.006	94	21038	43.0	
59 Acenaphthylene	152	7.131	7.136	-0.005	97	134212	40.5	
60 3-Nitroaniline	138	7.236	7.236	0.0	92	9536	16.9	
* 61 Acenaphthene-d10	164	7.272	7.272	0.0	92	71172	40.0	
62 Acenaphthene	154	7.307	7.307	0.0	94	79588	37.2	
64 2,4-Dinitrophenol	184	7.342	7.348	-0.006	95	25601	86.8	
65 4-Nitrophenol	65	7.413	7.413	0.0	87	23997	60.0	
67 2,4-Dinitrotoluene	165	7.472	7.472	0.0	85	27073	41.4	
66 Dibenzofuran	168	7.478	7.478	0.0	92	116849	40.8	
68 2,3,4,6-Tetrachlorophenol	232	7.601	7.601	0.0	92	22809	43.1	
69 Diethyl phthalate	149	7.713	7.713	0.0	98	89513	41.1	
70 Fluorene	166	7.819	7.819	0.0	84	94421	39.7	
71 4-Chlorophenyl phenyl ether	204	7.819	7.819	0.0	85	45059	40.8	
72 4-Nitroaniline	138	7.842	7.842	0.0	75	19613	33.5	
73 4,6-Dinitro-2-methylphenol	198	7.878	7.878	0.0	88	33145	92.7	
74 N-Nitrosodiphenylamine	169	7.936	7.936	0.0	66	64679	42.2	
75 1,2-Diphenylhydrazine	77	7.978	7.978	0.0	96	77236	38.9	
$ 76 2,4,6-Tribromophenol	330	8.054	8.054	0.0	89	15812	45.0	
77 4-Bromophenyl phenyl ether	248	8.301	8.301	0.0	91	27680	45.1	
78 Hexachlorobenzene	284	8.354	8.360	-0.006	96	29656	45.7	
79 Atrazine	200	8.472	8.472	0.0	89	19230	37.6	
121 Pentachlorophenol	266	8.554	8.554	0.0	89	32037	75.7	
82 n-Octadecane	57	8.642	8.642	0.0	92	56247	34.7	
* 83 Phenanthrene-d10	188	8.742	8.736	0.006	98	108916	40.0	
84 Phenanthrene	178	8.766	8.766	0.0	96	127612	40.5	
85 Anthracene	178	8.813	8.813	0.0	98	129970	40.6	
86 Carbazole	167	8.972	8.978	-0.006	82	108572	38.9	
87 Di-n-butyl phthalate	149	9.325	9.325	-0.001	99	137350	40.4	
88 Fluoranthene	202	9.930	9.930	0.0	98	125322	38.3	
122 Benzidine	184	10.072	10.072	0.0	9	3341	1.86	
90 Pyrene	202	10.154	10.154	0.0	98	123241	51.1	
$ 91 Terphenyl-d14	244	10.319	10.319	0.0	98	93587	55.1	
92 Butyl benzyl phthalate	149	10.848	10.848	0.0	93	51678	45.8	
94 3,3'-Dichlorobenzidine	252	11.466	11.472	-0.006	88	13765	14.0	
95 Benzo[a]anthracene	228	11.489	11.495	-0.006	98	104358	40.9	
* 96 Chrysene-d12	240	11.501	11.501	0.0	98	84633	40.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/ml	Flags
97 Chrysene	228	11.536	11.542	-0.006	96	97973	40.0	
98 Bis(2-ethylhexyl) phthalate	149	11.542	11.548	-0.006	85	69457	39.4	
99 Di-n-octyl phthalate	149	12.413	12.413	0.0	92	114031	43.4	
100 Benzo[b]fluoranthene	252	12.901	12.907	-0.006	97	100486	44.9	
101 Benzo[k]fluoranthene	252	12.942	12.948	-0.006	100	105734	46.0	
102 Benzo[a]pyrene	252	13.348	13.354	-0.006	96	97760	46.7	
* 103 Perylene-d12	264	13.424	13.424	0.0	98	87305	40.0	
104 Indeno[1,2,3-cd]pyrene	276	14.883	14.895	-0.012	99	113301	48.5	
105 Dibenz(a,h)anthracene	278	14.918	14.924	-0.006	96	111210	46.5	
106 Benzo[g,h,i]perylene	276	15.236	15.248	-0.012	91	118483	47.0	

Report Date: 12-Dec-2013 14:15:24 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS12\20131212-7728.b\L1145368.D				
Injection Date:	12-Dec-2013 10:17:30	Instrument ID:	CBNAMS12	Operator ID:	BNA 12
Lims ID:	LCS 460-196934/2-A	Lab Sample ID:	LCS 460-196934/2-A	Worklist Smp#:	39
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8270_12	Limit Group:	SV 8270D ICAL		



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 460-196934/12-A
Matrix: Solid
Lab File ID: x6607.D
Analysis Method: 8270D
Date Collected:
Extract. Method: 3541
Date Extracted: 12/10/2013 23:54
Sample wt/vol: 15.02(g)
Date Analyzed: 12/11/2013 19:34
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 197085
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-52-7	Benzaldehyde	5640		330	39

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	77		38-105
4165-62-2	Phenol-d5	85		41-118
1718-51-0	Terphenyl-d14	105		16-151
118-79-6	2,4,6-Tribromophenol	114		10-120
367-12-4	2-Fluorophenol	84		37-125
321-60-8	2-Fluorobiphenyl	82		40-109

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAMS5\20131211-7693.b\x6607.D
Lims ID: LCS 460-196934/12-A Lab Sample ID: LCS 460-196934/12-A
Client ID:
Sample Type: LCS
Inject. Date: 11-Dec-2013 19:34:30 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007693-013
Misc. Info.: LCS 460-196934/12-A
Operator ID: Instrument ID: CBNAMS5

Method: \\EDICHROM\ChromData\CBNAMS5\20131211-7693.b\8270_5.m
Limit Group: SV 8270D ICAL
Last Update: 12-Dec-2013 10:29:02 Calib Date: 03-Dec-2013 20:16:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAMS5\20131203-7408.b\x6217.D

Column 1 : Rtxi-5Sil MS (0.25 mm) Detector MS SCAN
Process Host: XAWRK005

First Level Reviewer: croccom Date: 12-Dec-2013 08:53:06

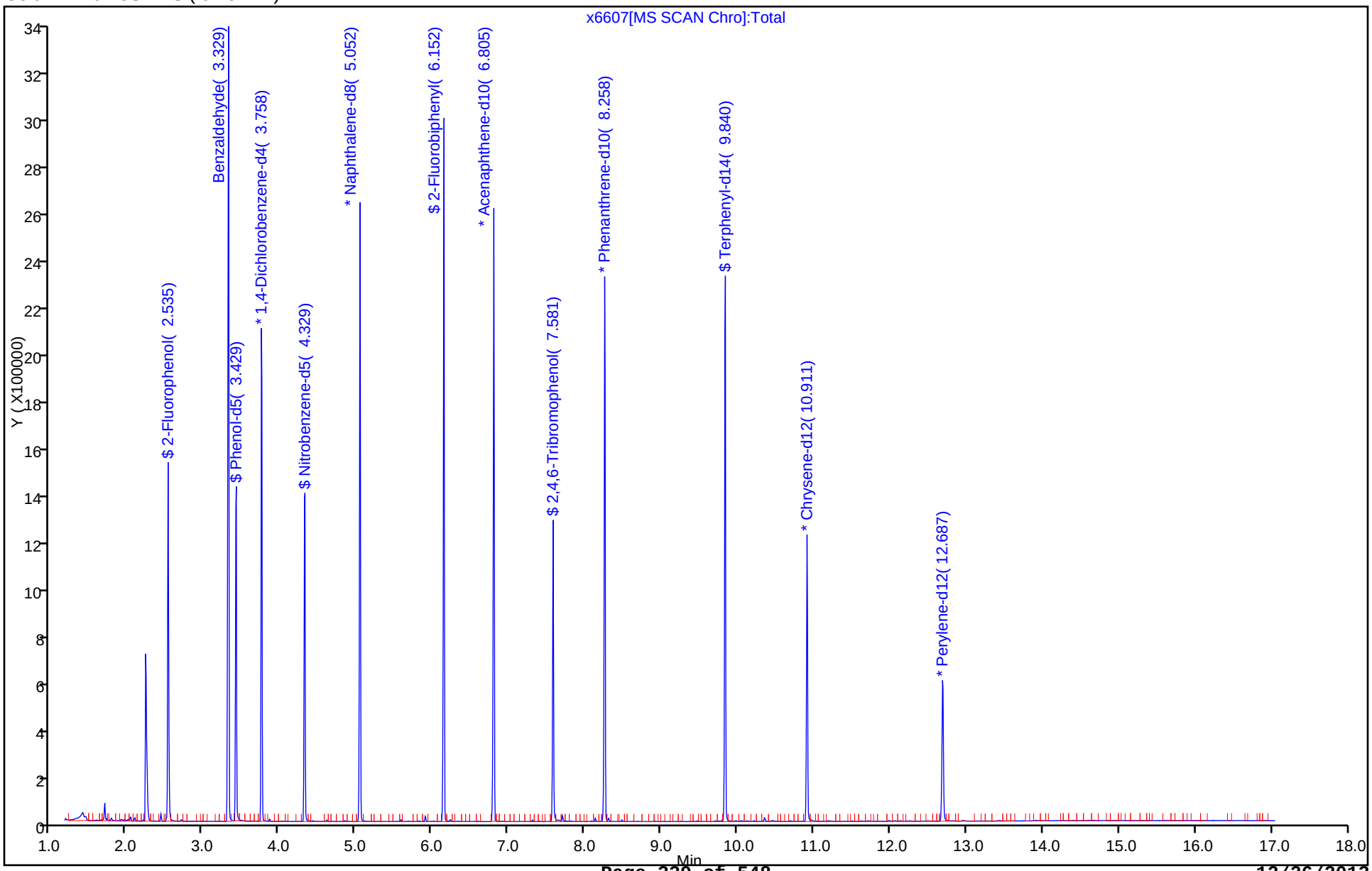
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ug/ml	Flags
$ 4 2-Fluorophenol	112	2.535	2.511	0.024	94	397312	41.8	
5 Benzaldehyde	77	3.329	3.317	0.012	92	653007	84.6	
$ 6 Phenol-d5	99	3.429	3.446	-0.017	81	439615	42.6	
* 13 1,4-Dichlorobenzene-d4	152	3.758	3.764	-0.006	98	290021	40.0	
$ 25 Nitrobenzene-d5	82	4.329	4.341	-0.012	93	421788	38.5	
* 35 Naphthalene-d8	136	5.052	5.052	0.0	100	1096124	40.0	
$ 48 2-Fluorobiphenyl	172	6.152	6.158	-0.006	98	886525	41.2	
* 61 Acenaphthene-d10	164	6.805	6.811	-0.006	93	572848	40.0	
$ 76 2,4,6-Tribromophenol	330	7.581	7.593	-0.012	93	158462	57.1	
* 83 Phenanthrene-d10	188	8.258	8.264	-0.006	98	889986	40.0	
$ 91 Terphenyl-d14	244	9.840	9.840	0.0	98	787744	52.4	
* 96 Chrysene-d12	240	10.911	10.916	-0.005	99	482568	40.0	
* 103 Perylene-d12	264	12.687	12.693	-0.006	99	334201	40.0	

Report Date: 12-Dec-2013 10:29:03 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAMS5\20131211-7693.b\x6607.D				
Injection Date:	11-Dec-2013 19:34:30	Instrument ID:	CBNAMS5	Operator ID:	
Lims ID:	LCS 460-196934/12-A	Lab Sample ID:	LCS 460-196934/12-A	Worklist Smp#:	13
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8270_5	Limit Group:	SV 8270D ICAL		

Column: Rtxi-5Sil MS (0.25 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: 460-67884-E-2-A MS

Matrix: Solid | Lab File ID: x6617.D

Analysis Method: 8270D | Date Collected: 12/05/2013 10:20

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 15.03(g) | Date Analyzed: 12/11/2013 23:29

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 197085 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
108-95-2	Phenol	3240		380	51
95-57-8	2-Chlorophenol	3380		380	50
95-48-7	2-Methylphenol	3470		380	65
106-44-5	4-Methylphenol	3710		380	75
88-75-5	2-Nitrophenol	3360		380	42
105-67-9	2,4-Dimethylphenol	3360		380	94
120-83-2	2,4-Dichlorophenol	3600		380	56
59-50-7	4-Chloro-3-methylphenol	3630		380	57
88-06-2	2,4,6-Trichlorophenol	3360		380	44
95-95-4	2,4,5-Trichlorophenol	3250		380	49
51-28-5	2,4-Dinitrophenol	7630		1100	220
100-02-7	4-Nitrophenol	1100	U	1100	240
534-52-1	4,6-Dinitro-2-methylphenol	7430		1100	100
87-86-5	Pentachlorophenol	7560		1100	110
111-44-4	Bis(2-chloroethyl)ether	2950		38	5.2
621-64-7	N-Nitrosodi-n-propylamine	3560		38	6.3
67-72-1	Hexachloroethane	2940		38	4.2
98-95-3	Nitrobenzene	2290		38	5.4
78-59-1	Isophorone	3620		380	46
111-91-1	Bis(2-chloroethoxy)methane	3240		380	49
91-20-3	Naphthalene	3250		380	44
106-47-8	4-Chloroaniline	1480		380	100
87-68-3	Hexachlorobutadiene	3650		77	9.3
91-57-6	2-Methylnaphthalene	3740		380	49
77-47-4	Hexachlorocyclopentadiene	3560		380	45
91-58-7	2-Chloronaphthalene	3200		380	42
88-74-4	2-Nitroaniline	2670		770	160
131-11-3	Dimethyl phthalate	3400		380	45
208-96-8	Acenaphthylene	3200		380	45
606-20-2	2,6-Dinitrotoluene	3420		77	11
99-09-2	3-Nitroaniline	1860		770	130
83-32-9	Acenaphthene	3410		380	55
132-64-9	Dibenzofuran	3340		380	45
121-14-2	2,4-Dinitrotoluene	3400		77	13

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: 460-67884-E-2-A MS

Matrix: Solid | Lab File ID: x6617.D

Analysis Method: 8270D | Date Collected: 12/05/2013 10:20

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 15.03(g) | Date Analyzed: 12/11/2013 23:29

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 197085 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
84-66-2	Diethyl phthalate	3280		380	45
7005-72-3	4-Chlorophenyl phenyl ether	3490		380	45
86-73-7	Fluorene	3320		380	49
100-01-6	4-Nitroaniline	2760		770	120
86-30-6	N-Nitrosodiphenylamine	3390		380	37
101-55-3	4-Bromophenyl phenyl ether	3760		380	38
118-74-1	Hexachlorobenzene	4000		38	5.2
85-01-8	Phenanthrene	3320		380	48
120-12-7	Anthracene	3350		380	46
86-74-8	Carbazole	3320		380	45
84-74-2	Di-n-butyl phthalate	3120		380	47
206-44-0	Fluoranthene	3330		380	51
129-00-0	Pyrene	3480		380	32
85-68-7	Butyl benzyl phthalate	3210		380	35
91-94-1	3,3'-Dichlorobenzidine	2120		770	130
56-55-3	Benzo[a]anthracene	3240		38	2.7
218-01-9	Chrysene	3150		380	44
117-81-7	Bis(2-ethylhexyl) phthalate	3170		380	130
117-84-0	Di-n-octyl phthalate	3160		380	24
205-99-2	Benzo[b]fluoranthene	3420		38	2.4
207-08-9	Benzo[k]fluoranthene	3340		38	2.9
50-32-8	Benzo[a]pyrene	3610		38	2.7
193-39-5	Indeno[1,2,3-cd]pyrene	3560		38	7.1
53-70-3	Dibenz(a,h)anthracene	3330		38	4.8
191-24-2	Benzo[g,h,i]perylene	3510		380	28
92-52-4	Diphenyl	3440		380	51
98-86-2	Acetophenone	3420		380	58
123-91-1	1,4-Dioxane	1450		380	28
100-52-7	Benzaldehyde	4920		380	45
105-60-2	Caprolactam	2710		380	88
1912-24-9	Atrazine	3460		380	59
108-60-1	2,2'-oxybis[1-chloropropane]	2940		380	42
95-94-3	1,2,4,5-Tetrachlorobenzene	3320		380	51
58-90-2	2,3,4,6-Tetrachlorophenol	3730		380	49

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: 460-67884-E-2-A MS

Matrix: Solid | Lab File ID: x6617.D

Analysis Method: 8270D | Date Collected: 12/05/2013 10:20

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 15.03(g) | Date Analyzed: 12/11/2013 23:29

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 197085 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	82		38-105
4165-62-2	Phenol-d5	89		41-118
1718-51-0	Terphenyl-d14	103		16-151
118-79-6	2,4,6-Tribromophenol	107		10-120
367-12-4	2-Fluorophenol	86		37-125
321-60-8	2-Fluorobiphenyl	87		40-109

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: 460-67884-E-2-B MSD

Matrix: Solid | Lab File ID: x6618.D

Analysis Method: 8270D | Date Collected: 12/05/2013 10:20

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 15.02(g) | Date Analyzed: 12/11/2013 23:53

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 197085 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
108-95-2	Phenol	3230		380	51
95-57-8	2-Chlorophenol	3340		380	50
95-48-7	2-Methylphenol	3550		380	65
106-44-5	4-Methylphenol	3710		380	75
88-75-5	2-Nitrophenol	3440		380	42
105-67-9	2,4-Dimethylphenol	3470		380	94
120-83-2	2,4-Dichlorophenol	3680		380	56
59-50-7	4-Chloro-3-methylphenol	3790		380	57
88-06-2	2,4,6-Trichlorophenol	3450		380	44
95-95-4	2,4,5-Trichlorophenol	3410		380	49
51-28-5	2,4-Dinitrophenol	7990		1100	220
100-02-7	4-Nitrophenol	260	J	1100	240
534-52-1	4,6-Dinitro-2-methylphenol	8090		1100	100
87-86-5	Pentachlorophenol	7830		1100	110
111-44-4	Bis(2-chloroethyl)ether	2950		38	5.2
621-64-7	N-Nitrosodi-n-propylamine	3500		38	6.3
67-72-1	Hexachloroethane	3050		38	4.2
98-95-3	Nitrobenzene	2260		38	5.4
78-59-1	Isophorone	3660		380	46
111-91-1	Bis(2-chloroethoxy)methane	3250		380	49
91-20-3	Naphthalene	3290		380	44
106-47-8	4-Chloroaniline	1600		380	100
87-68-3	Hexachlorobutadiene	3710		77	9.3
91-57-6	2-Methylnaphthalene	3760		380	49
77-47-4	Hexachlorocyclopentadiene	3740		380	45
91-58-7	2-Chloronaphthalene	3260		380	42
88-74-4	2-Nitroaniline	2800		770	160
131-11-3	Dimethyl phthalate	3620		380	45
208-96-8	Acenaphthylene	3340		380	45
606-20-2	2,6-Dinitrotoluene	3530		77	11
99-09-2	3-Nitroaniline	1960		770	130
83-32-9	Acenaphthene	3420		380	55
132-64-9	Dibenzofuran	3500		380	45
121-14-2	2,4-Dinitrotoluene	3690		77	13

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: 460-67884-E-2-B MSD

Matrix: Solid | Lab File ID: x6618.D

Analysis Method: 8270D | Date Collected: 12/05/2013 10:20

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 15.02(g) | Date Analyzed: 12/11/2013 23:53

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 197085 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
84-66-2	Diethyl phthalate	3410		380	45
7005-72-3	4-Chlorophenyl phenyl ether	3570		380	45
86-73-7	Fluorene	3510		380	49
100-01-6	4-Nitroaniline	2810		770	120
86-30-6	N-Nitrosodiphenylamine	3630		380	37
101-55-3	4-Bromophenyl phenyl ether	3850		380	38
118-74-1	Hexachlorobenzene	4210		38	5.2
85-01-8	Phenanthrene	3500		380	48
120-12-7	Anthracene	3510		380	46
86-74-8	Carbazole	3430		380	45
84-74-2	Di-n-butyl phthalate	3330		380	47
206-44-0	Fluoranthene	3380		380	51
129-00-0	Pyrene	3620		380	32
85-68-7	Butyl benzyl phthalate	3300		380	35
91-94-1	3,3'-Dichlorobenzidine	2040		770	130
56-55-3	Benzo[a]anthracene	3310		38	2.7
218-01-9	Chrysene	3360		380	44
117-81-7	Bis(2-ethylhexyl) phthalate	3320		380	130
117-84-0	Di-n-octyl phthalate	3300		380	24
205-99-2	Benzo[b]fluoranthene	3680		38	2.4
207-08-9	Benzo[k]fluoranthene	3670		38	2.9
50-32-8	Benzo[a]pyrene	3870		38	2.7
193-39-5	Indeno[1,2,3-cd]pyrene	3860		38	7.1
53-70-3	Dibenz(a,h)anthracene	3640		38	4.8
191-24-2	Benzo[g,h,i]perylene	3750		380	28
92-52-4	Diphenyl	3500		380	51
98-86-2	Acetophenone	3270		380	58
123-91-1	1,4-Dioxane	1500		380	28
100-52-7	Benzaldehyde	5680		380	45
105-60-2	Caprolactam	88.3	J	380	88
1912-24-9	Atrazine	3710		380	59
108-60-1	2,2'-oxybis[1-chloropropane]	2930		380	42
95-94-3	1,2,4,5-Tetrachlorobenzene	3450		380	51
58-90-2	2,3,4,6-Tetrachlorophenol	4060		380	49

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: 460-67884-E-2-B MSD

Matrix: Solid | Lab File ID: x6618.D

Analysis Method: 8270D | Date Collected: 12/05/2013 10:20

Extract. Method: 3541 | Date Extracted: 12/10/2013 23:54

Sample wt/vol: 15.02(g) | Date Analyzed: 12/11/2013 23:53

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 197085 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	83		38-105
4165-62-2	Phenol-d5	90		41-118
1718-51-0	Terphenyl-d14	106		16-151
118-79-6	2,4,6-Tribromophenol	112		10-120
367-12-4	2-Fluorophenol	85		37-125
321-60-8	2-Fluorobiphenyl	92		40-109

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CBNAMS12 Start Date: 11/26/2013 19:18

Analysis Batch Number: 194625 End Date: 11/27/2013 00:21

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 460-194625/1		11/26/2013 19:18	1	L1144759.D	Rtx-5MS 0.25(mm)
ICIS 460-194625/2		11/26/2013 19:36	1	L1144760.D	Rtx-5MS 0.25(mm)
IC 460-194625/3		11/26/2013 20:04	1	L1144761.D	Rtx-5MS 0.25(mm)
IC 460-194625/4		11/26/2013 20:29	1	L1144762.D	Rtx-5MS 0.25(mm)
IC 460-194625/5		11/26/2013 20:55	1	L1144763.D	Rtx-5MS 0.25(mm)
IC 460-194625/6		11/26/2013 21:21	1	L1144764.D	Rtx-5MS 0.25(mm)
IC 460-194625/7		11/26/2013 21:46	1	L1144765.D	Rtx-5MS 0.25(mm)
IC 460-194625/8		11/26/2013 22:12	1	L1144766.D	Rtx-5MS 0.25(mm)
IC 460-194625/9		11/26/2013 22:37	1	L1144767.D	Rtx-5MS 0.25(mm)
IC 460-194625/10		11/26/2013 23:04	1	L1144768.D	Rtx-5MS 0.25(mm)
IC 460-194625/11		11/26/2013 23:29	1	L1144769.D	Rtx-5MS 0.25(mm)
IC 460-194625/12		11/26/2013 23:55	1	L1144770.D	Rtx-5MS 0.25(mm)
IC 460-194625/13		11/27/2013 00:21	1	L1144771.D	Rtx-5MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CBNAMS12 Start Date: 12/12/2013 07:50

Analysis Batch Number: 197230 End Date: 12/12/2013 19:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 460-197230/1		12/12/2013 07:50	1	L1145362.D	Rtx-5MS 0.25(mm)
CCVIS 460-197230/2		12/12/2013 08:08	1	L1145363.D	Rtx-5MS 0.25(mm)
CCV 460-197230/3		12/12/2013 08:34	1	L1145364.D	Rtx-5MS 0.25(mm)
LCS 460-196934/2-A		12/12/2013 10:17	1	L1145368.D	Rtx-5MS 0.25(mm)
MB 460-196934/1-A		12/12/2013 10:43	1	L1145369.D	Rtx-5MS 0.25(mm)
ZZZZZ		12/12/2013 12:00	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/12/2013 12:25	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/12/2013 12:51	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/12/2013 13:17	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/12/2013 19:43	2		Rtx-5MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CBNAMS12 Start Date: 12/15/2013 09:48

Analysis Batch Number: 197830 End Date: 12/15/2013 14:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 460-197830/1		12/15/2013 09:48	1	L1145432.D	Rtx-5MS 0.25(mm)
ICIS 460-197830/2		12/15/2013 10:10	1	L1145433.D	Rtx-5MS 0.25(mm)
IC 460-197830/3		12/15/2013 10:36	1	L1145434.D	Rtx-5MS 0.25(mm)
IC 460-197830/4		12/15/2013 11:02	1	L1145435.D	Rtx-5MS 0.25(mm)
IC 460-197830/5		12/15/2013 11:28	1	L1145436.D	Rtx-5MS 0.25(mm)
IC 460-197830/6		12/15/2013 11:53	1	L1145437.D	Rtx-5MS 0.25(mm)
IC 460-197830/7		12/15/2013 12:19	1	L1145438.D	Rtx-5MS 0.25(mm)
IC 460-197830/8		12/15/2013 12:45	1	L1145439.D	Rtx-5MS 0.25(mm)
IC 460-197830/9		12/15/2013 13:11	1	L1145440.D	Rtx-5MS 0.25(mm)
IC 460-197830/10		12/15/2013 13:37	1	L1145441.D	Rtx-5MS 0.25(mm)
IC 460-197830/11		12/15/2013 14:02	1	L1145442.D	Rtx-5MS 0.25(mm)
IC 460-197830/12		12/15/2013 14:28	1	L1145443.D	Rtx-5MS 0.25(mm)
IC 460-197830/13		12/15/2013 14:54	1	L1145444.D	Rtx-5MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CBNAMS12 Start Date: 12/24/2013 11:12

Analysis Batch Number: 199750 End Date: 12/24/2013 15:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 460-199750/1		12/24/2013 11:12	1	L1145771.D	Rtx-5MS 0.25(mm)
CCVIS 460-199750/2		12/24/2013 11:32	1	L1145772.D	Rtx-5MS 0.25(mm)
CCV 460-199750/4		12/24/2013 12:36	1	L1145774.D	Rtx-5MS 0.25(mm)
460-67815-1	E-GP-C4 (15-17.5')	12/24/2013 15:13	20	L1145780.D	Rtx-5MS 0.25(mm)
460-67815-2	E-GP-E3 (10-15')	12/24/2013 15:39	20	L1145781.D	Rtx-5MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CBNAMS5 Start Date: 12/03/2013 15:40

Analysis Batch Number: 195553 End Date: 12/03/2013 20:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 460-195553/1		12/03/2013 15:40	1	x6205.D	Rtxi-5Sil MS 0.25(mm)
ICIS 460-195553/2		12/03/2013 15:57	1	x6206.D	Rtxi-5Sil MS 0.25(mm)
STD120 460-195553/3 IC		12/03/2013 16:21	1	x6207.D	Rtxi-5Sil MS 0.25(mm)
STD80 460-195553/4 IC		12/03/2013 16:44	1	x6208.D	Rtxi-5Sil MS 0.25(mm)
STD20 460-195553/5 IC		12/03/2013 17:07	1	x6209.D	Rtxi-5Sil MS 0.25(mm)
STD10 460-195553/6 IC		12/03/2013 17:30	1	x6210.D	Rtxi-5Sil MS 0.25(mm)
STD5 460-195553/7 IC		12/03/2013 17:54	1	x6211.D	Rtxi-5Sil MS 0.25(mm)
STD50 460-195553/8 IC		12/03/2013 18:17	1	x6212.D	Rtxi-5Sil MS 0.25(mm)
STD120 460-195553/9 IC		12/03/2013 18:41	1	x6213.D	Rtxi-5Sil MS 0.25(mm)
STD80 460-195553/10 IC		12/03/2013 19:05	1	x6214.D	Rtxi-5Sil MS 0.25(mm)
STD20 460-195553/11 IC		12/03/2013 19:28	1	x6215.D	Rtxi-5Sil MS 0.25(mm)
STD10 460-195553/12 IC		12/03/2013 19:52	1	x6216.D	Rtxi-5Sil MS 0.25(mm)
STD5 460-195553/13 IC		12/03/2013 20:16	1	x6217.D	Rtxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CBNAMS5 Start Date: 12/11/2013 14:41

Analysis Batch Number: 197085 End Date: 12/11/2013 23:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 460-197085/1		12/11/2013 14:41	1	x6595.D	Rtxi-5Sil MS 0.25(mm)
CCVIS 460-197085/2		12/11/2013 14:57	1	x6596.D	Rtxi-5Sil MS 0.25(mm)
CCV 460-197085/3		12/11/2013 15:22	1	x6597.D	Rtxi-5Sil MS 0.25(mm)
LCS 460-196934/12-A		12/11/2013 19:34	1	x6607.D	Rtxi-5Sil MS 0.25(mm)
ZZZZZ		12/11/2013 23:06	1		Rtxi-5Sil MS 0.25(mm)
460-67884-E-2-A MS		12/11/2013 23:29	1	x6617.D	Rtxi-5Sil MS 0.25(mm)
460-67884-E-2-B MSD		12/11/2013 23:53	1	x6618.D	Rtxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Batch Number: 196934 Batch Start Date: 12/10/13 23:53 Batch Analyst: Silva, Jose

Batch Method: 3541 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	SoxThermPosition	OP_BNA SPIK 00006	OP_BNASurroga 00002	SM_Benzalde 00001
MB 460-196934/1		3541, 8270D		14.98 g	1 mL	73		500 uL	
LCS 460-196934/2		3541, 8270D		15.02 g	1 mL	74	500 uL	500 uL	
460-67884-E-2 MS		3541, 8270D	T	15.03 g	1 mL	75	500 uL	500 uL	50 uL
460-67884-E-2 MSD		3541, 8270D	T	15.02 g	1 mL	76	500 uL	500 uL	50 uL
460-67815-E-1	E-GP-C4 (15-17.5')	3541, 8270D	T	14.97 g	1 mL	81		500 uL	
460-67815-E-2	E-GP-E3 (10-15')	3541, 8270D	T	15.02 g	1 mL	82		500 uL	
LCS 460-196934/12		3541, 8270D		15.02 g	1 mL	84		500 uL	50 uL

Batch Notes	
Balance ID	28
Batch Comment	BNA 8270C SOIL
Vendor lot number	61086
N-evap #	222299
N-evap temperature	37.0 Degrees C
Na2SO4 Lot Number	331103
Person's name who did the prep	Jose
Solvent	MeCl2/Acetone blend
SOP Number	3541
Soxtherm Temperature	150 Degrees C
Uncorrected N-evap Temperature	37.0 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8081B

Organochlorine Pesticides by Gas Chromatography

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): CLP-1 ID: 0.53 (mm) GC Column (2): CLP-2 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	TCX1 #	TCX2 #	DCB1 #	DCB2 #
E-GP-C4 (15-17.5')	460-67815-1	75	86	83	87
E-GP-E3 (10-15')	460-67815-2	74	80	77	90
	MB 460-196739/1-A	122	133	142	148
	LCS 460-196739/2-A		129	147	
E-GP-C4 (15-17.5') MS	460-67815-1 MS	75	93	79	88
E-GP-C4 (15-17.5') MSD	460-67815-1 MSD	74	89	78	92

	QC LIMITS
TCX = Tetrachloro-m-xylene	37-150
DCB = DCB Decachlorobiphenyl	60-150

Column to be used to flag recovery values

FORM II 8081B

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: WR720035.D

Lab ID: LCS 460-196739/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Aldrin	133	155	116	69-138	
alpha-BHC	133	148	111	68-133	
beta-BHC	133	150	112	67-137	
delta-BHC	133	161	121	65-141	
gamma-BHC (Lindane)	133	148	111	68-134	
4,4'-DDD	133	132	99	69-150	
4,4'-DDE	133	148	111	70-147	
4,4'-DDT	133	169	127	63-146	
Dieldrin	133	147	111	63-129	
Endosulfan I	133	161	120	69-140	
Endosulfan II	133	164	123	66-136	
Endosulfan sulfate	133	162	121	65-137	
Endrin	133	154	116	67-142	
Endrin aldehyde	133	160	120	67-134	
Endrin ketone	133	149	112	68-146	
Heptachlor	133	151	113	67-136	
Heptachlor epoxide	133	148	111	68-136	
Methoxychlor	133	146	109	52-150	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: WR720036.D

Lab ID: 460-67815-1 MS Client ID: E-GP-C4 (15-17.5') MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Aldrin	150	7.5 U	109	73	69-138	
alpha-BHC	150	7.5 U	111	74	68-133	
beta-BHC	150	7.5 U	131	87	67-137	
delta-BHC	150	7.5 U	142	95	65-141	
gamma-BHC (Lindane)	150	7.5 U	124	83	68-134	
4,4'-DDD	150	7.5 U	150	100	69-150	
4,4'-DDD	150	7.5 U	152	101	69-150	
4,4'-DDE	150	7.5 U	136	91	70-147	p
4,4'-DDT	150	7.5 U	136	91	63-146	
Dieldrin	150	7.5 U	104	69	63-129	
Endosulfan I	150	7.5 U	124	83	69-140	
Endosulfan I	150	7.5 U	80.2	53	69-140	p *
Endosulfan II	150	7.5 U	107	72	66-136	
Endosulfan sulfate	150	7.5 U	127	84	65-137	
Endrin	150	7.5 U	132	88	67-142	
Endrin aldehyde	150	7.5 U	117	78	67-134	
Endrin ketone	150	7.5 U	122	81	68-146	
Heptachlor	150	7.5 U	96.1	64	67-136	*
Heptachlor	150	7.5 U	97.1	65	67-136	*
Heptachlor epoxide	150	7.5 U	122	81	68-136	
Methoxychlor	150	7.5 U	118	79	52-150	
Methoxychlor	150	7.5 U	131	88	52-150	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: WR720037.D

Lab ID: 460-67815-1 MSD Client ID: E-GP-C4 (15-17.5') MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Aldrin	150	101	67	8	30	69-138	*
alpha-BHC	150	108	72	3	30	68-133	
beta-BHC	150	115	77	13	30	67-137	
delta-BHC	150	128	86	10	30	65-141	
gamma-BHC (Lindane)	150	117	78	6	30	68-134	
4,4'-DDD	150	147	98	3	30	69-150	
4,4'-DDE	150	129	86	5	30	70-147	p
4,4'-DDT	150	132	88	3	30	63-146	
Dieldrin	150	99.8	67	4	30	63-129	
Endosulfan I	150	76.3	51	5	30	69-140	p *
Endosulfan II	150	104	69	3	30	66-136	
Endosulfan sulfate	150	118	79	7	30	65-137	
Endrin	150	126	84	5	30	67-142	
Endrin aldehyde	150	105	70	10	30	67-134	
Endrin ketone	150	113	76	7	30	68-146	
Heptachlor	150	92.5	62	5	30	67-136	*
Heptachlor epoxide	150	120	80	2	30	68-136	
Methoxychlor	150	125	84	5	30	52-150	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: MB 460-196739/1-A

Matrix: Solid Date Extracted: 12/10/2013 06:26

Lab File ID:(1) WR720034.D Lab File ID:(2) WR720034.D

Date Analyzed:(1) 12/11/2013 00:46 Date Analyzed:(2) 12/11/2013 00:46

Instrument ID:(1) CPESTGC4 Instrument ID:(2) CPESTGC4

GC Column:(1) CLP-1 ID: 0.53(mm) GC Column:(2) CLP-2 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 460-196739/2-A	12/11/2013 01:01	12/11/2013 01:01
E-GP-C4 (15-17.5') MS	460-67815-1 MS	12/11/2013 01:17	12/11/2013 01:17
E-GP-C4 (15-17.5') MSD	460-67815-1 MSD	12/11/2013 01:32	12/11/2013 01:32
E-GP-C4 (15-17.5')	460-67815-1	12/11/2013 01:47	12/11/2013 01:47
E-GP-E3 (10-15')	460-67815-2	12/11/2013 02:02	12/11/2013 02:02

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') MS Lab Sample ID: 460-67815-1 MS

Instrument ID (1): CPESTGC4 Instrument ID (2): CPESTGC4

Date Analyzed (1): 12/11/2013 01:17 Date Analyzed (2): 12/11/2013 01:17

GC Column (1): CLP-1 ID: 0.53(mm) GC Column (2): CLP-2 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		2.42	2.37	2.47	104		6.5
	2		3.31	3.26	3.36	111		
gamma-BHC (Lindane)	1		2.86	2.81	2.91	104		17.8
	2		3.94	3.90	4.00	124		
beta-BHC	1		3.02	2.97	3.07	112		16.1
	2		4.08	4.04	4.14	131		
delta-BHC	1		3.31	3.26	3.36	112		23.3
	2		4.62	4.57	4.67	142		
Heptachlor	1		3.65	3.60	3.70	97.1		1.1
	2		4.75	4.70	4.80	96.1		
Aldrin	1		4.15	4.10	4.20	102		7.1
	2		5.37	5.32	5.42	109		
Heptachlor epoxide	1		5.18	5.11	5.25	102		18.0
	2		6.38	6.31	6.45	122		
4,4'-DDE	1		5.79	5.73	5.87	206		40.6
	2		6.92	6.86	7.00	136		
Endosulfan I	1		5.91	5.84	5.98	80.2		43.2
	2		6.83	6.77	6.91	124		
Dieldrin	1		6.28	6.21	6.35	91.0		13.1
	2		7.13	7.06	7.20	104		
Endrin	1		6.56	6.49	6.63	106		22.6
	2		7.48	7.41	7.55	132		
4,4'-DDD	1		6.62	6.56	6.70	152		1.1
	2		7.57	7.52	7.66	150		
Endosulfan II	1		6.79	6.72	6.86	91.8		15.7
	2		7.72	7.65	7.79	107		
4,4'-DDT	1		6.91	6.85	6.99	99.9		30.8
	2		7.94	7.89	8.03	136		
Endrin aldehyde	1		7.22	7.16	7.30	102		13.3
	2		8.11	8.05	8.19	117		
Methoxychlor	1		7.42	7.39	7.53	131		10.6
	2		8.62	8.56	8.70	118		
Endosulfan sulfate	1		7.70	7.64	7.78	108		16.0
	2		8.39	8.33	8.47	127		
Endrin ketone	1		8.01	7.95	8.09	111		9.5
	2		8.82	8.76	8.90	122		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') MSD Lab Sample ID: 460-67815-1 MSD

Instrument ID (1): CPESTGC4 Instrument ID (2): CPESTGC4

Date Analyzed (1): 12/11/2013 01:32 Date Analyzed (2): 12/11/2013 01:32

GC Column (1): CLP-1 ID: 0.53(mm) GC Column (2): CLP-2 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		2.42	2.37	2.47	98.1		9.2
	2		3.30	3.26	3.36	108		
gamma-BHC (Lindane)	1		2.86	2.81	2.91	98.1		17.2
	2		3.94	3.90	4.00	117		
beta-BHC	1		3.02	2.97	3.07	105		9.1
	2		4.08	4.04	4.14	115		
delta-BHC	1		3.31	3.26	3.36	105		20.2
	2		4.61	4.57	4.67	128		
Heptachlor	1		3.65	3.60	3.70	89.8		3.0
	2		4.74	4.70	4.80	92.5		
Aldrin	1		4.15	4.10	4.20	96.8		3.9
	2		5.37	5.32	5.42	101		
Heptachlor epoxide	1		5.18	5.11	5.25	97.8		20.0
	2		6.38	6.31	6.45	120		
4,4'-DDE	1		5.79	5.73	5.87	196		41.1
	2		6.92	6.86	7.00	129		
Endosulfan I	1		5.91	5.84	5.98	76.3		42.2
	2		6.83	6.77	6.91	117		
Dieldrin	1		6.28	6.21	6.35	86.2		14.6
	2		7.13	7.06	7.20	99.8		
Endrin	1		6.56	6.49	6.63	101		21.5
	2		7.48	7.41	7.55	126		
4,4'-DDD	1		6.62	6.56	6.70	144		1.9
	2		7.57	7.52	7.66	147		
Endosulfan II	1		6.79	6.72	6.86	87.0		17.9
	2		7.72	7.65	7.79	104		
4,4'-DDT	1		6.91	6.85	6.99	94.9		32.7
	2		7.94	7.89	8.03	132		
Endrin aldehyde	1		7.22	7.16	7.30	96.4		8.6
	2		8.11	8.05	8.19	105		
Methoxychlor	1		7.42	7.39	7.53	125		4.2
	2		8.62	8.56	8.70	120		
Endosulfan sulfate	1		7.70	7.64	7.78	102		14.3
	2		8.39	8.33	8.47	118		
Endrin ketone	1		8.01	7.95	8.09	104		8.5
	2		8.82	8.76	8.90	113		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 460-196739/2-A

Instrument ID (1): CPESTGC4 Instrument ID (2): CPESTGC4

Date Analyzed (1): 12/11/2013 01:01 Date Analyzed (2): 12/11/2013 01:01

GC Column (1): CLP-1 ID: 0.53(mm) GC Column (2): CLP-2 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		2.42	2.37	2.47	148		8.2
	2		3.30	3.26	3.36	136		
gamma-BHC (Lindane)	1		2.86	2.81	2.91	148		3.1
	2		3.94	3.90	4.00	144		
beta-BHC	1		3.01	2.97	3.07	150		3.9
	2		4.08	4.04	4.14	144		
delta-BHC	1		3.31	3.26	3.36	152		5.8
	2		4.61	4.57	4.67	161		
Heptachlor	1		3.65	3.60	3.70	151		9.3
	2		4.74	4.70	4.80	138		
Aldrin	1		4.14	4.10	4.20	155		9.9
	2		5.36	5.32	5.42	140		
Heptachlor epoxide	1		5.18	5.11	5.25	148		1.4
	2		6.38	6.31	6.45	146		
4,4'-DDE	1		5.80	5.73	5.87	128		14.1
	2		6.93	6.86	7.00	148		
Endosulfan I	1		5.91	5.84	5.98	161		12.2
	2		6.83	6.77	6.91	142		
Dieldrin	1		6.28	6.21	6.35	147		5.8
	2		7.13	7.06	7.20	139		
Endrin	1		6.56	6.49	6.63	154		4.5
	2		7.48	7.41	7.55	148		
4,4'-DDD	1		6.63	6.56	6.70	119		10.2
	2		7.58	7.52	7.66	132		
Endosulfan II	1		6.79	6.72	6.86	153		6.8
	2		7.72	7.65	7.79	164		
4,4'-DDT	1		6.92	6.85	6.99	169		8.0
	2		7.95	7.89	8.03	156		
Endrin aldehyde	1		7.23	7.16	7.30	160		7.1
	2		8.11	8.05	8.19	149		
Methoxychlor	1		7.48	7.39	7.53	146		2.1
	2		8.63	8.56	8.70	143		
Endosulfan sulfate	1		7.70	7.64	7.78	162		6.4
	2		8.40	8.33	8.47	152		
Endrin ketone	1		8.02	7.95	8.09	149		4.0
	2		8.83	8.76	8.90	143		

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') | Lab Sample ID: 460-67815-1

Matrix: Solid | Lab File ID: WR720038.D

Analysis Method: 8081B | Date Collected: 12/04/2013 12:30

Extraction Method: 3546 | Date Extracted: 12/10/2013 06:26

Sample wt/vol: 15.03(g) | Date Analyzed: 12/11/2013 01:47

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196984 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	86		37-150
2051-24-3	DCB Decachlorobiphenyl	87		60-150

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720038.D
Lims ID: 460-67815-E-1-C Lab Sample ID: 460-67815-1
Client ID: E-GP-C4 (15-17.5')
Sample Type: Client
Inject. Date: 11-Dec-2013 01:47:22 ALS Bottle#: 45 Worklist Smp#: 47
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007647-047
Operator ID: Instrument ID: CPESTGC4

Method: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\8081GC4.m
Limit Group: GC 8081B PEST
Last Update: 11-Dec-2013 10:39:19 Calib Date: 10-Dec-2013 14:42:23
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720001.D

Column 1 : Detector: GC ECD1A
Column 2 : Detector: GC ECD2B
Process Host: XAWRK035

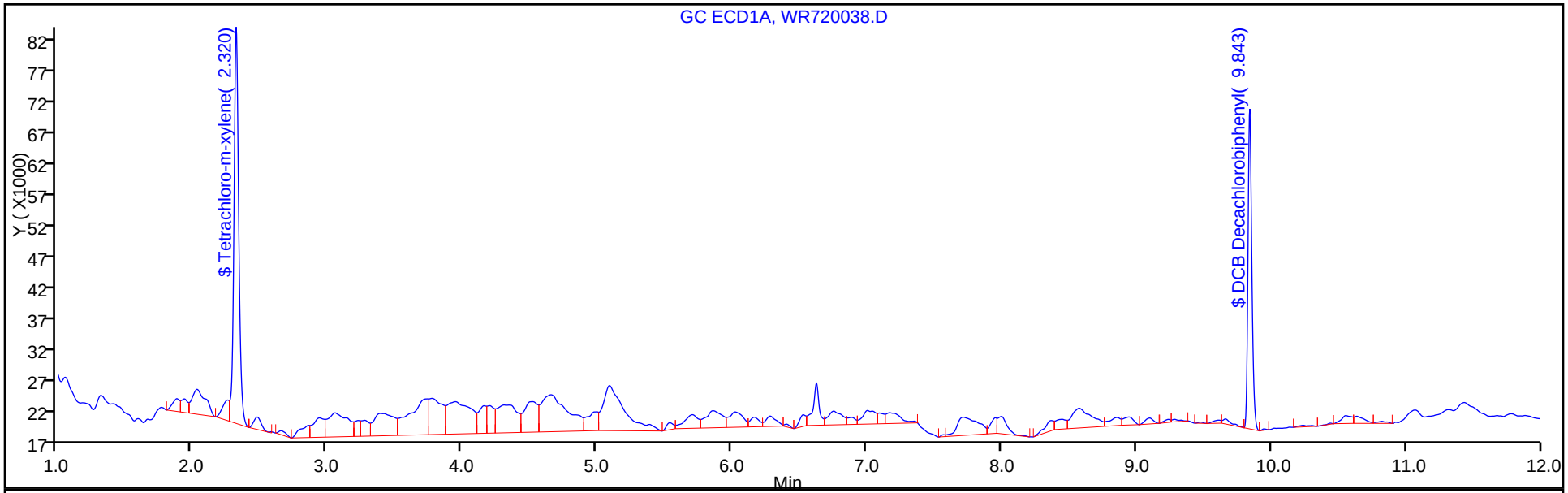
First Level Reviewer: kapoors Date: 11-Dec-2013 07:49:17

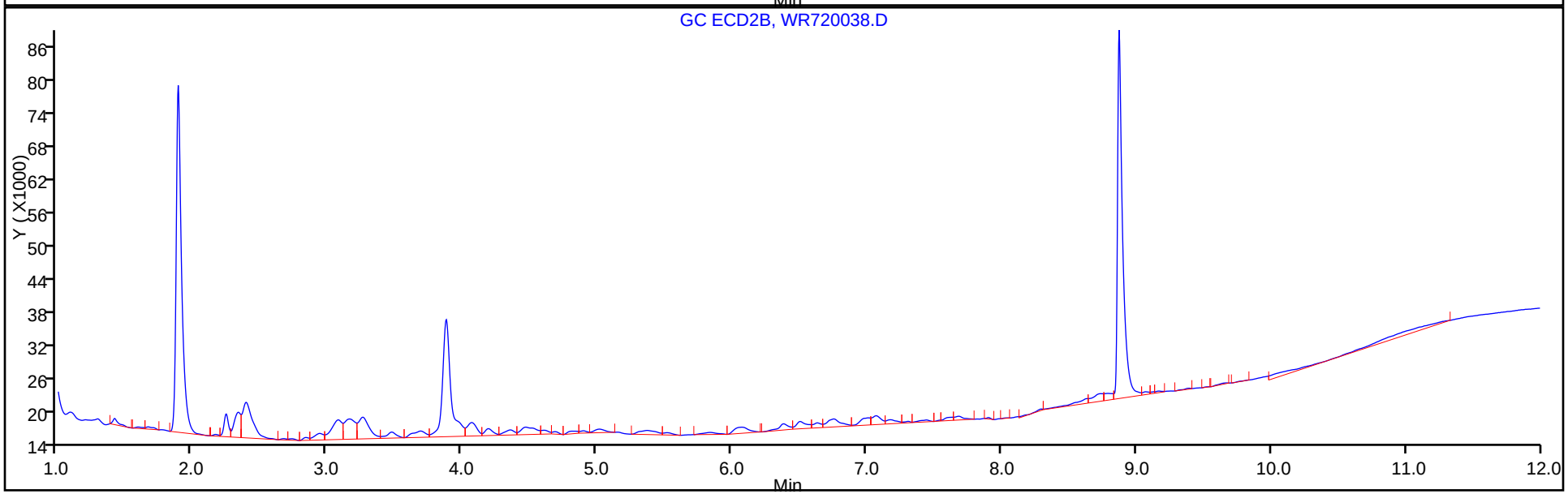
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/l	Flags
$ 4 Tetrachloro-m-xylene						
1	2.320	2.323	-0.003	157954	43.2	
2	1.890	1.890	0.0	176817	37.4	
					RPD = 14.55	
$ 24 DCB Decachlorobiphenyl						
1	9.843	9.853	-0.010	102309	43.4	
2	8.873	8.890	-0.017	176696	41.7	
					RPD = 4.01	

Report Date: 11-Dec-2013 10:39:25 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720038.D				
Injection Date:	11-Dec-2013 01:47:22	Instrument ID:	CPESTGC4	Operator ID:	
Lims ID:	460-67815-E-1-C	Lab Sample ID:	460-67815-1	Worklist Smp#:	47
Client ID:	E-GP-C4 (15-17.5')				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	45
Method:	8081GC4	Limit Group:	GC 8081B PEST		





FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') | Lab Sample ID: 460-67815-1

Matrix: Solid | Lab File ID: WR720038.D

Analysis Method: 8081B | Date Collected: 12/04/2013 12:30

Extraction Method: 3546 | Date Extracted: 12/10/2013 06:26

Sample wt/vol: 15.03(g) | Date Analyzed: 12/11/2013 01:47

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196984 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
309-00-2	Aldrin	7.5	U	7.5	1.6
319-84-6	alpha-BHC	7.5	U	7.5	1.7
319-85-7	beta-BHC	7.5	U	7.5	1.8
319-86-8	delta-BHC	7.5	U	7.5	1.3
58-89-9	gamma-BHC (Lindane)	7.5	U	7.5	1.3
57-74-9	Chlordane	75	U	75	21
72-54-8	4,4'-DDD	7.5	U	7.5	1.5
72-55-9	4,4'-DDE	7.5	U	7.5	1.5
50-29-3	4,4'-DDT	7.5	U	7.5	1.8
60-57-1	Dieldrin	7.5	U	7.5	1.3
959-98-8	Endosulfan I	7.5	U	7.5	1.7
33213-65-9	Endosulfan II	7.5	U	7.5	1.5
1031-07-8	Endosulfan sulfate	7.5	U	7.5	1.5
72-20-8	Endrin	7.5	U	7.5	1.8
7421-93-4	Endrin aldehyde	7.5	U	7.5	1.1
53494-70-5	Endrin ketone	7.5	U	7.5	1.5
76-44-8	Heptachlor	7.5	U	7.5	1.8
1024-57-3	Heptachlor epoxide	7.5	U	7.5	1.7
72-43-5	Methoxychlor	7.5	U	7.5	1.8
8001-35-2	Toxaphene	75	U	75	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	75		37-150
2051-24-3	DCB Decachlorobiphenyl	83		60-150

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720038.D
Lims ID: 460-67815-E-1-C Lab Sample ID: 460-67815-1
Client ID: E-GP-C4 (15-17.5')
Sample Type: Client
Inject. Date: 11-Dec-2013 01:47:22 ALS Bottle#: 45 Worklist Smp#: 47
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007647-047
Operator ID: Instrument ID: CPESTGC4

Method: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\8081GC4.m
Limit Group: GC 8081B PEST
Last Update: 11-Dec-2013 10:39:19 Calib Date: 10-Dec-2013 14:42:23
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720001.D

Column 1 : Detector: GC ECD1A
Column 2 : Detector: GC ECD2B
Process Host: XAWRK035

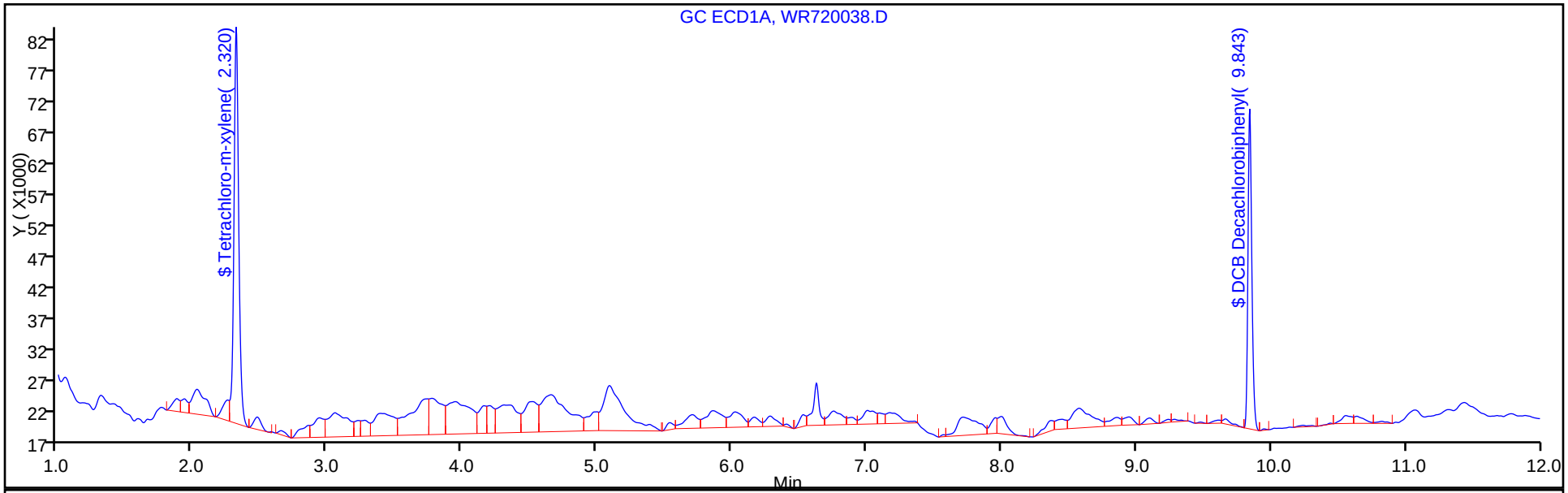
First Level Reviewer: kapoors Date: 11-Dec-2013 07:49:17

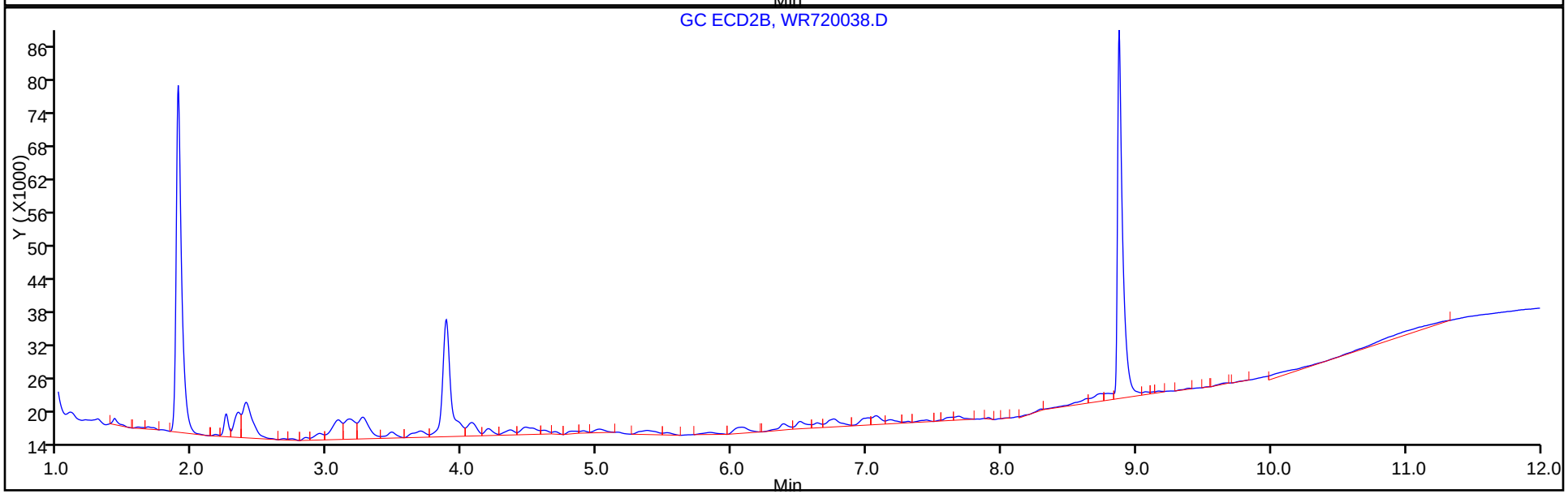
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/l	Flags
$ 4 Tetrachloro-m-xylene						
1	2.320	2.323	-0.003	157954	43.2	
2	1.890	1.890	0.0	176817	37.4	
					RPD = 14.55	
$ 24 DCB Decachlorobiphenyl						
1	9.843	9.853	-0.010	102309	43.4	
2	8.873	8.890	-0.017	176696	41.7	
					RPD = 4.01	

Report Date: 11-Dec-2013 10:39:26 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720038.D				
Injection Date:	11-Dec-2013 01:47:22	Instrument ID:	CPESTGC4	Operator ID:	
Lims ID:	460-67815-E-1-C	Lab Sample ID:	460-67815-1	Worklist Smp#:	47
Client ID:	E-GP-C4 (15-17.5')				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	45
Method:	8081GC4	Limit Group:	GC 8081B PEST		





FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-E3 (10-15') | Lab Sample ID: 460-67815-2

Matrix: Solid | Lab File ID: WR720039.D

Analysis Method: 8081B | Date Collected: 12/04/2013 14:30

Extraction Method: 3546 | Date Extracted: 12/10/2013 06:26

Sample wt/vol: 15.00(g) | Date Analyzed: 12/11/2013 02:02

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196984 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	80		37-150
2051-24-3	DCB Decachlorobiphenyl	90		60-150

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720039.D
Lims ID: 460-67815-E-2-A Lab Sample ID: 460-67815-2
Client ID: E-GP-E3 (10-15')
Sample Type: Client
Inject. Date: 11-Dec-2013 02:02:45 ALS Bottle#: 46 Worklist Smp#: 48
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007647-048
Operator ID: Instrument ID: CPESTGC4

Method: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\8081GC4.m
Limit Group: GC 8081B PEST
Last Update: 11-Dec-2013 10:39:19 Calib Date: 10-Dec-2013 14:42:23
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720001.D

Column 1 : Detector: GC ECD1A
Column 2 : Detector: GC ECD2B
Process Host: XAWRK035

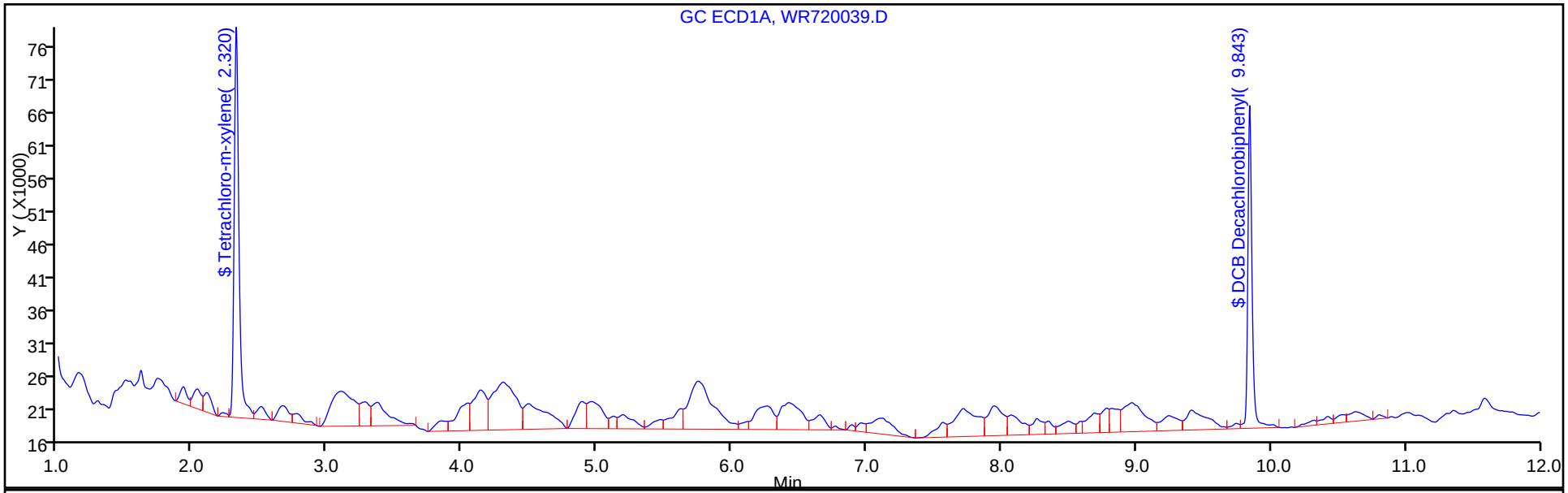
First Level Reviewer: kapoors Date: 11-Dec-2013 07:49:36

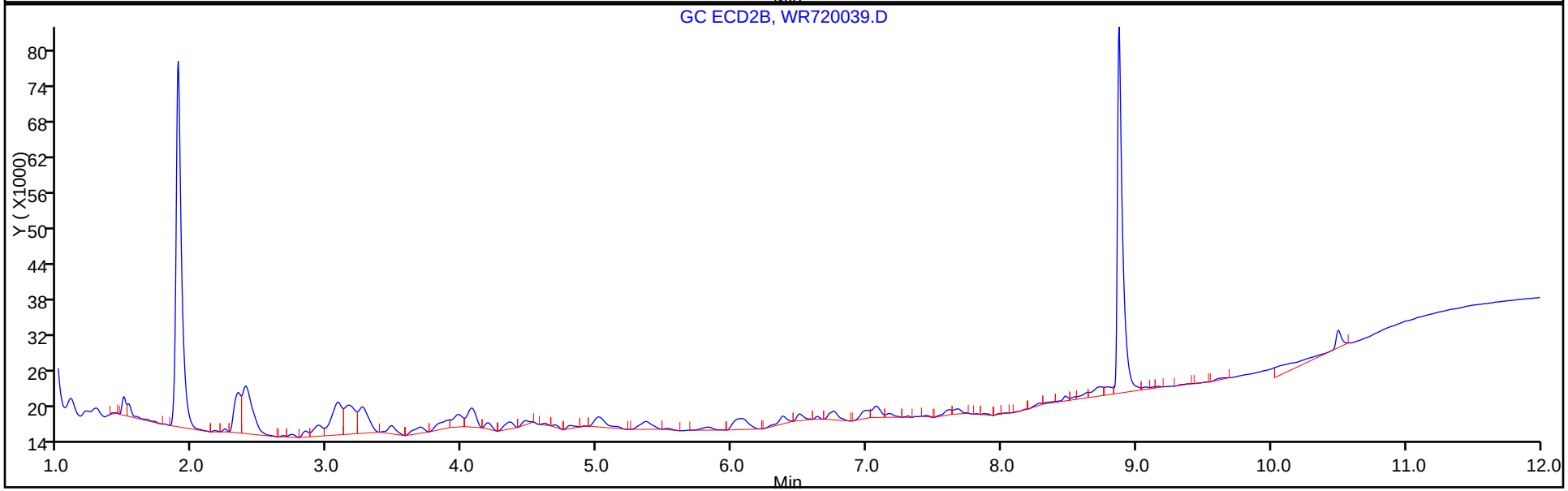
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/l	Flags
$ 4 Tetrachloro-m-xylene						
1	2.320	2.323	-0.003	145669	39.9	
2	1.890	1.890	0.0	174923	37.0	
					RPD = 7.55	
$ 24 DCB Decachlorobiphenyl						
1	9.843	9.853	-0.010	105863	45.0	
2	8.873	8.890	-0.017	162787	38.5	
					RPD = 15.60	

Report Date: 11-Dec-2013 10:39:26 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720039.D				
Injection Date:	11-Dec-2013 02:02:45	Instrument ID:	CPESTGC4	Operator ID:	
Lims ID:	460-67815-E-2-A	Lab Sample ID:	460-67815-2	Worklist Smp#:	48
Client ID:	E-GP-E3 (10-15')				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	46
Method:	8081GC4	Limit Group:	GC 8081B PEST		





FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-E3 (10-15') | Lab Sample ID: 460-67815-2

Matrix: Solid | Lab File ID: WR720039.D

Analysis Method: 8081B | Date Collected: 12/04/2013 14:30

Extraction Method: 3546 | Date Extracted: 12/10/2013 06:26

Sample wt/vol: 15.00(g) | Date Analyzed: 12/11/2013 02:02

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196984 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
309-00-2	Aldrin	7.5	U	7.5	1.6
319-84-6	alpha-BHC	7.5	U	7.5	1.7
319-85-7	beta-BHC	7.5	U	7.5	1.8
319-86-8	delta-BHC	7.5	U	7.5	1.3
58-89-9	gamma-BHC (Lindane)	7.5	U	7.5	1.3
57-74-9	Chlordane	75	U	75	21
72-54-8	4,4'-DDD	7.5	U	7.5	1.5
72-55-9	4,4'-DDE	7.5	U	7.5	1.5
50-29-3	4,4'-DDT	7.5	U	7.5	1.8
60-57-1	Dieldrin	7.5	U	7.5	1.3
959-98-8	Endosulfan I	7.5	U	7.5	1.7
33213-65-9	Endosulfan II	7.5	U	7.5	1.5
1031-07-8	Endosulfan sulfate	7.5	U	7.5	1.5
72-20-8	Endrin	7.5	U	7.5	1.8
7421-93-4	Endrin aldehyde	7.5	U	7.5	1.1
53494-70-5	Endrin ketone	7.5	U	7.5	1.5
76-44-8	Heptachlor	7.5	U	7.5	1.8
1024-57-3	Heptachlor epoxide	7.5	U	7.5	1.7
72-43-5	Methoxychlor	7.5	U	7.5	1.8
8001-35-2	Toxaphene	75	U	75	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	74		37-150
2051-24-3	DCB Decachlorobiphenyl	77		60-150

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720039.D
Lims ID: 460-67815-E-2-A Lab Sample ID: 460-67815-2
Client ID: E-GP-E3 (10-15')
Sample Type: Client
Inject. Date: 11-Dec-2013 02:02:45 ALS Bottle#: 46 Worklist Smp#: 48
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007647-048
Operator ID: Instrument ID: CPESTGC4

Method: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\8081GC4.m
Limit Group: GC 8081B PEST
Last Update: 11-Dec-2013 10:39:19 Calib Date: 10-Dec-2013 14:42:23
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720001.D

Column 1 : Detector: GC ECD1A
Column 2 : Detector: GC ECD2B
Process Host: XAWRK035

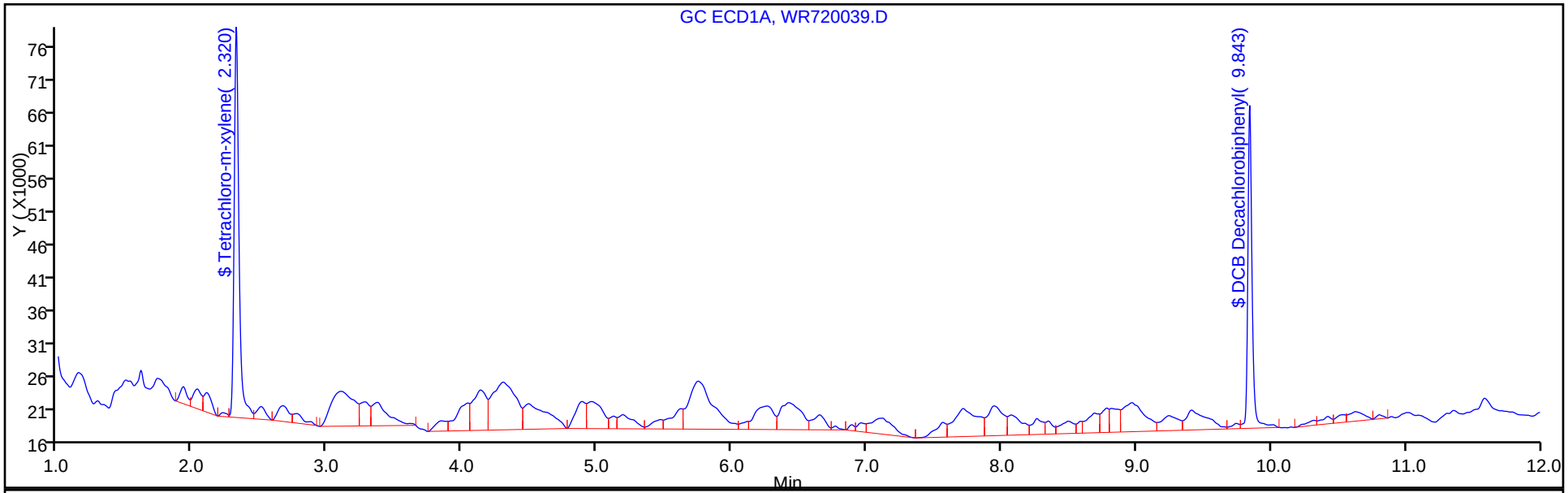
First Level Reviewer: kapoors Date: 11-Dec-2013 07:49:36

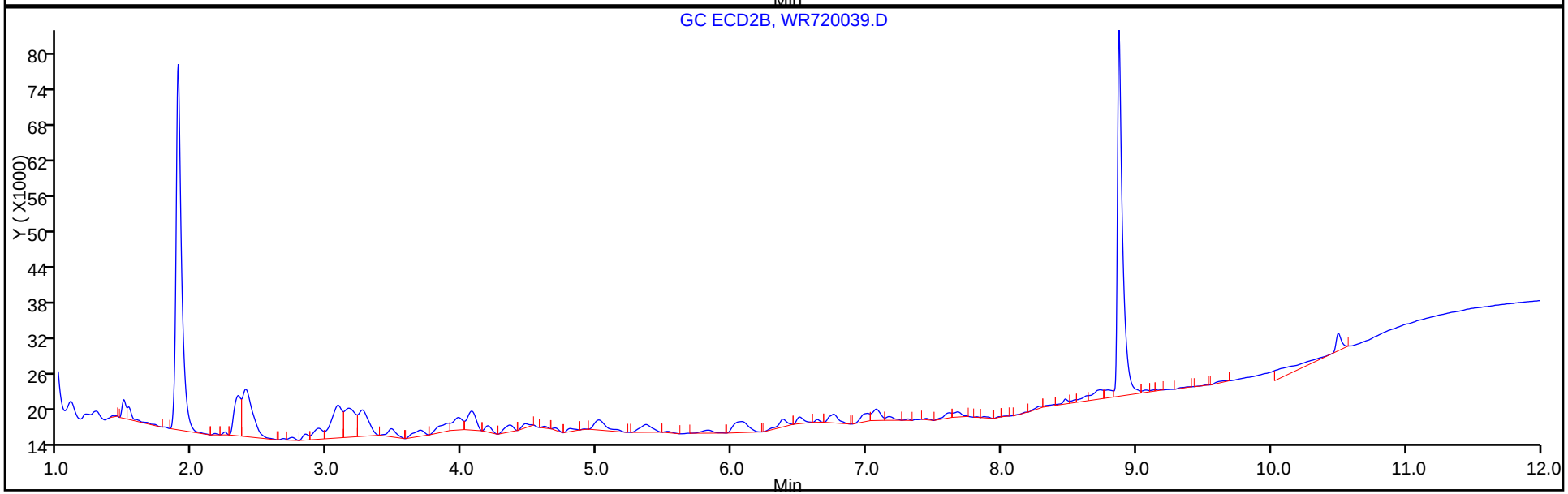
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/l	Flags
$ 4 Tetrachloro-m-xylene						
1	2.320	2.323	-0.003	145669	39.9	
2	1.890	1.890	0.0	174923	37.0	
					RPD = 7.55	
$ 24 DCB Decachlorobiphenyl						
1	9.843	9.853	-0.010	105863	45.0	
2	8.873	8.890	-0.017	162787	38.5	
					RPD = 15.60	

Report Date: 11-Dec-2013 10:39:26 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720039.D				
Injection Date:	11-Dec-2013 02:02:45	Instrument ID:	CPESTGC4	Operator ID:	
Lims ID:	460-67815-E-2-A	Lab Sample ID:	460-67815-2	Worklist Smp#:	48
Client ID:	E-GP-E3 (10-15')				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	46
Method:	8081GC4	Limit Group:	GC 8081B PEST		





FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 12:55 Calibration End Date: 12/10/2013 13:55 Calibration ID: 33519

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 460-196823/3	WR719994.D
Level 2	STD 460-196823/4	WR719995.D
Level 3	STD 460-196823/5	WR719996.D
Level 4	STD 460-196823/6	WR719997.D
Level 5	STD 460-196823/7	WR719998.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
alpha-BHC	3.337	3.293	3.307	3.293	3.307						3.257 - 3.357	3.307
gamma-BHC (Lindane)	3.980	3.937	3.947	3.933	3.947						3.897 - 3.997	3.949
beta-BHC	4.120	4.077	4.087	4.073	4.087						4.037 - 4.137	4.089
delta-BHC	4.653	4.610	4.620	4.607	4.620						4.570 - 4.670	4.622
Heptachlor	4.783	4.737	4.747	4.737	4.747						4.697 - 4.797	4.750
Aldrin	5.403	5.360	5.370	5.357	5.370						5.320 - 5.420	5.372
Heptachlor epoxide	6.403	6.377	6.380	6.373	6.380						6.310 - 6.450	6.383
gamma-Chlordane	6.627	6.603	6.607	6.600	6.607						6.537 - 6.677	6.609
alpha-Chlordane	6.783	6.763	6.763	6.760	6.763						6.693 - 6.833	6.766
Endosulfan I	6.853	6.833	6.833	6.827	6.833						6.763 - 6.903	6.836
4,4'-DDE	6.950	6.933	6.930	6.930	6.930						6.860 - 7.000	6.935
Dieldrin	7.153	7.130	7.133	7.127	7.130						7.063 - 7.203	7.135
Endrin	7.500	7.480	7.480	7.477	7.480						7.410 - 7.550	7.483
4,4'-DDD	7.603	7.590	7.587	7.583	7.583						7.517 - 7.657	7.589
Endosulfan II	7.740	7.723	7.723	7.717	7.720						7.653 - 7.793	7.725
4,4'-DDT	7.973	7.957	7.957	7.950	7.953						7.887 - 8.027	7.958
Endrin aldehyde	8.137	8.120	8.117	8.113	8.117						8.047 - 8.187	8.121
Endosulfan sulfate	8.413	8.400	8.400	8.397	8.397						8.330 - 8.470	8.401
Methoxychlor	8.640	8.633	8.633	8.627	8.627						8.563 - 8.703	8.632
Endrin ketone	8.840	8.830	8.830	8.827	8.827						8.760 - 8.900	8.831
Tetrachloro-m-xylene	2.340	2.310	2.320	2.313	2.320						2.270 - 2.370	2.321
DCB Decachlorobiphenyl	9.860	9.853	9.853	9.850	9.850						9.753 - 9.953	9.853

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 12:55 Calibration End Date: 12/10/2013 13:55 Calibration ID: 33519

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 460-196823/3	WR719994.D
Level 2	STD 460-196823/4	WR719995.D
Level 3	STD 460-196823/5	WR719996.D
Level 4	STD 460-196823/6	WR719997.D
Level 5	STD 460-196823/7	WR719998.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
alpha-BHC	6271.4 4315.3	6129.8	4975.1	4790.9	Ave		5296.50960				16.0		20.0			
gamma-BHC (Lindane)	4217.2 3772.0	4283.9	4257.1	4094.4	Ave		4124.92240				5.1		20.0			
beta-BHC	1693.0 2088.9	1995.0	2457.9	2374.9	Ave		2121.94720				14.0		20.0			
delta-BHC	3602.6 3518.9	3619.1	3654.3	3679.5	Ave		3614.88320				1.7		20.0			
Heptachlor	5402.0 3997.8	5475.9	5008.2	4671.6	Ave		4911.10240				12.0		20.0			
Aldrin	5250.5 3780.1	4463.8	4340.4	3995.5	Ave		4366.05840				13.0		20.0			
Heptachlor epoxide	3322.3 2929.5	3510.6	3199.3	3205.9	Ave		3233.53880				6.5		20.0			
gamma-Chlordane	3899.7 2785.5	3358.8	3039.1	3055.5	Ave		3227.74080				13.0		20.0			
alpha-Chlordane	3015.7 2552.5	3114.8	2834.8	2786.1	Ave		2860.80080				7.6		20.0			
Endosulfan I	2984.0 2675.7	3374.6	2969.8	2902.4	Ave		2981.29440				8.5		20.0			
4,4'-DDE	2195.5 2695.5	3124.8	3084.2	2849.1	Ave		2789.83600				13.0		20.0			
Dieldrin	3340.4 3070.4	3795.6	3910.6	3447.1	Ave		3512.81040				9.7		20.0			
Endrin	2710.5 2600.6	2863.7	2711.3	2829.1	Ave		2743.02440				3.8		20.0			
4,4'-DDD	2037.8 2131.5	2157.2	2257.7	2316.1	Ave		2180.06440				5.0		20.0			
Endosulfan II	2895.8 2892.4	3370.5	3406.1	3225.5	Ave		3158.05480				7.9		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 12:55 Calibration End Date: 12/10/2013 13:55 Calibration ID: 33519

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
4,4'-DDT	2125.9 2404.7	2252.2	2308.3	2575.2	Ave		2333.24840				7.2		20.0			
Endrin aldehyde	2409.1 2233.1	2426.9	2662.4	2469.8	Ave		2440.26840				6.3		20.0			
Endosulfan sulfate	2519.1 2150.7	2437.5	2483.6	2442.9	Ave		2406.73840				6.1		20.0			
Methoxychlor	1325.4 1190.9	1464.2	1437.1	1387.0	Ave		1360.93480				8.0		20.0			
Endrin ketone	3037.3 2714.0	3463.9	2987.5	2979.2	Ave		3036.39520				8.9		20.0			
Tetrachloro-m-xylene	3639.9 3377.8	3832.7	4121.4	3296.3	Ave		3653.61067				9.2		20.0			
DCB Decachlorobiphenyl	2470.6 2138.0	2533.8	2263.8	2368.4	Ave		2354.92000				6.7		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 12:55 Calibration End Date: 12/10/2013 13:55 Calibration ID: 33519

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 460-196823/3	WR719994.D
Level 2	STD 460-196823/4	WR719995.D
Level 3	STD 460-196823/5	WR719996.D
Level 4	STD 460-196823/6	WR719997.D
Level 5	STD 460-196823/7	WR719998.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
alpha-BHC	Ave	62714	306489	497511	1197733	2157663	10.0	50.0	100	250	500
gamma-BHC (Lindane)	Ave	42172	214194	425715	1023595	1886001	10.0	50.0	100	250	500
beta-BHC	Ave	16930	99749	245789	593736	1044461	10.0	50.0	100	250	500
delta-BHC	Ave	36026	180953	365430	919879	1759470	10.0	50.0	100	250	500
Heptachlor	Ave	54020	273796	500820	1167902	1998892	10.0	50.0	100	250	500
Aldrin	Ave	52505	223192	434035	998868	1890065	10.0	50.0	100	250	500
Heptachlor epoxide	Ave	33223	175531	319934	801482	1464753	10.0	50.0	100	250	500
gamma-Chlordane	Ave	38997	167941	303914	763882	1392758	10.0	50.0	100	250	500
alpha-Chlordane	Ave	30157	155742	283483	696528	1276261	10.0	50.0	100	250	500
Endosulfan I	Ave	29840	168729	296977	725609	1337843	10.0	50.0	100	250	500
4,4'-DDE	Ave	21955	156242	308421	712281	1347753	10.0	50.0	100	250	500
Dieldrin	Ave	33404	189778	391057	861782	1535197	10.0	50.0	100	250	500
Endrin	Ave	27105	143183	271128	707271	1300299	10.0	50.0	100	250	500
4,4'-DDD	Ave	20378	107859	225768	579032	1065767	10.0	50.0	100	250	500
Endosulfan II	Ave	28958	168526	340608	806372	1446193	10.0	50.0	100	250	500
4,4'-DDT	Ave	21259	112610	230828	643801	1202329	10.0	50.0	100	250	500
Endrin aldehyde	Ave	24091	121347	266240	617439	1116573	10.0	50.0	100	250	500
Endosulfan sulfate	Ave	25191	121873	248355	610721	1075349	10.0	50.0	100	250	500
Methoxychlor	Ave	13254	73211	143711	346756	595460	10.0	50.0	100	250	500
Endrin ketone	Ave	30373	173195	298750	744808	1357022	10.0	50.0	100	250	500
Tetrachloro-m-xylene	Ave	90998	191635	412143	494438	675550	25.0	50.0	100	150	200
DCB Decachlorobiphenyl	Ave	61765	126691	226377	355260	427602	25.0	50.0	100	150	200

Curve Type Legend:

Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 12:55 Calibration End Date: 12/10/2013 13:55 Calibration ID: 33520

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 460-196823/3	WR719994.D
Level 2	STD 460-196823/4	WR719995.D
Level 3	STD 460-196823/5	WR719996.D
Level 4	STD 460-196823/6	WR719997.D
Level 5	STD 460-196823/7	WR719998.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
alpha-BHC	2.430	2.417	2.420	2.417	2.423						2.370 - 2.470	2.421
gamma-BHC (Lindane)	2.870	2.850	2.857	2.853	2.860						2.807 - 2.907	2.858
beta-BHC	3.027	3.007	3.013	3.010	3.013						2.963 - 3.063	3.014
delta-BHC	3.320	3.303	3.307	3.303	3.307						3.257 - 3.357	3.308
Heptachlor	3.663	3.643	3.647	3.643	3.650						3.597 - 3.697	3.649
Aldrin	4.160	4.140	4.147	4.140	4.147						4.097 - 4.197	4.147
Heptachlor epoxide	5.197	5.177	5.180	5.177	5.180						5.110 - 5.250	5.182
gamma-Chlordane	5.417	5.397	5.400	5.397	5.400						5.330 - 5.470	5.402
alpha-Chlordane	5.663	5.643	5.647	5.640	5.647						5.577 - 5.717	5.648
4,4'-DDE	5.813	5.813	5.797	5.803	5.797						5.727 - 5.867	5.805
Endosulfan I	5.927	5.907	5.910	5.903	5.907						5.840 - 5.980	5.911
Dieldrin	6.293	6.280	6.280	6.277	6.280						6.210 - 6.350	6.282
Endrin	6.570	6.557	6.557	6.553	6.557						6.487 - 6.627	6.559
4,4'-DDD	6.643	6.640	6.630	6.637	6.630						6.560 - 6.700	6.636
Endosulfan II	6.800	6.793	6.790	6.790	6.790						6.720 - 6.860	6.793
4,4'-DDT	6.927	6.920	6.917	6.917	6.917						6.847 - 6.987	6.920
Endrin aldehyde	7.237	7.230	7.227	7.227	7.227						7.157 - 7.297	7.230
Methoxychlor	7.450	7.457	7.460	7.440	7.440						7.390 - 7.530	7.449
Endosulfan sulfate	7.713	7.707	7.703	7.703	7.703						7.633 - 7.773	7.706
Endrin ketone	8.030	8.020	8.020	8.017	8.017						7.950 - 8.090	8.021
Tetrachloro-m-xylene	1.893	1.883	1.887	1.883	1.890						1.837 - 1.937	1.887
DCB Decachlorobiphenyl	8.887	8.887	8.890	8.883	8.887						8.790 - 8.990	8.887

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 12:55 Calibration End Date: 12/10/2013 13:55 Calibration ID: 33520

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 460-196823/3	WR719994.D
Level 2	STD 460-196823/4	WR719995.D
Level 3	STD 460-196823/5	WR719996.D
Level 4	STD 460-196823/6	WR719997.D
Level 5	STD 460-196823/7	WR719998.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
alpha-BHC	5572.5 5844.0	6170.3	6049.7	6250.9	Ave		5977.47280				4.6		20.0			
gamma-BHC (Lindane)	4761.8 5019.7	5232.4	5244.3	5366.9	Ave		5125.02480				4.7		20.0			
beta-BHC	2083.4 2556.5	2689.5	2628.8	2808.0	Ave		2553.25480				11.0		20.0			
delta-BHC	4181.9 4898.3	4598.7	4783.0	5186.9	Ave		4729.74480				7.9		20.0			
Heptachlor	5751.9 5314.4	6027.4	5760.1	5878.9	Ave		5746.54720				4.6		20.0			
Aldrin	4701.0 4938.0	5287.9	5195.4	5375.4	Ave		5099.54720				5.4		20.0			
Heptachlor epoxide	4590.9 4368.5	5010.1	4626.9	4840.9	Ave		4687.44920				5.3		20.0			
gamma-Chlordane	4589.6 4572.5	4989.9	4601.9	5024.6	Ave		4755.70160				4.8		20.0			
alpha-Chlordane	4028.9 4291.3	4757.3	4377.3	4755.3	Ave		4442.03320				7.1		20.0			
4,4'-DDE	2107.8 2761.0	1810.5	2074.2	2491.3	Ave		2248.95440				17.0		20.0			
Endosulfan I	4446.5 5590.7	6652.2	5872.8	6695.3	Ave		5851.51560				16.0		20.0			
Dieldrin	4217.4 4642.8	5082.2	4766.3	5248.3	Ave		4791.40840				8.4		20.0			
Endrin	3697.8 3538.9	3861.1	3610.7	3931.2	Ave		3727.93040				4.4		20.0			
4,4'-DDD	3186.9 3124.8	2535.6	2501.3	3280.2	Ave		2925.78520				13.0		20.0			
Endosulfan II	4172.7 4059.7	4675.2	4459.5	4593.4	Ave		4392.08160				6.1		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 12:55 Calibration End Date: 12/10/2013 13:55 Calibration ID: 33520

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
4,4'-DDT	3542.4 4237.0	3905.5	4185.0	4695.4	Ave		4113.04000				10.0		20.0			
Endrin aldehyde	3120.2 3167.9	3168.0	3392.3	3584.2	Ave		3286.51000				6.0		20.0			
Methoxychlor	1496.1 1722.8	1345.2	1655.3	1993.8	Ave		1642.64880				15.0		20.0			
Endosulfan sulfate	3133.8 3324.1	3512.8	3644.5	3722.0	Ave		3467.42320				6.9		20.0			
Endrin ketone	3906.8 4183.8	4550.4	4405.8	4596.6	Ave		4328.69280				6.6		20.0			
Tetrachloro-m-xylene	5008.0 4462.4	4908.2	4676.7	4603.1	Ave		4731.67633				4.7		20.0			
DCB Decachlorobiphenyl	4371.3 3953.1	4526.8	4222.4	4094.9	Ave		4233.69300				5.3		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 12:55 Calibration End Date: 12/10/2013 13:55 Calibration ID: 33520

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 460-196823/3	WR719994.D
Level 2	STD 460-196823/4	WR719995.D
Level 3	STD 460-196823/5	WR719996.D
Level 4	STD 460-196823/6	WR719997.D
Level 5	STD 460-196823/7	WR719998.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
alpha-BHC	Ave	55725	308515	604968	1562719	2922004	10.0	50.0	100	250	500
gamma-BHC (Lindane)	Ave	47618	261620	524431	1341730	2509847	10.0	50.0	100	250	500
beta-BHC	Ave	20834	134474	262881	702011	1278270	10.0	50.0	100	250	500
delta-BHC	Ave	41819	229936	478297	1296715	2449137	10.0	50.0	100	250	500
Heptachlor	Ave	57519	301372	576010	1469726	2657196	10.0	50.0	100	250	500
Aldrin	Ave	47010	264395	519544	1343861	2468976	10.0	50.0	100	250	500
Heptachlor epoxide	Ave	45909	250504	462689	1210228	2184232	10.0	50.0	100	250	500
gamma-Chlordane	Ave	45896	249495	460186	1256151	2286272	10.0	50.0	100	250	500
alpha-Chlordane	Ave	40289	237867	437730	1188823	2145667	10.0	50.0	100	250	500
4,4'-DDE	Ave	21078	90525	207416	622837	1380482	10.0	50.0	100	250	500
Endosulfan I	Ave	44465	332611	587280	1673828	2795373	10.0	50.0	100	250	500
Dieldrin	Ave	42174	254108	476632	1312084	2321413	10.0	50.0	100	250	500
Endrin	Ave	36978	193055	361066	982798	1769450	10.0	50.0	100	250	500
4,4'-DDD	Ave	31869	126781	250134	820059	1562415	10.0	50.0	100	250	500
Endosulfan II	Ave	41727	233758	445951	1148343	2029833	10.0	50.0	100	250	500
4,4'-DDT	Ave	35424	195273	418501	1173840	2118485	10.0	50.0	100	250	500
Endrin aldehyde	Ave	31202	158399	339226	896055	1583945	10.0	50.0	100	250	500
Methoxychlor	Ave	14961	67258	165532	498458	861416	10.0	50.0	100	250	500
Endosulfan sulfate	Ave	31338	175638	364445	930494	1662065	10.0	50.0	100	250	500
Endrin ketone	Ave	39068	227522	440579	1149147	2091923	10.0	50.0	100	250	500
Tetrachloro-m-xylene	Ave	125200	245412	467671	690460	892473	25.0	50.0	100	150	200
DCB Decachlorobiphenyl	Ave	109282	226341	422239	614238	790611	25.0	50.0	100	150	200

Curve Type Legend:

Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 14:11 Calibration End Date: 12/10/2013 14:11 Calibration ID: 33525

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-196823/8	WR719999.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
Chlordane (technical) Peak 1	4.483										4.413 - 4.553	4.483
Chlordane (technical) Peak 2	4.750										4.680 - 4.820	4.750
Chlordane (technical) Peak 3	6.607										6.537 - 6.677	6.607
Chlordane (technical) Peak 4	6.707										6.637 - 6.777	6.707
Chlordane (technical) Peak 5	6.767										6.697 - 6.837	6.767

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 14:11 Calibration End Date: 12/10/2013 14:11 Calibration ID: 33525

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-196823/8	WR719999.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
Chlordane (technical) Peak 1	150.13				Ave		150.131000						20.0			
Chlordane (technical) Peak 2	202.03				Ave		202.034000						20.0			
Chlordane (technical) Peak 3	368.66				Ave		368.655000						20.0			
Chlordane (technical) Peak 4	298.08				Ave		298.077000						20.0			
Chlordane (technical) Peak 5	352.17				Ave		352.167000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 14:11 Calibration End Date: 12/10/2013 14:11 Calibration ID: 33525

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-196823/8	WR719999.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1					LVL 1				
Chlordane (technical) Peak 1	Ave	150131					1000				
Chlordane (technical) Peak 2	Ave	202034					1000				
Chlordane (technical) Peak 3	Ave	368655					1000				
Chlordane (technical) Peak 4	Ave	298077					1000				
Chlordane (technical) Peak 5	Ave	352167					1000				

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 14:11 Calibration End Date: 12/10/2013 14:11 Calibration ID: 33526

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-196823/8	WR719999.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
Chlordane (technical) Peak 1	3.517										3.447 - 3.587	3.517
Chlordane (technical) Peak 2	3.650										3.580 - 3.720	3.650
Chlordane (technical) Peak 3	4.380										4.310 - 4.450	4.380
Chlordane (technical) Peak 4	5.403										5.333 - 5.473	5.403
Chlordane (technical) Peak 5	5.633										5.563 - 5.703	5.633

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 14:11 Calibration End Date: 12/10/2013 14:11 Calibration ID: 33526

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-196823/8	WR719999.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
Chlordane (technical) Peak 1	180.92				Ave		180.922000						20.0			
Chlordane (technical) Peak 2	276.39				Ave		276.385000						20.0			
Chlordane (technical) Peak 3	210.63				Ave		210.631000						20.0			
Chlordane (technical) Peak 4	627.82				Ave		627.822000						20.0			
Chlordane (technical) Peak 5	1024.0				Ave		1024.00000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 14:11 Calibration End Date: 12/10/2013 14:11 Calibration ID: 33526

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-196823/8	WR719999.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1					LVL 1				
Chlordane (technical) Peak 1	Ave	180922					1000				
Chlordane (technical) Peak 2	Ave	276385					1000				
Chlordane (technical) Peak 3	Ave	210631					1000				
Chlordane (technical) Peak 4	Ave	627822					1000				
Chlordane (technical) Peak 5	Ave	1024000					1000				

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 14:26 Calibration End Date: 12/10/2013 14:26 Calibration ID: 33531

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-196823/9	WR720000.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
Toxaphene Peak 1	7.910										7.840 - 7.980	7.910
Toxaphene Peak 2	8.123										8.053 - 8.193	8.123
Toxaphene Peak 3	8.607										8.537 - 8.677	8.607
Toxaphene Peak 4	8.903										8.833 - 8.973	8.903
Toxaphene Peak 5	9.043										8.973 - 9.113	9.043

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 14:26 Calibration End Date: 12/10/2013 14:26 Calibration ID: 33531

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-196823/9	WR720000.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
Toxaphene Peak 1	107.95				Ave		107.946000						20.0			
Toxaphene Peak 2	186.96				Ave		186.961000						20.0			
Toxaphene Peak 3	190.97				Ave		190.973000						20.0			
Toxaphene Peak 4	124.64				Ave		124.637000						20.0			
Toxaphene Peak 5	99.882				Ave		99.8820000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 14:26 Calibration End Date: 12/10/2013 14:26 Calibration ID: 33531

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-196823/9	WR720000.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1					LVL 1				
Toxaphene Peak 1	Ave	107946					1000				
Toxaphene Peak 2	Ave	186961					1000				
Toxaphene Peak 3	Ave	190973					1000				
Toxaphene Peak 4	Ave	124637					1000				
Toxaphene Peak 5	Ave	99882					1000				

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 14:26 Calibration End Date: 12/10/2013 14:26 Calibration ID: 33532

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-196823/9	WR720000.D

ANALYTE	LVL 1										RT WINDOW	AVG RT
Toxaphene Peak 1	6.903										6.833 - 6.973	6.903
Toxaphene Peak 2	7.197										7.127 - 7.267	7.197
Toxaphene Peak 3	7.587										7.517 - 7.657	7.587
Toxaphene Peak 4	7.993										7.923 - 8.063	7.993
Toxaphene Peak 5	8.163										8.093 - 8.233	8.163

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 14:26 Calibration End Date: 12/10/2013 14:26 Calibration ID: 33532

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-196823/9	WR720000.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
Toxaphene Peak 1	222.37				Ave		222.371000						20.0			
Toxaphene Peak 2	336.78				Ave		336.784000						20.0			
Toxaphene Peak 3	193.94				Ave		193.937000						20.0			
Toxaphene Peak 4	129.75				Ave		129.752000						20.0			
Toxaphene Peak 5	63.273				Ave		63.2730000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 196823

SDG No.:

Instrument ID: CPESTGC4 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/10/2013 14:26 Calibration End Date: 12/10/2013 14:26 Calibration ID: 33532

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 460-196823/9	WR720000.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1					LVL 1				
Toxaphene Peak 1	Ave	222371					1000				
Toxaphene Peak 2	Ave	336784					1000				
Toxaphene Peak 3	Ave	193937					1000				
Toxaphene Peak 4	Ave	129752					1000				
Toxaphene Peak 5	Ave	63273					1000				

Curve Type Legend:
Ave = Average

FORM VII
GC SEMI VOA PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: PEM 460-196984/42 Calibration Date: 12/11/2013 00:31

Instrument ID: CPESTGC4 Calib Start Date: 12/10/2013 12:55

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/10/2013 13:55

Lab File ID: WR720033.D Conc. Units: ug/L

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	7.48	737278	6.55	15	
Endrin aldehyde		0			
Endrin ketone	8.83	51638			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	7.96	647143	1.51	15	
4,4'-DDD		0			
4,4'-DDE	6.93	9933			

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720033.D
Lims ID: PEM Lab Sample ID: PEM 460-196984/42-A
Client ID:
Sample Type: PEM
Inject. Date: 11-Dec-2013 00:31:14 ALS Bottle#: 40 Worklist Smp#: 42
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007647-042
Operator ID: Instrument ID: CPESTGC4
Sublist:

Method: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\8081GC4.m
Limit Group: GC 8081B PEST
Last Update: 11-Dec-2013 11:23:43 Calib Date: 10-Dec-2013 14:42:23
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720001.D

Column 1 : Detector: GC ECD1A
Column 2 : Detector: GC ECD2B
Process Host: XAWRK035

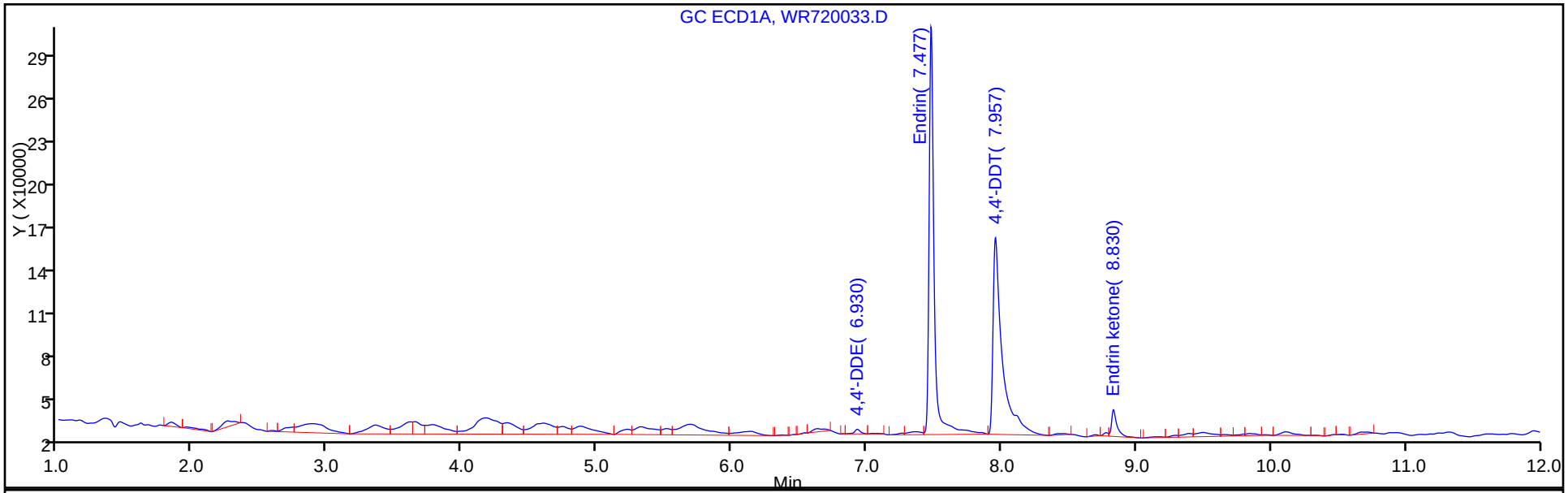
First Level Reviewer: kapoors Date: 11-Dec-2013 07:38:45

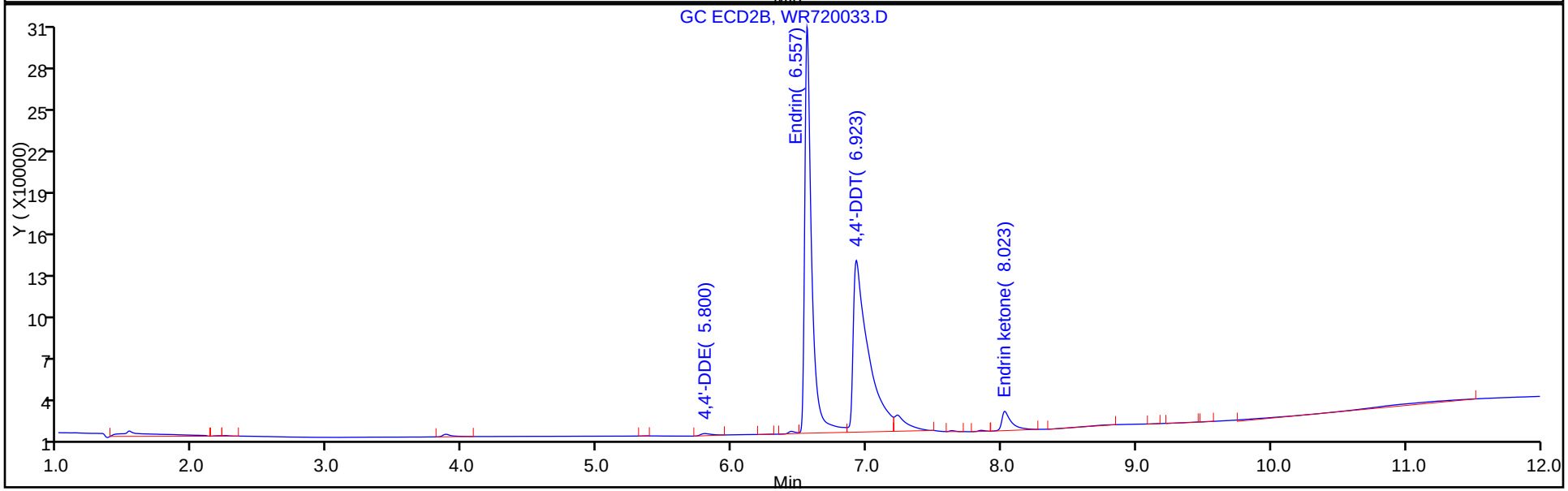
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/l	Flags
25 4,4'-DDE						
1	6.930	6.933	-0.003	9933	3.56	
2	5.800	5.800	0.0	8181	3.64	
					RPD = 2.15	
20 Endrin						
1	7.477	7.483	-0.006	737278	268.8	
2	6.557	6.560	-0.003	1004253	269.4	
					RPD = 0.22	
21 4,4'-DDT						
1	7.957	7.957	0.0	647143	277.4	
2	6.923	6.920	0.003	924815	224.8	
					RPD = 20.91	
13 Endrin ketone						
1	8.830	8.830	0.0	51638	17.0	
2	8.023	8.020	0.003	65557	15.1	
					RPD = 11.58	

Report Date: 11-Dec-2013 11:23:45 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720033.D				
Injection Date:	11-Dec-2013 00:31:14	Instrument ID:	CPESTGC4	Operator ID:	
Lims ID:	PEM	Lab Sample ID:	PEM 460-196984/42-A	Worklist Smp#:	42
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	40
Method:	8081GC4	Limit Group:	GC 8081B PEST		





FORM VII
GC SEMI VOA PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: PEM 460-196984/42 Calibration Date: 12/11/2013 00:31

Instrument ID: CPESTGC4 Calib Start Date: 12/10/2013 12:55

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/10/2013 13:55

Lab File ID: WR720033.D Conc. Units: ug/L

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	6.56	1004253	6.13	15	
Endrin aldehyde		0			
Endrin ketone	8.02	65557			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	6.92	924815	0.88	15	
4,4'-DDD		0			
4,4'-DDE	5.80	8181			

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720033.D
Lims ID: PEM Lab Sample ID: PEM 460-196984/42-A
Client ID:
Sample Type: PEM
Inject. Date: 11-Dec-2013 00:31:14 ALS Bottle#: 40 Worklist Smp#: 42
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007647-042
Operator ID: Instrument ID: CPESTGC4
Sublist:

Method: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\8081GC4.m
Limit Group: GC 8081B PEST
Last Update: 11-Dec-2013 11:23:43 Calib Date: 10-Dec-2013 14:42:23
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720001.D

Column 1 : Detector: GC ECD1A
Column 2 : Detector: GC ECD2B
Process Host: XAWRK035

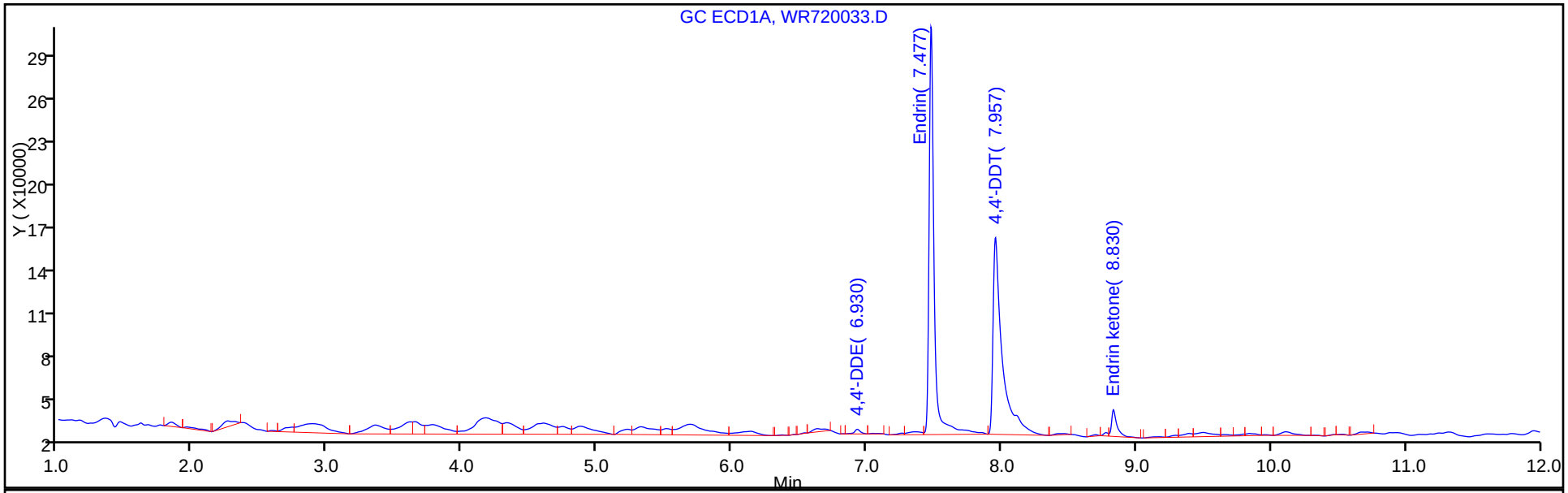
First Level Reviewer: kapoors Date: 11-Dec-2013 07:38:45

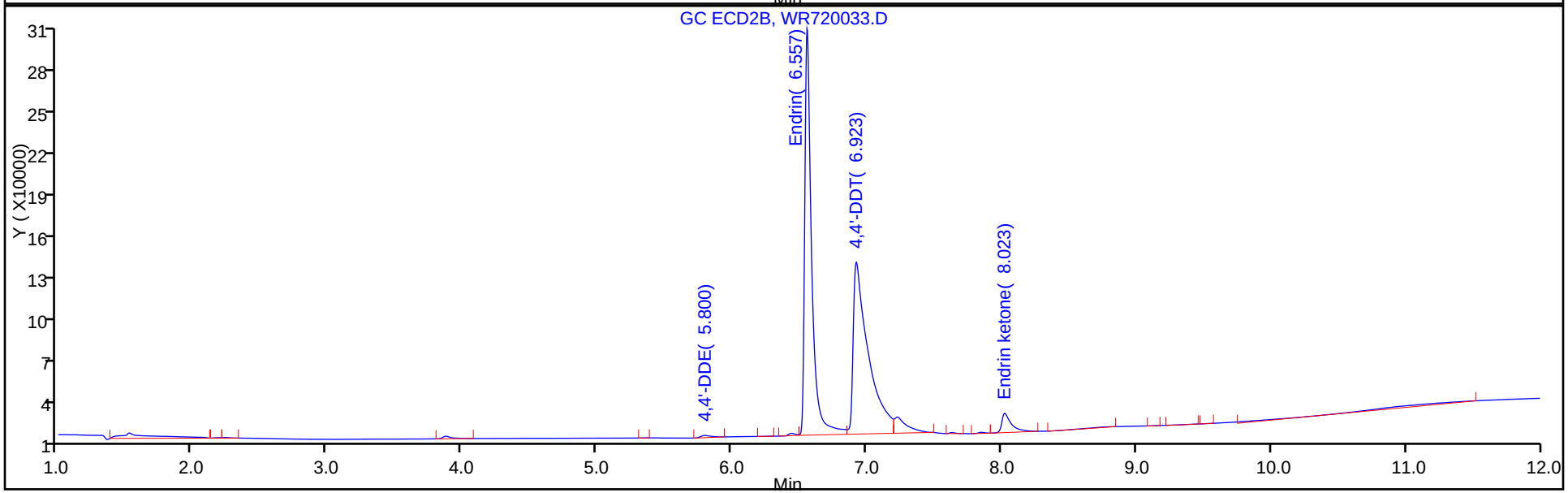
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/l	Flags
25 4,4'-DDE						
1	6.930	6.933	-0.003	9933	3.56	
2	5.800	5.800	0.0	8181	3.64	
					RPD = 2.15	
20 Endrin						
1	7.477	7.483	-0.006	737278	268.8	
2	6.557	6.560	-0.003	1004253	269.4	
					RPD = 0.22	
21 4,4'-DDT						
1	7.957	7.957	0.0	647143	277.4	
2	6.923	6.920	0.003	924815	224.8	
					RPD = 20.91	
13 Endrin ketone						
1	8.830	8.830	0.0	51638	17.0	
2	8.023	8.020	0.003	65557	15.1	
					RPD = 11.58	

Report Date: 11-Dec-2013 11:23:45 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720033.D				
Injection Date:	11-Dec-2013 00:31:14	Instrument ID:	CPESTGC4	Operator ID:	
Lims ID:	PEM	Lab Sample ID:	PEM 460-196984/42-A	Worklist Smp#:	42
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	40
Method:	8081GC4	Limit Group:	GC 8081B PEST		





FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196984/40 Calibration Date: 12/11/2013 00:01

Instrument ID: CPESTGC4 Calib Start Date: 12/10/2013 12:55

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/10/2013 13:55

Lab File ID: WR720031.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	5297	4920		92.9	100	-7.1	20.0
gamma-BHC (Lindane)	Ave	4125	4348		105	100	5.4	20.0
beta-BHC	Ave	2122	2154		102	100	1.5	20.0
delta-BHC	Ave	3615	3701		102	100	2.4	20.0
Heptachlor	Ave	4911	5147		105	100	4.8	20.0
Aldrin	Ave	4366	4859		111	100	11.3	20.0
Heptachlor epoxide	Ave	3234	3448		107	100	6.6	20.0
gamma-Chlordane	Ave	3228	3174		98.3	100	-1.7	20.0
alpha-Chlordane	Ave	2861	2829		98.9	100	-1.1	20.0
Endosulfan I	Ave	2981	3025		101	100	1.5	20.0
4,4'-DDE	Ave	2790	2812		101	100	0.8	20.0
Dieldrin	Ave	3513	3724		106	100	6.0	20.0
Endrin	Ave	2743	2837		103	100	3.4	20.0
4,4'-DDD	Ave	2180	1970		90.4	100	-9.6	20.0
Endosulfan II	Ave	3158	3449		109	100	9.2	20.0
4,4'-DDT	Ave	2333	2184		93.6	100	-6.4	20.0
Endrin aldehyde	Ave	2440	2655		109	100	8.8	20.0
Endosulfan sulfate	Ave	2407	2473		103	100	2.8	20.0
Methoxychlor	Ave	1361	1198		88.0	100	-12.0	20.0
Endrin ketone	Ave	3036	3090		102	100	1.8	20.0
Tetrachloro-m-xylene	Ave	3654	3499		95.8	100	-4.2	20.0
DCB Decachlorobiphenyl	Ave	2355	2433		103	100	3.3	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196984/40 Calibration Date: 12/11/2013 00:01

Instrument ID: CPESTGC4 Calib Start Date: 12/10/2013 12:55

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/10/2013 13:55

Lab File ID: WR720031.D

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	3.30	3.26	3.36
gamma-BHC (Lindane)	3.94	3.90	4.00
beta-BHC	4.08	4.04	4.14
delta-BHC	4.61	4.57	4.67
Heptachlor	4.74	4.70	4.80
Aldrin	5.36	5.32	5.42
Heptachlor epoxide	6.38	6.31	6.45
gamma-Chlordane	6.60	6.54	6.68
alpha-Chlordane	6.76	6.70	6.84
Endosulfan I	6.83	6.77	6.91
4,4'-DDE	6.93	6.86	7.00
Dieldrin	7.13	7.06	7.20
Endrin	7.48	7.41	7.55
4,4'-DDD	7.59	7.52	7.66
Endosulfan II	7.72	7.65	7.79
4,4'-DDT	7.95	7.89	8.03
Endrin aldehyde	8.11	8.05	8.19
Endosulfan sulfate	8.40	8.33	8.47
Methoxychlor	8.63	8.56	8.70
Endrin ketone	8.83	8.76	8.90
Tetrachloro-m-xylene	2.32	2.27	2.37
DCB Decachlorobiphenyl	9.85	9.75	9.95

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196984/40 Calibration Date: 12/11/2013 00:01

Instrument ID: CPESTGC4 Calib Start Date: 12/10/2013 12:55

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/10/2013 13:55

Lab File ID: WR720031.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	5977	6208		104	100	3.9	20.0
gamma-BHC (Lindane)	Ave	5125	5342		104	100	4.2	20.0
beta-BHC	Ave	2553	2701		106	100	5.8	20.0
delta-BHC	Ave	4730	4809		102	100	1.7	20.0
Heptachlor	Ave	5747	6150		107	100	7.0	20.0
Aldrin	Ave	5100	5444		107	100	6.8	20.0
Heptachlor epoxide	Ave	4687	4914		105	100	4.8	20.0
gamma-Chlordane	Ave	4756	4958		104	100	4.2	20.0
alpha-Chlordane	Ave	4442	4737		107	100	6.6	20.0
4,4'-DDE	Ave	2249	1934		86.0	100	-14.0	20.0
Endosulfan I	Ave	5852	6642		114	100	13.5	20.0
Dieldrin	Ave	4791	5362		112	100	11.9	20.0
Endrin	Ave	3728	3964		106	100	6.3	20.0
4,4'-DDD	Ave	2926	2489		85.1	100	-14.9	20.0
Endosulfan II	Ave	4392	4804		109	100	9.4	20.0
4,4'-DDT	Ave	4113	4628		113	100	12.5	20.0
Endrin aldehyde	Ave	3287	3669		112	100	11.6	20.0
Methoxychlor	Ave	1643	1732		105	100	5.5	20.0
Endosulfan sulfate	Ave	3467	3751		108	100	8.2	20.0
Endrin ketone	Ave	4329	4721		109	100	9.1	20.0
Tetrachloro-m-xylene	Ave	4732	4741		100	100	0.2	20.0
DCB Decachlorobiphenyl	Ave	4234	4516		107	100	6.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196984/40 Calibration Date: 12/11/2013 00:01

Instrument ID: CPESTGC4 Calib Start Date: 12/10/2013 12:55

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/10/2013 13:55

Lab File ID: WR720031.D

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	2.42	2.37	2.47
gamma-BHC (Lindane)	2.86	2.81	2.91
beta-BHC	3.01	2.97	3.07
delta-BHC	3.31	3.26	3.36
Heptachlor	3.65	3.60	3.70
Aldrin	4.14	4.10	4.20
Heptachlor epoxide	5.18	5.11	5.25
gamma-Chlordane	5.40	5.33	5.47
alpha-Chlordane	5.64	5.58	5.72
4,4'-DDE	5.80	5.73	5.87
Endosulfan I	5.91	5.84	5.98
Dieldrin	6.28	6.21	6.35
Endrin	6.56	6.49	6.63
4,4'-DDD	6.63	6.56	6.70
Endosulfan II	6.79	6.72	6.86
4,4'-DDT	6.92	6.85	6.99
Endrin aldehyde	7.23	7.16	7.30
Methoxychlor	7.46	7.39	7.53
Endosulfan sulfate	7.70	7.64	7.78
Endrin ketone	8.02	7.95	8.09
Tetrachloro-m-xylene	1.89	1.84	1.94
DCB Decachlorobiphenyl	8.89	8.79	8.99

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196984/54 Calibration Date: 12/11/2013 03:35

Instrument ID: CPESTGC4 Calib Start Date: 12/10/2013 12:55

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/10/2013 13:55

Lab File ID: WR720045.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	5297	5089		96.1	100	-3.9	20.0
gamma-BHC (Lindane)	Ave	4125	4374		106	100	6.0	20.0
beta-BHC	Ave	2122	2521		119	100	18.8	20.0
delta-BHC	Ave	3615	3968		110	100	9.8	20.0
Heptachlor	Ave	4911	4611		93.9	100	-6.1	20.0
Aldrin	Ave	4366	4319		98.9	100	-1.1	20.0
Heptachlor epoxide	Ave	3234	3486		108	100	7.8	20.0
gamma-Chlordane	Ave	3228	3476		108	100	7.7	20.0
alpha-Chlordane	Ave	2861	3282		115	100	14.7	20.0
Endosulfan I	Ave	2981	3196		107	100	7.2	20.0
4,4'-DDE	Ave	2790	3182		114	100	14.1	20.0
Dieldrin	Ave	3513	3664		104	100	4.3	20.0
Endrin	Ave	2743	3023		110	100	10.2	20.0
4,4'-DDD	Ave	2180	2460		113	100	12.8	20.0
Endosulfan II	Ave	3158	3356		106	100	6.3	20.0
4,4'-DDT	Ave	2333	2471		106	100	5.9	20.0
Endrin aldehyde	Ave	2440	2562		105	100	5.0	20.0
Endosulfan sulfate	Ave	2407	2374		98.6	100	-1.4	20.0
Methoxychlor	Ave	1361	1290		94.8	100	-5.2	20.0
Endrin ketone	Ave	3036	3134		103	100	3.2	20.0
Tetrachloro-m-xylene	Ave	3654	3679		101	100	0.7	20.0
DCB Decachlorobiphenyl	Ave	2355	2418		103	100	2.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196984/54 Calibration Date: 12/11/2013 03:35

Instrument ID: CPESTGC4 Calib Start Date: 12/10/2013 12:55

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 12/10/2013 13:55

Lab File ID: WR720045.D

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	3.31	3.26	3.36
gamma-BHC (Lindane)	3.95	3.90	4.00
beta-BHC	4.08	4.04	4.14
delta-BHC	4.62	4.57	4.67
Heptachlor	4.75	4.70	4.80
Aldrin	5.37	5.32	5.42
Heptachlor epoxide	6.38	6.31	6.45
gamma-Chlordane	6.60	6.54	6.68
alpha-Chlordane	6.76	6.70	6.84
Endosulfan I	6.83	6.77	6.91
4,4'-DDE	6.93	6.86	7.00
Dieldrin	7.13	7.06	7.20
Endrin	7.48	7.41	7.55
4,4'-DDD	7.58	7.52	7.66
Endosulfan II	7.72	7.65	7.79
4,4'-DDT	7.95	7.89	8.03
Endrin aldehyde	8.11	8.05	8.19
Endosulfan sulfate	8.40	8.33	8.47
Methoxychlor	8.63	8.56	8.70
Endrin ketone	8.83	8.76	8.90
Tetrachloro-m-xylene	2.32	2.27	2.37
DCB Decachlorobiphenyl	9.85	9.75	9.95

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196984/54 Calibration Date: 12/11/2013 03:35

Instrument ID: CPESTGC4 Calib Start Date: 12/10/2013 12:55

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/10/2013 13:55

Lab File ID: WR720045.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	5977	6228		104	100	4.2	20.0
gamma-BHC (Lindane)	Ave	5125	5441		106	100	6.2	20.0
beta-BHC	Ave	2553	2777		109	100	8.8	20.0
delta-BHC	Ave	4730	5024		106	100	6.2	20.0
Heptachlor	Ave	5747	5947		103	100	3.5	20.0
Aldrin	Ave	5100	5423		106	100	6.3	20.0
Heptachlor epoxide	Ave	4687	4924		105	100	5.1	20.0
gamma-Chlordane	Ave	4756	5028		106	100	5.7	20.0
alpha-Chlordane	Ave	4442	4784		108	100	7.7	20.0
4,4'-DDE	Ave	2249	2484		110	100	10.4	20.0
Endosulfan I	Ave	5852	6336		108	100	8.3	20.0
Dieldrin	Ave	4791	5067		106	100	5.8	20.0
Endrin	Ave	3728	3786		102	100	1.6	20.0
4,4'-DDD	Ave	2926	2957		101	100	1.1	20.0
Endosulfan II	Ave	4392	4550		104	100	3.6	20.0
4,4'-DDT	Ave	4113	4183		102	100	1.7	20.0
Endrin aldehyde	Ave	3287	3377		103	100	2.8	20.0
Methoxychlor	Ave	1643	1553		94.6	100	-5.4	20.0
Endosulfan sulfate	Ave	3467	3394		97.9	100	-2.1	20.0
Endrin ketone	Ave	4329	4504		104	100	4.0	20.0
Tetrachloro-m-xylene	Ave	4732	4782		101	100	1.1	20.0
DCB Decachlorobiphenyl	Ave	4234	4115		97.2	100	-2.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196984/54 Calibration Date: 12/11/2013 03:35

Instrument ID: CPESTGC4 Calib Start Date: 12/10/2013 12:55

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 12/10/2013 13:55

Lab File ID: WR720045.D

Analyte	RT	RT WINDOW	
		FROM	TO
alpha-BHC	2.42	2.37	2.47
gamma-BHC (Lindane)	2.86	2.81	2.91
beta-BHC	3.02	2.97	3.07
delta-BHC	3.31	3.26	3.36
Heptachlor	3.65	3.60	3.70
Aldrin	4.15	4.10	4.20
Heptachlor epoxide	5.18	5.11	5.25
gamma-Chlordane	5.40	5.33	5.47
alpha-Chlordane	5.64	5.58	5.72
4,4'-DDE	5.80	5.73	5.87
Endosulfan I	5.91	5.84	5.98
Dieldrin	6.28	6.21	6.35
Endrin	6.56	6.49	6.63
4,4'-DDD	6.63	6.56	6.70
Endosulfan II	6.79	6.72	6.86
4,4'-DDT	6.92	6.85	6.99
Endrin aldehyde	7.23	7.16	7.30
Methoxychlor	7.44	7.39	7.53
Endosulfan sulfate	7.70	7.64	7.78
Endrin ketone	8.02	7.95	8.09
Tetrachloro-m-xylene	1.89	1.84	1.94
DCB Decachlorobiphenyl	8.88	8.79	8.99

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 460-196739/1-A
Matrix: Solid
Lab File ID: WR720034.D
Analysis Method: 8081B
Date Collected:
Extraction Method: 3546
Date Extracted: 12/10/2013 06:26
Sample wt/vol: 15.00(g)
Date Analyzed: 12/11/2013 00:46
Con. Extract Vol.: 10(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: CLP-2 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196984
Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	133		37-150
2051-24-3	DCB Decachlorobiphenyl	148		60-150

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720034.D
Lims ID: MB 460-196739/1-A Lab Sample ID: MB 460-196739/1-A
Client ID:
Sample Type: MB
Inject. Date: 11-Dec-2013 00:46:27 ALS Bottle#: 41 Worklist Smp#: 43
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007647-043
Operator ID: Instrument ID: CPESTGC4

Method: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\8081GC4.m
Limit Group: GC 8081B PEST
Last Update: 11-Dec-2013 11:30:37 Calib Date: 10-Dec-2013 14:42:23
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720001.D

Column 1 : Detector: GC ECD1A
Column 2 : Detector: GC ECD2B
Process Host: XAWRK035

First Level Reviewer: kapoors Date: 11-Dec-2013 10:37:01

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/l	Flags
$ 4 Tetrachloro-m-xylene						M
1	2.320	2.323	-0.003	242642	66.4	M
2	1.887	1.890	-0.003	289548	61.2	
					RPD = 8.18	
$ 24 DCB Decachlorobiphenyl						M
1	9.857	9.853	0.004	174438	74.1	
2	8.900	8.890	0.010	299546	70.8	M
					RPD = 4.59	

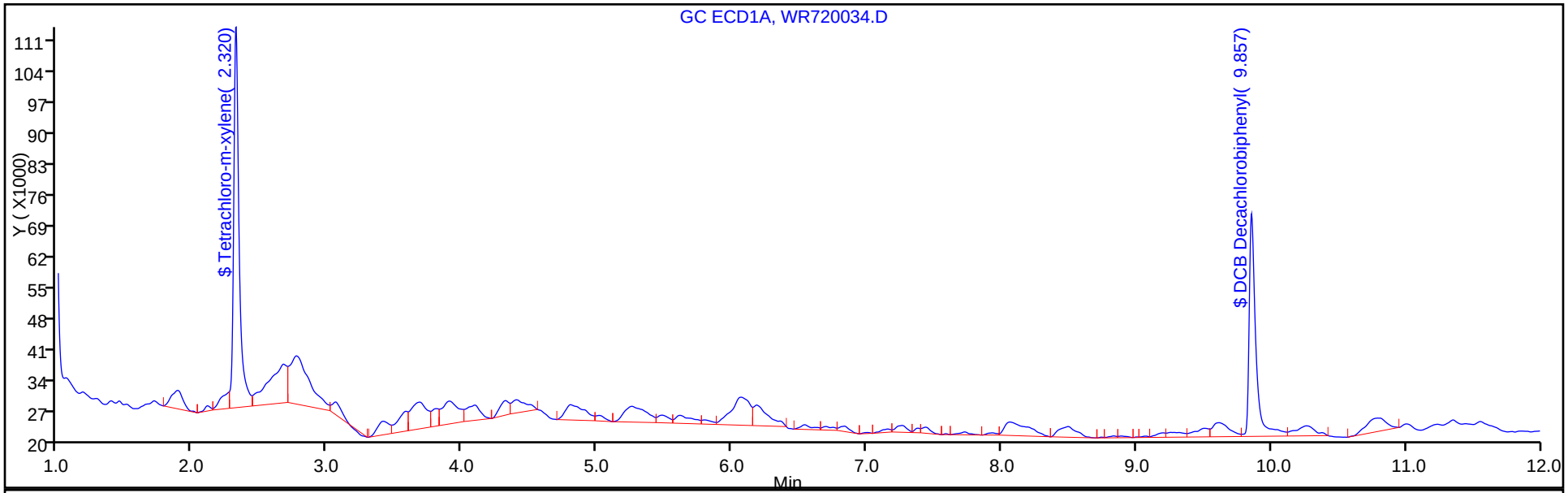
QC Flag Legend

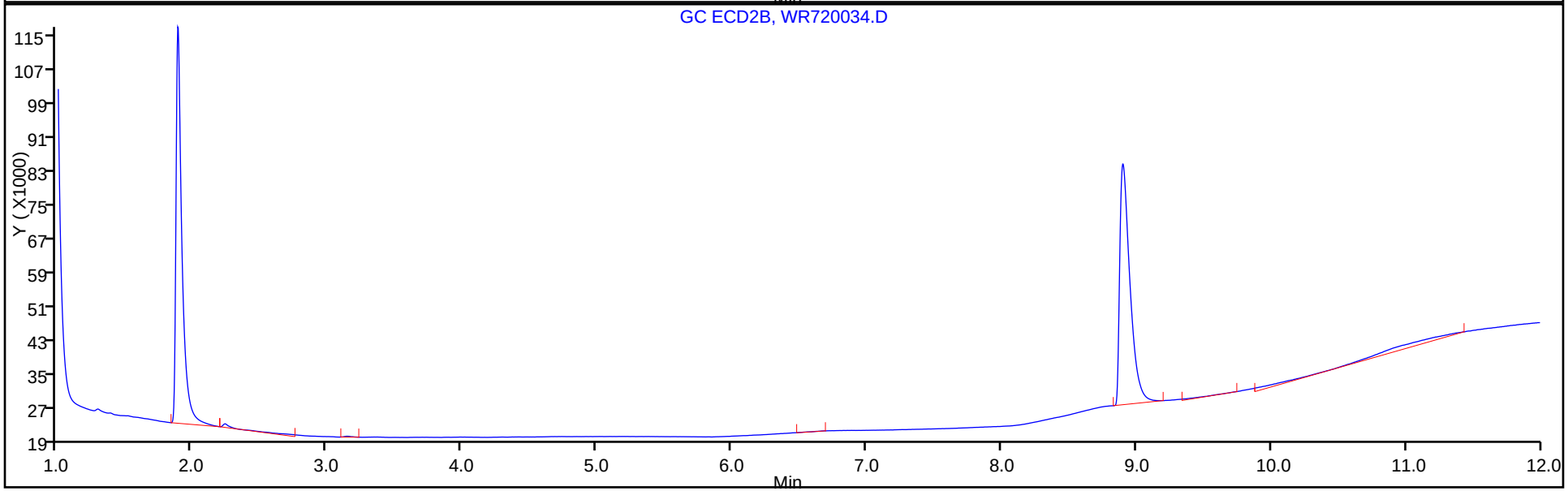
Review Flags
M - Manually Integrated

Report Date: 11-Dec-2013 11:30:37 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720034.D				
Injection Date:	11-Dec-2013 00:46:27	Instrument ID:	CPESTGC4	Operator ID:	
Lims ID:	MB 460-196739/1-A	Lab Sample ID:	MB 460-196739/1-A	Worklist Smp#:	43
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	41
Method:	8081GC4	Limit Group:	GC 8081B PEST		





Manual Integration/User Assign Peak Report

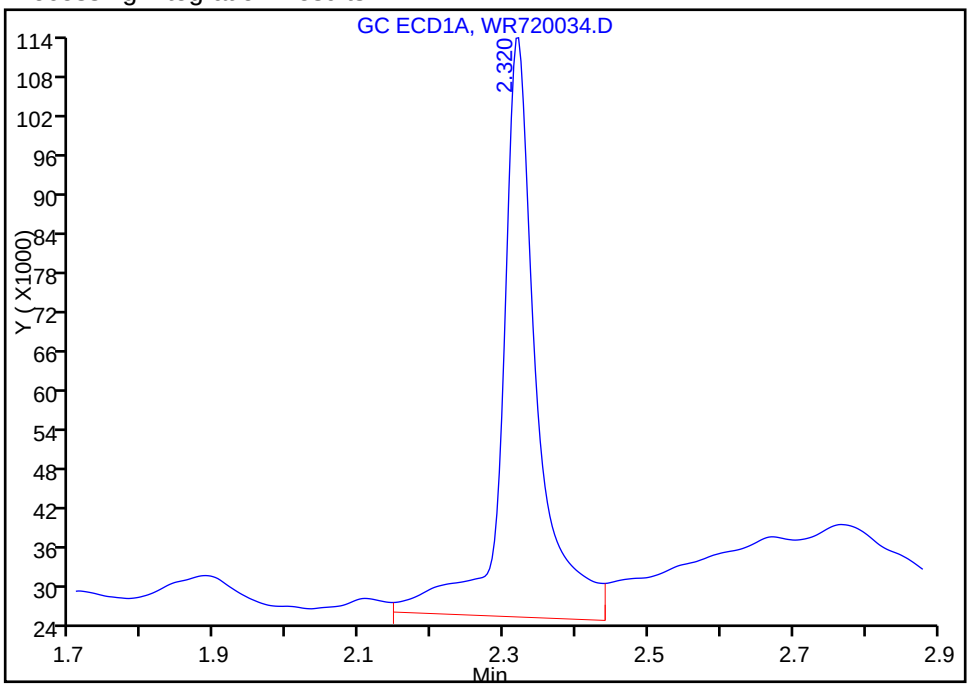
TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720034.D				
Injection Date:	11-Dec-2013 00:46:27	Instrument ID:	CPESTGC4		
Lims ID:	MB 460-196739/1-A	Lab Sample ID:	MB 460-196739/1-A		
Client ID:					
Operator ID:		ALS Bottle#:	41	Worklist Smp#:	43
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8081GC4	Limit Group:	GC 8081B PEST		
Column:		Detector	GC ECD1A		

$ 4 Tetrachloro-m-xylene, CAS: 877-09-8

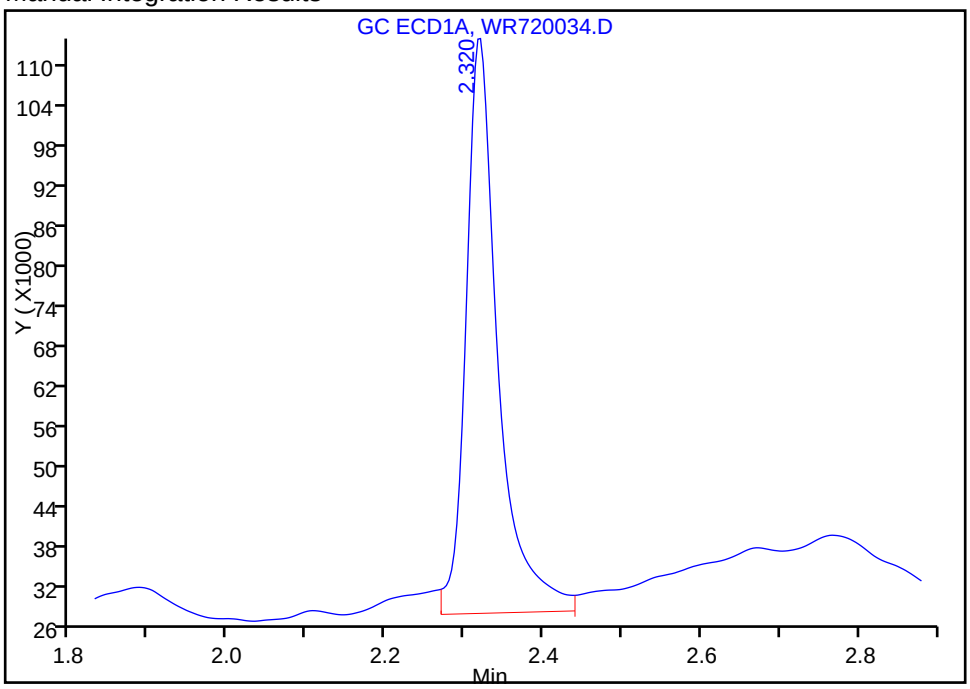
Processing Integration Results

RT: 2.32
Response: 298062
Amount: 81.580121



Manual Integration Results

RT: 2.32
Response: 242642
Amount: 66.411564



Reviewer: kapoors, 11-Dec-2013 10:37:01
Audit Action: Assigned New Baseline
Audit Reason: Incomplete Integration

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 460-196739/1-A
Matrix: Solid
Lab File ID: WR720034.D
Analysis Method: 8081B
Date Collected:
Extraction Method: 3546
Date Extracted: 12/10/2013 06:26
Sample wt/vol: 15.00(g)
Date Analyzed: 12/11/2013 00:46
Con. Extract Vol.: 10(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: CLP-1 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196984
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
309-00-2	Aldrin	6.7	U	6.7	1.4
319-84-6	alpha-BHC	6.7	U	6.7	1.5
319-85-7	beta-BHC	6.7	U	6.7	1.6
319-86-8	delta-BHC	6.7	U	6.7	1.2
58-89-9	gamma-BHC (Lindane)	6.7	U	6.7	1.2
57-74-9	Chlordane	67	U	67	19
72-54-8	4,4'-DDD	6.7	U	6.7	1.3
72-55-9	4,4'-DDE	6.7	U	6.7	1.3
50-29-3	4,4'-DDT	6.7	U	6.7	1.6
60-57-1	Dieldrin	6.7	U	6.7	1.2
959-98-8	Endosulfan I	6.7	U	6.7	1.5
33213-65-9	Endosulfan II	6.7	U	6.7	1.3
1031-07-8	Endosulfan sulfate	6.7	U	6.7	1.3
72-20-8	Endrin	6.7	U	6.7	1.6
7421-93-4	Endrin aldehyde	6.7	U	6.7	1.0
53494-70-5	Endrin ketone	6.7	U	6.7	1.3
76-44-8	Heptachlor	6.7	U	6.7	1.6
1024-57-3	Heptachlor epoxide	6.7	U	6.7	1.5
72-43-5	Methoxychlor	6.7	U	6.7	1.6
8001-35-2	Toxaphene	67	U	67	18

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	122		37-150
2051-24-3	DCB Decachlorobiphenyl	142		60-150

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720034.D
Lims ID: MB 460-196739/1-A Lab Sample ID: MB 460-196739/1-A
Client ID:
Sample Type: MB
Inject. Date: 11-Dec-2013 00:46:27 ALS Bottle#: 41 Worklist Smp#: 43
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007647-043
Operator ID: Instrument ID: CPESTGC4

Method: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\8081GC4.m
Limit Group: GC 8081B PEST
Last Update: 11-Dec-2013 11:30:37 Calib Date: 10-Dec-2013 14:42:23
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720001.D

Column 1 : Detector: GC ECD1A
Column 2 : Detector: GC ECD2B
Process Host: XAWRK035

First Level Reviewer: kapoors Date: 11-Dec-2013 10:37:01

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/l	Flags
$ 4 Tetrachloro-m-xylene						M
1	2.320	2.323	-0.003	242642	66.4	M
2	1.887	1.890	-0.003	289548	61.2	
					RPD = 8.18	
$ 24 DCB Decachlorobiphenyl						M
1	9.857	9.853	0.004	174438	74.1	
2	8.900	8.890	0.010	299546	70.8	M
					RPD = 4.59	

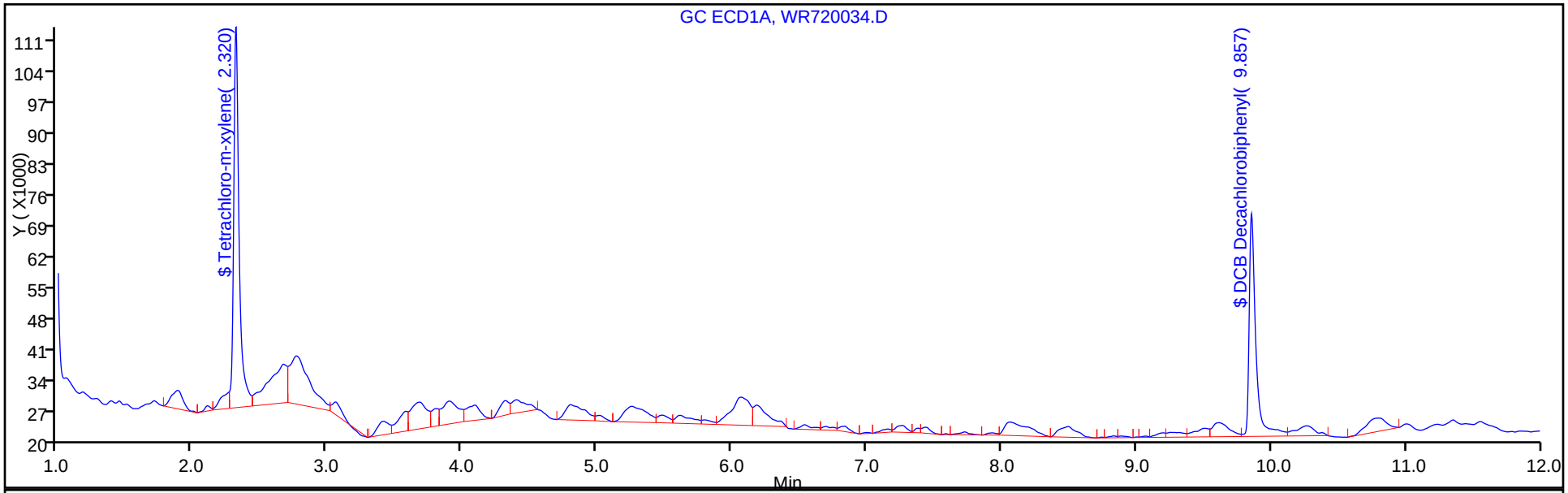
QC Flag Legend

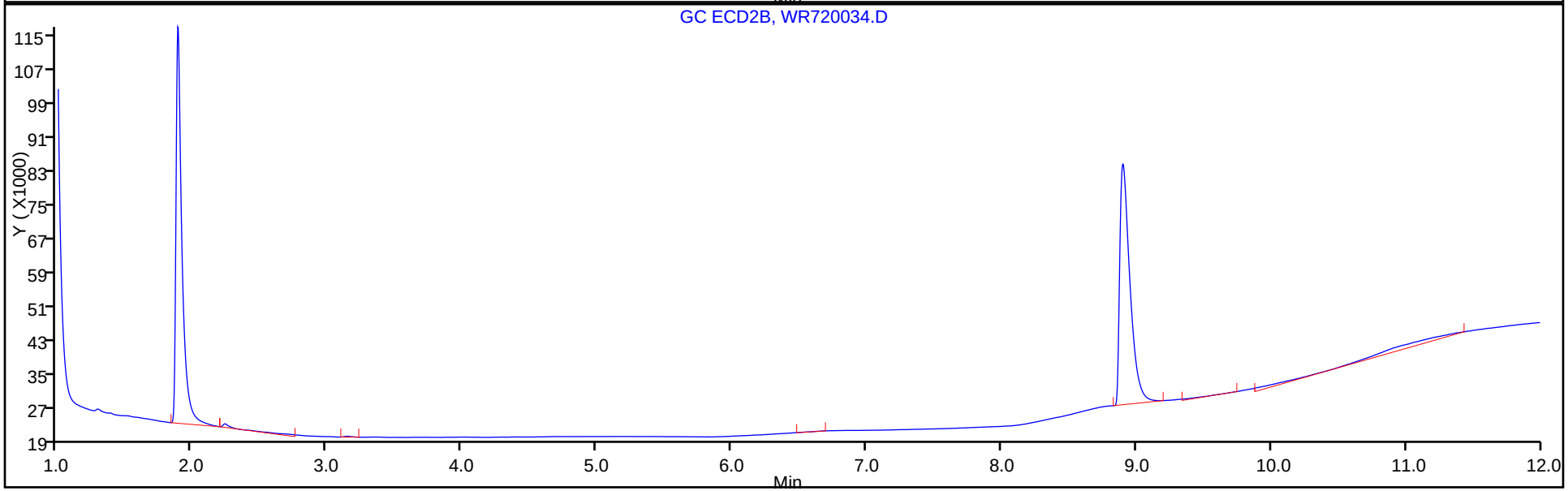
Review Flags
M - Manually Integrated

Report Date: 11-Dec-2013 11:30:37 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720034.D				
Injection Date:	11-Dec-2013 00:46:27	Instrument ID:	CPESTGC4	Operator ID:	
Lims ID:	MB 460-196739/1-A	Lab Sample ID:	MB 460-196739/1-A	Worklist Smp#:	43
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	41
Method:	8081GC4	Limit Group:	GC 8081B PEST		





Manual Integration/User Assign Peak Report

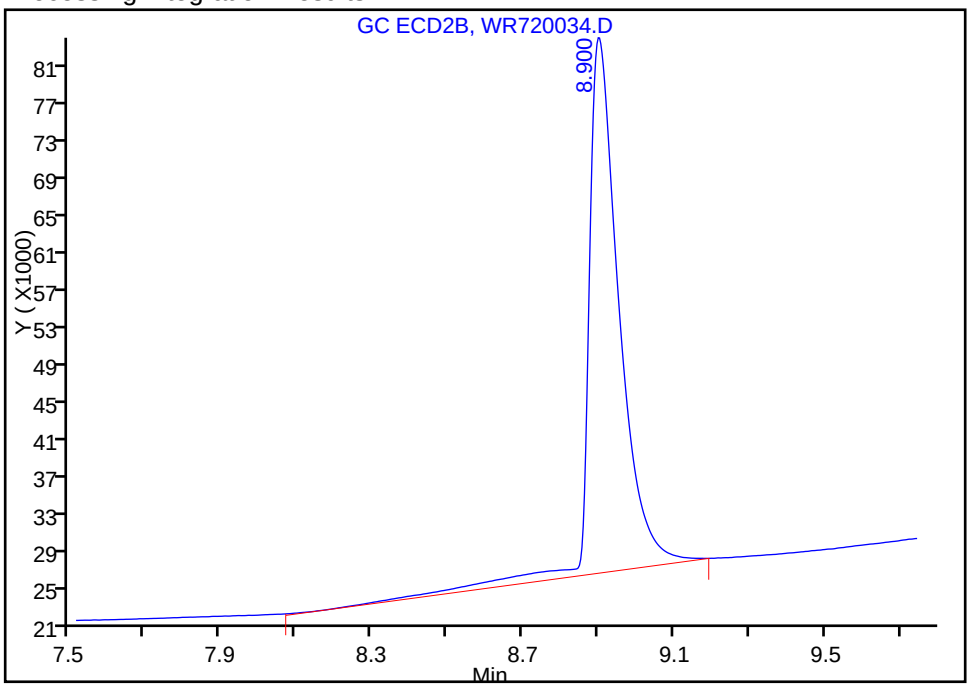
TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720034.D				
Injection Date:	11-Dec-2013 00:46:27	Instrument ID:	CPESTGC4		
Lims ID:	MB 460-196739/1-A	Lab Sample ID:	MB 460-196739/1-A		
Client ID:					
Operator ID:		ALS Bottle#:	41	Worklist Smp#:	43
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8081GC4	Limit Group:	GC 8081B PEST		
Column:		Detector	GC ECD2B		

$ 24 DCB Decachlorobiphenyl, CAS: 2051-24-3

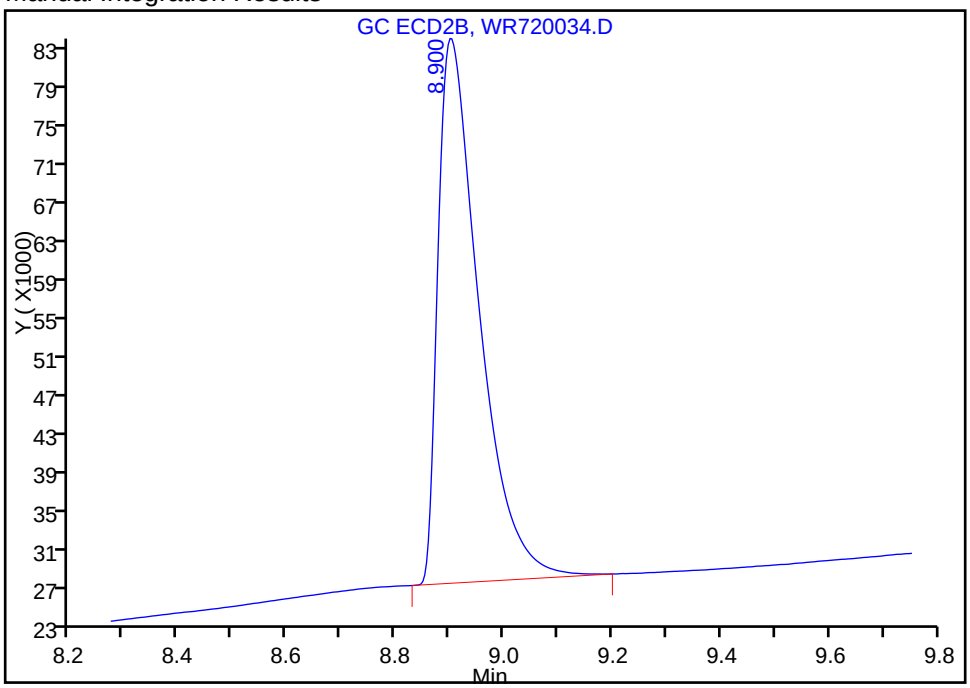
Processing Integration Results

RT: 8.90
Response: 326996
Amount: 77.236588



Manual Integration Results

RT: 8.90
Response: 299546
Amount: 70.752886



Reviewer: kapoors, 11-Dec-2013 10:37:01
Audit Action: Manually Integrated
Audit Reason: Incomplete Integration

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 460-196739/2-A
Matrix: Solid
Lab File ID: WR720035.D
Analysis Method: 8081B
Date Collected:
Extraction Method: 3546
Date Extracted: 12/10/2013 06:26
Sample wt/vol: 15.00(g)
Date Analyzed: 12/11/2013 01:01
Con. Extract Vol.: 10(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: CLP-2 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196984
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
319-86-8	delta-BHC	161		6.7	1.2
72-54-8	4,4'-DDD	132		6.7	1.3
72-55-9	4,4'-DDE	148		6.7	1.3
33213-65-9	Endosulfan II	164		6.7	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	129		37-150

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720035.D
Lims ID: LCS 460-196739/2-A Lab Sample ID: LCS 460-196739/2-A
Client ID:
Sample Type: LCS
Inject. Date: 11-Dec-2013 01:01:38 ALS Bottle#: 42 Worklist Smp#: 44
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007647-044
Operator ID: Instrument ID: CPESTGC4

Method: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\8081GC4.m
Limit Group: GC 8081B PEST
Last Update: 11-Dec-2013 11:35:14 Calib Date: 10-Dec-2013 14:42:23
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720001.D

Column 1 : Detector: GC ECD1A
Column 2 : Detector: GC ECD2B
Process Host: XAWRK035

First Level Reviewer: kapoors Date: 11-Dec-2013 07:48:34

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/l	Flags
$ 4 Tetrachloro-m-xylene						M
1	2.317	2.323	-0.006	236039	64.6	M
2	1.890	1.890	0.0	293906	62.1	
					RPD = 3.93	
15 alpha-BHC						
1	3.300	3.310	-0.010	1083078	204.5	
2	2.423	2.423	0.0	1327119	222.0	
					RPD = 8.22	
2 gamma-BHC (Lindane)						
1	3.940	3.953	-0.013	890339	215.8	
2	2.857	2.860	-0.003	1141517	222.7	
					RPD = 3.14	
6 beta-BHC						M
1	4.080	4.090	-0.010	458733	216.2	M
2	3.013	3.017	-0.004	574118	224.9	
					RPD = 3.93	
32 delta-BHC						M
1	4.613	4.623	-0.010	872722	241.4	M
2	3.307	3.310	-0.003	1077321	227.8	
					RPD = 5.82	
18 Heptachlor						M
1	4.743	4.753	-0.010	1014299	206.5	M
2	3.647	3.650	-0.003	1302289	226.6	
					RPD = 9.28	
8 Aldrin						M
1	5.363	5.373	-0.010	919362	210.6	M
2	4.143	4.147	-0.004	1185213	232.4	
					RPD = 9.86	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/l	Flags
12 Heptachlor epoxide						
1	6.377	6.383	-0.006	705913	218.3	
2	5.177	5.180	-0.003	1038205	221.5	
					RPD = 1.44	
9 gamma-Chlordane						
1	6.603	6.610	-0.007	681974	211.3	
2	5.400	5.403	-0.003	1064856	223.9	
					RPD = 5.80	
23 alpha-Chlordane						
1	6.760	6.767	-0.007	609589	213.1	
2	5.643	5.647	-0.004	1012923	228.0	
					RPD = 6.78	
7 Endosulfan I						
1	6.830	6.837	-0.007	635645	213.2	
2	5.907	5.910	-0.003	1409137	240.8	
					RPD = 12.16	
25 4,4'-DDE						
1	6.927	6.933	-0.006	617612	221.4	
2	5.797	5.800	-0.003	432237	192.2	
					RPD = 14.11	
30 Dieldrin						
1	7.127	7.133	-0.006	732747	208.6	
2	6.280	6.283	-0.003	1059575	221.1	
					RPD = 5.84	
20 Endrin						
1	7.477	7.483	-0.006	607528	221.5	
2	6.557	6.560	-0.003	863707	231.7	
					RPD = 4.50	
16 4,4'-DDD						
1	7.583	7.590	-0.007	431252	197.8	
2	6.630	6.633	-0.003	522772	178.7	
					RPD = 10.17	
11 Endosulfan II						
1	7.717	7.723	-0.006	775056	245.4	
2	6.790	6.793	-0.003	1006594	229.2	
					RPD = 6.84	
21 4,4'-DDT						
1	7.953	7.957	-0.004	546744	234.3	
2	6.917	6.920	-0.003	1043649	253.7	
					RPD = 7.96	
5 Endrin aldehyde						
1	8.113	8.120	-0.007	545852	223.7	
2	7.227	7.230	-0.003	789588	240.3	
					RPD = 7.14	
3 Endosulfan sulfate						
1	8.397	8.400	-0.003	547955	227.7	
2	7.703	7.707	-0.004	841305	242.6	
					RPD = 6.36	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/l	Flags
10 Methoxychlor						
1	8.633	8.633	0.0	291157	213.9	
2	7.477	7.463	0.014	358870	218.5	
					RPD = 2.10	
13 Endrin ketone						
1	8.827	8.830	-0.003	652882	215.0	
2	8.017	8.020	-0.003	968708	223.8	
					RPD = 4.00	
$ 24 DCB Decachlorobiphenyl						
1	9.853	9.853	0.0	164202	69.7	
2	8.897	8.890	0.007	310598	73.4	
					RPD = 5.08	

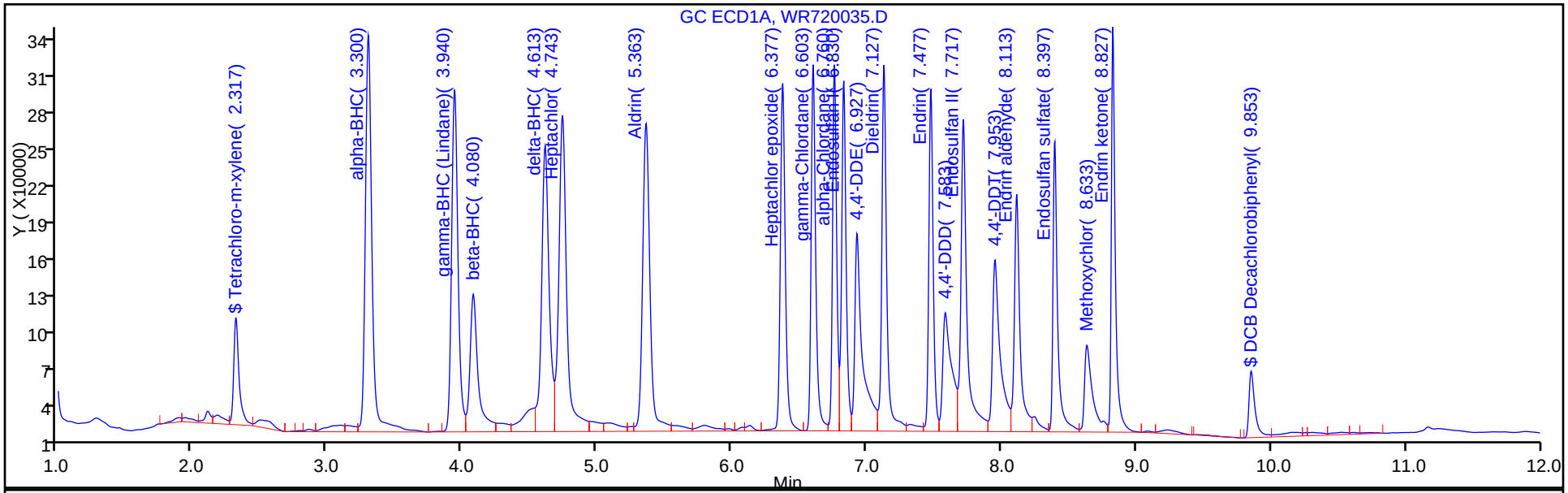
QC Flag Legend

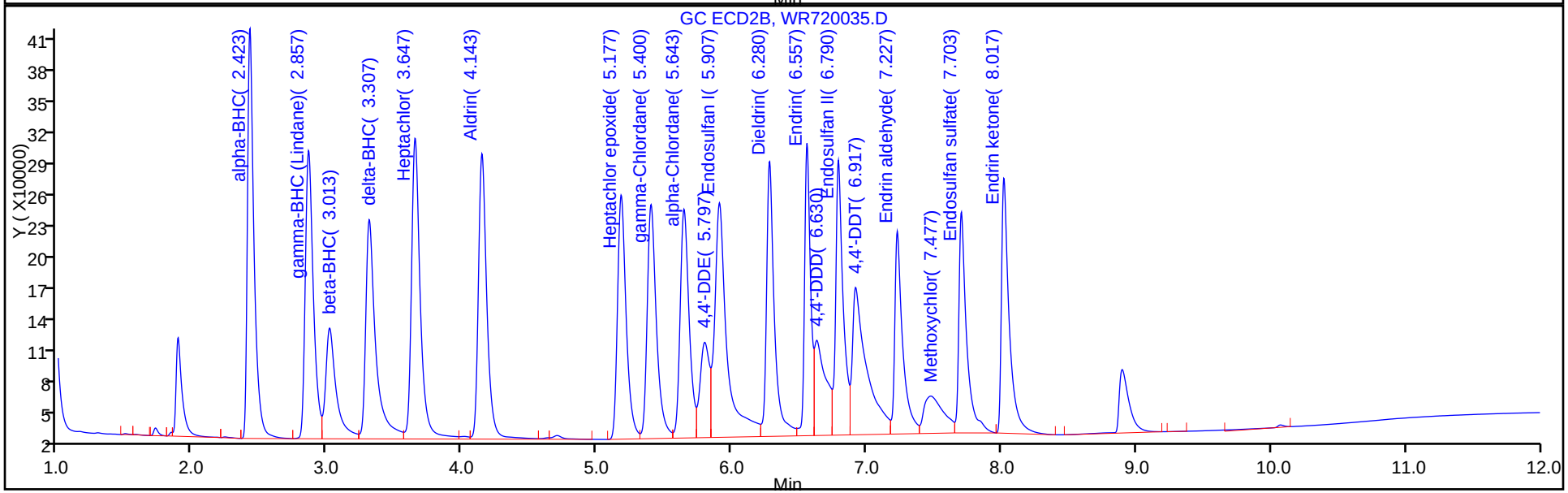
Review Flags
M - Manually Integrated

Report Date: 11-Dec-2013 11:35:14 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720035.D				
Injection Date:	11-Dec-2013 01:01:38	Instrument ID:	CPESTGC4	Operator ID:	
Lims ID:	LCS 460-196739/2-A	Lab Sample ID:	LCS 460-196739/2-A	Worklist Smp#:	44
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	42
Method:	8081GC4	Limit Group:	GC 8081B PEST		





Manual Integration/User Assign Peak Report

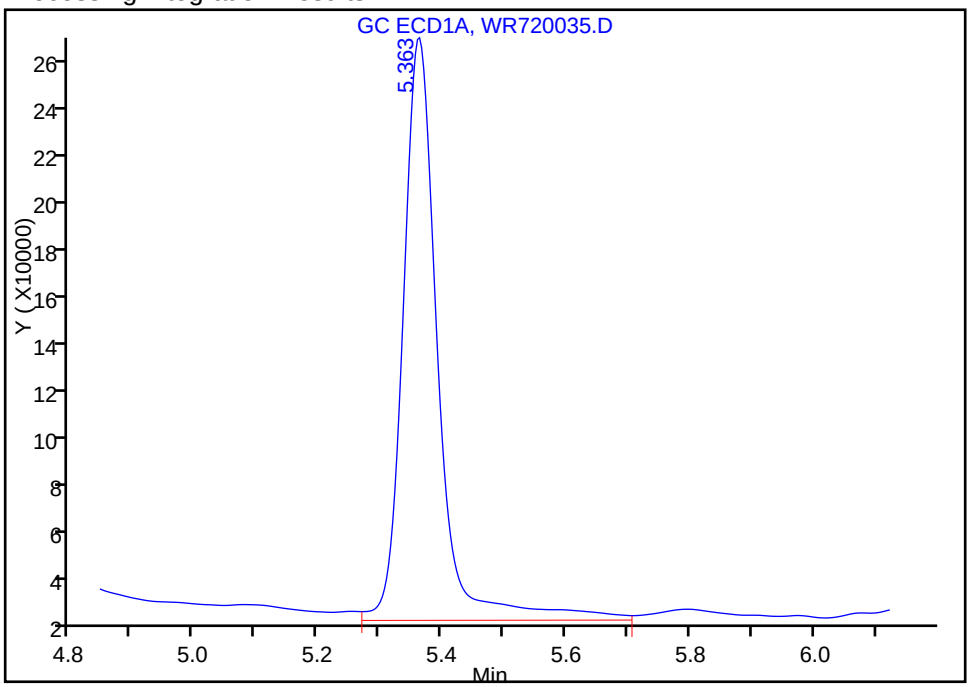
TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720035.D				
Injection Date:	11-Dec-2013 01:01:38	Instrument ID:	CPESTGC4		
Lims ID:	LCS 460-196739/2-A	Lab Sample ID:	LCS 460-196739/2-A		
Client ID:					
Operator ID:		ALS Bottle#:	42	Worklist Smp#:	44
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8081GC4	Limit Group:	GC 8081B PEST		
Column:		Detector	GC ECD1A		

8 Aldrin, CAS: 309-00-2

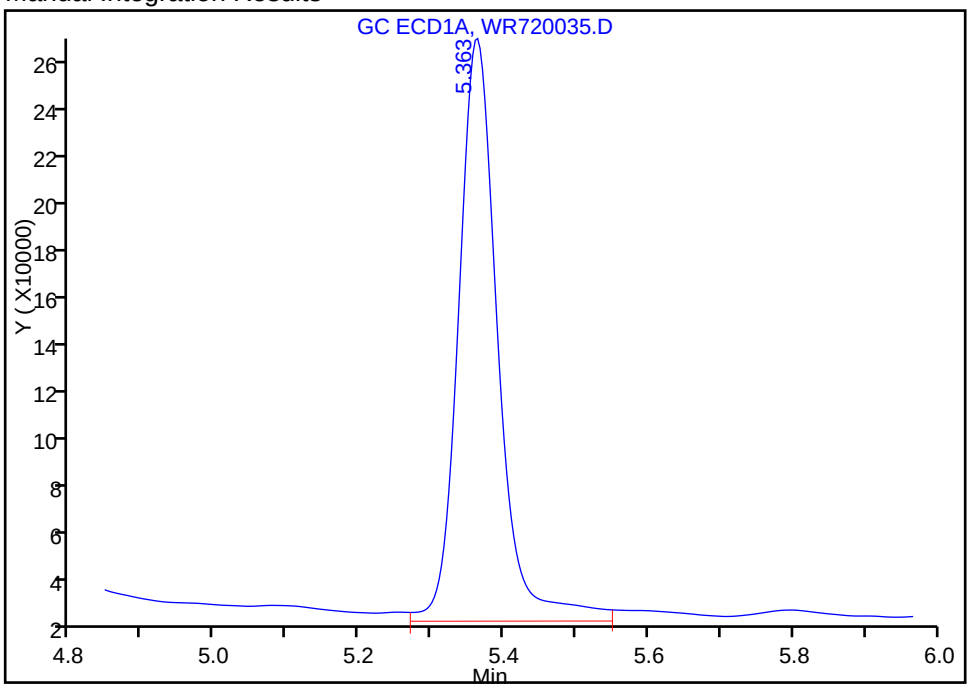
Processing Integration Results

RT: 5.36
Response: 951735
Amount: 217.9849



Manual Integration Results

RT: 5.36
Response: 919362
Amount: 210.5702



Reviewer: kapoors, 11-Dec-2013 07:48:34
Audit Action: Split an Integrated Peak
Audit Reason: Wrong Peak

Manual Integration/User Assign Peak Report

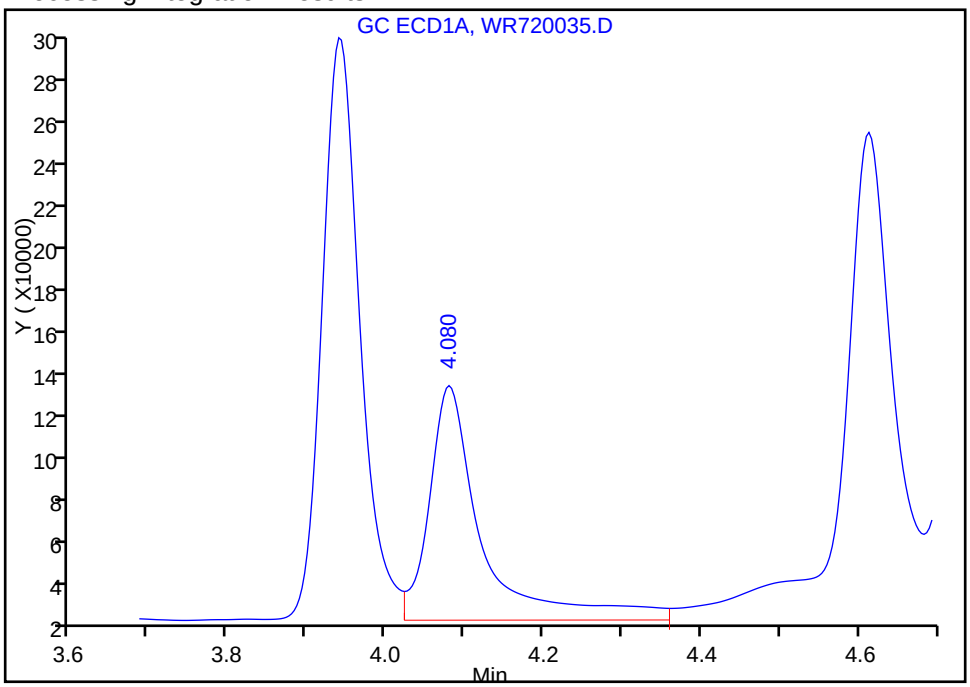
TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720035.D				
Injection Date:	11-Dec-2013 01:01:38	Instrument ID:	CPESTGC4		
Lims ID:	LCS 460-196739/2-A	Lab Sample ID:	LCS 460-196739/2-A		
Client ID:					
Operator ID:		ALS Bottle#:	42	Worklist Smp#:	44
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8081GC4	Limit Group:	GC 8081B PEST		
Column:		Detector	GC ECD1A		

6 beta-BHC, CAS: 319-85-7

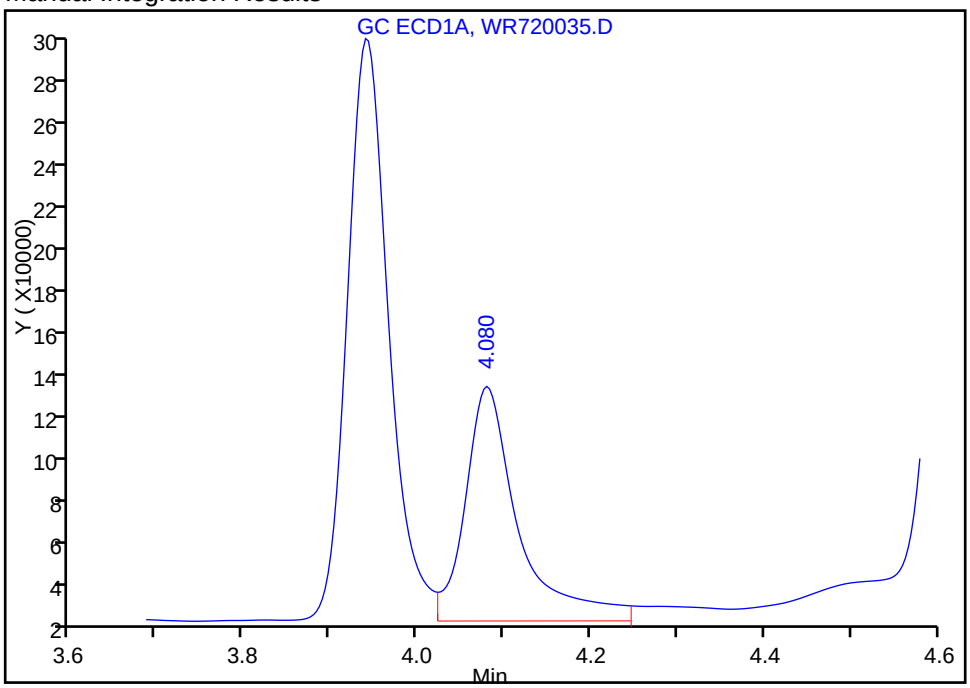
Processing Integration Results

RT: 4.08
Response: 501363
Amount: 236.2750



Manual Integration Results

RT: 4.08
Response: 458733
Amount: 216.1849



Reviewer: kapoors, 11-Dec-2013 07:48:34
Audit Action: Split an Integrated Peak
Audit Reason: Wrong Peak

Manual Integration/User Assign Peak Report

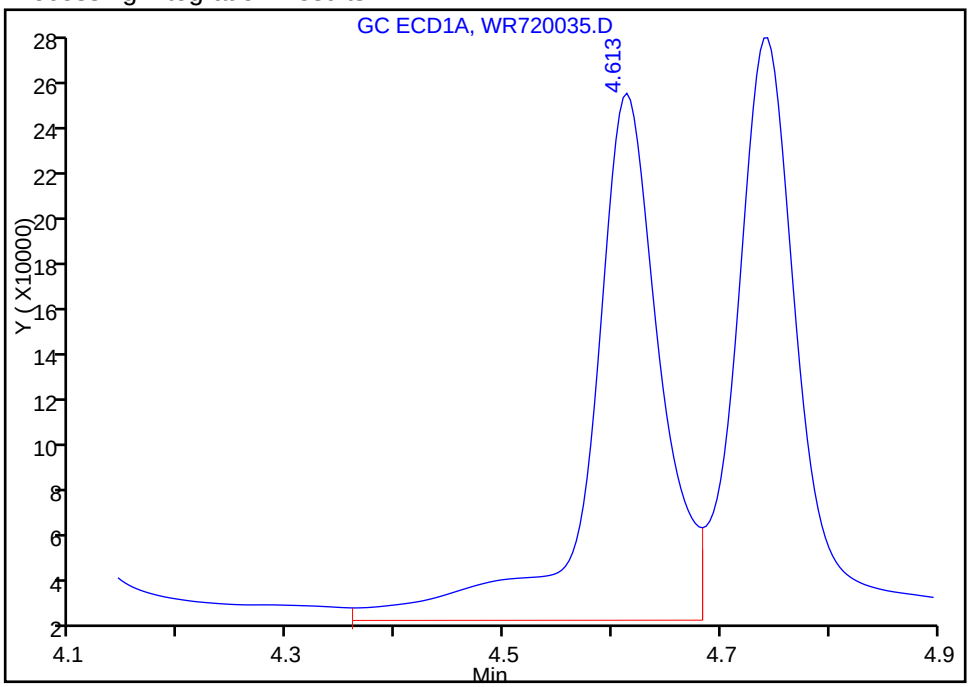
TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720035.D				
Injection Date:	11-Dec-2013 01:01:38	Instrument ID:	CPESTGC4		
Lims ID:	LCS 460-196739/2-A	Lab Sample ID:	LCS 460-196739/2-A		
Client ID:					
Operator ID:		ALS Bottle#:	42	Worklist Smp#:	44
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8081GC4	Limit Group:	GC 8081B PEST		
Column:		Detector	GC ECD1A		

32 delta-BHC, CAS: 319-86-8

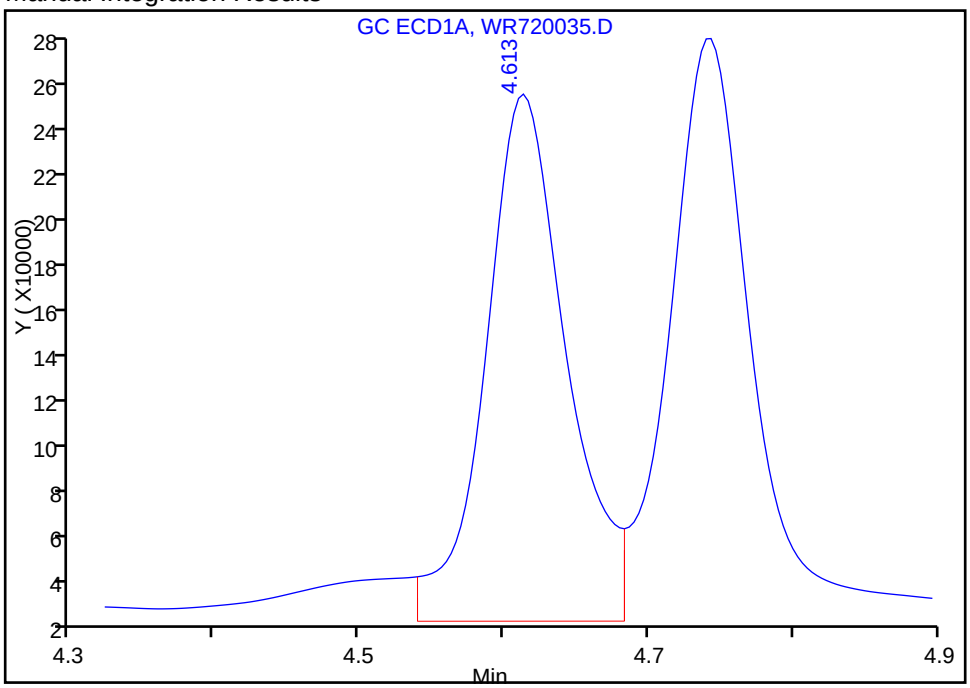
Processing Integration Results

RT: 4.61
Response: 999873
Amount: 276.5990



Manual Integration Results

RT: 4.61
Response: 872722
Amount: 241.4247



Reviewer: kapoors, 11-Dec-2013 07:48:34
Audit Action: Split an Integrated Peak
Audit Reason: Wrong Peak

Manual Integration/User Assign Peak Report

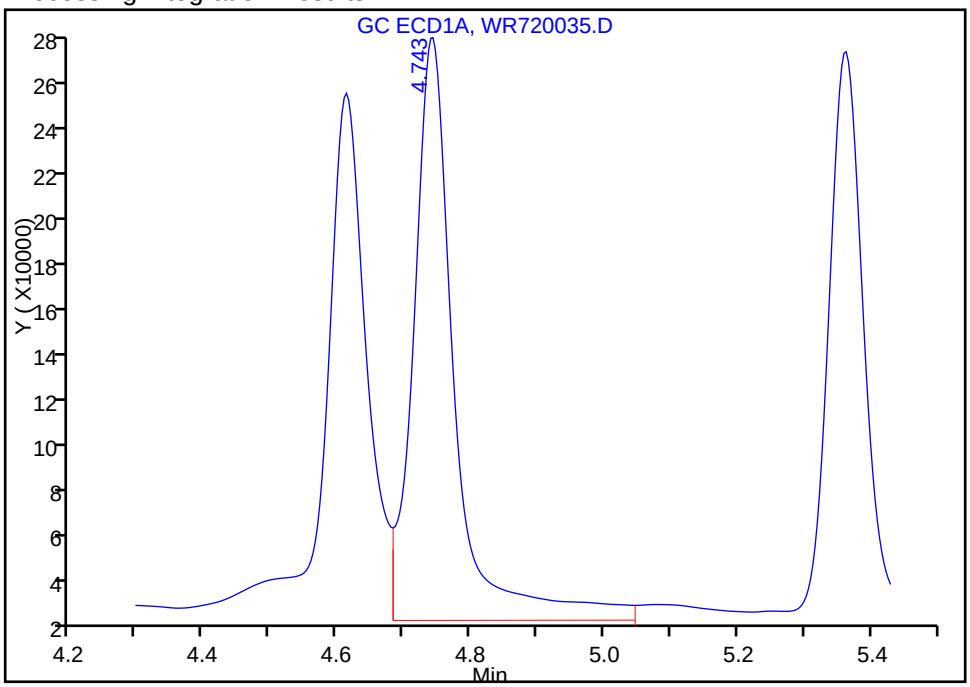
TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720035.D				
Injection Date:	11-Dec-2013 01:01:38	Instrument ID:	CPESTGC4		
Lims ID:	LCS 460-196739/2-A	Lab Sample ID:	LCS 460-196739/2-A		
Client ID:					
Operator ID:		ALS Bottle#:	42	Worklist Smp#:	44
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8081GC4	Limit Group:	GC 8081B PEST		
Column:		Detector	GC ECD1A		

18 Heptachlor, CAS: 76-44-8

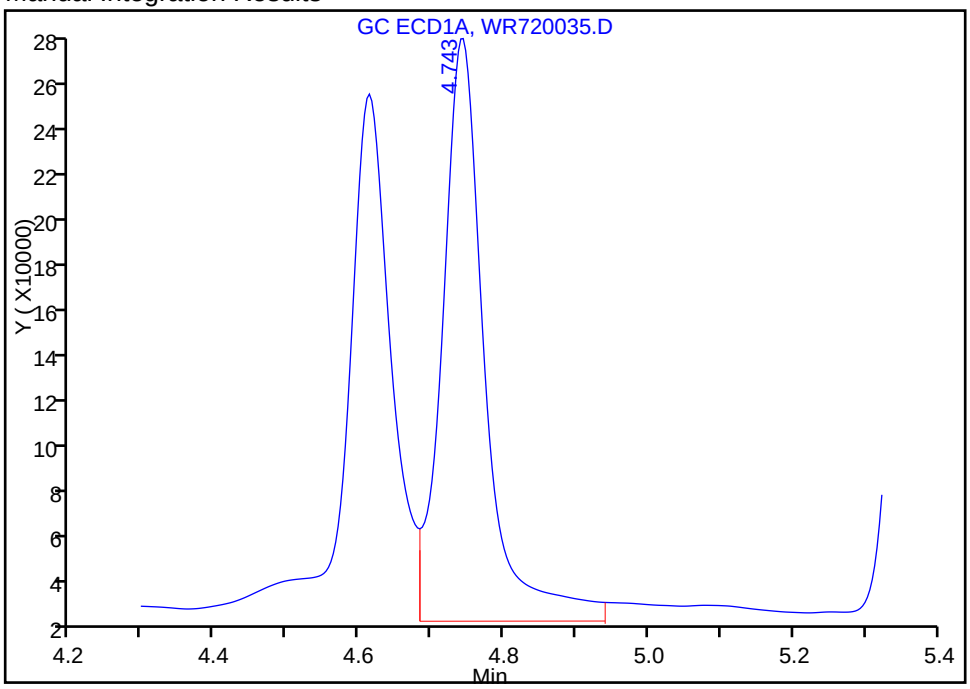
Processing Integration Results

RT: 4.74
Response: 1059725
Amount: 215.7815



Manual Integration Results

RT: 4.74
Response: 1014299
Amount: 206.5318



Reviewer: kapoors, 11-Dec-2013 07:48:34
Audit Action: Split an Integrated Peak
Audit Reason: Wrong Peak

Manual Integration/User Assign Peak Report

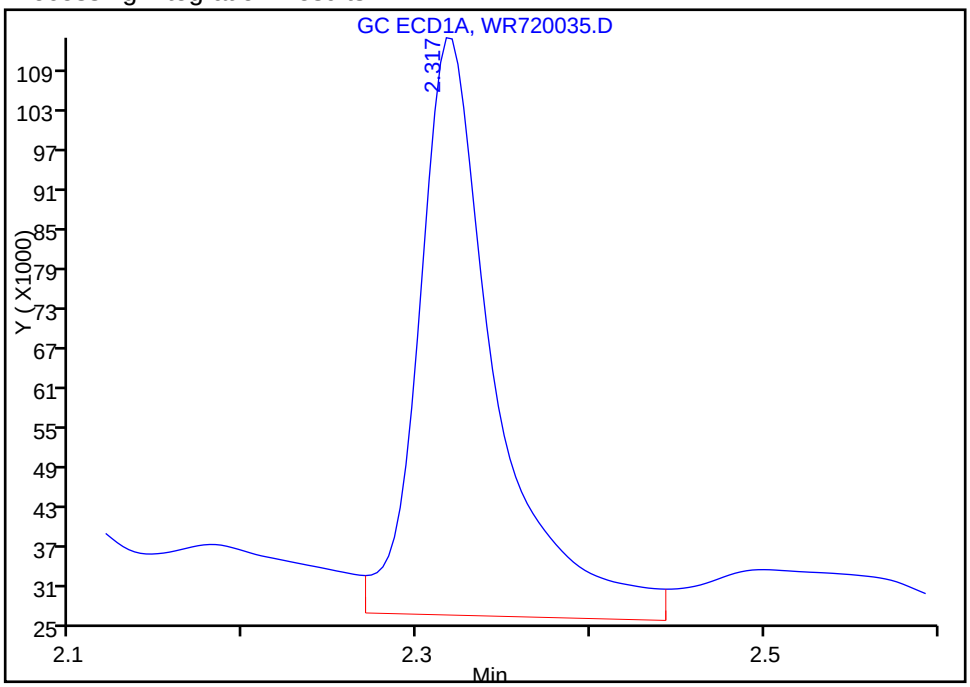
TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720035.D				
Injection Date:	11-Dec-2013 01:01:38	Instrument ID:	CPESTGC4		
Lims ID:	LCS 460-196739/2-A	Lab Sample ID:	LCS 460-196739/2-A		
Client ID:					
Operator ID:		ALS Bottle#:	42	Worklist Smp#:	44
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8081GC4	Limit Group:	GC 8081B PEST		
Column:		Detector	GC ECD1A		

$ 4 Tetrachloro-m-xylene, CAS: 877-09-8

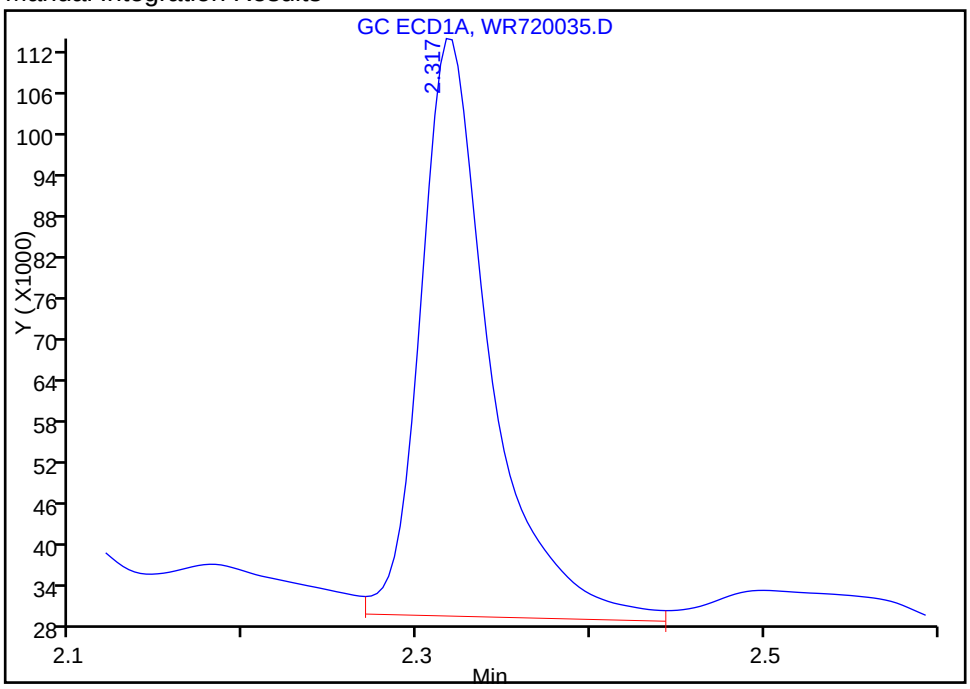
Processing Integration Results

RT: 2.32
Response: 268477
Amount: 73.482652



Manual Integration Results

RT: 2.32
Response: 236039
Amount: 64.604311



Reviewer: kapoors, 11-Dec-2013 07:48:34
Audit Action: Assigned New Baseline
Audit Reason: Wrong Peak

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 460-196739/2-A
Matrix: Solid
Lab File ID: WR720035.D
Analysis Method: 8081B
Date Collected:
Extraction Method: 3546
Date Extracted: 12/10/2013 06:26
Sample wt/vol: 15.00(g)
Date Analyzed: 12/11/2013 01:01
Con. Extract Vol.: 10(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: CLP-1 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196984
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
309-00-2	Aldrin	155		6.7	1.4
319-84-6	alpha-BHC	148		6.7	1.5
319-85-7	beta-BHC	150		6.7	1.6
58-89-9	gamma-BHC (Lindane)	148		6.7	1.2
50-29-3	4,4'-DDT	169		6.7	1.6
60-57-1	Dieldrin	147		6.7	1.2
959-98-8	Endosulfan I	161		6.7	1.5
1031-07-8	Endosulfan sulfate	162		6.7	1.3
72-20-8	Endrin	154		6.7	1.6
7421-93-4	Endrin aldehyde	160		6.7	1.0
53494-70-5	Endrin ketone	149		6.7	1.3
76-44-8	Heptachlor	151		6.7	1.6
1024-57-3	Heptachlor epoxide	148		6.7	1.5
72-43-5	Methoxychlor	146		6.7	1.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
2051-24-3	DCB Decachlorobiphenyl	147		60-150

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720035.D
Lims ID: LCS 460-196739/2-A Lab Sample ID: LCS 460-196739/2-A
Client ID:
Sample Type: LCS
Inject. Date: 11-Dec-2013 01:01:38 ALS Bottle#: 42 Worklist Smp#: 44
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007647-044
Operator ID: Instrument ID: CPESTGC4

Method: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\8081GC4.m
Limit Group: GC 8081B PEST
Last Update: 11-Dec-2013 11:35:14 Calib Date: 10-Dec-2013 14:42:23
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720001.D

Column 1 : Detector: GC ECD1A
Column 2 : Detector: GC ECD2B
Process Host: XAWRK035

First Level Reviewer: kapoors Date: 11-Dec-2013 07:48:34

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/l	Flags
$ 4 Tetrachloro-m-xylene						M
1	2.317	2.323	-0.006	236039	64.6	M
2	1.890	1.890	0.0	293906	62.1	
					RPD = 3.93	
15 alpha-BHC						
1	3.300	3.310	-0.010	1083078	204.5	
2	2.423	2.423	0.0	1327119	222.0	
					RPD = 8.22	
2 gamma-BHC (Lindane)						
1	3.940	3.953	-0.013	890339	215.8	
2	2.857	2.860	-0.003	1141517	222.7	
					RPD = 3.14	
6 beta-BHC						M
1	4.080	4.090	-0.010	458733	216.2	M
2	3.013	3.017	-0.004	574118	224.9	
					RPD = 3.93	
32 delta-BHC						M
1	4.613	4.623	-0.010	872722	241.4	M
2	3.307	3.310	-0.003	1077321	227.8	
					RPD = 5.82	
18 Heptachlor						M
1	4.743	4.753	-0.010	1014299	206.5	M
2	3.647	3.650	-0.003	1302289	226.6	
					RPD = 9.28	
8 Aldrin						M
1	5.363	5.373	-0.010	919362	210.6	M
2	4.143	4.147	-0.004	1185213	232.4	
					RPD = 9.86	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/l	Flags
12 Heptachlor epoxide						
1	6.377	6.383	-0.006	705913	218.3	
2	5.177	5.180	-0.003	1038205	221.5	
					RPD = 1.44	
9 gamma-Chlordane						
1	6.603	6.610	-0.007	681974	211.3	
2	5.400	5.403	-0.003	1064856	223.9	
					RPD = 5.80	
23 alpha-Chlordane						
1	6.760	6.767	-0.007	609589	213.1	
2	5.643	5.647	-0.004	1012923	228.0	
					RPD = 6.78	
7 Endosulfan I						
1	6.830	6.837	-0.007	635645	213.2	
2	5.907	5.910	-0.003	1409137	240.8	
					RPD = 12.16	
25 4,4'-DDE						
1	6.927	6.933	-0.006	617612	221.4	
2	5.797	5.800	-0.003	432237	192.2	
					RPD = 14.11	
30 Dieldrin						
1	7.127	7.133	-0.006	732747	208.6	
2	6.280	6.283	-0.003	1059575	221.1	
					RPD = 5.84	
20 Endrin						
1	7.477	7.483	-0.006	607528	221.5	
2	6.557	6.560	-0.003	863707	231.7	
					RPD = 4.50	
16 4,4'-DDD						
1	7.583	7.590	-0.007	431252	197.8	
2	6.630	6.633	-0.003	522772	178.7	
					RPD = 10.17	
11 Endosulfan II						
1	7.717	7.723	-0.006	775056	245.4	
2	6.790	6.793	-0.003	1006594	229.2	
					RPD = 6.84	
21 4,4'-DDT						
1	7.953	7.957	-0.004	546744	234.3	
2	6.917	6.920	-0.003	1043649	253.7	
					RPD = 7.96	
5 Endrin aldehyde						
1	8.113	8.120	-0.007	545852	223.7	
2	7.227	7.230	-0.003	789588	240.3	
					RPD = 7.14	
3 Endosulfan sulfate						
1	8.397	8.400	-0.003	547955	227.7	
2	7.703	7.707	-0.004	841305	242.6	
					RPD = 6.36	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/l	Flags
10 Methoxychlor						
1	8.633	8.633	0.0	291157	213.9	
2	7.477	7.463	0.014	358870	218.5	
					RPD = 2.10	
13 Endrin ketone						
1	8.827	8.830	-0.003	652882	215.0	
2	8.017	8.020	-0.003	968708	223.8	
					RPD = 4.00	
$ 24 DCB Decachlorobiphenyl						
1	9.853	9.853	0.0	164202	69.7	
2	8.897	8.890	0.007	310598	73.4	
					RPD = 5.08	

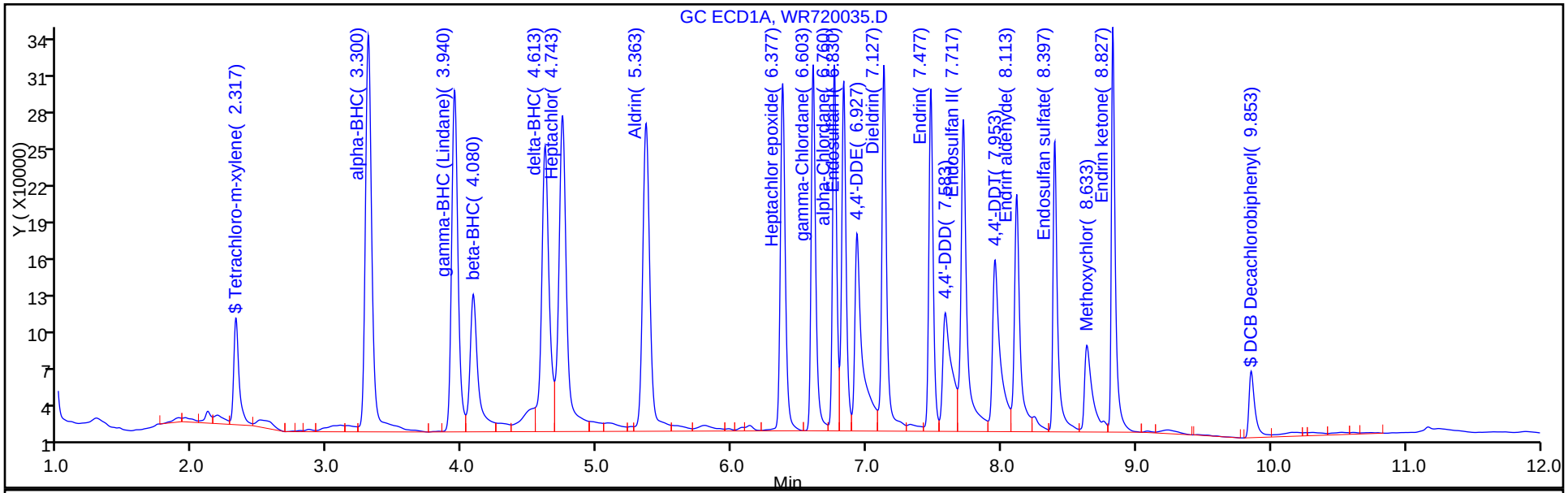
QC Flag Legend

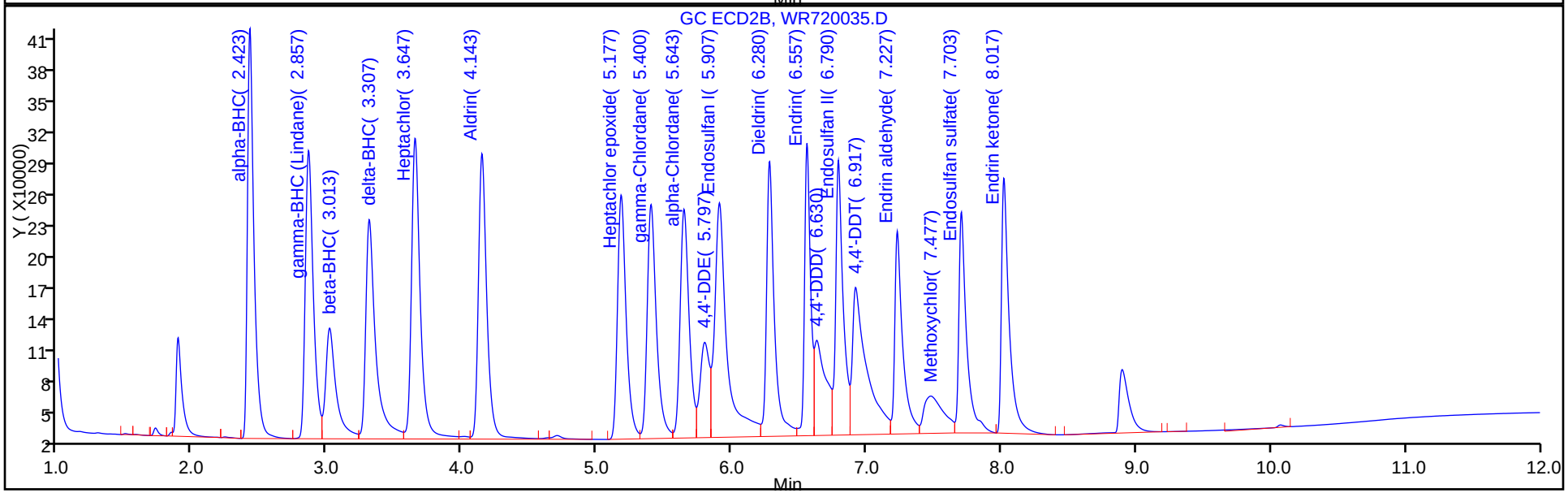
Review Flags
M - Manually Integrated

Report Date: 11-Dec-2013 11:35:15 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CPESTGC4\20131210-7647.b\WR720035.D				
Injection Date:	11-Dec-2013 01:01:38	Instrument ID:	CPESTGC4	Operator ID:	
Lims ID:	LCS 460-196739/2-A	Lab Sample ID:	LCS 460-196739/2-A	Worklist Smp#:	44
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	42
Method:	8081GC4	Limit Group:	GC 8081B PEST		





FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') MS | Lab Sample ID: 460-67815-1 MS

Matrix: Solid | Lab File ID: WR720036.D

Analysis Method: 8081B | Date Collected: 12/04/2013 12:30

Extraction Method: 3546 | Date Extracted: 12/10/2013 06:26

Sample wt/vol: 15.02(g) | Date Analyzed: 12/11/2013 01:17

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196984 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
309-00-2	Aldrin	109		7.5	1.6
319-84-6	alpha-BHC	111		7.5	1.7
319-85-7	beta-BHC	131		7.5	1.8
319-86-8	delta-BHC	142		7.5	1.3
58-89-9	gamma-BHC (Lindane)	124		7.5	1.3
57-74-9	*Chlordane*	*75*	*U*	*75*	*21*
72-54-8	*4,4'-DDD*	*150*		*7.5*	*1.5*
72-55-9	4,4'-DDE	136		7.5	1.5
50-29-3	4,4'-DDT	136		7.5	1.8
60-57-1	Dieldrin	104		7.5	1.3
959-98-8	*Endosulfan I*	*124*		*7.5*	*1.7*
33213-65-9	Endosulfan II	107		7.5	1.5
1031-07-8	Endosulfan sulfate	127		7.5	1.5
72-20-8	Endrin	132		7.5	1.8
7421-93-4	Endrin aldehyde	117		7.5	1.1
53494-70-5	Endrin ketone	122		7.5	1.5
76-44-8	*Heptachlor*	*96.1*		*7.5*	*1.8*
1024-57-3	Heptachlor epoxide	122		7.5	1.7
72-43-5	*Methoxychlor*	*118*		*7.5*	*1.8*
8001-35-2	*Toxaphene*	*75*	*U*	*75*	*20*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	93		37-150
2051-24-3	DCB Decachlorobiphenyl	88		60-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') MS | Lab Sample ID: 460-67815-1 MS

Matrix: Solid | Lab File ID: WR720036.D

Analysis Method: 8081B | Date Collected: 12/04/2013 12:30

Extraction Method: 3546 | Date Extracted: 12/10/2013 06:26

Sample wt/vol: 15.02(g) | Date Analyzed: 12/11/2013 01:17

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196984 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
57-74-9	Chlordane	75	U	75	21
72-54-8	4,4'-DDD	152		7.5	1.5
959-98-8	Endosulfan I	80.2		7.5	1.7
76-44-8	Heptachlor	97.1		7.5	1.8
72-43-5	Methoxychlor	131		7.5	1.8
8001-35-2	Toxaphene	75	U	75	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	75		37-150
2051-24-3	DCB Decachlorobiphenyl	79		60-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') MSD | Lab Sample ID: 460-67815-1 MSD

Matrix: Solid | Lab File ID: WR720037.D

Analysis Method: 8081B | Date Collected: 12/04/2013 12:30

Extraction Method: 3546 | Date Extracted: 12/10/2013 06:26

Sample wt/vol: 15.04(g) | Date Analyzed: 12/11/2013 01:32

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196984 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
309-00-2	Aldrin	101		7.5	1.6
319-84-6	alpha-BHC	108		7.5	1.7
319-85-7	beta-BHC	115		7.5	1.8
319-86-8	delta-BHC	128		7.5	1.3
58-89-9	gamma-BHC (Lindane)	117		7.5	1.3
72-54-8	4,4'-DDD	147		7.5	1.5
72-55-9	4,4'-DDE	129		7.5	1.5
50-29-3	4,4'-DDT	132		7.5	1.8
60-57-1	Dieldrin	99.8		7.5	1.3
33213-65-9	Endosulfan II	104		7.5	1.5
1031-07-8	Endosulfan sulfate	118		7.5	1.5
72-20-8	Endrin	126		7.5	1.8
7421-93-4	Endrin aldehyde	105		7.5	1.1
53494-70-5	Endrin ketone	113		7.5	1.5
76-44-8	Heptachlor	92.5		7.5	1.8
1024-57-3	Heptachlor epoxide	120		7.5	1.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	89		37-150
2051-24-3	DCB Decachlorobiphenyl	92		60-150

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') MSD | Lab Sample ID: 460-67815-1 MSD

Matrix: Solid | Lab File ID: WR720037.D

Analysis Method: 8081B | Date Collected: 12/04/2013 12:30

Extraction Method: 3546 | Date Extracted: 12/10/2013 06:26

Sample wt/vol: 15.04(g) | Date Analyzed: 12/11/2013 01:32

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196984 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
57-74-9	Chlordane	75	U	75	21
959-98-8	Endosulfan I	76.3		7.5	1.7
72-43-5	Methoxychlor	125		7.5	1.8
8001-35-2	Toxaphene	75	U	75	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	74		37-150
2051-24-3	DCB Decachlorobiphenyl	78		60-150

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CPESTGC4 Start Date: 12/10/2013 09:58

Analysis Batch Number: 196823 End Date: 12/10/2013 14:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PIBLK 460-196823/1		12/10/2013 09:58	1		CLP-2 0.53(mm)
PIBLK 460-196823/1		12/10/2013 09:58	1		CLP-1 0.53(mm)
PEM 460-196823/2		12/10/2013 11:29	1		CLP-2 0.53(mm)
PEM 460-196823/2		12/10/2013 11:29	1		CLP-1 0.53(mm)
STD 460-196823/3 IC		12/10/2013 12:55	1	WR719994.D	CLP-2 0.53(mm)
STD 460-196823/3 IC		12/10/2013 12:55	1	WR719994.D	CLP-1 0.53(mm)
STD 460-196823/4 IC		12/10/2013 13:09	1	WR719995.D	CLP-2 0.53(mm)
STD 460-196823/4 IC		12/10/2013 13:09	1	WR719995.D	CLP-1 0.53(mm)
STD 460-196823/5 ICRT		12/10/2013 13:25	1	WR719996.D	CLP-2 0.53(mm)
STD 460-196823/5 ICRT		12/10/2013 13:25	1	WR719996.D	CLP-1 0.53(mm)
STD 460-196823/6 IC		12/10/2013 13:39	1	WR719997.D	CLP-2 0.53(mm)
STD 460-196823/6 IC		12/10/2013 13:39	1	WR719997.D	CLP-1 0.53(mm)
STD 460-196823/7 IC		12/10/2013 13:55	1	WR719998.D	CLP-2 0.53(mm)
STD 460-196823/7 IC		12/10/2013 13:55	1	WR719998.D	CLP-1 0.53(mm)
IC 460-196823/8		12/10/2013 14:11	1	WR719999.D	CLP-2 0.53(mm)
IC 460-196823/8		12/10/2013 14:11	1	WR719999.D	CLP-1 0.53(mm)
IC 460-196823/9		12/10/2013 14:26	1	WR720000.D	CLP-2 0.53(mm)
IC 460-196823/9		12/10/2013 14:26	1	WR720000.D	CLP-1 0.53(mm)
IC 460-196823/10		12/10/2013 14:42	1		CLP-2 0.53(mm)
IC 460-196823/10		12/10/2013 14:42	1		CLP-1 0.53(mm)
ICV 460-196823/11		12/10/2013 14:57	1		CLP-2 0.53(mm)
ICV 460-196823/11		12/10/2013 14:57	1		CLP-1 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CPESTGC4 Start Date: 12/11/2013 00:01

Analysis Batch Number: 196984 End Date: 12/11/2013 03:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 460-196984/40		12/11/2013 00:01	1	WR720031.D	CLP-2 0.53(mm)
CCV 460-196984/40		12/11/2013 00:01	1	WR720031.D	CLP-1 0.53(mm)
PEM 460-196984/42		12/11/2013 00:31	1	WR720033.D	CLP-2 0.53(mm)
PEM 460-196984/42		12/11/2013 00:31	1	WR720033.D	CLP-1 0.53(mm)
MB 460-196739/1-A		12/11/2013 00:46	1	WR720034.D	CLP-2 0.53(mm)
MB 460-196739/1-A		12/11/2013 00:46	1	WR720034.D	CLP-1 0.53(mm)
LCS 460-196739/2-A		12/11/2013 01:01	1	WR720035.D	CLP-2 0.53(mm)
LCS 460-196739/2-A		12/11/2013 01:01	1	WR720035.D	CLP-1 0.53(mm)
460-67815-1 MS	E-GP-C4 (15-17.5') MS	12/11/2013 01:17	1	WR720036.D	CLP-2 0.53(mm)
460-67815-1 MS	E-GP-C4 (15-17.5') MS	12/11/2013 01:17	1	WR720036.D	CLP-1 0.53(mm)
460-67815-1 MSD	E-GP-C4 (15-17.5') MSD	12/11/2013 01:32	1	WR720037.D	CLP-2 0.53(mm)
460-67815-1 MSD	E-GP-C4 (15-17.5') MSD	12/11/2013 01:32	1	WR720037.D	CLP-1 0.53(mm)
460-67815-1	E-GP-C4 (15-17.5')	12/11/2013 01:47	1	WR720038.D	CLP-2 0.53(mm)
460-67815-1	E-GP-C4 (15-17.5')	12/11/2013 01:47	1	WR720038.D	CLP-1 0.53(mm)
460-67815-2	E-GP-E3 (10-15')	12/11/2013 02:02	1	WR720039.D	CLP-2 0.53(mm)
460-67815-2	E-GP-E3 (10-15')	12/11/2013 02:02	1	WR720039.D	CLP-1 0.53(mm)
CCV 460-196984/54		12/11/2013 03:35	1	WR720045.D	CLP-2 0.53(mm)
CCV 460-196984/54		12/11/2013 03:35	1	WR720045.D	CLP-1 0.53(mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Batch Number: 196739 Batch Start Date: 12/10/13 06:25 Batch Analyst: Alinea, Archilles R

Batch Method: 3546 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	OP_PESTSP 00015	OPPSTPCBSURR 00001		
MB 460-196739/1		3546, 8081B		15.00 g	10 mL		50 uL		
LCS 460-196739/2		3546, 8081B		15.00 g	10 mL	100 uL	50 uL		
460-67815-E-1 MS	E-GP-C4 (15-17.5')	3546, 8081B	T	15.02 g	10 mL	100 uL	50 uL		
460-67815-E-1 MSD	E-GP-C4 (15-17.5')	3546, 8081B	T	15.04 g	10 mL	100 uL	50 uL		
460-67815-E-1	E-GP-C4 (15-17.5')	3546, 8081B	T	15.03 g	10 mL		50 uL		
460-67815-E-2	E-GP-E3 (10-15')	3546, 8081B	T	15.00 g	10 mL		50 uL		

Batch Notes	
Balance ID	30
Batch Comment	pest-soil
Person's name who did the concentration	archie
Exchange Solvent Lot #	59831
Exchange Solvent Name	hexane
Final Concentrator Volume	10 mL
Florisil Lot #	930973(sw3620c)
Hexane Lot#	59831
MeCl2/Acetone Lot #	61086
Microwave Start Time	4am
Microwave Stop Time	4:30am
Na2SO4 Lot Number	331103
Person's name who did the prep	archie
Person who witnessed spiking	jose s
Water Bath ID	10203
Water Bath Temperature	37.0c (uncorrected 37.0c)

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

NJEPH

New Jersey Extractable Petroleum Hydrocarbons

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): Rtx-5MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	1COD1 #
E-GP-C4 (15-17.5')	460-67815-1	0 * D
E-GP-E3 (10-15')	460-67815-2	0 * D
	MB 460-196763/1-A	75
	LCS 460-196763/2-A	80
	460-67990-A-1-D MS	63
	460-67990-A-1-E MSD	61

	QC LIMITS
1COD = 1-Chlorooctadecane	40-140

Column to be used to flag recovery values

FORM II NJDEP EPH

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): Rtx-5MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	FBP1 #	2BN1 #	OTPH1 #
E-GP-C4 (15-17.5')	460-67815-1	0 D *	0 D *	0 D *
E-GP-E3 (10-15')	460-67815-2	0 D *	0 D *	0 D *
	MB 460-196763/1-A	88	59	112
	LCS 460-196763/2-A	97	64	136
	460-67990-A-1-D MS	91	61	89
	460-67990-A-1-E MSD	93	63	90

	QC LIMITS
FBP = 2-Fluorobiphenyl	40-140
2BN = 2-Bromonaphthalene	40-140
OTPH = o-Terphenyl	40-140

Column to be used to flag recovery values

FORM II NJDEP EPH

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: GCF82864.D

Lab ID: LCS 460-196763/2-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
C12-C16 Aliphatics	13.3	10.5	79	40-140	
C9-C12 Aliphatics	20.0	12.1	61	40-140	
C16-C21 Aliphatics	26.7	21.1	79	40-140	
C21-C40 Aliphatics	66.7	54.5	82	40-140	

Column to be used to flag recovery and RPD values

FORM III NJDEP EPH

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: GCR81466.D

Lab ID: LCS 460-196763/2-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
C16-C21 Aromatics	40.0	39.3	98	40-140	
C10-C12 Aromatics	20.0	12.1	60	40-140	
C12-C16 Aromatics	26.7	18.6	70	40-140	
C21-C36 Aromatic	60.0	66.5	111	40-140	

Column to be used to flag recovery and RPD values

FORM III NJDEP EPH

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: GCF82885.D

Lab ID: 460-67990-A-1-D MS Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC	QC LIMITS REC	#
C12-C16 Aliphatics	15.7	2.4 U	10.8	69	40-140	
C9-C12 Aliphatics	23.6	2.4 U	12.4	53	40-140	
C16-C21 Aliphatics	31.5	2.4 U	19.4	62	40-140	
C21-C40 Aliphatics	78.7	2.4 U	49.5	63	40-140	

Column to be used to flag recovery and RPD values

FORM III NJDEP EPH

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: GCR81487.D

Lab ID: 460-67990-A-1-D MS Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC	QC LIMITS REC	#
C16-C21 Aromatics	47.2	2.4 U	33.4	71	40-140	
C10-C12 Aromatics	23.6	2.4 U	9.93	42	40-140	
C12-C16 Aromatics	31.5	2.4 U	15.9	50	40-140	
C21-C36 Aromatic	70.8	2.4 U	57.9	82	40-140	

Column to be used to flag recovery and RPD values

FORM III NJDEP EPH

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: GCF82886.D

Lab ID: 460-67990-A-1-E MSD Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
C12-C16 Aliphatics	15.8	10.2	65	6	25	40-140	
C9-C12 Aliphatics	23.6	12.3	52	1	25	40-140	
C16-C21 Aliphatics	31.5	18.2	58	6	25	40-140	
C21-C40 Aliphatics	78.8	52.6	67	6	25	40-140	

Column to be used to flag recovery and RPD values

FORM III NJDEP EPH

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: GCR81488.D

Lab ID: 460-67990-A-1-E MSD Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
C16-C21 Aromatics	47.3	33.6	71	1	25	40-140	
C10-C12 Aromatics	23.6	10.8	46	8	25	40-140	
C12-C16 Aromatics	31.5	15.9	51	1	25	40-140	
C21-C36 Aromatic	70.9	58.5	83	1	25	40-140	

Column to be used to flag recovery and RPD values

FORM III NJDEP EPH

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: MB 460-196763/1-A

Matrix: Solid Date Extracted: 12/10/2013 08:08

Lab File ID:(1) GCF82863.D Lab File ID:(2)

Date Analyzed:(1) 12/11/2013 08:35 Date Analyzed:(2)

Instrument ID:(1) CBNAGC4 Instrument ID:(2)

GC Column:(1) Rtx-5MS ID: 0.25(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 460-196763/2-A	12/11/2013 08:49	
	460-67990-A-1-D MS	12/11/2013 15:33	
	460-67990-A-1-E MSD	12/11/2013 15:48	
E-GP-C4 (15-17.5')	460-67815-1	12/11/2013 16:32	
E-GP-E3 (10-15')	460-67815-2	12/11/2013 16:47	

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: MB 460-196763/1-A

Matrix: Solid Date Extracted: 12/10/2013 08:08

Lab File ID:(1) GCR81465.D Lab File ID:(2)

Date Analyzed:(1) 12/11/2013 08:35 Date Analyzed:(2)

Instrument ID:(1) CBNAGC4 Instrument ID:(2)

GC Column:(1) Rtx-5MS ID: 0.25(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 460-196763/2-A	12/11/2013 08:49	
	460-67990-A-1-D MS	12/11/2013 15:33	
	460-67990-A-1-E MSD	12/11/2013 15:48	
E-GP-C4 (15-17.5')	460-67815-1	12/11/2013 16:32	
E-GP-E3 (10-15')	460-67815-2	12/11/2013 16:47	

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') | Lab Sample ID: 460-67815-1

Matrix: Solid | Lab File ID: GCR81491.D

Analysis Method: NJDEP EPH | Date Collected: 12/04/2013 12:30

Extraction Method: 3546 | Date Extracted: 12/10/2013 08:08

Sample wt/vol: 15.04(g) | Date Analyzed: 12/11/2013 16:32

Con. Extract Vol.: 2(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | GC Column: Rtx-5MS ID: 0.25(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196980 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00004	C16-C21 Aromatics	1600		45	45
STL00011	C10-C12 Aromatics	53		45	45
STL00266	C12-C16 Aromatics	450		45	45
STL01060	C21-C36 Aromatic	3100		45	45

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D *	40-140
321-60-8	2-Fluorobiphenyl	0	D *	40-140
580-13-2	2-Bromonaphthalene	0	D *	40-140

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82889.D
Lims ID: 460-67815-D-1-A Lab Sample ID: 460-67815-1
Client ID: E-GP-C4 (15-17.5')
Sample Type: Client
Inject. Date: 11-Dec-2013 16:32:32 ALS Bottle#: 30 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 50.0000
Sample Info: 460-0007678-029
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\ALEPH4F.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:22:21 Calib Date: 19-Oct-2013 12:40:25
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131019-5877.b\GCF81323.D

Column 1 : Rtx-5MS (0.25 mm) Detector GC fid1a
Process Host: XAWRK048

First Level Reviewer: nimerd Date: 12-Dec-2013 13:21:00

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
A 1 C9-C12 Aliphatics	1.486	0.823 -	2.150	1069807	34.0	
A 2 C12-C16 Aliphatics	2.977	2.150 -	3.805	10838659	317.7	
A 3 C16-C21 Aliphatics	4.537	3.805 -	5.269	19023733	543.5	
$ 6 o-Terphenyl		4.661				
$ 7 1-Chlorooctadecane		5.144				
A 4 C21-C40 Aliphatics	7.052	5.269 -	8.836	44613494	1499.3	

TestAmerica Edison
Target Compound Quantitation Report

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81491.D				
Lims ID:	460-67815-D-1-A	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Sample Type:	Client				
Inject. Date:	11-Dec-2013 16:32:32	ALS Bottle#:	80	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Sample Info:	460-0007679-029				
Operator ID:	615	Instrument ID:	CBNAGC4		
Method:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\AREPH4R.m				
Limit Group:	GC NJEPH ICAL				
Last Update:	12-Dec-2013 13:27:27	Calib Date:	18-Oct-2013 19:45:47		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\EDICHROM\ChromData\CBNAGC4\20131018-5853.b\GCR80352.D				
Column 1 :		Detector	GC fid2b		
Process Host:	XAWRK048				
First Level Reviewer: nimerd		Date:	12-Dec-2013 13:26:26		

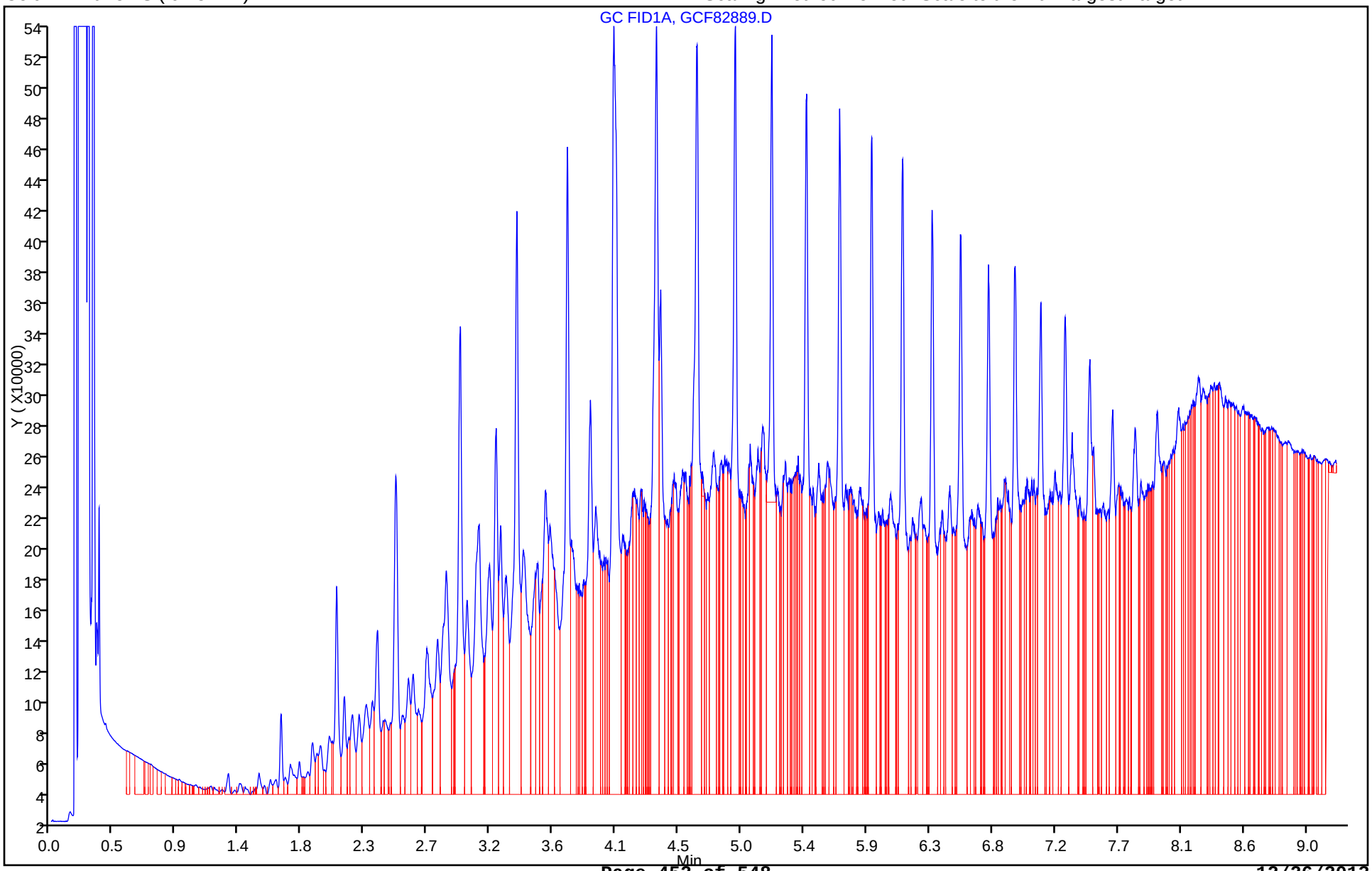
RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
A 2 C10-C12 Aromatics					
1.608	1.199 -	2.016	677304	17.5	
A 4 C12-C16 Aromatics					
2.651	2.016 -	3.286	5834562	148.6	
A 7 C16-C21 Aromatics					
4.260	3.286 -	5.234	22152100	535.6	
A 10 C21-C36 Aromatic					
6.411	5.234 -	7.587	36129069	1037.3	

Report Date: 12-Dec-2013 13:22:23 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82889.D				
Injection Date:	11-Dec-2013 16:32:32	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	460-67815-D-1-A	Lab Sample ID:	460-67815-1	Worklist Smp#:	29
Client ID:	E-GP-C4 (15-17.5')				
Injection Vol:	1.0 ul	Dil. Factor:	50.0000	ALS Bottle#:	30
Method:	ALEPH4F	Limit Group:	GC NJEPH ICAL		

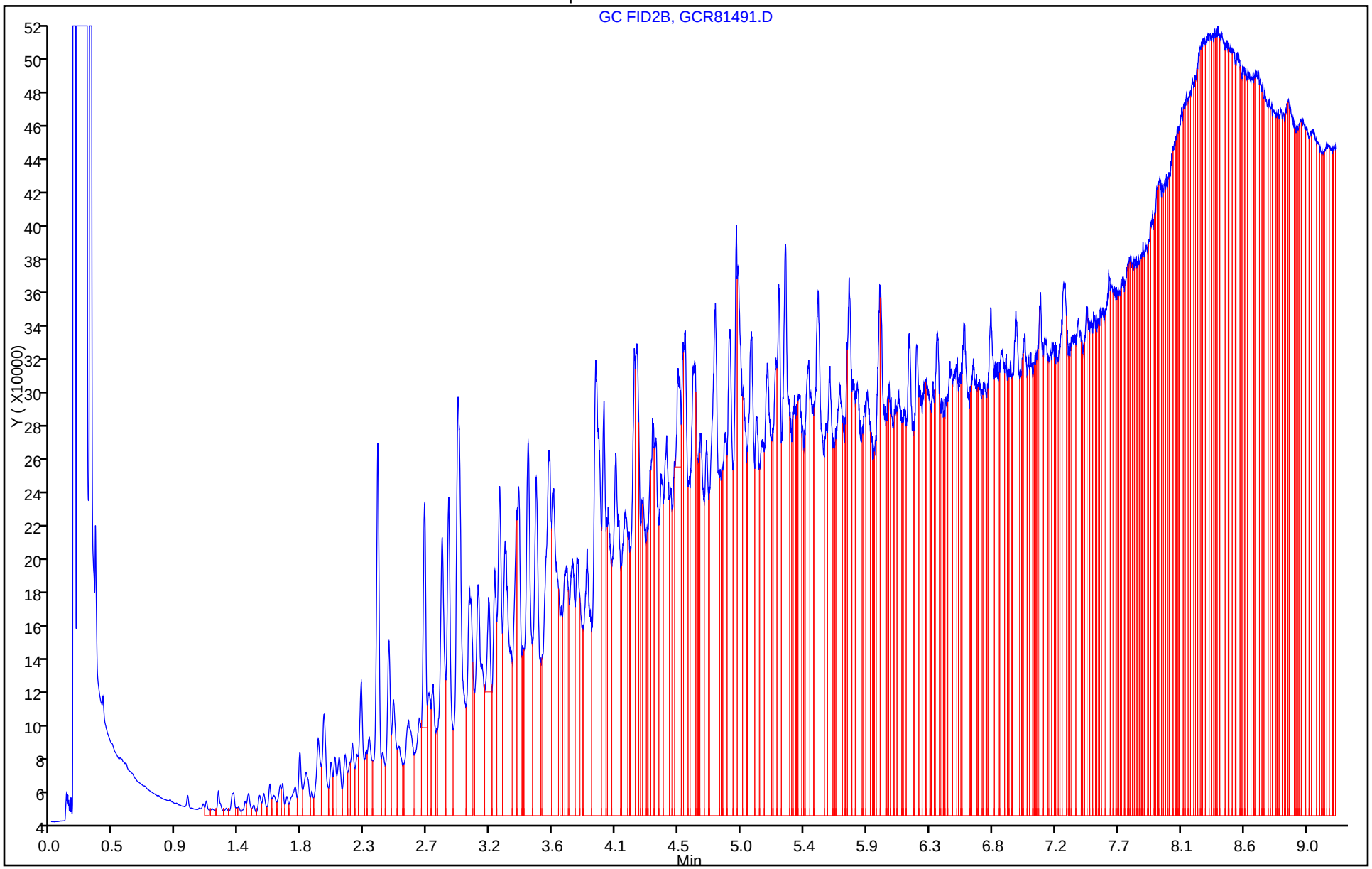
Column: Rtx-5MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 12-Dec-2013 13:27:28 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81491.D				
Injection Date:	11-Dec-2013 16:32:32	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	460-67815-D-1-A	Lab Sample ID:	460-67815-1	Worklist Smp#:	29
Client ID:	E-GP-C4 (15-17.5')				
Injection Vol:	1.0 ul	Dil. Factor:	20.0000	ALS Bottle#:	80
Method:	AREPH4R	Limit Group:	GC NJEPH ICAL		



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') | Lab Sample ID: 460-67815-1

Matrix: Solid | Lab File ID: GCF82889.D

Analysis Method: NJDEP EPH | Date Collected: 12/04/2013 12:30

Extraction Method: 3546 | Date Extracted: 12/10/2013 08:08

Sample wt/vol: 15.04(g) | Date Analyzed: 12/11/2013 16:32

Con. Extract Vol.: 2(mL) | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: Rtx-5MS ID: 0.25(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196976 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00159	C12-C16 Aliphatics	2400		110	110
STL00191	C9-C12 Aliphatics	250		110	110
STL00950	C16-C21 Aliphatics	4100		110	110
STL01059	C21-C40 Aliphatics	11000		110	110

CAS NO.	SURROGATE	%REC	Q	LIMITS
3386-33-2	1-Chlorooctadecane	0	* D	40-140

TestAmerica Edison
Target Compound Quantitation Report

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82889.D				
Lims ID:	460-67815-D-1-A	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Sample Type:	Client				
Inject. Date:	11-Dec-2013 16:32:32	ALS Bottle#:	30	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	50.0000		
Sample Info:	460-0007678-029				
Operator ID:	615	Instrument ID:	CBNAGC4		
Method:	\\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\ALEPH4F.m				
Limit Group:	GC NJEPH ICAL				
Last Update:	12-Dec-2013 13:22:21	Calib Date:	19-Oct-2013 12:40:25		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\EDICHROM\ChromData\CBNAGC4\20131019-5877.b\GCF81323.D				
Column 1 :	Rtx-5MS (0.25 mm)	Detector	GC fid1a		
Process Host:	XAWRK048				
First Level Reviewer: nimerd		Date:	12-Dec-2013 13:21:00		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
A 1 C9-C12 Aliphatics	1.486	0.823 -	2.150	1069807	34.0	
A 2 C12-C16 Aliphatics	2.977	2.150 -	3.805	10838659	317.7	
A 3 C16-C21 Aliphatics	4.537	3.805 -	5.269	19023733	543.5	
$ 6 o-Terphenyl		4.661				
$ 7 1-Chlorooctadecane		5.144				
A 4 C21-C40 Aliphatics	7.052	5.269 -	8.836	44613494	1499.3	

TestAmerica Edison
Target Compound Quantitation Report

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81491.D				
Lims ID:	460-67815-D-1-A	Lab Sample ID:	460-67815-1		
Client ID:	E-GP-C4 (15-17.5')				
Sample Type:	Client				
Inject. Date:	11-Dec-2013 16:32:32	ALS Bottle#:	80	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Sample Info:	460-0007679-029				
Operator ID:	615	Instrument ID:	CBNAGC4		
Method:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\AREPH4R.m				
Limit Group:	GC NJEPH ICAL				
Last Update:	12-Dec-2013 13:27:27	Calib Date:	18-Oct-2013 19:45:47		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\EDICHROM\ChromData\CBNAGC4\20131018-5853.b\GCR80352.D				
Column 1 :		Detector	GC fid2b		
Process Host:	XAWRK048				
First Level Reviewer: nimerd		Date:	12-Dec-2013 13:26:26		

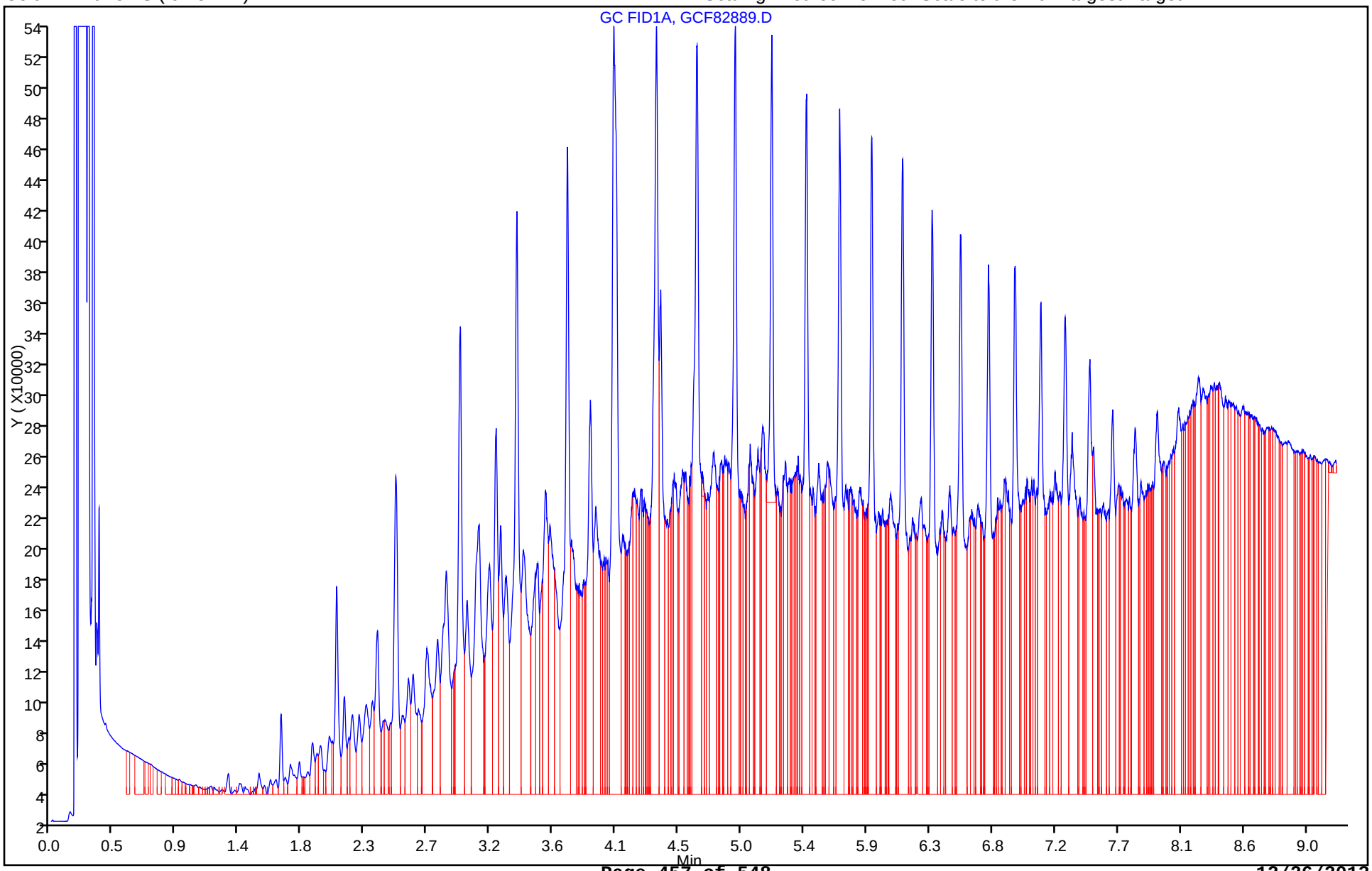
RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
A 2 C10-C12 Aromatics					
1.608	1.199 -	2.016	677304	17.5	
A 4 C12-C16 Aromatics					
2.651	2.016 -	3.286	5834562	148.6	
A 7 C16-C21 Aromatics					
4.260	3.286 -	5.234	22152100	535.6	
A 10 C21-C36 Aromatic					
6.411	5.234 -	7.587	36129069	1037.3	

Report Date: 12-Dec-2013 13:22:23 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82889.D				
Injection Date:	11-Dec-2013 16:32:32	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	460-67815-D-1-A	Lab Sample ID:	460-67815-1	Worklist Smp#:	29
Client ID:	E-GP-C4 (15-17.5')				
Injection Vol:	1.0 ul	Dil. Factor:	50.0000	ALS Bottle#:	30
Method:	ALEPH4F	Limit Group:	GC NJEPH ICAL		

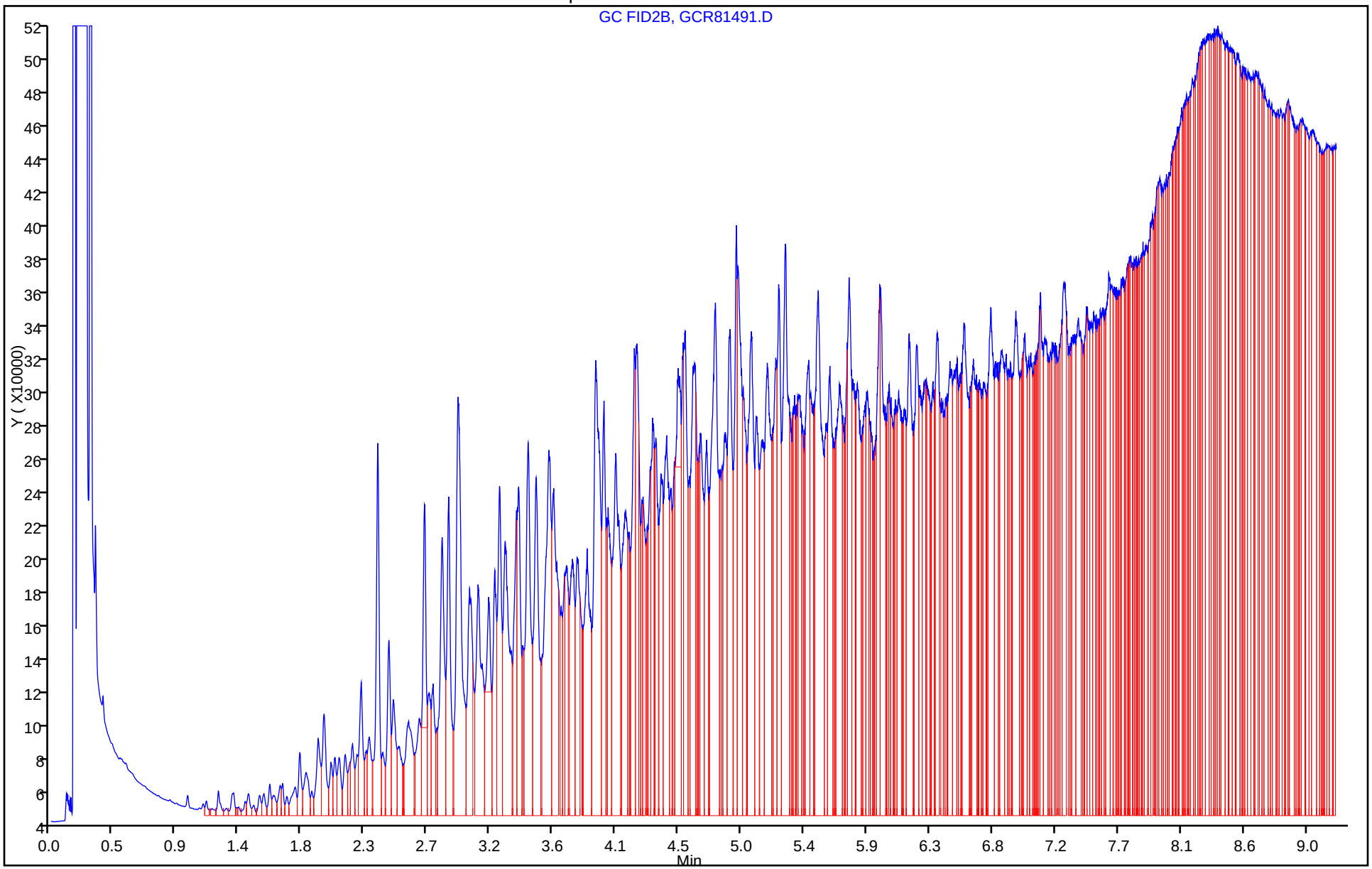
Column: Rtx-5MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 12-Dec-2013 13:27:28 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81491.D				
Injection Date:	11-Dec-2013 16:32:32	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	460-67815-D-1-A	Lab Sample ID:	460-67815-1	Worklist Smp#:	29
Client ID:	E-GP-C4 (15-17.5')				
Injection Vol:	1.0 ul	Dil. Factor:	20.0000	ALS Bottle#:	80
Method:	AREPH4R	Limit Group:	GC NJEPH ICAL		



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-E3 (10-15') | Lab Sample ID: 460-67815-2

Matrix: Solid | Lab File ID: GCR81492.D

Analysis Method: NJDEP EPH | Date Collected: 12/04/2013 14:30

Extraction Method: 3546 | Date Extracted: 12/10/2013 08:08

Sample wt/vol: 15.01(g) | Date Analyzed: 12/11/2013 16:47

Con. Extract Vol.: 10(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: Rtx-5MS ID: 0.25(mm)

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196980 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00004	C16-C21 Aromatics	4900		110	110
STL00011	C10-C12 Aromatics	110	U	110	110
STL00266	C12-C16 Aromatics	1600		110	110
STL01060	C21-C36 Aromatic	6400		110	110

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D *	40-140
321-60-8	2-Fluorobiphenyl	0	D *	40-140
580-13-2	2-Bromonaphthalene	0	D *	40-140

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82890.D
Lims ID: 460-67815-D-2-A Lab Sample ID: 460-67815-2
Client ID: E-GP-E3 (10-15')
Sample Type: Client
Inject. Date: 11-Dec-2013 16:47:23 ALS Bottle#: 31 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 25.0000
Sample Info: 460-0007678-030
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\ALEPH4F.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:22:21 Calib Date: 19-Oct-2013 12:40:25
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131019-5877.b\GCF81323.D

Column 1 : Rtx-5MS (0.25 mm) Detector GC fid1a
Process Host: XAWRK048

First Level Reviewer: nimerd Date: 12-Dec-2013 13:21:21

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
A 1 C9-C12 Aliphatics	1.486	0.823 -	2.150	666743	21.2	
A 2 C12-C16 Aliphatics	2.977	2.150 -	3.805	7651273	224.3	
A 3 C16-C21 Aliphatics	4.537	3.805 -	5.269	9700264	277.1	
$ 6 o-Terphenyl		4.661				
$ 7 1-Chlorooctadecane		5.144				
A 4 C21-C40 Aliphatics	7.052	5.269 -	8.836	30285314	1017.8	

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81492.D
Lims ID: 460-67815-D-2-A Lab Sample ID: 460-67815-2
Client ID: E-GP-E3 (10-15')
Sample Type: Client
Inject. Date: 11-Dec-2013 16:47:23 ALS Bottle#: 81 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info: 460-0007679-030
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\AREPH4R.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:27:27 Calib Date: 18-Oct-2013 19:45:47
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131018-5853.b\GCR80352.D

Column 1 : Detector GC fid2b
Process Host: XAWRK048

First Level Reviewer: nimerd Date: 12-Dec-2013 13:26:37

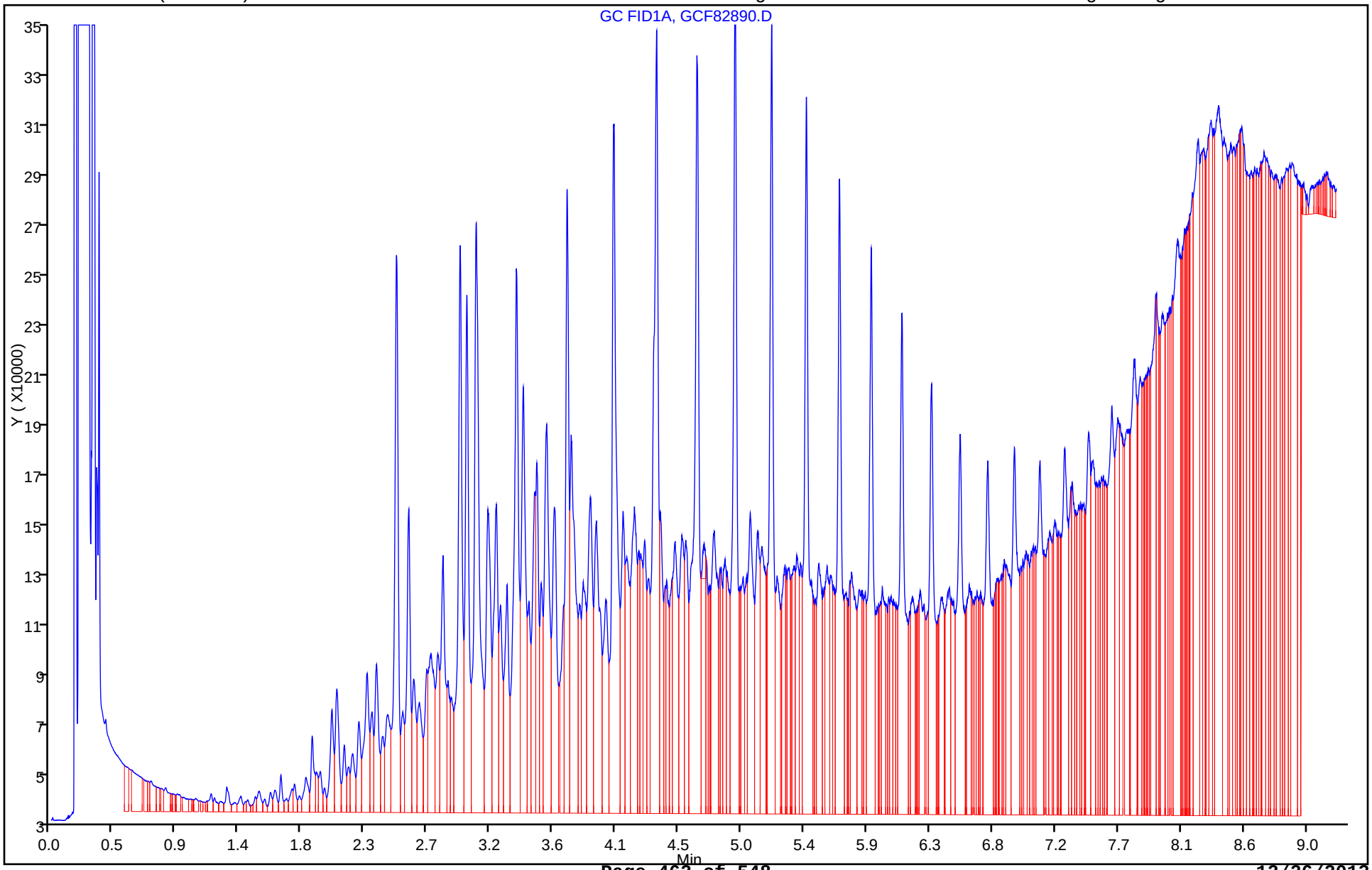
RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
A 2 C10-C12 Aromatics					
1.608	1.199 -	2.016	542747	14.1	
A 4 C12-C16 Aromatics					
2.651	2.016 -	3.286	8266500	210.5	
A 7 C16-C21 Aromatics					
4.260	3.286 -	5.234	27547192	666.1	
A 10 C21-C36 Aromatic					
6.411	5.234 -	7.587	30168821	866.2	

Report Date: 12-Dec-2013 13:22:24 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82890.D				
Injection Date:	11-Dec-2013 16:47:23	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	460-67815-D-2-A	Lab Sample ID:	460-67815-2	Worklist Smp#:	30
Client ID:	E-GP-E3 (10-15')				
Injection Vol:	1.0 ul	Dil. Factor:	25.0000	ALS Bottle#:	31
Method:	ALEPH4F	Limit Group:	GC NJEPH ICAL		

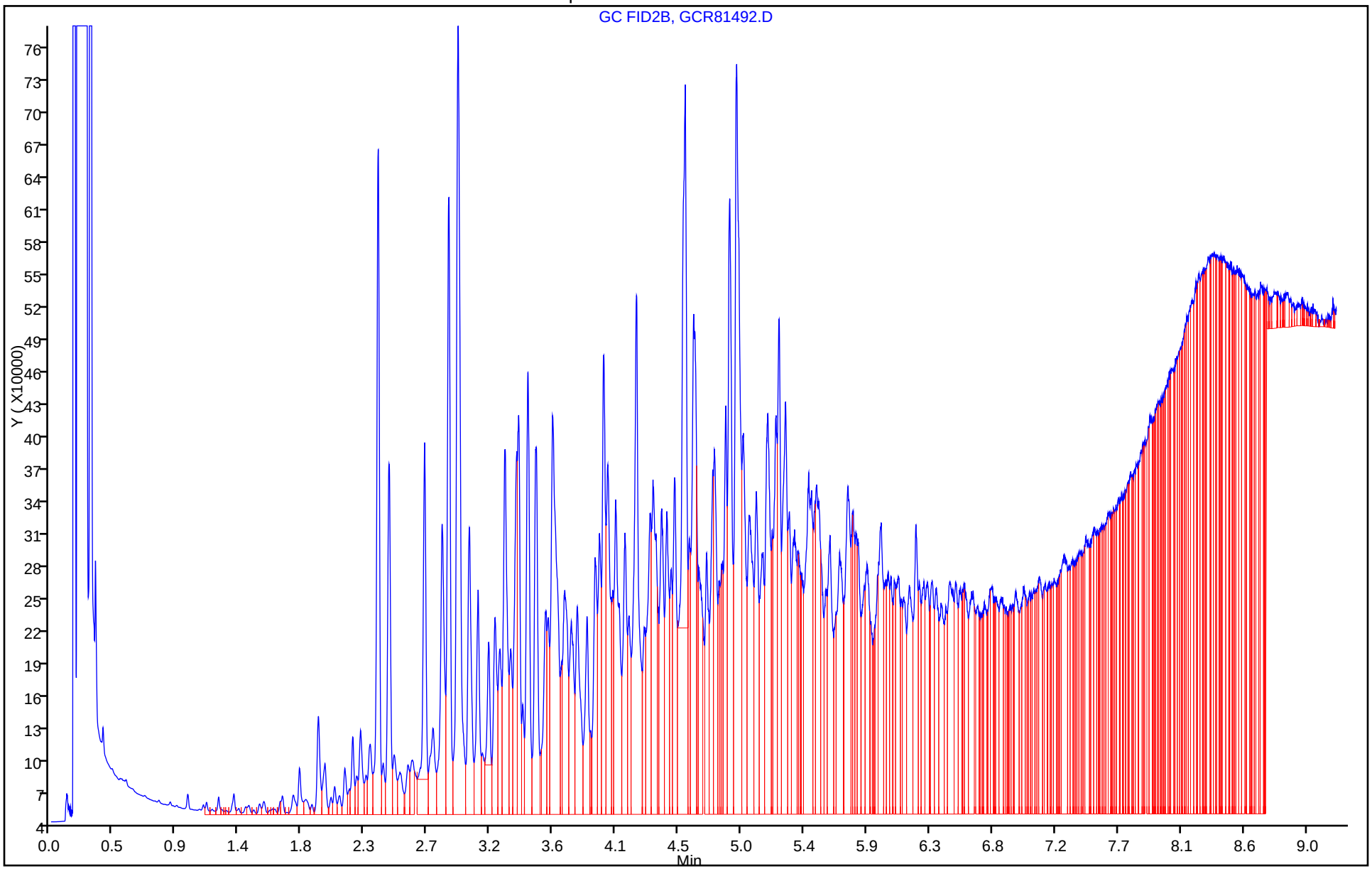
Column: Rtx-5MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 12-Dec-2013 13:27:29 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81492.D				
Injection Date:	11-Dec-2013 16:47:23	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	460-67815-D-2-A	Lab Sample ID:	460-67815-2	Worklist Smp#:	30
Client ID:	E-GP-E3 (10-15')				
Injection Vol:	1.0 ul	Dil. Factor:	10.0000	ALS Bottle#:	81
Method:	AREPH4R	Limit Group:	GC NJEPH ICAL		



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-E3 (10-15') | Lab Sample ID: 460-67815-2

Matrix: Solid | Lab File ID: GCF82890.D

Analysis Method: NJDEP EPH | Date Collected: 12/04/2013 14:30

Extraction Method: 3546 | Date Extracted: 12/10/2013 08:08

Sample wt/vol: 15.01(g) | Date Analyzed: 12/11/2013 16:47

Con. Extract Vol.: 10(mL) | Dilution Factor: 25

Injection Volume: 1(uL) | GC Column: Rtx-5MS ID: 0.25(mm)

% Moisture: 10.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196976 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00159	C12-C16 Aliphatics	4200		280	280
STL00191	C9-C12 Aliphatics	390		280	280
STL00950	C16-C21 Aliphatics	5100		280	280
STL01059	C21-C40 Aliphatics	19000		280	280

CAS NO.	SURROGATE	%REC	Q	LIMITS
3386-33-2	1-Chlorooctadecane	0	* D	40-140

TestAmerica Edison
Target Compound Quantitation Report

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82890.D				
Lims ID:	460-67815-D-2-A	Lab Sample ID:	460-67815-2		
Client ID:	E-GP-E3 (10-15')				
Sample Type:	Client				
Inject. Date:	11-Dec-2013 16:47:23	ALS Bottle#:	31	Worklist Smp#:	30
Injection Vol:	1.0 ul	Dil. Factor:	25.0000		
Sample Info:	460-0007678-030				
Operator ID:	615	Instrument ID:	CBNAGC4		
Method:	\\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\ALEPH4F.m				
Limit Group:	GC NJEPH ICAL				
Last Update:	12-Dec-2013 13:22:21	Calib Date:	19-Oct-2013 12:40:25		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\EDICHROM\ChromData\CBNAGC4\20131019-5877.b\GCF81323.D				
Column 1 :	Rtx-5MS (0.25 mm)	Detector	GC fid1a		
Process Host:	XAWRK048				
First Level Reviewer: nimerd		Date:	12-Dec-2013 13:21:21		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
A 1 C9-C12 Aliphatics	1.486	0.823 -	2.150	666743	21.2	
A 2 C12-C16 Aliphatics	2.977	2.150 -	3.805	7651273	224.3	
A 3 C16-C21 Aliphatics	4.537	3.805 -	5.269	9700264	277.1	
$ 6 o-Terphenyl		4.661				
$ 7 1-Chlorooctadecane		5.144				
A 4 C21-C40 Aliphatics	7.052	5.269 -	8.836	30285314	1017.8	

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81492.D
Lims ID: 460-67815-D-2-A Lab Sample ID: 460-67815-2
Client ID: E-GP-E3 (10-15')
Sample Type: Client
Inject. Date: 11-Dec-2013 16:47:23 ALS Bottle#: 81 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 10.0000
Sample Info: 460-0007679-030
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\AREPH4R.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:27:27 Calib Date: 18-Oct-2013 19:45:47
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131018-5853.b\GCR80352.D

Column 1 : Detector GC fid2b
Process Host: XAWRK048

First Level Reviewer: nimerd Date: 12-Dec-2013 13:26:37

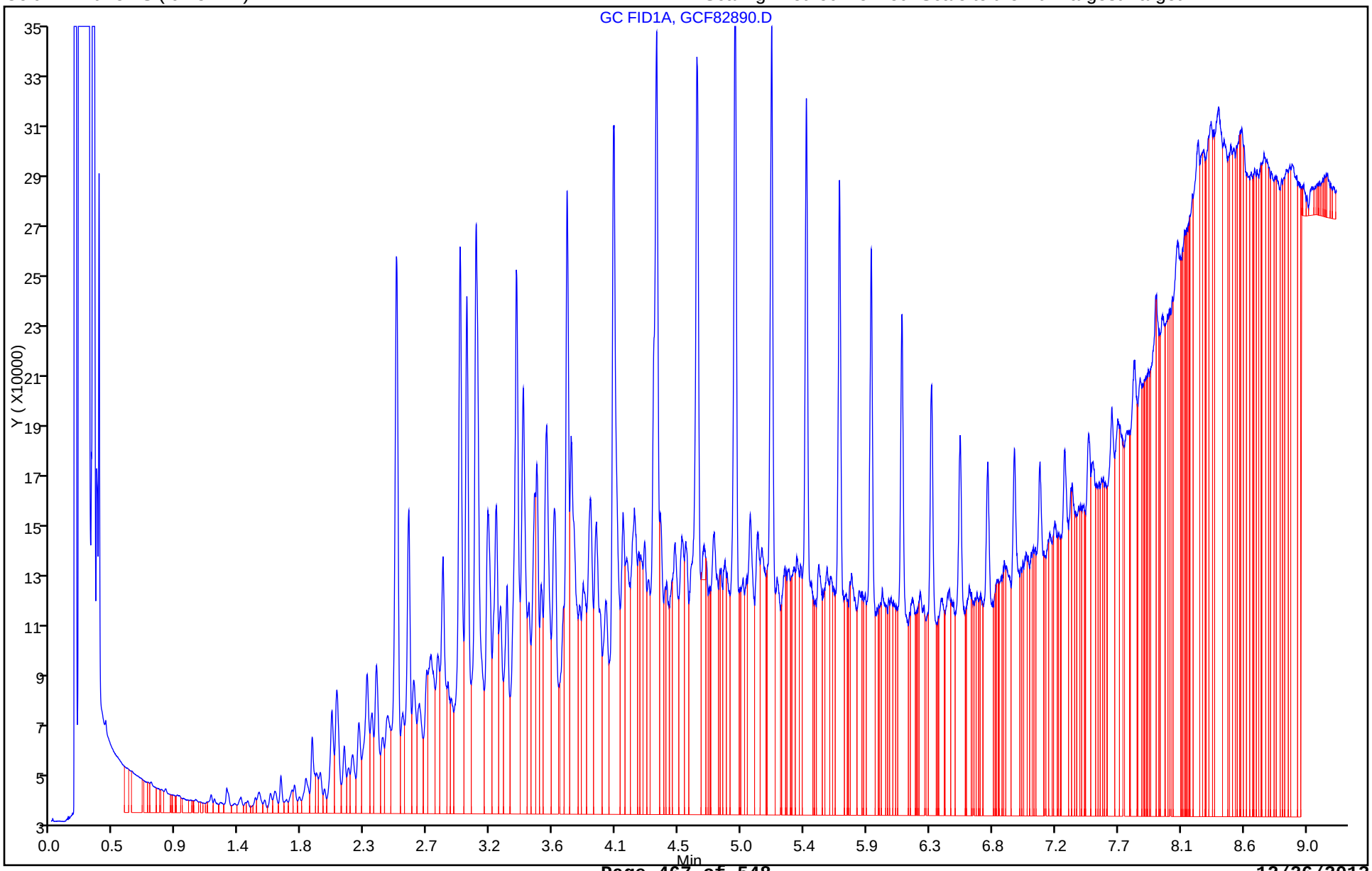
RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
A 2 C10-C12 Aromatics					
1.608	1.199 -	2.016	542747	14.1	
A 4 C12-C16 Aromatics					
2.651	2.016 -	3.286	8266500	210.5	
A 7 C16-C21 Aromatics					
4.260	3.286 -	5.234	27547192	666.1	
A 10 C21-C36 Aromatic					
6.411	5.234 -	7.587	30168821	866.2	

Report Date: 12-Dec-2013 13:22:24 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82890.D				
Injection Date:	11-Dec-2013 16:47:23	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	460-67815-D-2-A	Lab Sample ID:	460-67815-2	Worklist Smp#:	30
Client ID:	E-GP-E3 (10-15')				
Injection Vol:	1.0 ul	Dil. Factor:	25.0000	ALS Bottle#:	31
Method:	ALEPH4F	Limit Group:	GC NJEPH ICAL		

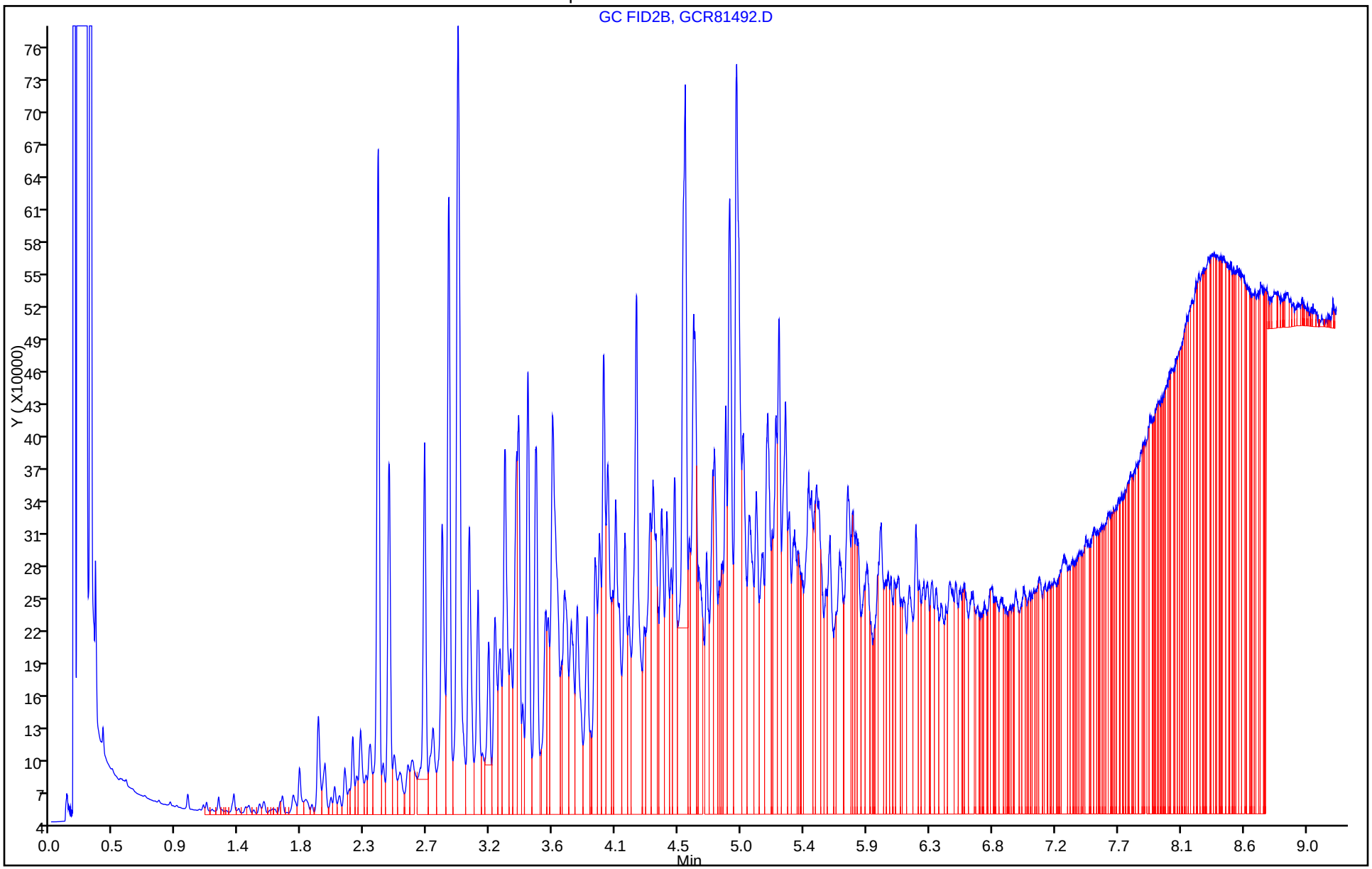
Column: Rtx-5MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 12-Dec-2013 13:27:29 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81492.D				
Injection Date:	11-Dec-2013 16:47:23	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	460-67815-D-2-A	Lab Sample ID:	460-67815-2	Worklist Smp#:	30
Client ID:	E-GP-E3 (10-15')				
Injection Vol:	1.0 ul	Dil. Factor:	10.0000	ALS Bottle#:	81
Method:	AREPH4R	Limit Group:	GC NJEPH ICAL		



FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 187306

SDG No.:

Instrument ID: CBNAGC4 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/18/2013 18:48 Calibration End Date: 10/18/2013 19:45 Calibration ID: 31017

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 460-187306/2	GCR80348.D
Level 2	STD2 460-187306/3	GCR80349.D
Level 3	STD3 460-187306/4	GCR80350.D
Level 4	STD4 460-187306/5	GCR80351.D
Level 5	STD5 460-187306/6	GCR80352.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
C10-C12 Aromatics	1.679	1.679	1.679	1.679	1.679						1.263 - 2.095	1.679
C12-C16 Aromatics	2.736	2.736	2.736	2.736	2.736						2.095 - 3.378	2.736
C16-C21 Aromatics	4.344	4.344	4.344	4.344	4.344						3.378 - 5.311	4.344
C21-C36 Aromatic	6.483	6.483	6.483	6.483	6.483						5.311 - 7.656	6.483
2-Fluorobiphenyl	2.775	2.774	2.775	2.775	2.777						2.725 - 2.825	2.775
2-Bromonaphthalene	3.233	3.231	3.233	3.234	3.236						3.183 - 3.283	3.233
o-Terphenyl	4.584	4.584	4.585	4.585	4.584						4.535 - 4.635	4.584

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 187306

SDG No.:

Instrument ID: CBNAGC4 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/18/2013 18:48 Calibration End Date: 10/18/2013 19:45 Calibration ID: 31017

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 460-187306/2	GCR80348.D
Level 2	STD2 460-187306/3	GCR80349.D
Level 3	STD3 460-187306/4	GCR80350.D
Level 4	STD4 460-187306/5	GCR80351.D
Level 5	STD5 460-187306/6	GCR80352.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
C10-C12 Aromatics	40211 33885	41710	38878	38347	Ave		38606.1130				7.6		25.0			
C12-C16 Aromatics	41356 34163	43192	39145	38488	Ave		39268.8663				8.7		25.0			
C16-C21 Aromatics	48989 34331	46668	39059	37738	Ave		41356.8578				15.0		25.0			
C21-C36 Aromatic	38372 32580	36395	33093	33706	Ave		34829.2534				7.1		25.0			
2-Fluorobiphenyl	47583 42626	51394	48908	48315	Ave		47765.2900				6.7		25.0			
2-Bromonaphthalene	24887 22808	27248	25973	25645	Ave		25312.1380				6.5		25.0			
o-Terphenyl	38150 33809	41542	38739	38418	Ave		38131.9570				7.3		25.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 187306

SDG No.:

Instrument ID: CBNAGC4 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/18/2013 18:48 Calibration End Date: 10/18/2013 19:45 Calibration ID: 31017

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 460-187306/2	GCR80348.D
Level 2	STD2 460-187306/3	GCR80349.D
Level 3	STD3 460-187306/4	GCR80350.D
Level 4	STD4 460-187306/5	GCR80351.D
Level 5	STD5 460-187306/6	GCR80352.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
C10-C12 Aromatics	Ave	603165	1251288	5831724	11504076	20330931	15.0	30.0	150	300	600
C12-C16 Aromatics	Ave	827127	1727682	7828974	15395051	27330747	20.0	40.0	200	400	800
C16-C21 Aromatics	Ave	1469677	2800064	11717610	22642649	41197049	30.0	60.0	300	600	1200
C21-C36 Aromatic	Ave	1726729	3275589	14892065	30335336	58643409	45.0	90.0	450	900	1800
2-Fluorobiphenyl	Ave	237917	513937	2445420	4831512	8525166	5.00	10.0	50.0	100	200
2-Bromonaphthalene	Ave	124434	272480	1298637	2564508	4561614	5.00	10.0	50.0	100	200
o-Terphenyl	Ave	190752	415423	1936963	3841839	6761887	5.00	10.0	50.0	100	200

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 187431

SDG No.:

Instrument ID: CBNAGC4 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/19/2013 11:41 Calibration End Date: 10/19/2013 12:40 Calibration ID: 31026

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 460-187431/2	GCF81319.D
Level 2	STD2 460-187431/3	GCF81320.D
Level 3	STD3 460-187431/4	GCF81321.D
Level 4	STD4 460-187431/5	GCF81322.D
Level 5	STD5 460-187431/6	GCF81323.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
C9-C12 Aliphatics	1.529	1.529	1.529	1.529	1.529						0.866 - 2.192	1.529
C12-C16 Aliphatics	3.018	3.018	3.018	3.018	3.018						2.192 - 3.844	3.018
C16-C21 Aliphatics	4.570	4.570	4.570	4.570	4.570						3.844 - 5.296	4.570
Total EPH (C9-C40)	4.850	4.850	4.850	4.850	4.850						0.866 - 8.835	4.850
C21-C40 Aliphatics	7.065	7.065	7.065	7.065	7.065						5.296 - 8.835	7.065
o-Terphenyl	4.705	4.707	4.706	4.706	4.707						4.656 - 4.756	4.706
1-Chlorooctadecane	5.174	5.175	5.174	5.176	5.174						5.124 - 5.224	5.175

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 187431

SDG No.:

Instrument ID: CBNAGC4 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/19/2013 11:41 Calibration End Date: 10/19/2013 12:40 Calibration ID: 31026

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 460-187431/2	GCF81319.D
Level 2	STD2 460-187431/3	GCF81320.D
Level 3	STD3 460-187431/4	GCF81321.D
Level 4	STD4 460-187431/5	GCF81322.D
Level 5	STD5 460-187431/6	GCF81323.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
C9-C12 Aliphatics	31780 28494	37153	30832	28879	Ave		31427.3497				11.0		25.0			
C12-C16 Aliphatics	40570 29443	38397	32329	29857	Ave		34119.1945				15.0		25.0			
C16-C21 Aliphatics	41530 31561	41705	30100	30109	Ave		35000.9805				17.0		25.0			
Total EPH (C9-C40)	37364 29380	38196	30589	29604	Ave		33026.6182				13.0		25.0			
C21-C40 Aliphatics	35313 26375	32592	27573	26926	Ave		29755.7191				13.0		25.0			
o-Terphenyl	34068 26098	39926	31648	29961	Ave		32340.2310				16.0		25.0			
1-Chlorooctadecane	27583 24104	32898	27914	26438	Ave		27787.2360				12.0		25.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Edison Job No.: 460-67815-1 Analy Batch No.: 187431

SDG No.:

Instrument ID: CBNAGC4 GC Column: Rtx-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/19/2013 11:41 Calibration End Date: 10/19/2013 12:40 Calibration ID: 31026

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 460-187431/2	GCF81319.D
Level 2	STD2 460-187431/3	GCF81320.D
Level 3	STD3 460-187431/4	GCF81321.D
Level 4	STD4 460-187431/5	GCF81322.D
Level 5	STD5 460-187431/6	GCF81323.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
C9-C12 Aliphatics	Ave	476700	1114577	4624776	8663595	17096215	15.0	30.0	150	300	600
C12-C16 Aliphatics	Ave	405699	767931	3232896	5971486	11777253	10.0	20.0	100	200	400
C16-C21 Aliphatics	Ave	830598	1668195	6019967	12043613	25249008	20.0	40.0	200	400	800
Total EPH (C9-C40)	Ave	3549614	7257294	29059638	56247139	111642476	95.0	190	950	1900	3800
C21-C40 Aliphatics	Ave	1765650	3259246	13786307	26925615	52749813	50.0	100	500	1000	2000
o-Terphenyl	Ave	170340	399258	1582381	2996135	5219677	5.00	10.0	50.0	100	200
1-Chlorooctadecane	Ave	137914	328978	1395692	2643771	4820806	5.00	10.0	50.0	100	200

Curve Type Legend:
Ave = Average

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196980/2 Calibration Date: 12/11/2013 08:20

Instrument ID: CBNAGC4 Calib Start Date: 10/18/2013 18:48

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 10/18/2013 19:45

Lab File ID: GCR81464.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
C10-C12 Aromatics	Ave	38606	38543		150	150	-0.2	25.0
C12-C16 Aromatics	Ave	39269	39193		200	200	-0.2	25.0
C16-C21 Aromatics	Ave	41357	39004		283	300	-5.7	25.0
C21-C36 Aromatic	Ave	34829	35179		455	450	1.0	25.0
2-Fluorobiphenyl	Ave	47765	47797		50.0	50.0	0.0	25.0
2-Bromonaphthalene	Ave	25312	25447		50.3	50.0	0.5	25.0
o-Terphenyl	Ave	38132	39267		51.5	50.0	3.0	25.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196980/2 Calibration Date: 12/11/2013 08:20

Instrument ID: CBNAGC4 Calib Start Date: 10/18/2013 18:48

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 10/18/2013 19:45

Lab File ID: GCR81464.D

Analyte	RT	RT WINDOW	
		FROM	TO
C10-C12 Aromatics	1.61	1.20	2.02
C12-C16 Aromatics	2.65	2.02	3.29
C16-C21 Aromatics	4.26	3.29	5.23
C21-C36 Aromatic	6.41	5.23	7.58
2-Fluorobiphenyl	2.68	2.63	2.73
2-Bromonaphthalene	3.14	3.09	3.19
o-Terphenyl	4.51	4.46	4.56

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196976/2 Calibration Date: 12/11/2013 08:20

Instrument ID: CBNAGC4 Calib Start Date: 10/19/2013 11:41

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 10/19/2013 12:40

Lab File ID: GCF82862.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
C9-C12 Aliphatics	Ave	31427	29223		139	150	-7.0	25.0
C12-C16 Aliphatics	Ave	34119	30464		89.3	100	-10.7	25.0
C16-C21 Aliphatics	Ave	35001	30991		177	200	-11.5	25.0
Total EPH (C9-C40)	Ave	33027	29854		859	950	-9.6	25.0
C21-C40 Aliphatics	Ave	29756	29283		492	500	-1.6	25.0
o-Terphenyl	Ave	32340	31505		48.7	50.0	-2.6	25.0
1-Chlorooctadecane	Ave	27787	27652		49.8	50.0	-0.5	25.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196976/2 Calibration Date: 12/11/2013 08:20

Instrument ID: CBNAGC4 Calib Start Date: 10/19/2013 11:41

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 10/19/2013 12:40

Lab File ID: GCF82862.D

Analyte	RT	RT WINDOW	
		FROM	TO
C9-C12 Aliphatics	1.49	0.82	2.15
C12-C16 Aliphatics	2.98	2.15	3.81
C16-C21 Aliphatics	4.54	3.81	5.27
Total EPH (C9-C40)	4.83	0.82	8.84
C21-C40 Aliphatics	7.05	5.27	8.84
o-Terphenyl	4.66	4.61	4.71
1-Chlorooctadecane	5.14	5.09	5.19

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196980/28 Calibration Date: 12/11/2013 16:17

Instrument ID: CBNAGC4 Calib Start Date: 10/18/2013 18:48

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 10/18/2013 19:45

Lab File ID: GCR81490.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
C10-C12 Aromatics	Ave	38606	37269		145	150	-3.5	25.0
C12-C16 Aromatics	Ave	39269	37946		193	200	-3.4	25.0
C16-C21 Aromatics	Ave	41357	38201		277	300	-7.6	25.0
C21-C36 Aromatic	Ave	34829	35937		464	450	3.2	25.0
2-Fluorobiphenyl	Ave	47765	46542		48.7	50.0	-2.6	25.0
2-Bromonaphthalene	Ave	25312	25082		49.5	50.0	-0.9	25.0
o-Terphenyl	Ave	38132	37922		49.7	50.0	-0.5	25.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196980/28 Calibration Date: 12/11/2013 16:17

Instrument ID: CBNAGC4 Calib Start Date: 10/18/2013 18:48

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 10/18/2013 19:45

Lab File ID: GCR81490.D

Analyte	RT	RT WINDOW	
		FROM	TO
C10-C12 Aromatics	1.61	1.20	2.02
C12-C16 Aromatics	2.65	2.02	3.29
C16-C21 Aromatics	4.26	3.29	5.23
C21-C36 Aromatic	6.41	5.23	7.59
2-Fluorobiphenyl	2.68	2.63	2.73
2-Bromonaphthalene	3.14	3.09	3.19
o-Terphenyl	4.51	4.46	4.56

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196976/28 Calibration Date: 12/11/2013 16:17

Instrument ID: CBNAGC4 Calib Start Date: 10/19/2013 11:41

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 10/19/2013 12:40

Lab File ID: GCF82888.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
C9-C12 Aliphatics	Ave	31427	29803		142	150	-5.2	25.0
C12-C16 Aliphatics	Ave	34119	30872		90.5	100	-9.5	25.0
C16-C21 Aliphatics	Ave	35001	31065		178	200	-11.2	25.0
Total EPH (C9-C40)	Ave	33027	31314		901	950	-5.2	25.0
C21-C40 Aliphatics	Ave	29756	31955		537	500	7.4	25.0
o-Terphenyl	Ave	32340	32009		49.5	50.0	-1.0	25.0
1-Chlorooctadecane	Ave	27787	29147		52.4	50.0	4.9	25.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196976/28 Calibration Date: 12/11/2013 16:17

Instrument ID: CBNAGC4 Calib Start Date: 10/19/2013 11:41

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 10/19/2013 12:40

Lab File ID: GCF82888.D

Analyte	RT	RT WINDOW	
		FROM	TO
C9-C12 Aliphatics	1.49	0.82	2.15
C12-C16 Aliphatics	2.98	2.15	3.81
C16-C21 Aliphatics	4.54	3.81	5.27
Total EPH (C9-C40)	4.83	0.82	8.84
C21-C40 Aliphatics	7.05	5.27	8.84
o-Terphenyl	4.66	4.61	4.71
1-Chlorooctadecane	5.14	5.09	5.19

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196980/32 Calibration Date: 12/11/2013 17:16

Instrument ID: CBNAGC4 Calib Start Date: 10/18/2013 18:48

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 10/18/2013 19:45

Lab File ID: GCR81494.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
C10-C12 Aromatics	Ave	38606	36545		142	150	-5.3	25.0
C12-C16 Aromatics	Ave	39269	37544		191	200	-4.4	25.0
C16-C21 Aromatics	Ave	41357	37885		275	300	-8.4	25.0
C21-C36 Aromatic	Ave	34829	36084		466	450	3.6	25.0
2-Fluorobiphenyl	Ave	47765	46092		48.2	50.0	-3.5	25.0
2-Bromonaphthalene	Ave	25312	24753		48.9	50.0	-2.2	25.0
o-Terphenyl	Ave	38132	37491		49.2	50.0	-1.7	25.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196980/32 Calibration Date: 12/11/2013 17:16

Instrument ID: CBNAGC4 Calib Start Date: 10/18/2013 18:48

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 10/18/2013 19:45

Lab File ID: GCR81494.D

Analyte	RT	RT WINDOW	
		FROM	TO
C10-C12 Aromatics	1.61	1.20	2.02
C12-C16 Aromatics	2.65	2.02	3.29
C16-C21 Aromatics	4.26	3.29	5.23
C21-C36 Aromatic	6.41	5.23	7.59
2-Fluorobiphenyl	2.68	2.63	2.73
2-Bromonaphthalene	3.14	3.09	3.19
o-Terphenyl	4.51	4.46	4.56

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196976/32 Calibration Date: 12/11/2013 17:16

Instrument ID: CBNAGC4 Calib Start Date: 10/19/2013 11:41

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 10/19/2013 12:40

Lab File ID: GCF82892.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
C9-C12 Aliphatics	Ave	31427	29369		140	150	-6.6	25.0
C12-C16 Aliphatics	Ave	34119	30442		89.2	100	-10.8	25.0
C16-C21 Aliphatics	Ave	35001	30247		173	200	-13.6	25.0
Total EPH (C9-C40)	Ave	33027	29960		862	950	-9.3	25.0
C21-C40 Aliphatics	Ave	29756	29927		503	500	0.6	25.0
o-Terphenyl	Ave	32340	32318		50.0	50.0	-0.0	25.0
1-Chlorooctadecane	Ave	27787	28687		51.6	50.0	3.2	25.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Lab Sample ID: CCV 460-196976/32 Calibration Date: 12/11/2013 17:16

Instrument ID: CBNAGC4 Calib Start Date: 10/19/2013 11:41

GC Column: Rtx-5MS ID: 0.25(mm) Calib End Date: 10/19/2013 12:40

Lab File ID: GCF82892.D

Analyte	RT	RT WINDOW	
		FROM	TO
C9-C12 Aliphatics	1.49	0.82	2.15
C12-C16 Aliphatics	2.98	2.15	3.81
C16-C21 Aliphatics	4.54	3.81	5.27
Total EPH (C9-C40)	4.83	0.82	8.84
C21-C40 Aliphatics	7.05	5.27	8.84
o-Terphenyl	4.66	4.61	4.71
1-Chlorooctadecane	5.15	5.09	5.19

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 460-196763/1-A
Matrix: Solid
Lab File ID: GCF82863.D
Analysis Method: NJDEP EPH
Date Collected:
Extraction Method: 3546
Date Extracted: 12/10/2013 08:08
Sample wt/vol: 15.00(g)
Date Analyzed: 12/11/2013 08:35
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Rtx-5MS ID: 0.25(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196976
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00159	C12-C16 Aliphatics	2.0	U	2.0	2.0
STL00191	C9-C12 Aliphatics	2.0	U	2.0	2.0
STL00950	C16-C21 Aliphatics	2.0	U	2.0	2.0
STL01059	C21-C40 Aliphatics	2.0	U	2.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
3386-33-2	1-Chlorooctadecane	75		40-140

Report Date: 12-Dec-2013 13:21:56 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82863.D
Lims ID: MB 460-196763/1-A Lab Sample ID: MB 460-196763/1-A
Client ID:
Sample Type: MB
Inject. Date: 11-Dec-2013 08:35:23 ALS Bottle#: 6 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007678-003
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\ALEPH4F.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:21:54 Calib Date: 19-Oct-2013 12:40:25
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131019-5877.b\GCF81323.D

Column 1 : Rtx-5MS (0.25 mm) Detector GC fid1a
Process Host: XAWRK048

First Level Reviewer: nimerd Date: 12-Dec-2013 13:12:09

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
8 n-Nonane	0.925	0.923	0.002	7553	0	
A 1 C9-C12 Aliphatics		0.823	2.150			
9 Dodecane	2.051	2.050	0.001	12956	0	
A 2 C12-C16 Aliphatics		2.150	3.805			
10 Hexadecane	3.706	3.705	0.001	67542	0	
A 3 C16-C21 Aliphatics		3.805	5.269			
$ 6 o-Terphenyl		4.661				
A 5 C9-C40		0.823	8.836			
$ 7 1-Chlorooctadecane	5.147	5.144	0.003	1044830	37.6	
11 C21	5.215	5.169	0.046	67	0	
A 4 C21-C40 Aliphatics		5.269	8.836			
12 C40	8.729	8.736	-0.007	57029	0	

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81465.D
Lims ID: MB 460-196763/1-A Lab Sample ID: MB 460-196763/1-A
Client ID:
Sample Type: MB
Inject. Date: 11-Dec-2013 08:35:23 ALS Bottle#: 56 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007679-003
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\AREPH4R.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:27:01 Calib Date: 18-Oct-2013 19:45:47
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131018-5853.b\GCR80352.D

Column 1 : Detector GC fid2b
Process Host: XAWRK048

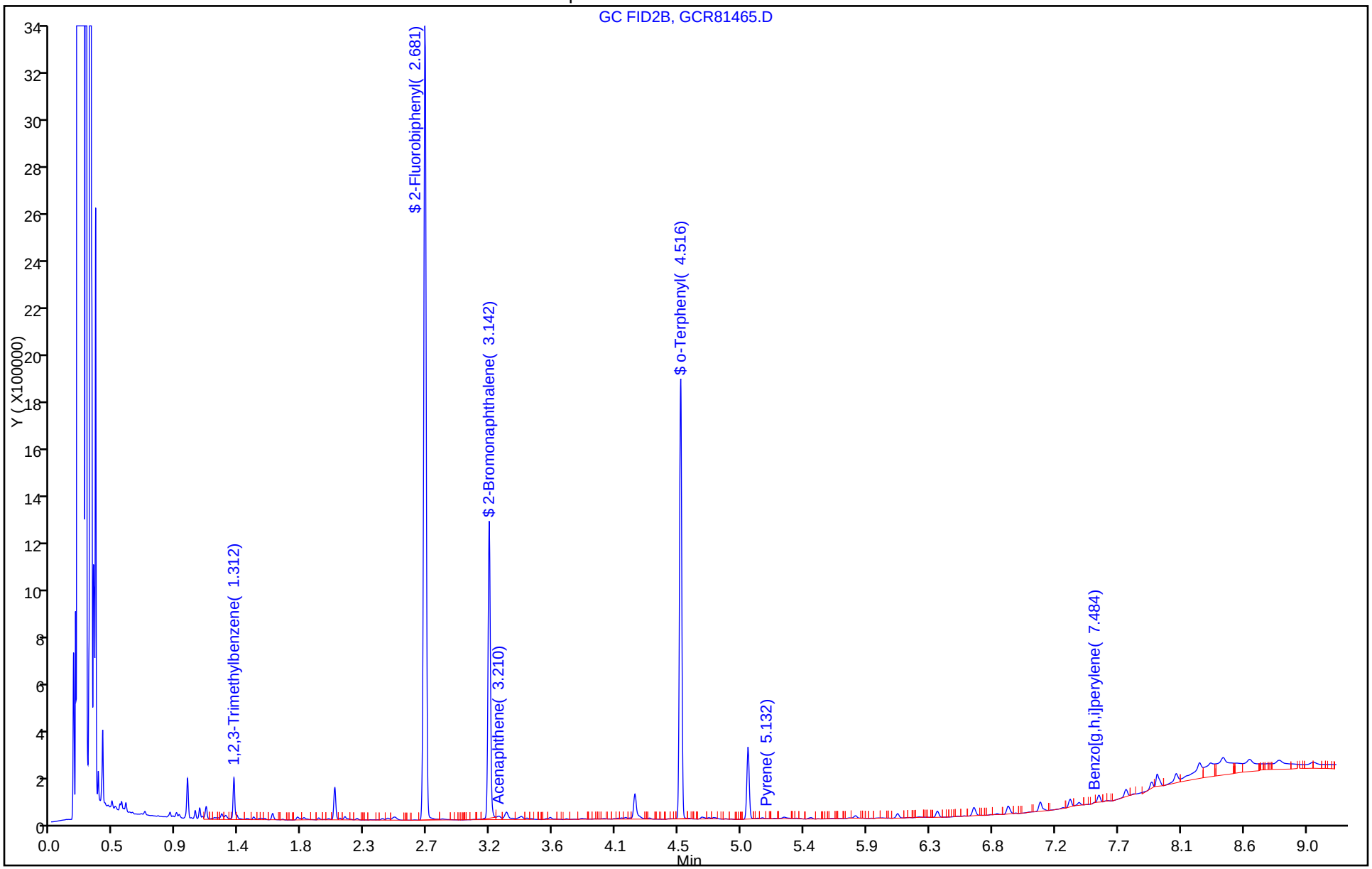
First Level Reviewer: nimerd Date: 12-Dec-2013 13:23:15

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
1 1,2,3-Trimethylbenzene					
1.312	1.301	0.011	152992	0	
$ 3 2-Fluorobiphenyl					
2.681	2.681	0.0	4194886	87.8	
$ 5 2-Bromonaphthalene					
3.142	3.141	0.001	1497766	59.2	
6 Acenaphthene					
3.210	3.188	0.022	30334	0	
$ 8 o-Terphenyl					
4.516	4.514	0.002	2127059	55.8	
9 Pyrene					
5.132	5.134	-0.002	668	0	
11 Benzo[g,h,i]perylene					
7.484	7.484	0.0	2166	0	

Report Date: 12-Dec-2013 13:27:02 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81465.D				
Injection Date:	11-Dec-2013 08:35:23	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	MB 460-196763/1-A	Lab Sample ID:	MB 460-196763/1-A	Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	56
Method:	AREPH4R	Limit Group:	GC NJEPH ICAL		

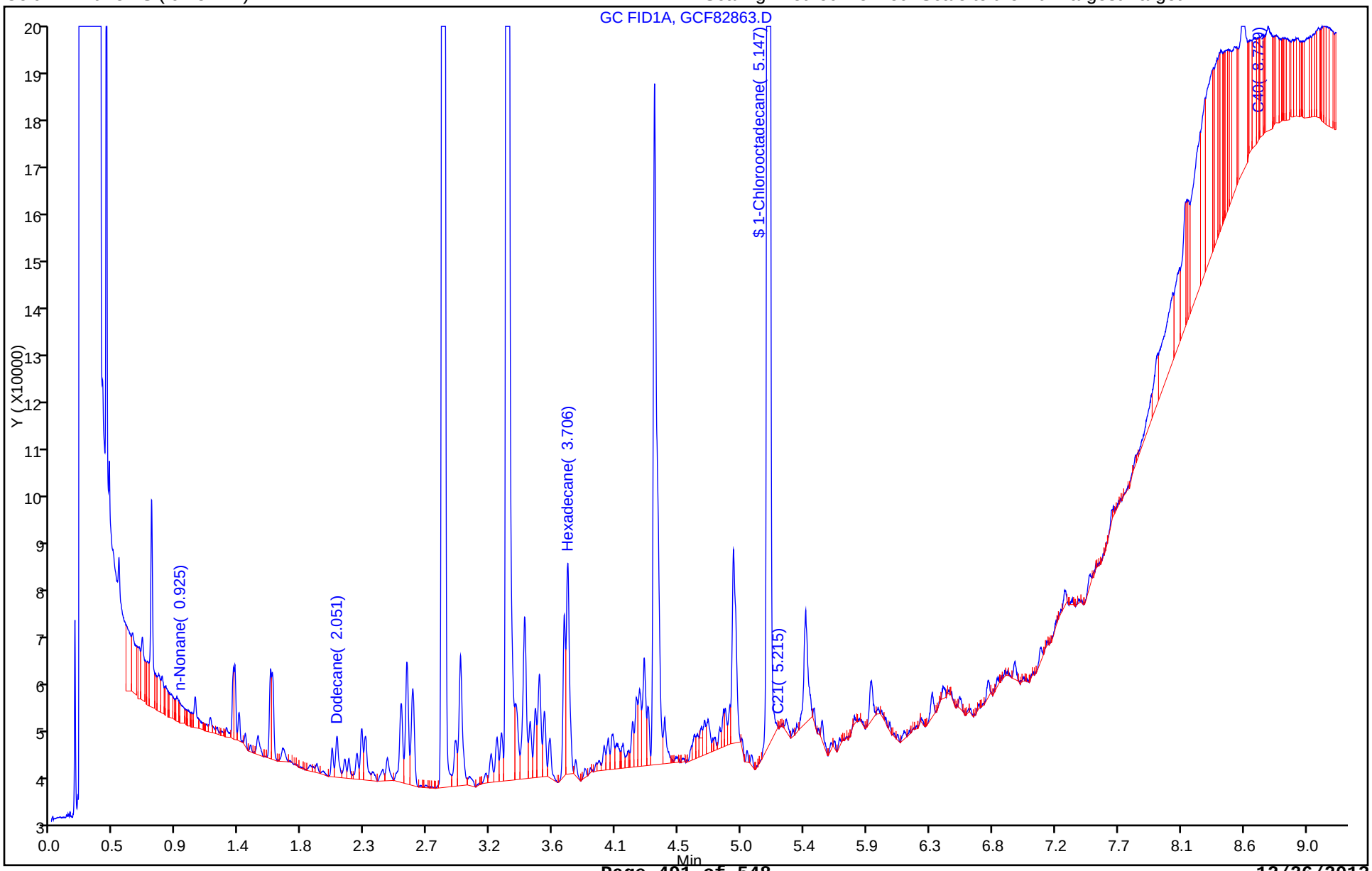


Report Date: 12-Dec-2013 13:21:56 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82863.D				
Injection Date:	11-Dec-2013 08:35:23	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	MB 460-196763/1-A	Lab Sample ID:	MB 460-196763/1-A	Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	ALEPH4F	Limit Group:	GC NJEPH ICAL		

Column: Rtx-5MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 460-196763/1-A

Matrix: Solid | Lab File ID: GCR81465.D

Analysis Method: NJDEP EPH | Date Collected:

Extraction Method: 3546 | Date Extracted: 12/10/2013 08:08

Sample wt/vol: 15.00(g) | Date Analyzed: 12/11/2013 08:35

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rtx-5MS ID: 0.25(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196980 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00004	C16-C21 Aromatics	2.0	U	2.0	2.0
STL00011	C10-C12 Aromatics	2.0	U	2.0	2.0
STL00266	C12-C16 Aromatics	2.0	U	2.0	2.0
STL01060	C21-C36 Aromatic	2.0	U	2.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	112		40-140
321-60-8	2-Fluorobiphenyl	88		40-140
580-13-2	2-Bromonaphthalene	59		40-140

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82863.D
Lims ID: MB 460-196763/1-A Lab Sample ID: MB 460-196763/1-A
Client ID:
Sample Type: MB
Inject. Date: 11-Dec-2013 08:35:23 ALS Bottle#: 6 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007678-003
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\ALEPH4F.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:21:54 Calib Date: 19-Oct-2013 12:40:25
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131019-5877.b\GCF81323.D

Column 1 : Rtx-5MS (0.25 mm) Detector GC fid1a
Process Host: XAWRK048

First Level Reviewer: nimerd Date: 12-Dec-2013 13:12:09

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
8 n-Nonane	0.925	0.923	0.002	7553	0	
A 1 C9-C12 Aliphatics		0.823	2.150			
9 Dodecane	2.051	2.050	0.001	12956	0	
A 2 C12-C16 Aliphatics		2.150	3.805			
10 Hexadecane	3.706	3.705	0.001	67542	0	
A 3 C16-C21 Aliphatics		3.805	5.269			
$ 6 o-Terphenyl		4.661				
A 5 C9-C40		0.823	8.836			
$ 7 1-Chlorooctadecane	5.147	5.144	0.003	1044830	37.6	
11 C21	5.215	5.169	0.046	67	0	
A 4 C21-C40 Aliphatics		5.269	8.836			
12 C40	8.729	8.736	-0.007	57029	0	

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81465.D
Lims ID: MB 460-196763/1-A Lab Sample ID: MB 460-196763/1-A
Client ID:
Sample Type: MB
Inject. Date: 11-Dec-2013 08:35:23 ALS Bottle#: 56 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007679-003
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\AREPH4R.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:27:01 Calib Date: 18-Oct-2013 19:45:47
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131018-5853.b\GCR80352.D

Column 1 : Detector GC fid2b
Process Host: XAWRK048

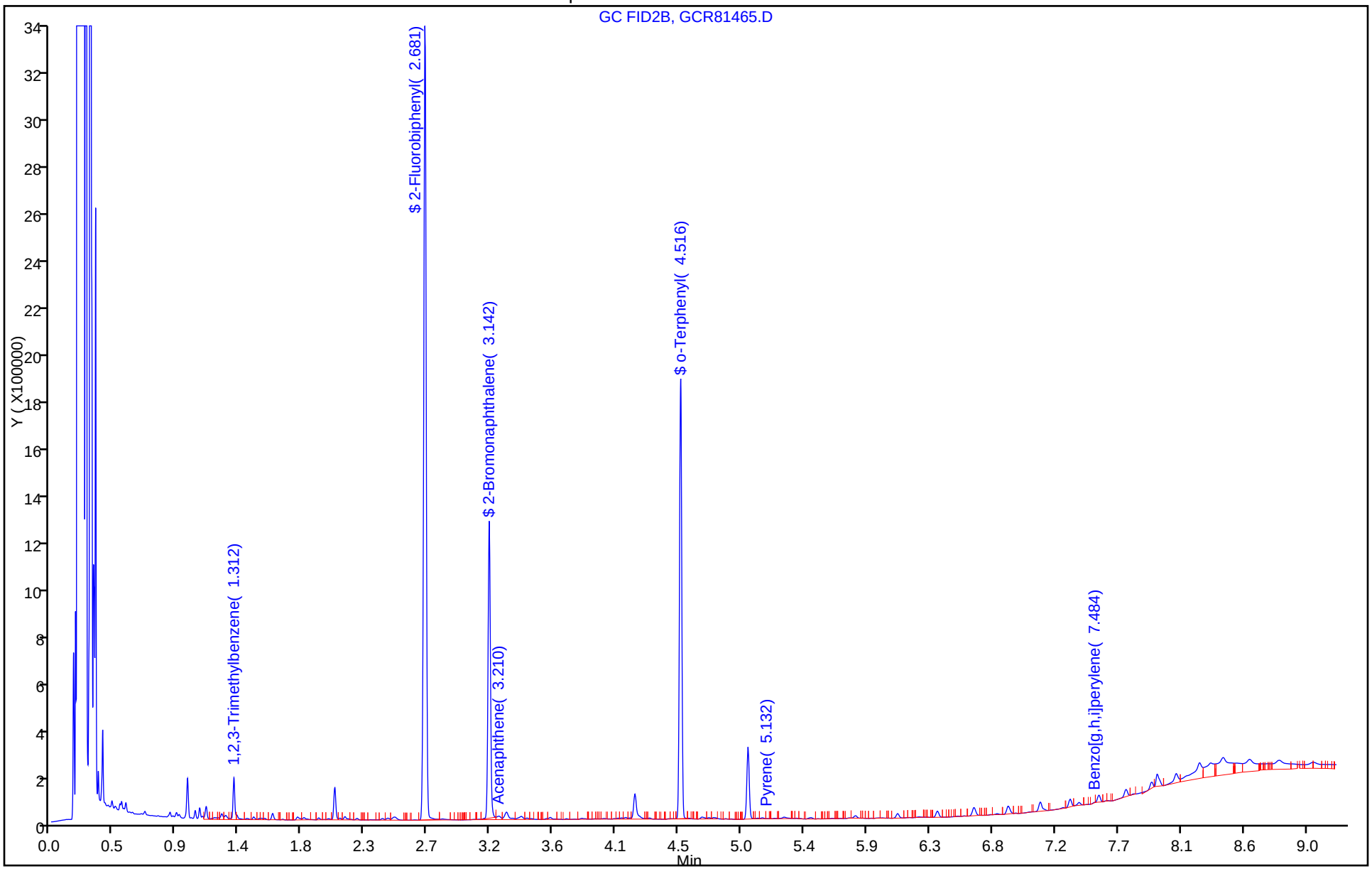
First Level Reviewer: nimerd Date: 12-Dec-2013 13:23:15

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
1 1,2,3-Trimethylbenzene					
1.312	1.301	0.011	152992	0	
$ 3 2-Fluorobiphenyl					
2.681	2.681	0.0	4194886	87.8	
$ 5 2-Bromonaphthalene					
3.142	3.141	0.001	1497766	59.2	
6 Acenaphthene					
3.210	3.188	0.022	30334	0	
$ 8 o-Terphenyl					
4.516	4.514	0.002	2127059	55.8	
9 Pyrene					
5.132	5.134	-0.002	668	0	
11 Benzo[g,h,i]perylene					
7.484	7.484	0.0	2166	0	

Report Date: 12-Dec-2013 13:27:02 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81465.D				
Injection Date:	11-Dec-2013 08:35:23	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	MB 460-196763/1-A	Lab Sample ID:	MB 460-196763/1-A	Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	56
Method:	AREPH4R	Limit Group:	GC NJEPH ICAL		

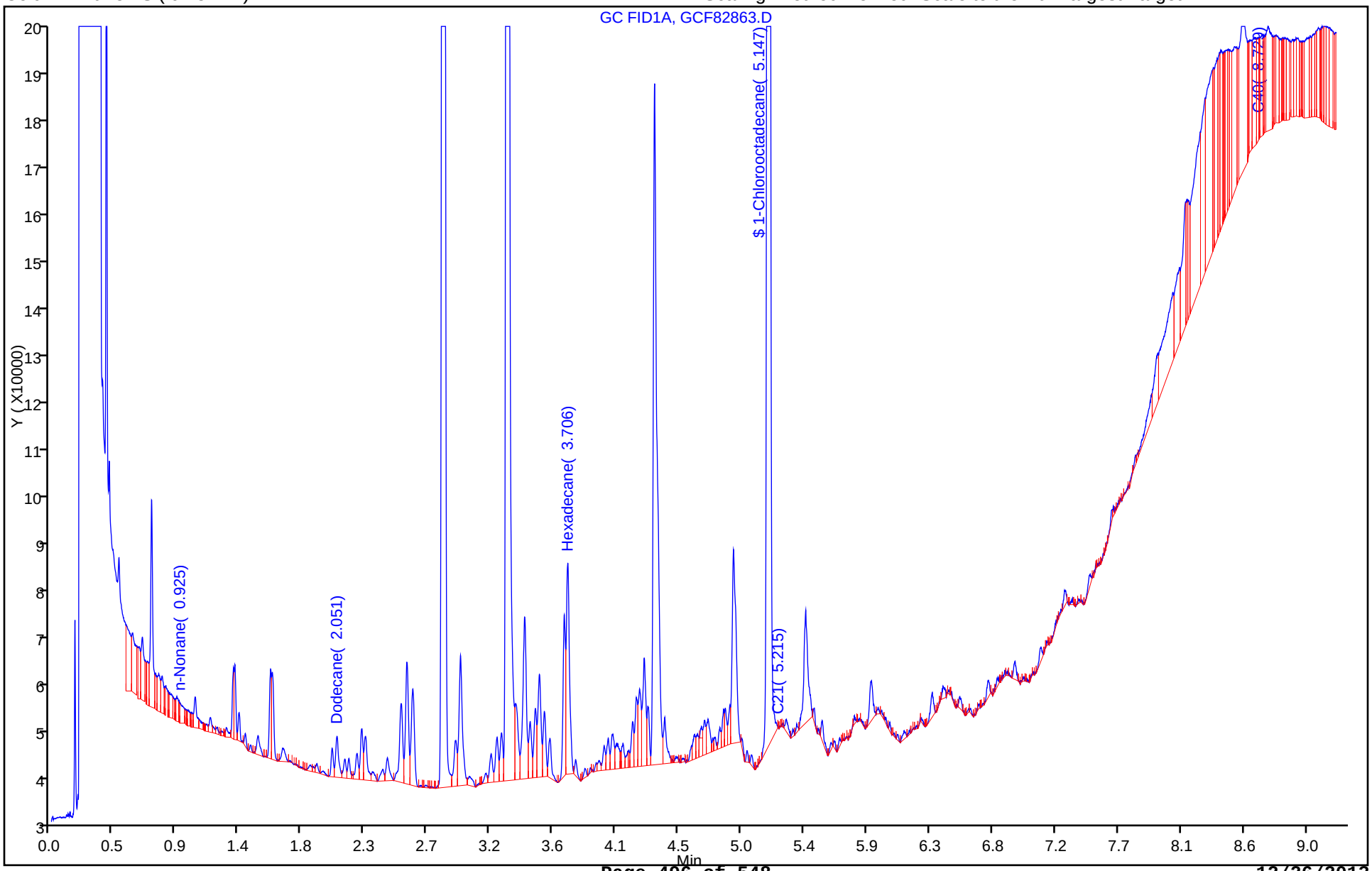


Report Date: 12-Dec-2013 13:21:56 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82863.D				
Injection Date:	11-Dec-2013 08:35:23	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	MB 460-196763/1-A	Lab Sample ID:	MB 460-196763/1-A	Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	ALEPH4F	Limit Group:	GC NJEPH ICAL		

Column: Rtx-5MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: PIBLK 460-196976/1

Matrix: Solid | Lab File ID: GCF82861.D

Analysis Method: NJDEP EPH | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 2(mL) | Date Analyzed: 12/11/2013 08:05

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rtx-5MS ID: 0.25(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196976 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00159	C12-C16 Aliphatics	0.10	U	0.10	0.10
STL00191	C9-C12 Aliphatics	0.10	U	0.10	0.10
STL00950	C16-C21 Aliphatics	0.10	U	0.10	0.10
STL01059	C21-C40 Aliphatics	0.10	U	0.10	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	105		40-140
3386-33-2	1-Chlorooctadecane	94		40-140

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82861.D
Lims ID: PIBLK Lab Sample ID: PIBLK 460-196976/1-A
Client ID:
Sample Type: PIBLK
Inject. Date: 11-Dec-2013 08:05:37 ALS Bottle#: 4 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007678-001
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\ALEPH4F.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:21:52 Calib Date: 19-Oct-2013 12:40:25
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131019-5877.b\GCF81323.D

Column 1 : Rtx-5MS (0.25 mm) Detector GC fid1a
Process Host: XAWRK048

First Level Reviewer: nimerd Date: 12-Dec-2013 13:11:57

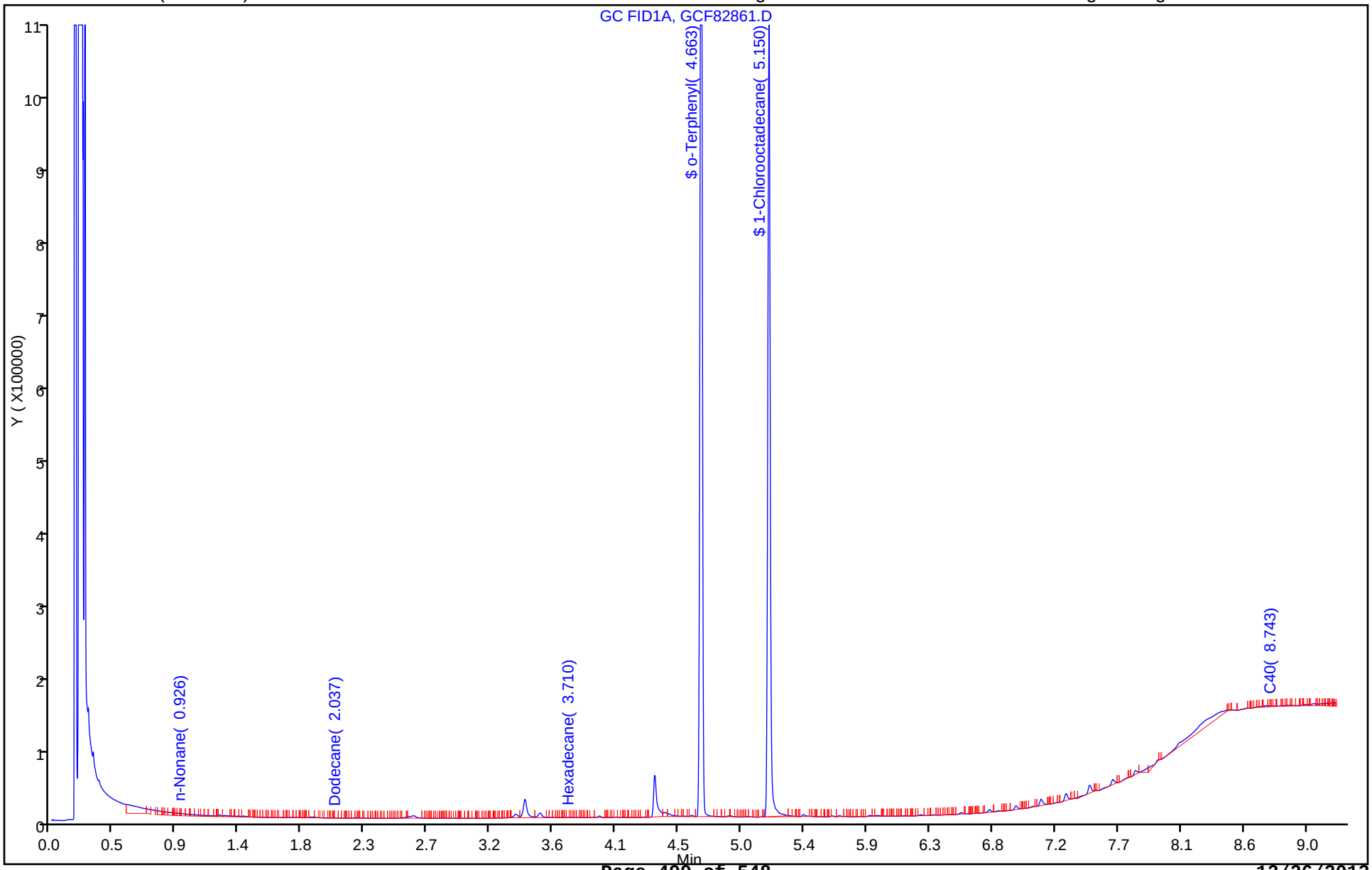
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
8 n-Nonane	0.926	0.923	0.003	1802	0	
A 1 C9-C12 Aliphatics		0.823	2.150			
9 Dodecane	2.037	2.050	-0.013	278	0	
A 2 C12-C16 Aliphatics		2.150	3.805			
10 Hexadecane	3.710	3.705	0.005	327	0	
A 3 C16-C21 Aliphatics		3.805	5.269			
$ 6 o-Terphenyl	4.663	4.661	0.002	1703331	52.7	
A 5 C9-C40		0.823	8.836			
$ 7 1-Chlorooctadecane	5.150	5.144	0.006	1304533	46.9	
11 C21		5.169				
A 4 C21-C40 Aliphatics		5.269	8.836			
12 C40	8.743	8.736	0.007	435	0	

Report Date: 12-Dec-2013 13:21:54 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82861.D				
Injection Date:	11-Dec-2013 08:05:37	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	PIBLK	Lab Sample ID:	PIBLK 460-196976/1-A	Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	ALEPH4F	Limit Group:	GC NJEPH ICAL		

Column: Rtx-5MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: PIBLK 460-196976/27
Matrix: Solid
Lab File ID: GCF82887.D
Analysis Method: NJDEP EPH
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 2(mL)
Date Analyzed: 12/11/2013 16:03
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Rtx-5MS ID: 0.25(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196976
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00159	C12-C16 Aliphatics	0.10	U	0.10	0.10
STL00191	C9-C12 Aliphatics	0.10	U	0.10	0.10
STL00950	C16-C21 Aliphatics	0.10	U	0.10	0.10
STL01059	C21-C40 Aliphatics	0.10	U	0.10	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	108		40-140
3386-33-2	1-Chlorooctadecane	98		40-140

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82887.D
Lims ID: piblk Lab Sample ID: PIBLK 460-196976/27-A
Client ID:
Sample Type: PIBLK
Inject. Date: 11-Dec-2013 16:03:03 ALS Bottle#: 4 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007678-027
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\ALEPH4F.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:21:54 Calib Date: 19-Oct-2013 12:40:25
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131019-5877.b\GCF81323.D

Column 1 : Rtx-5MS (0.25 mm) Detector GC fid1a
Process Host: XAWRK048

First Level Reviewer: nimerd Date: 12-Dec-2013 13:20:38

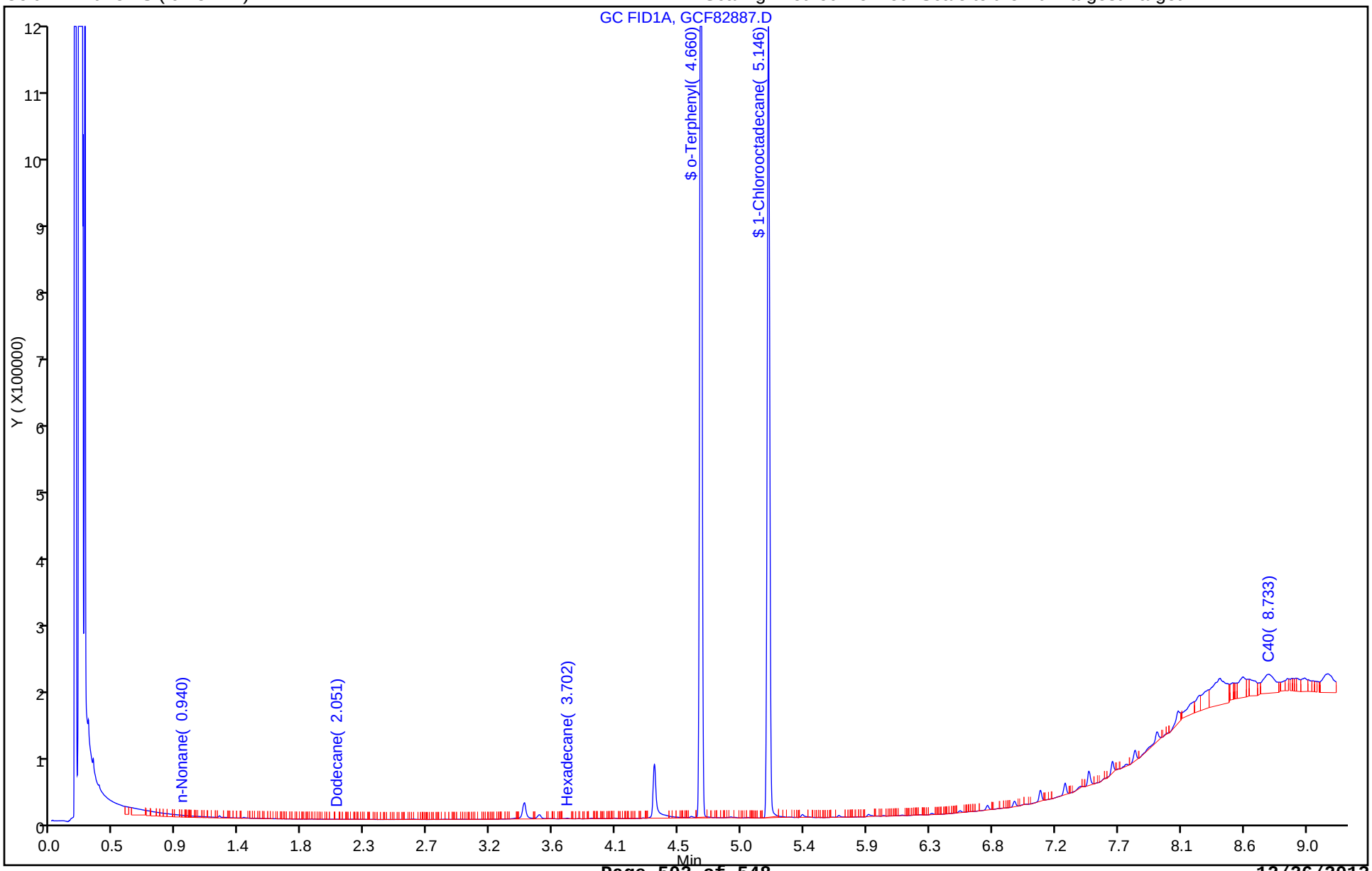
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
8 n-Nonane	0.940	0.923	0.017	3171	0	
A 1 C9-C12 Aliphatics		0.823	2.150			
9 Dodecane	2.051	2.050	0.001	341	0	
A 2 C12-C16 Aliphatics		2.150	3.805			
10 Hexadecane	3.702	3.705	-0.003	1451	0	
A 3 C16-C21 Aliphatics		3.805	5.269			
$ 6 o-Terphenyl	4.660	4.661	-0.001	1739322	53.8	
A 5 C9-C40		0.823	8.836			
$ 7 1-Chlorooctadecane	5.146	5.144	0.002	1355596	48.8	
11 C21		5.169				
A 4 C21-C40 Aliphatics		5.269	8.836			
12 C40	8.733	8.736	-0.003	157278	0	

Report Date: 12-Dec-2013 13:22:21 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82887.D				
Injection Date:	11-Dec-2013 16:03:03	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	piblk	Lab Sample ID:	PIBLK 460-196976/27-A	Worklist Smp#:	27
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	ALEPH4F	Limit Group:	GC NJEPH ICAL		

Column: Rtx-5MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: PIBLK 460-196976/31
Matrix: Solid
Lab File ID: GCF82891.D
Analysis Method: NJDEP EPH
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 2(mL)
Date Analyzed: 12/11/2013 17:02
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Rtx-5MS ID: 0.25(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196976
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00159	C12-C16 Aliphatics	0.10	U	0.10	0.10
STL00191	C9-C12 Aliphatics	0.10	U	0.10	0.10
STL00950	C16-C21 Aliphatics	0.10	U	0.10	0.10
STL01059	C21-C40 Aliphatics	0.10	U	0.10	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	107		40-140
3386-33-2	1-Chlorooctadecane	97		40-140

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82891.D
Lims ID: piblk Lab Sample ID: PIBLK 460-196976/31-A
Client ID:
Sample Type: PIBLK
Inject. Date: 11-Dec-2013 17:02:04 ALS Bottle#: 4 Worklist Smp#: 31
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007678-031
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\ALEPH4F.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:22:21 Calib Date: 19-Oct-2013 12:40:25
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131019-5877.b\GCF81323.D

Column 1 : Rtx-5MS (0.25 mm) Detector GC fid1a
Process Host: XAWRK048

First Level Reviewer: nimerd Date: 12-Dec-2013 13:21:27

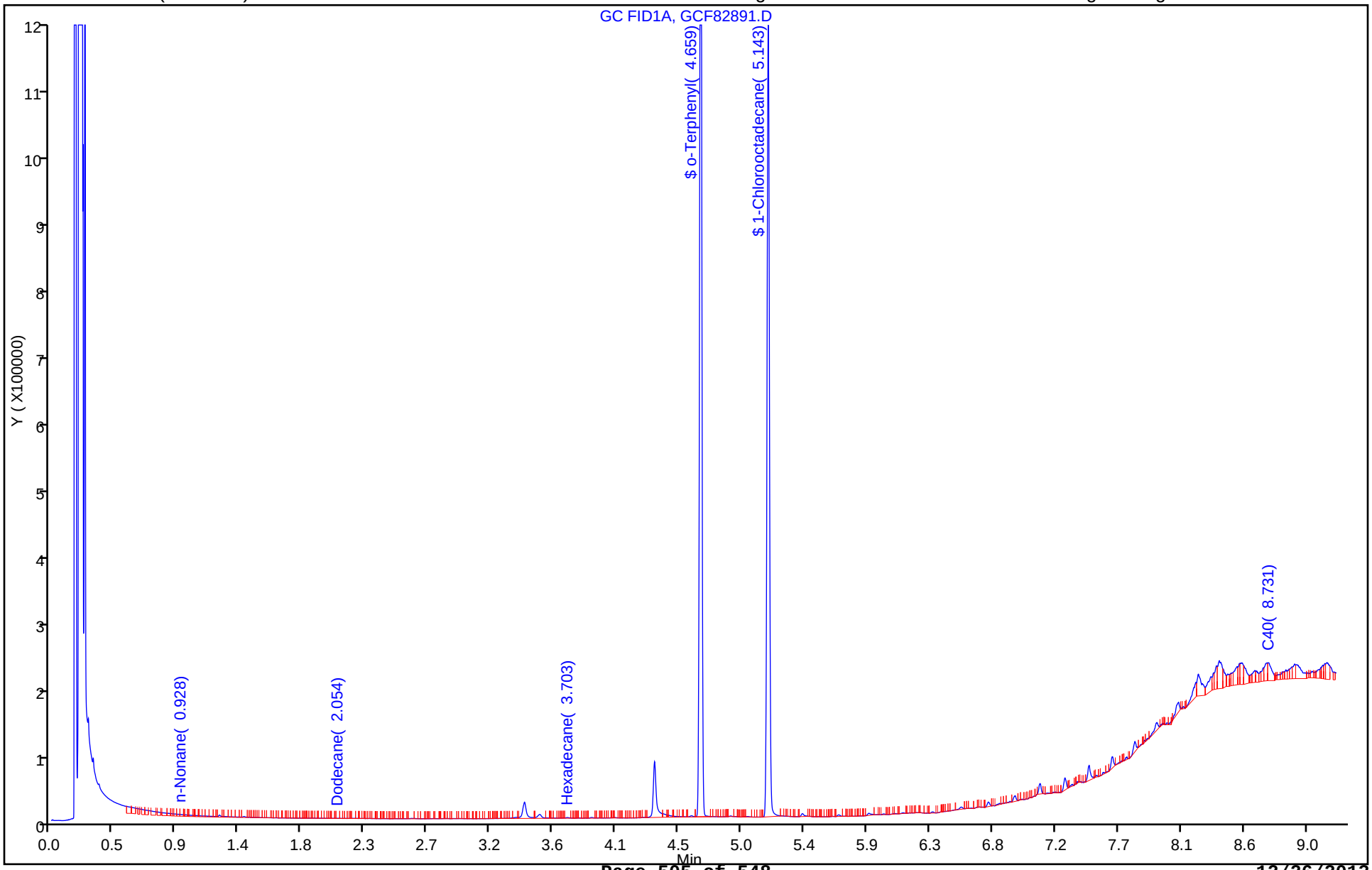
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
8 n-Nonane	0.928	0.923	0.005	3628	0	
A 1 C9-C12 Aliphatics		0.823	2.150			
9 Dodecane	2.054	2.050	0.004	251	0	
A 2 C12-C16 Aliphatics		2.150	3.805			
10 Hexadecane	3.703	3.705	-0.002	1617	0	
A 3 C16-C21 Aliphatics		3.805	5.269			
$ 6 o-Terphenyl	4.659	4.661	-0.002	1727379	53.4	
A 5 C9-C40		0.823	8.836			
$ 7 1-Chlorooctadecane	5.143	5.144	-0.001	1349483	48.6	
11 C21		5.169				
A 4 C21-C40 Aliphatics		5.269	8.836			
12 C40	8.731	8.736	-0.005	50703	0	

Report Date: 12-Dec-2013 13:22:25 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82891.D				
Injection Date:	11-Dec-2013 17:02:04	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	piblk	Lab Sample ID:	PIBLK 460-196976/31-A	Worklist Smp#:	31
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	ALEPH4F	Limit Group:	GC NJEPH ICAL		

Column: Rtx-5MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: PIBLK 460-196980/1
Matrix: Solid
Lab File ID: GCR81463.D
Analysis Method: NJDEP EPH
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 2(mL)
Date Analyzed: 12/11/2013 08:05
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Rtx-5MS ID: 0.25(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196980
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00004	C16-C21 Aromatics	0.10	U	0.10	0.10
STL00011	C10-C12 Aromatics	0.10	U	0.10	0.10
STL00266	C12-C16 Aromatics	0.10	U	0.10	0.10
STL01060	C21-C36 Aromatic	0.10	U	0.10	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	87		40-140
321-60-8	2-Fluorobiphenyl	107		40-140
580-13-2	2-Bromonaphthalene	125		40-140

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81463.D
Lims ID: PIBLK Lab Sample ID: PIBLK 460-196980/1-A
Client ID:
Sample Type: PIBLK
Inject. Date: 11-Dec-2013 08:05:37 ALS Bottle#: 54 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007679-001
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\AREPH4R.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:26:59 Calib Date: 18-Oct-2013 19:45:47
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131018-5853.b\GCR80352.D

Column 1 : Detector GC fid2b
Process Host: XAWRK048

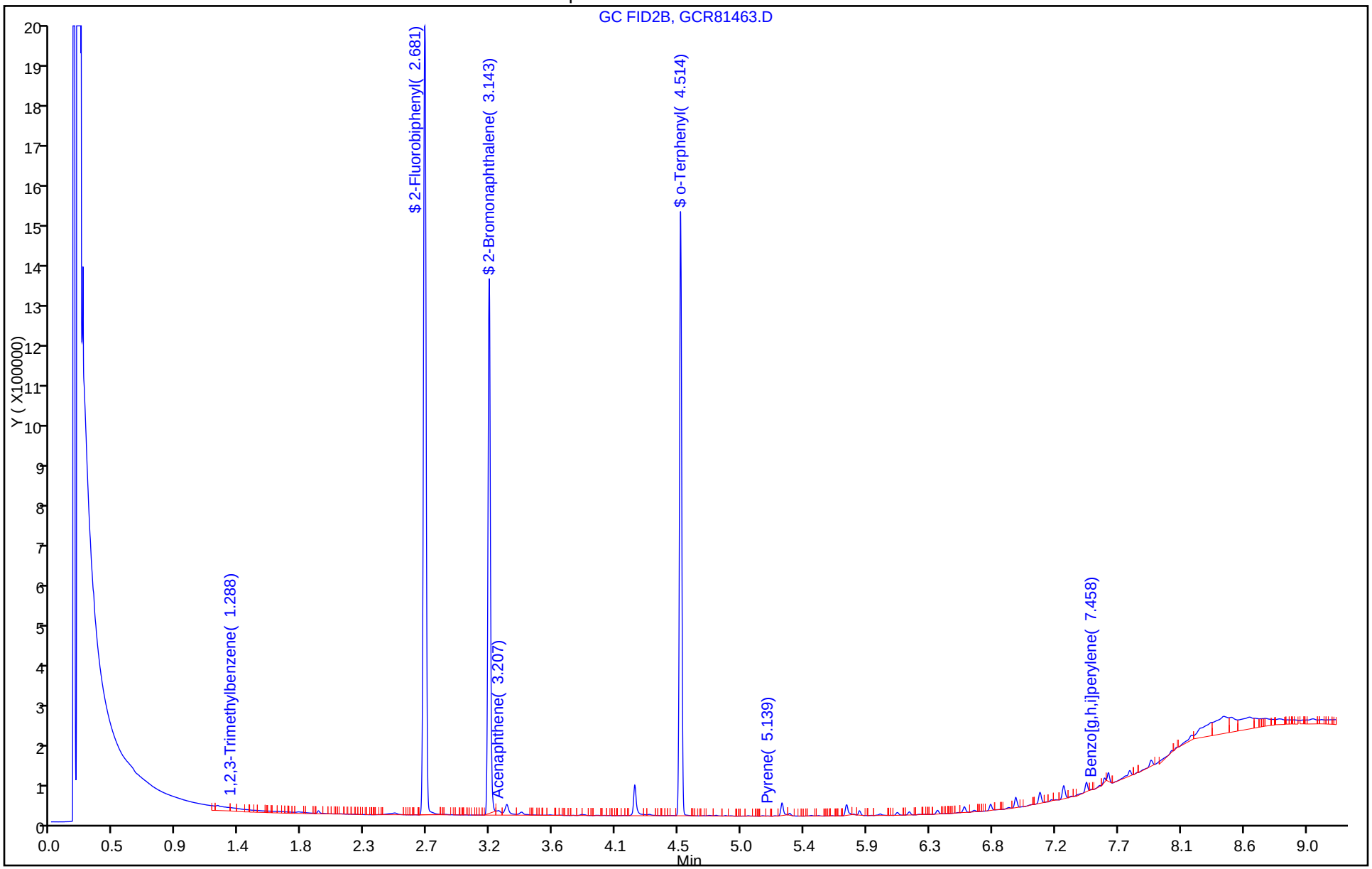
First Level Reviewer: nimerd Date: 11-Dec-2013 08:46:52

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
1 1,2,3-Trimethylbenzene					
1.288	1.298	-0.010	21644	0	
$ 3 2-Fluorobiphenyl					
2.681	2.678	0.003	2561832	53.6	
$ 5 2-Bromonaphthalene					
3.143	3.138	0.005	1586624	62.7	
6 Acenaphthene					
3.207	3.185	0.022	24205	0	
$ 8 o-Terphenyl					
4.514	4.511	0.003	1656259	43.4	
9 Pyrene					
5.139	5.133	0.006	586	0	
11 Benzo[g,h,i]perylene					
7.458	7.485	-0.027	1305	0	

Report Date: 12-Dec-2013 13:27:01 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81463.D				
Injection Date:	11-Dec-2013 08:05:37	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	PIBLK	Lab Sample ID:	PIBLK 460-196980/1-A	Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	54
Method:	AREPH4R	Limit Group:	GC NJEPH ICAL		



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: PIBLK 460-196980/27
Matrix: Solid
Lab File ID: GCR81489.D
Analysis Method: NJDEP EPH
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 2(mL)
Date Analyzed: 12/11/2013 16:03
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Rtx-5MS ID: 0.25(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196980
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00004	C16-C21 Aromatics	0.10	U	0.10	0.10
STL00011	C10-C12 Aromatics	0.10	U	0.10	0.10
STL00266	C12-C16 Aromatics	0.10	U	0.10	0.10
STL01060	C21-C36 Aromatic	0.10	U	0.10	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	86		40-140
321-60-8	2-Fluorobiphenyl	105		40-140
580-13-2	2-Bromonaphthalene	127		40-140

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81489.D
Lims ID: piblk Lab Sample ID: PIBLK 460-196980/27-A
Client ID:
Sample Type: PIBLK
Inject. Date: 11-Dec-2013 16:03:03 ALS Bottle#: 54 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007679-027
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\AREPH4R.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:27:01 Calib Date: 18-Oct-2013 19:45:47
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131018-5853.b\GCR80352.D

Column 1 : Detector GC fid2b
Process Host: XAWRK048

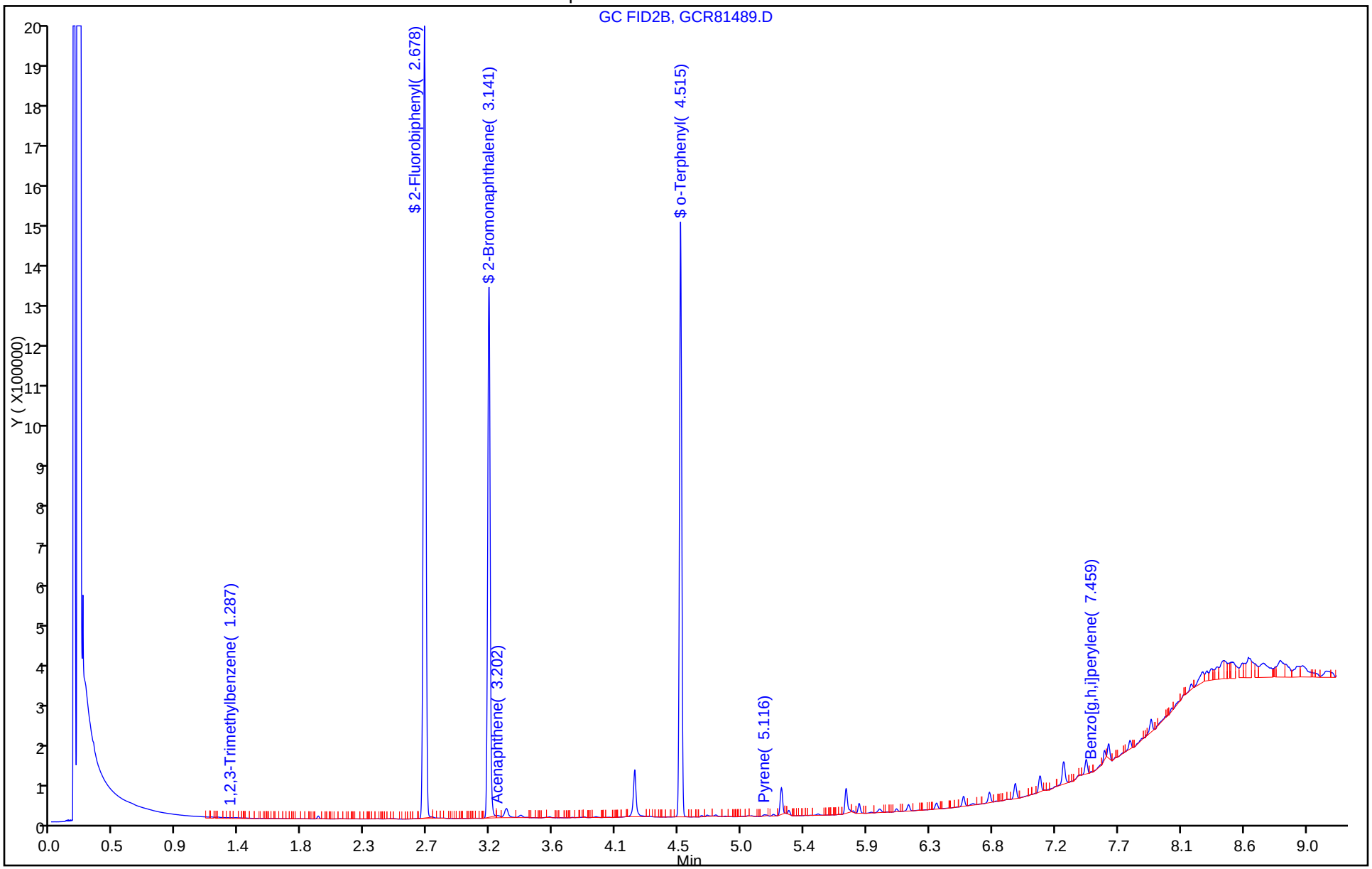
First Level Reviewer: nimerd Date: 12-Dec-2013 13:25:58

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
1 1,2,3-Trimethylbenzene					
1.287	1.301	-0.014	2454	0	
$ 3 2-Fluorobiphenyl					
2.678	2.681	-0.003	2518176	52.7	
$ 5 2-Bromonaphthalene					
3.141	3.141	0.0	1607746	63.5	
6 Acenaphthene					
3.202	3.188	0.014	9106	0	
$ 8 o-Terphenyl					
4.515	4.514	0.001	1641138	43.0	
9 Pyrene					
5.116	5.134	-0.018	5220	0	
11 Benzo[g,h,i]perylene					
7.459	7.484	-0.025	2290	0	

Report Date: 12-Dec-2013 13:27:27 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81489.D				
Injection Date:	11-Dec-2013 16:03:03	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	piblk	Lab Sample ID:	PIBLK 460-196980/27-A	Worklist Smp#:	27
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	54
Method:	AREPH4R	Limit Group:	GC NJEPH ICAL		



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: PIBLK 460-196980/31
Matrix: Solid
Lab File ID: GCR81493.D
Analysis Method: NJDEP EPH
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 2(mL)
Date Analyzed: 12/11/2013 17:02
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Rtx-5MS ID: 0.25(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196980
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00004	C16-C21 Aromatics	0.10	U	0.10	0.10
STL00011	C10-C12 Aromatics	0.10	U	0.10	0.10
STL00266	C12-C16 Aromatics	0.10	U	0.10	0.10
STL01060	C21-C36 Aromatic	0.10	U	0.10	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	86		40-140
321-60-8	2-Fluorobiphenyl	105		40-140
580-13-2	2-Bromonaphthalene	126		40-140

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81493.D
Lims ID: piblk Lab Sample ID: PIBLK 460-196980/31-A
Client ID:
Sample Type: PIBLK
Inject. Date: 11-Dec-2013 17:02:04 ALS Bottle#: 54 Worklist Smp#: 31
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007679-031
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\AREPH4R.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:27:27 Calib Date: 18-Oct-2013 19:45:47
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131018-5853.b\GCR80352.D

Column 1 : Detector GC fid2b
Process Host: XAWRK048

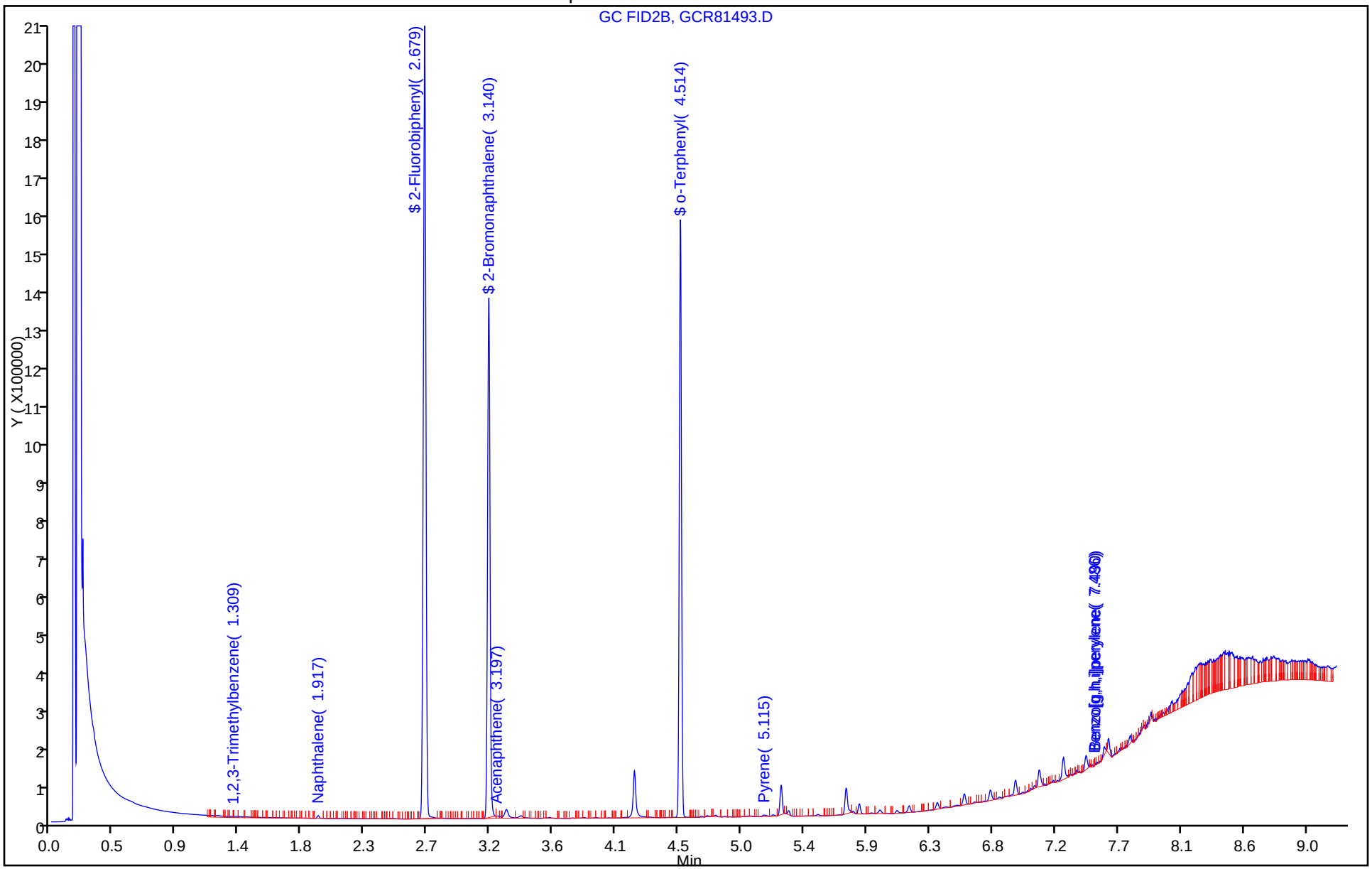
First Level Reviewer: nimerd Date: 12-Dec-2013 13:26:41

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
1 1,2,3-Trimethylbenzene					
1.309	1.299	0.010	687	0	
12 Naphthalene					
1.917	1.916	0.001	7619	0	
$ 3 2-Fluorobiphenyl					
2.679	2.679	0.0	2519519	52.7	
$ 5 2-Bromonaphthalene					
3.140	3.142	-0.002	1598051	63.1	
6 Acenaphthene					
3.197	3.186	0.011	7525	0	
$ 8 o-Terphenyl					
4.514	4.511	0.003	1633268	42.8	
9 Pyrene					
5.115	5.134	-0.019	7086	0	
11 Benzo[g,h,i]perylene					
7.490	7.487	0.003	1245	0	

Report Date: 12-Dec-2013 13:27:30 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81493.D				
Injection Date:	11-Dec-2013 17:02:04	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	piblk	Lab Sample ID:	PIBLK 460-196980/31-A	Worklist Smp#:	31
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	54
Method:	AREPH4R	Limit Group:	GC NJEPH ICAL		



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 460-196763/2-A
Matrix: Solid
Lab File ID: GCF82864.D
Analysis Method: NJDEP EPH
Date Collected:
Extraction Method: 3546
Date Extracted: 12/10/2013 08:08
Sample wt/vol: 15.00(g)
Date Analyzed: 12/11/2013 08:49
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Rtx-5MS ID: 0.25(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196976
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00159	C12-C16 Aliphatics	10.5		2.0	2.0
STL00191	C9-C12 Aliphatics	12.1		2.0	2.0
STL00950	C16-C21 Aliphatics	21.1		2.0	2.0
STL01059	C21-C40 Aliphatics	54.5		2.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
3386-33-2	1-Chlorooctadecane	80		40-140

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82864.D
Lims ID: LCS 460-196763/2-A Lab Sample ID: LCS 460-196763/2-A
Client ID:
Sample Type: LCS
Inject. Date: 11-Dec-2013 08:49:52 ALS Bottle#: 7 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007678-004
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\ALEPH4F.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:21:54 Calib Date: 19-Oct-2013 12:40:25
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131019-5877.b\GCF81323.D

Column 1 : Rtx-5MS (0.25 mm) Detector GC fid1a
Process Host: XAWRK048

First Level Reviewer: nimerd Date: 12-Dec-2013 13:12:37

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
A 1 C9-C12 Aliphatics	1.486	0.823 -	2.150	2852912	90.8	
A 2 C12-C16 Aliphatics	2.977	2.150 -	3.805	2683246	78.6	
A 3 C16-C21 Aliphatics	4.537	3.805 -	5.269	5541203	158.3	
$ 6 o-Terphenyl		4.661				
A 5 C9-C40	4.829	0.823 -	8.836	28703848	869.1	
$ 7 1-Chlorooctadecane	5.145	5.144	0.001	1111382	40.0	
A 4 C21-C40 Aliphatics	7.052	5.269 -	8.836	12152810	408.4	

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81466.D
Lims ID: LCS 460-196763/2-A Lab Sample ID: LCS 460-196763/2-A
Client ID:
Sample Type: LCS
Inject. Date: 11-Dec-2013 08:49:51 ALS Bottle#: 57 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007679-004
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\AREPH4R.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:27:01 Calib Date: 18-Oct-2013 19:45:47
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131018-5853.b\GCR80352.D

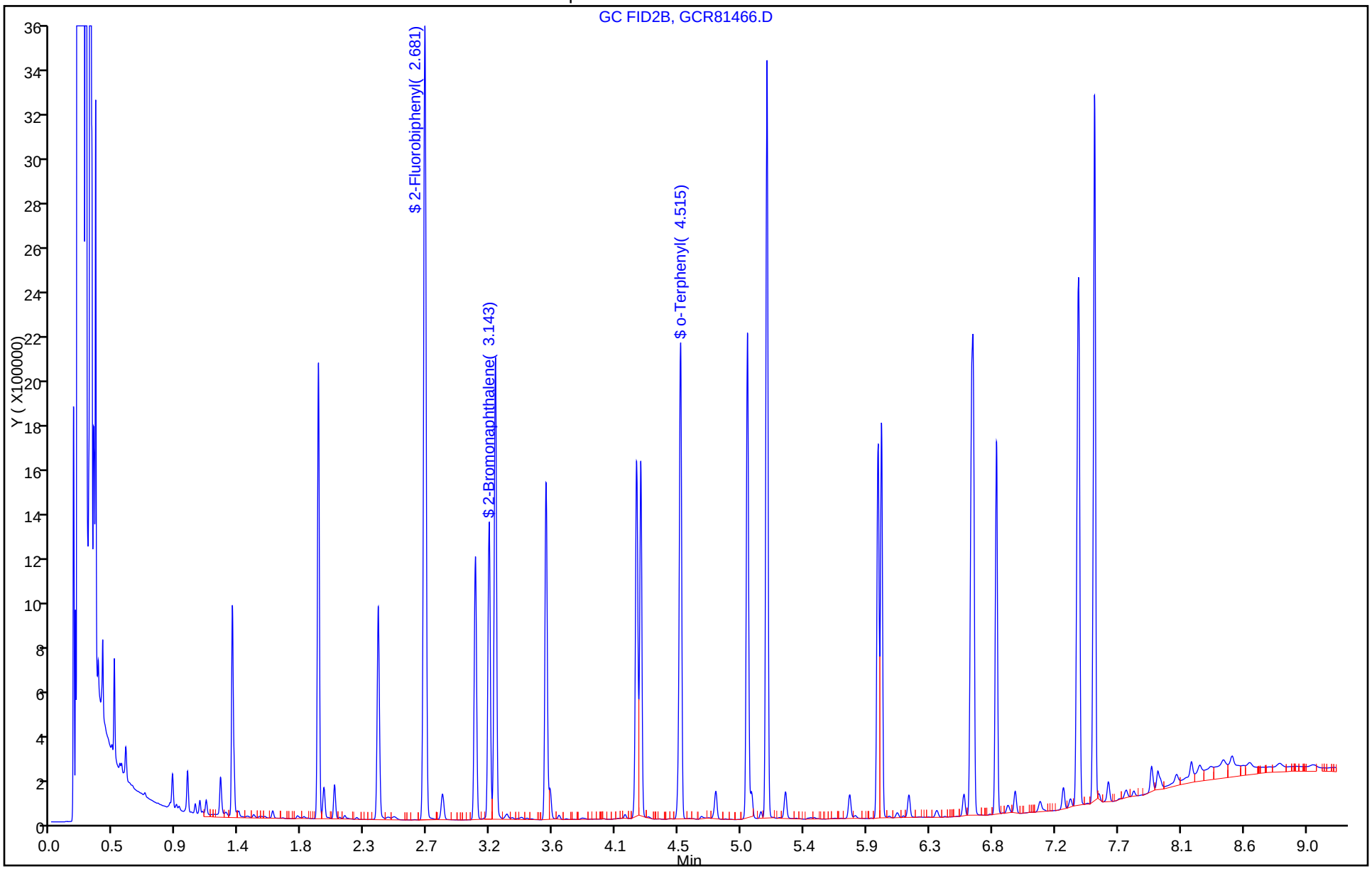
Column 1 : Detector GC fid2b
Process Host: XAWRK048

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
A 2 C10-C12 Aromatics					
1.609	1.201 -	2.018	3492941	90.5	
A 4 C12-C16 Aromatics					
2.653	2.018 -	3.288	5485836	139.7	
$ 3 2-Fluorobiphenyl					
2.681	2.681	0.0	4633244	97.0	
$ 5 2-Bromonaphthalene					
3.143	3.141	0.002	1617618	63.9	
A 7 C16-C21 Aromatics					
4.261	3.288 -	5.234	12184019	294.6	
$ 8 o-Terphenyl					
4.515	4.514	0.001	2600271	68.2	
A 10 C21-C36 Aromatic					
6.409	5.234 -	7.584	17378323	499.0	

Report Date: 12-Dec-2013 13:27:03 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81466.D				
Injection Date:	11-Dec-2013 08:49:51	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	LCS 460-196763/2-A	Lab Sample ID:	LCS 460-196763/2-A	Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	57
Method:	AREPH4R	Limit Group:	GC NJEPH ICAL		



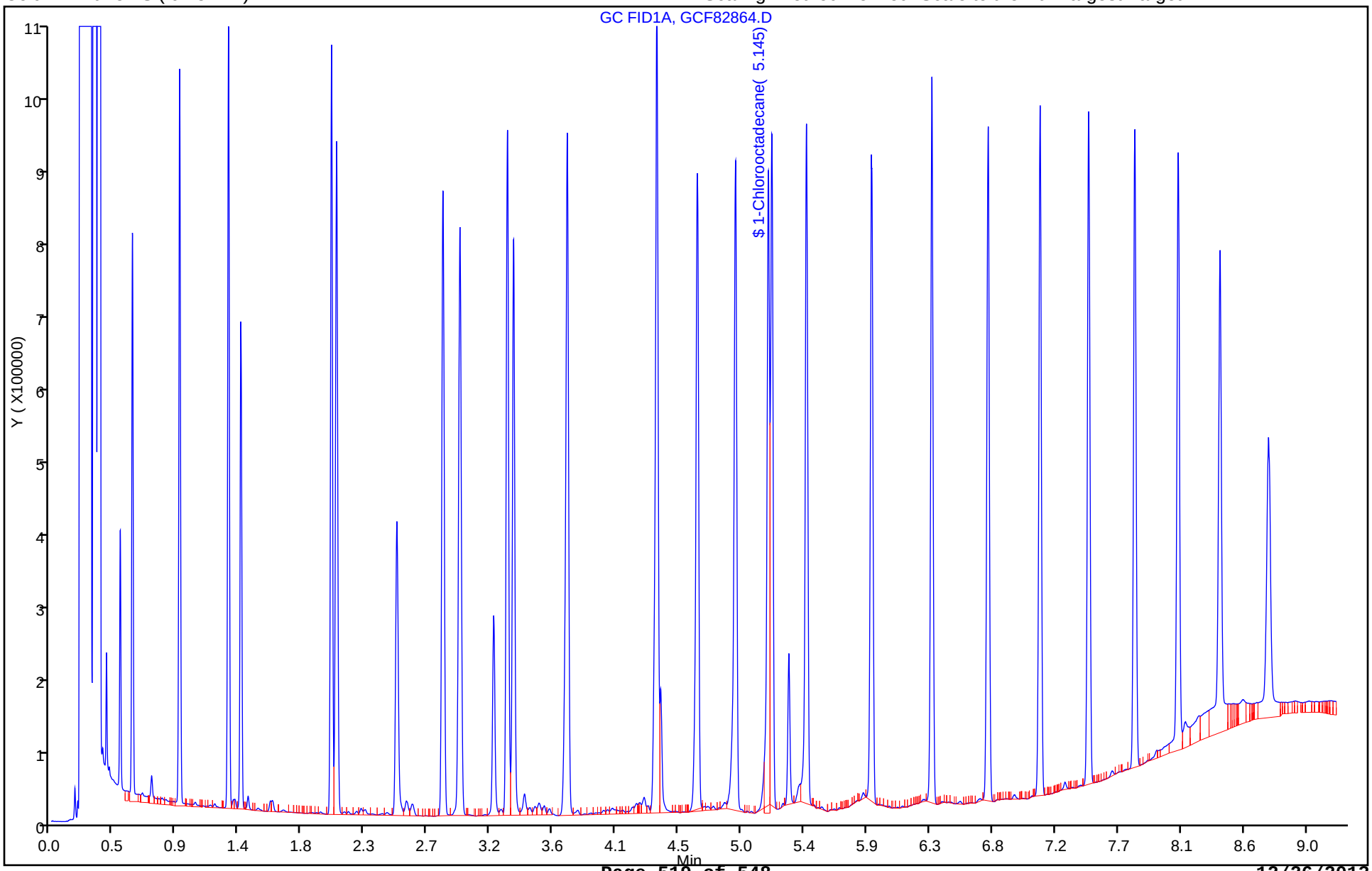
Report Date: 12-Dec-2013 13:21:57 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82864.D

Injection Date:	11-Dec-2013 08:49:52	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	LCS 460-196763/2-A	Lab Sample ID:	LCS 460-196763/2-A	Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	ALEPH4F	Limit Group:	GC NJEPH ICAL		

Column: Rtx-5MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 460-196763/2-A
Matrix: Solid
Lab File ID: GCR81466.D
Analysis Method: NJDEP EPH
Date Collected:
Extraction Method: 3546
Date Extracted: 12/10/2013 08:08
Sample wt/vol: 15.00(g)
Date Analyzed: 12/11/2013 08:49
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Rtx-5MS ID: 0.25(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196980
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00004	C16-C21 Aromatics	39.3		2.0	2.0
STL00011	C10-C12 Aromatics	12.1		2.0	2.0
STL00266	C12-C16 Aromatics	18.6		2.0	2.0
STL01060	C21-C36 Aromatic	66.5		2.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	136		40-140
321-60-8	2-Fluorobiphenyl	97		40-140
580-13-2	2-Bromonaphthalene	64		40-140

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82864.D
Lims ID: LCS 460-196763/2-A Lab Sample ID: LCS 460-196763/2-A
Client ID:
Sample Type: LCS
Inject. Date: 11-Dec-2013 08:49:52 ALS Bottle#: 7 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007678-004
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\ALEPH4F.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:21:54 Calib Date: 19-Oct-2013 12:40:25
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131019-5877.b\GCF81323.D

Column 1 : Rtx-5MS (0.25 mm) Detector GC fid1a
Process Host: XAWRK048

First Level Reviewer: nimerd Date: 12-Dec-2013 13:12:37

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
A 1 C9-C12 Aliphatics	1.486	0.823 -	2.150	2852912	90.8	
A 2 C12-C16 Aliphatics	2.977	2.150 -	3.805	2683246	78.6	
A 3 C16-C21 Aliphatics	4.537	3.805 -	5.269	5541203	158.3	
$ 6 o-Terphenyl		4.661				
A 5 C9-C40	4.829	0.823 -	8.836	28703848	869.1	
$ 7 1-Chlorooctadecane	5.145	5.144	0.001	1111382	40.0	
A 4 C21-C40 Aliphatics	7.052	5.269 -	8.836	12152810	408.4	

TestAmerica Edison
Target Compound Quantitation Report

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81466.D
Lims ID: LCS 460-196763/2-A Lab Sample ID: LCS 460-196763/2-A
Client ID:
Sample Type: LCS
Inject. Date: 11-Dec-2013 08:49:51 ALS Bottle#: 57 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0007679-004
Operator ID: 615 Instrument ID: CBNAGC4

Method: \\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\AREPH4R.m
Limit Group: GC NJEPH ICAL
Last Update: 12-Dec-2013 13:27:01 Calib Date: 18-Oct-2013 19:45:47
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\EDICHROM\ChromData\CBNAGC4\20131018-5853.b\GCR80352.D

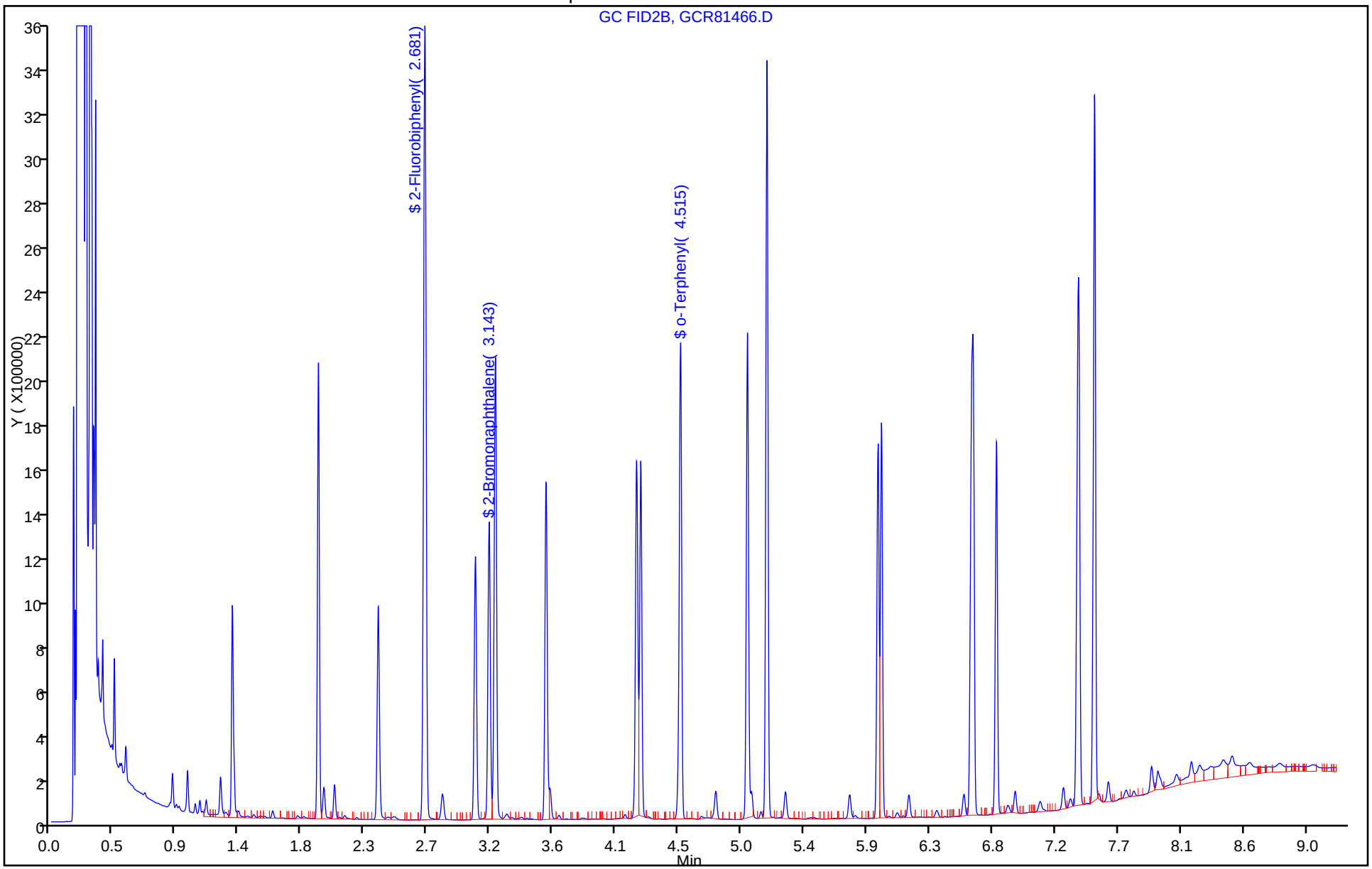
Column 1 : Detector GC fid2b
Process Host: XAWRK048

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ug/ml	Flags
A 2 C10-C12 Aromatics					
1.609	1.201 -	2.018	3492941	90.5	
A 4 C12-C16 Aromatics					
2.653	2.018 -	3.288	5485836	139.7	
$ 3 2-Fluorobiphenyl					
2.681	2.681	0.0	4633244	97.0	
$ 5 2-Bromonaphthalene					
3.143	3.141	0.002	1617618	63.9	
A 7 C16-C21 Aromatics					
4.261	3.288 -	5.234	12184019	294.6	
$ 8 o-Terphenyl					
4.515	4.514	0.001	2600271	68.2	
A 10 C21-C36 Aromatic					
6.409	5.234 -	7.584	17378323	499.0	

Report Date: 12-Dec-2013 13:27:03 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File:	\\EDICHROM\ChromData\CBNAGC4\20131211-7679.b\GCR81466.D				
Injection Date:	11-Dec-2013 08:49:51	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	LCS 460-196763/2-A	Lab Sample ID:	LCS 460-196763/2-A	Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	57
Method:	AREPH4R	Limit Group:	GC NJEPH ICAL		



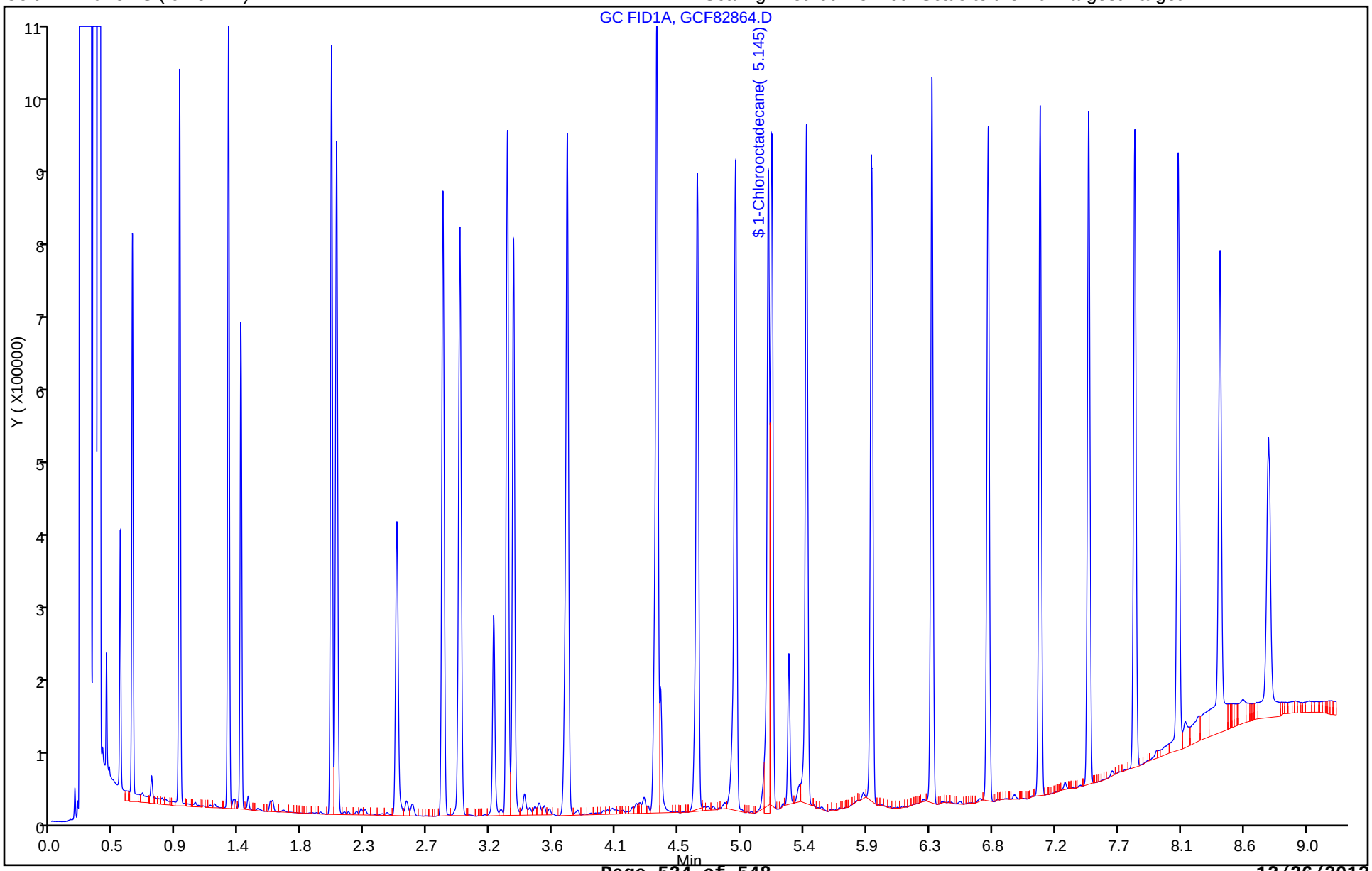
Report Date: 12-Dec-2013 13:21:57 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Edison

Data File: \\EDICHROM\ChromData\CBNAGC4\20131211-7678.b\GCF82864.D

Injection Date:	11-Dec-2013 08:49:52	Instrument ID:	CBNAGC4	Operator ID:	615
Lims ID:	LCS 460-196763/2-A	Lab Sample ID:	LCS 460-196763/2-A	Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	ALEPH4F	Limit Group:	GC NJEPH ICAL		

Column: Rtx-5MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: | Lab Sample ID: 460-67990-A-1-D MS

Matrix: Solid | Lab File ID: GCF82885.D

Analysis Method: NJDEP EPH | Date Collected: 12/08/2013 10:45

Extraction Method: 3546 | Date Extracted: 12/10/2013 08:08

Sample wt/vol: 15.04(g) | Date Analyzed: 12/11/2013 15:33

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rtx-5MS ID: 0.25(mm)

% Moisture: 15.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 196976 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00159	C12-C16 Aliphatics	10.8		2.4	2.4
STL00191	C9-C12 Aliphatics	12.4		2.4	2.4
STL00950	C16-C21 Aliphatics	19.4		2.4	2.4
STL01059	C21-C40 Aliphatics	49.5		2.4	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
3386-33-2	1-Chlorooctadecane	63		40-140

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: 460-67990-A-1-D MS
Matrix: Solid
Lab File ID: GCR81487.D
Analysis Method: NJDEP EPH
Date Collected: 12/08/2013 10:45
Extraction Method: 3546
Date Extracted: 12/10/2013 08:08
Sample wt/vol: 15.04(g)
Date Analyzed: 12/11/2013 15:33
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Rtx-5MS ID: 0.25(mm)
% Moisture: 15.5
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196980
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00004	C16-C21 Aromatics	33.4		2.4	2.4
STL00011	C10-C12 Aromatics	9.93		2.4	2.4
STL00266	C12-C16 Aromatics	15.9		2.4	2.4
STL01060	C21-C36 Aromatic	57.9		2.4	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	89		40-140
321-60-8	2-Fluorobiphenyl	91		40-140
580-13-2	2-Bromonaphthalene	61		40-140

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: 460-67990-A-1-E MSD
Matrix: Solid
Lab File ID: GCF82886.D
Analysis Method: NJDEP EPH
Date Collected: 12/08/2013 10:45
Extraction Method: 3546
Date Extracted: 12/10/2013 08:08
Sample wt/vol: 15.02(g)
Date Analyzed: 12/11/2013 15:48
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Rtx-5MS ID: 0.25(mm)
% Moisture: 15.5
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196976
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00159	C12-C16 Aliphatics	10.2		2.4	2.4
STL00191	C9-C12 Aliphatics	12.3		2.4	2.4
STL00950	C16-C21 Aliphatics	18.2		2.4	2.4
STL01059	C21-C40 Aliphatics	52.6		2.4	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
3386-33-2	1-Chlorooctadecane	61		40-140

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison
Job No.: 460-67815-1
SDG No.:
Client Sample ID:
Lab Sample ID: 460-67990-A-1-E MSD
Matrix: Solid
Lab File ID: GCR81488.D
Analysis Method: NJDEP EPH
Date Collected: 12/08/2013 10:45
Extraction Method: 3546
Date Extracted: 12/10/2013 08:08
Sample wt/vol: 15.02(g)
Date Analyzed: 12/11/2013 15:48
Con. Extract Vol.: 2(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: Rtx-5MS ID: 0.25(mm)
% Moisture: 15.5
GPC Cleanup:(Y/N) N
Analysis Batch No.: 196980
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00004	C16-C21 Aromatics	33.6		2.4	2.4
STL00011	C10-C12 Aromatics	10.8		2.4	2.4
STL00266	C12-C16 Aromatics	15.9		2.4	2.4
STL01060	C21-C36 Aromatic	58.5		2.4	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	90		40-140
321-60-8	2-Fluorobiphenyl	93		40-140
580-13-2	2-Bromonaphthalene	63		40-140

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CBNAGC4 Start Date: 10/18/2013 18:34

Analysis Batch Number: 187306 End Date: 10/18/2013 20:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PIBLK 460-187306/1		10/18/2013 18:34	1		Rtx-5MS 0.25(mm)
STD1 460-187306/2 IC		10/18/2013 18:48	1	GCR80348.D	Rtx-5MS 0.25(mm)
STD2 460-187306/3 IC		10/18/2013 19:02	1	GCR80349.D	Rtx-5MS 0.25(mm)
STD3 460-187306/4 IC		10/18/2013 19:17	1	GCR80350.D	Rtx-5MS 0.25(mm)
STD4 460-187306/5 IC		10/18/2013 19:31	1	GCR80351.D	Rtx-5MS 0.25(mm)
STD5 460-187306/6 IC		10/18/2013 19:45	1	GCR80352.D	Rtx-5MS 0.25(mm)
ICV 460-187306/7		10/18/2013 20:00	1		Rtx-5MS 0.25(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CBNAGC4 Start Date: 10/19/2013 11:26

Analysis Batch Number: 187431 End Date: 10/19/2013 12:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PIBLK 460-187431/1		10/19/2013 11:26	1		Rtx-5MS 0.25(mm)
STD1 460-187431/2 IC		10/19/2013 11:41	1	GCF81319.D	Rtx-5MS 0.25(mm)
STD2 460-187431/3 IC		10/19/2013 11:56	1	GCF81320.D	Rtx-5MS 0.25(mm)
STD3 460-187431/4 IC		10/19/2013 12:10	1	GCF81321.D	Rtx-5MS 0.25(mm)
STD4 460-187431/5 IC		10/19/2013 12:25	1	GCF81322.D	Rtx-5MS 0.25(mm)
STD5 460-187431/6 IC		10/19/2013 12:40	1	GCF81323.D	Rtx-5MS 0.25(mm)
ICV 460-187431/7		10/19/2013 12:55	1		Rtx-5MS 0.25(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CBNAGC4 Start Date: 12/11/2013 08:05

Analysis Batch Number: 196976 End Date: 12/11/2013 17:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PIBLK 460-196976/1		12/11/2013 08:05	1	GCF82861.D	Rtx-5MS 0.25(mm)
CCV 460-196976/2		12/11/2013 08:20	1	GCF82862.D	Rtx-5MS 0.25(mm)
MB 460-196763/1-A		12/11/2013 08:35	1	GCF82863.D	Rtx-5MS 0.25(mm)
LCS 460-196763/2-A		12/11/2013 08:49	1	GCF82864.D	Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 09:04	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 09:38	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 11:09	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 11:24	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 11:38	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 11:53	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 12:08	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 12:22	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 12:37	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 12:51	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 13:06	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 13:21	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 13:36	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 13:50	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 14:05	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 14:19	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 14:34	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 14:49	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 15:04	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 15:18	1		Rtx-5MS 0.25(mm)
460-67990-A-1-D MS		12/11/2013 15:33	1	GCF82885.D	Rtx-5MS 0.25(mm)
460-67990-A-1-E MSD		12/11/2013 15:48	1	GCF82886.D	Rtx-5MS 0.25(mm)
PIBLK 460-196976/27		12/11/2013 16:03	1	GCF82887.D	Rtx-5MS 0.25(mm)
CCV 460-196976/28		12/11/2013 16:17	1	GCF82888.D	Rtx-5MS 0.25(mm)
460-67815-1	E-GP-C4 (15-17.5')	12/11/2013 16:32	50	GCF82889.D	Rtx-5MS 0.25(mm)
460-67815-2	E-GP-E3 (10-15')	12/11/2013 16:47	25	GCF82890.D	Rtx-5MS 0.25(mm)
PIBLK 460-196976/31		12/11/2013 17:02	1	GCF82891.D	Rtx-5MS 0.25(mm)
CCV 460-196976/32		12/11/2013 17:16	1	GCF82892.D	Rtx-5MS 0.25(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: CBNAGC4 Start Date: 12/11/2013 08:05

Analysis Batch Number: 196980 End Date: 12/11/2013 17:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PIBLK 460-196980/1		12/11/2013 08:05	1	GCR81463.D	Rtx-5MS 0.25(mm)
CCV 460-196980/2		12/11/2013 08:20	1	GCR81464.D	Rtx-5MS 0.25(mm)
MB 460-196763/1-A		12/11/2013 08:35	1	GCR81465.D	Rtx-5MS 0.25(mm)
LCS 460-196763/2-A		12/11/2013 08:49	1	GCR81466.D	Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 09:04	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 09:38	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 11:09	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 11:24	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 11:38	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 11:53	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 12:08	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 12:22	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 12:37	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 12:51	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 13:06	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 13:21	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 13:36	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 13:50	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 14:05	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 14:19	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 14:34	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 14:49	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 15:04	1		Rtx-5MS 0.25(mm)
ZZZZZ		12/11/2013 15:18	1		Rtx-5MS 0.25(mm)
460-67990-A-1-D MS		12/11/2013 15:33	1	GCR81487.D	Rtx-5MS 0.25(mm)
460-67990-A-1-E MSD		12/11/2013 15:48	1	GCR81488.D	Rtx-5MS 0.25(mm)
PIBLK 460-196980/27		12/11/2013 16:03	1	GCR81489.D	Rtx-5MS 0.25(mm)
CCV 460-196980/28		12/11/2013 16:17	1	GCR81490.D	Rtx-5MS 0.25(mm)
460-67815-1	E-GP-C4 (15-17.5')	12/11/2013 16:32	20	GCR81491.D	Rtx-5MS 0.25(mm)
460-67815-2	E-GP-E3 (10-15')	12/11/2013 16:47	10	GCR81492.D	Rtx-5MS 0.25(mm)
PIBLK 460-196980/31		12/11/2013 17:02	1	GCR81493.D	Rtx-5MS 0.25(mm)
CCV 460-196980/32		12/11/2013 17:16	1	GCR81494.D	Rtx-5MS 0.25(mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Batch Number: 196763 Batch Start Date: 12/10/13 08:08 Batch Analyst: Patel, Harsh

Batch Method: 3546 Batch End Date: 12/10/13 15:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	OP NJEPH surr 00002	OP_EPH NF spk 00001	OPEPH2BROMO 00012	OPEPH2FLUORO 00017
MB 460-196763/1		3546, NJDEP EPH		15.00 g	2 mL	1 mL		2 mL	2 mL
LCS 460-196763/2		3546, NJDEP EPH		15.00 g	2 mL	1 mL	1 mL	2 mL	2 mL
460-67990-A-1 MS		3546, NJDEP EPH	T	15.04 g	2 mL	1 mL	1 mL	2 mL	2 mL
460-67990-A-1 MSD		3546, NJDEP EPH	T	15.02 g	2 mL	1 mL	1 mL	2 mL	2 mL
460-67815-D-1	E-GP-C4 (15-17.5')	3546, NJDEP EPH	T	15.04 g	2 mL	1 mL		2 mL	2 mL
460-67815-D-2	E-GP-E3 (10-15')	3546, NJDEP EPH	T	15.01 g	10 mL	1 mL		10 mL	10 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	OPEPHAro_SPK 00015	AnalysisComment				
MB 460-196763/1		3546, NJDEP EPH							
LCS 460-196763/2		3546, NJDEP EPH		1 mL					
460-67990-A-1 MS		3546, NJDEP EPH	T	1 mL					
460-67990-A-1 MSD		3546, NJDEP EPH	T	1 mL					
460-67815-D-1	E-GP-C4 (15-17.5')	3546, NJDEP EPH	T		Dark Extract				
460-67815-D-2	E-GP-E3 (10-15')	3546, NJDEP EPH	T		Dark and thick Extract can not be concentrated to 2 ml so Final Volume made 10 ml				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Batch Number: 196763 Batch Start Date: 12/10/13 08:08 Batch Analyst: Patel, Harsh

Batch Method: 3546 Batch End Date: 12/10/13 15:30

Batch Notes	
Balance ID	28
Batch Comment	EPH FRAC Soil
Person's name who did the concentration	hp
Exchange Solvent Lot #	59831
Exchange Solvent Name	HEXANE
Final Concentrator Volume	2 mL
Hexane Lot#	59831
MeCL2 Lot #	60836
Microwave Start Time	9.30am
Microwave Stop Time	10.00am
Na2SO4 Lot Number	331103
Person's name who did the prep	hp
Water Bath ID	222299
Water Bath Temperature	37C (37C UNCORRECTED)

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

NJEPH_Calc

New Jersey - Extractable Petroleum Hydrocarbons

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-C4 (15-17.5') | Lab Sample ID: 460-67815-1

Matrix: Solid | Lab File ID:

Analysis Method: NJ DEP EPH | Date Collected: 12/04/2013 12:30

Extraction Method: | Date Extracted:

Sample wt/vol: | Date Analyzed: 12/12/2013 13:44

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: | GC Column: ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 197334 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL01063	Total Aromatics	5200		2.0	2.0
STL01064	Total Aliphatics	18000		2.0	2.0
STL00362	Total EPH	23000		2.0	2.0

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Edison | Job No.: 460-67815-1

SDG No.:

Client Sample ID: E-GP-E3 (10-15') | Lab Sample ID: 460-67815-2

Matrix: Solid | Lab File ID:

Analysis Method: NJ DEP EPH | Date Collected: 12/04/2013 14:30

Extraction Method: | Date Extracted:

Sample wt/vol: | Date Analyzed: 12/12/2013 13:44

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: | GC Column: ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 197334 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL01063	Total Aromatics	13000		2.0	2.0
STL01064	Total Aliphatics	29000		2.0	2.0
STL00362	Total EPH	42000		2.0	2.0

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: NOEQUIP Start Date: 12/12/2013 13:44

Analysis Batch Number: 197334 End Date: 12/12/2013 13:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
460-67815-1	E-GP-C4 (15-17.5')	12/12/2013 13:44	1		
460-67815-2	E-GP-E3 (10-15')	12/12/2013 13:44	1		
ZZZZZ		12/12/2013 13:44	1		
ZZZZZ		12/12/2013 13:44	1		
ZZZZZ		12/12/2013 13:44	1		
ZZZZZ		12/12/2013 13:44	1		
ZZZZZ		12/12/2013 13:44	1		
ZZZZZ		12/12/2013 13:44	1		
ZZZZZ		12/12/2013 13:44	1		
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ZZZZZ		12/12/2013 13:44	1		
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ZZZZZ		12/12/2013 13:44	1		
ZZZZZ		12/12/2013 13:44	1		

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-67815-1

SDG No.:

Project: Area E Suppl RI: Petroleum - Impacted So

Client Sample ID	Lab Sample ID
E-GP-C4 (15-17.5')	460-67815-1
E-GP-E3 (10-15')	460-67815-2

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-67815-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 02/15/2007 17:07

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		1	
Percent Solids		1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-67815-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture XRL Date: 01/01/2007 16:49

Analyte	Wavelength/ Mass	XRL (%)	
Percent Moisture		1	
Percent Solids		1	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 12/09/2013 17:15 End Date: 12/09/2013 17:15

Lab Sample ID	D/F	Type	Time	Analytes																			
				% Sol	Moist																		
ZZZZZZ			17:15																				
ZZZZZZ			17:15																				
ZZZZZZ			17:15																				
ZZZZZZ			17:15																				
ZZZZZZ			17:15																				
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ZZZZZZ			17:15																				
ZZZZZZ			17:15																				
ZZZZZZ			17:15																				
ZZZZZZ			17:15																				
460-67815-1	1	T	17:15	X	X																		
460-67815-2	1	T	17:15	X	X																		
ZZZZZZ			17:15																				
ZZZZZZ			17:15																				
ZZZZZZ			17:15																				
ZZZZZZ			17:15																				
ZZZZZZ			17:15																				
ZZZZZZ			17:15																				
460-67874-D-1 DU	1	T	17:15	X	X																		

Prep Types

T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-67815-1

SDG No.:

Batch Number: 196646 Batch Start Date: 12/09/13 17:15 Batch Analyst: Robinson, Ian

Batch Method: Moisture Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	DISH#	DishWeight	SampleMassWet	SampleMassDry		
460-67815-E-1	E-GP-C4 (15-17.5')	Moisture	T	244	1.00 g	6.17 g	5.59 g		
460-67815-E-2	E-GP-E3 (10-15')	Moisture	T	245	0.99 g	6.40 g	5.84 g		
460-67874-D-1 DU		Moisture	T	252	1.00 g	6.44 g	5.88 g		

Batch Notes	
Balance ID	104 No Unit
Date samples were placed in the oven	12/09/13
Oven Temp when samples are put in oven	108 Degrees C
Time samples were place in the oven	17:35
Date samples were removed from oven	12/10/13
Oven Temp when samples removed from oven	100 Degrees C
Time Samples were removed from oven	08:56
Oven ID	Oven 1
ID number of the thermometer	P23673
Uncorrected In Temperature	108 Celsius
Uncorrected Out Temperature	100 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / AN

460-67815 Chain of Custody

v Durham Road
New Jersey 08817
(732) 549-3900 Fax: (732) 549-3679

Page 1 of 1

Name (for report and invoice): Sean Lorden	Samplers Name (Printed): Mark Winbourne	Site/Project Identification: Area E Suppl. RI : Petroleum-Impacted Soil
Company: TRC	P.O. #: C162662	State (Location of site): NJ: ☒ NY: ☐ Other:
		Regulatory Program: QA Level: NJ Reduced
Address: 21 Griffin Rd. N.	Analysis Turnaround Time: Standard ☒	LAB USE ONLY — Project No:
City: Windsor State: CT 06095	Rush Chrages Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	Job No: 67815
Phone: 860-305-5903 Fax:		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of. Cont.	TCL VOCs	TCL SVOCs	TCL Pesticides	NJDEP EPH	Sample Numbers
E-GP-C4 (15-17.5')	12/4/13	1230	Soil	5	X	X	X	X	1
E-GP-E3 (10-15')	12/4/13	1430	Soil	5	X	X	X	X	2
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH; 6 = Other MeOH, 7 = Other ____				Soil:	1,6	1	1	1	
				Water:					

SHORT HOLD

5-Day RUSH

Special Instructions: EDD Required: TRC-CT; EQuIS EPAR2/FAA; NJ Hazsite

Water Metals Filtered (Yes/No)? N/A

Relinquished by	Company	Date / Time	Received by	Company
[signature]	TRC	12/5/13, 0942	1) [signature]	[signature]
2) [signature]	TA	12/5	2) [signature]	TA 12/5 1700
3) [signature]	TA	12/3 1530	3) [signature]	
4) [signature]		12/5 2025	4) [signature] 12/5/13	TA 2025

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0408)

DUH4 2/2.1 159264 (189264)

Shipped Under Custody Seal # 159264

TestAmerica Edison Receipt Temperature and pH Log

Page ____ of ____

Job Number: 67845

Number of Coolers: 4 IR Gun # 15

Temp. Cooler #1 (Deg C) (Raw/Corrected) 4/5.1 Temp. Cooler #4 (Deg C) (Raw/Corrected) _____ Temp. Cooler #7 (Deg C) (Raw/Corrected) _____

Temp. Cooler #2 (Deg C) (Raw/Corrected) _____ Temp. Cooler #5 (Deg C) (Raw/Corrected) _____ Temp. Cooler #8 (Deg C) (Raw/Corrected) _____

Temp. Cooler #3 (Deg C) (Raw/Corrected) _____ Temp. Cooler #6 (Deg C) (Raw/Corrected) _____ Temp. Cooler #9 (Deg C) (Raw/Corrected) _____

Sample No.	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	*Metals (pH<2)	Pest (pH 5-9)	PHC (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative: _____ Expiration Date: _____

Project Manager and the Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

EDS-WI-038, Rev 3, 10/8/12

Initials: _____ Date: 12/5/9

Login Sample Receipt Checklist

Client: TRC Environmental Corporation

Job Number: 460-67815-1

Login Number: 67815

List Source: TestAmerica Edison

List Number: 1

Creator: Hall, Alonzo

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	159264
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1° C IR #4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

APPENDIX C

SAFETY DATA SHEETS

RegenOx® – Part A (Oxidizer Complex)

Material Safety Data Sheet (MSDS)

Last Revised: June 24, 2010

Section 1 – Supplier Information and Material Identification

Supplier:

REGENESIS
1011 Calle Sombra
San Clemente, CA 92673
Telephone: 949.366.8000
Fax: 949.366.8090
E-mail: info@regenesis.com

Chemical Description:	A mixture of sodium percarbonate [$2Na_2CO_3 \cdot 3H_2O_2$], sodium carbonate [Na_2CO_3], sodium silicate and silica gel.
Chemical Family:	Inorganic Chemicals
Trade Name:	RegenOx® – Part A (Oxidizer Complex)
Product Use:	Used to remediate contaminated soil and groundwater (environmental applications)

Section 2 – Chemical Information/Other Designations

CAS No.	Chemical	Percentage
15630-89-4	Sodium Percarbonate	60 -100 %
5968-11-6	Sodium Carbonate Monohydrate	10 – 30 %
7699-11-6	Silicic Acid	< 1 %
63231-67-4	Silica Gel	< 1 %

Section 3 – Physical Data

Form:	Powder
Color:	White
Odor:	Odorless
Melting Point:	NA
Boiling Point:	NA

Section 3 – Physical Data (cont)

Flammability/Flash Point:	NA
Vapor Pressure:	NA
Bulk Density:	0.9 – 1.2 g/cm^3
Solubility:	Min 14.5g/100g water @ 20 ºC
Viscosity:	NA
pH (3% solution):	≈ 10.5
Decomposition Temperature:	Self-accelerating decomposition with oxygen release starts at 50 ºC.

Section 4 – Reactivity Data

Stability:	Stable under normal conditions
Conditions to Avoid/Incompatibility:	Acids, bases, salts of heavy metals, reducing agents, and flammable substances
Hazardous Decomposition Products:	Oxygen. Contamination with many substances will cause decomposition. The rate of decomposition increases with increasing temperature and may be very vigorous with rapid generation of oxygen and steam.

Section 5 – Regulations

TSCA Inventory Listed:	Yes
CERCLA Hazardous Substance (40 CFR Part 302)	
Listed Substance:	*No*
Unlisted Substance:	*Yes*
SARA, Title III, Sections 313 (40 CFR Part 372) – Toxic Chemical Release Reporting: Community Right-To-Know	
Extremely Hazardous Substance:	No
WHMIS Classification:	C, D2B
Canadian Domestic Substance List:	Appears

Section 6 – Protective Measures, Storage and Handling

Technical Protective Measures

Storage:

Oxidizer. Store in a cool, well ventilated area away from all sources of ignition and out of the direct sunlight. Store in a dry location away from heat and in temperatures less than 40 ˚C.

Keep away from incompatible materials and keep lids tightly closed. Do not store in improperly labeled containers.

Protect from moisture. Do not store near combustible materials. Keep containers well sealed.

Store separately from reducing materials. Avoid contamination which may lead to decomposition.

Handling:

Avoid contact with eyes, skin and clothing. Use with adequate ventilation.

Do not swallow. Avoid breathing vapors, mists or dust. Do not eat, drink or smoke in the work area.

Label containers and keep them tightly closed when not in use.

Wash hands thoroughly after handling.

Personal Protective Equipment (PPE)

Engineering Controls:

General room ventilation is required if used indoors. Local exhaust ventilation, process enclosures or other engineering controls may be needed to maintain airborne levels below recommended exposure limits. Avoid creating dust or mists. Maintain adequate ventilation at all times. Do not use in confined areas. Keep levels below recommended exposure limits. To determine actual exposure limits, monitoring should be performed on a routine basis.

Respiratory Protection:

For many conditions, no respiratory protection is necessary; however, in dusty or unknown conditions or when exposures exceed limit values a NIOSH approved respirator should be used.

Hand Protection:

Wear chemical resistant gloves (neoprene, rubber, or PVC).

Section 6 – Protective Measures, Storage and Handling (cont)

Eye Protection:	Wear chemical safety goggles. A full face shield may be worn in lieu of safety goggles.
Skin Protection:	Try to avoid skin contact with this product. Chemical resistant gloves (neoprene, PVC or rubber) and protective clothing should be worn during use.
Other:	Eye wash station.
Protection Against Fire & Explosion:	Product is non-explosive. In case of fire, evacuate all non-essential personnel, wear protective clothing and a self-contained breathing apparatus, stay upwind of fire, and use water to spray cool fire-exposed containers.

Section 7 – Hazards Identification

Potential Health Effects	
Inhalation:	Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath, and irritations to mucous membranes, nose and throat.
Eye Contact:	Causes irritation, redness and pain.
Skin Contact:	Causes slight irritation.
Ingestion:	May be harmful if swallowed (vomiting and diarrhea).

Section 8 – Measures in Case of Accidents and Fire

After Spillage/Leakage:	Eliminate all ignition sources. Evacuate unprotected personnel and never exceed any occupational exposure limit. Shovel or sweep spilt material into plastic bags or vented containers for disposal. Do not return spilled or contaminated material to the inventory.
Extinguishing Media:	Water
First Aid	
Eye Contact:	Flush eyes with running water for at least 15 minutes with eyelids held open. Seek a specialist.
Inhalation:	Remove affected person to fresh air. Seek medical attention if the effects persist.
Ingestion:	If the individual is conscious and not convulsing, give two-four cups of water to dilute the chemical and seek medical attention immediately. **Do Not** induce vomiting.

Section 8 – Measures in Case of Accidents and Fire (cont)

Skin Contact:	Wash affected areas with soap and a mild detergent and large amounts of water.

Section 9 – Accidental Release Measures

Precautions:	
Cleanup Methods:	Shovel or sweep spilt material into plastic bags or vented containers for disposal. Do not return spilled or contaminated material to the inventory.

Section 10 – Information on Toxicology

Toxicity Data	
LD50 Oral (rat):	2,400 mg/kg
LD50 Dermal (rabbit):	Min 2,000 mg/kg
LD50 Inhalation (rat):	Min 4,580 mg/kg

Section 11 – Information on Ecology

Ecology Data	
Ecotoxicological Information:	NA

Section 12 – Disposal Considerations

Waste Disposal Method	
Waste Treatment:	Dispose of in an approved waste facility operated by an authorized contactor in compliance with local regulations.
Package (Pail) Treatment:	The empty and clean containers are to be recycled or disposed of in conformity with local regulations.

Section 13 – Shipping/Transport Information

D.O.T. Shipping Name:	Oxidizing Solid, N.O.S. [A mixture of sodium percarbonate [$2Na_2CO_3 \cdot 3H2O_2$], sodium carbonate [Na_2CO_3], sodium silicate and silica gel.]
UN Number:	1479
Hazard Class:	5.1
Labels:	5.1 (Oxidizer)
Packaging Group:	III

Section 14 – Other Information

HMIS® Rating	Health – 1 (slight)	Reactivity – 1 (slight)
	Flammability – 0 (none)	Lab PPE – goggles, gloves, and lab coat

HMIS® is a registered trademark of the National Painting and Coating Association.

Section 15 – Further Information

The information contained in this document is the best available to the supplier at the time of writing, but is provided without warranty of any kind. Some possible hazards have been determined by analogy to similar classes of material. The items in this document are subject to change and clarification as more information become available. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose.

RegenOx® – Part B (Activator Complex)

Material Safety Data Sheet (MSDS)

Last Revised: June 4, 2010

Section 1 – Supplier Information and Material Identification

Supplier:

REGENESIS

1011 Calle Sombra
San Clemente, CA 92673
Telephone: 949.366.8000
Fax: 949.366.8090
E-mail: info@regenesis.com

Chemical Description:	A mixture of sodium silicate solution, silica gel and ferrous sulfate
Chemical Family:	Inorganic Chemicals
Trade Name:	RegenOx® – Part B (Activator Complex)
Product Use:	Used for environmental remediation of contaminated soils and groundwater

Section 2 – Chemical Information/Other Designations

CAS No.	Chemical
1344-09-8	Silicic Acid, Sodium Salt, Sodium Silicate
63231-67-4	Silica Gel
7720-78-7	Ferrous Sulfate
7732-18-5	Water

Section 3 – Physical Data

Form:	Liquid
Color:	Blue/Green
Odor:	Odorless
Melting Point:	NA
Boiling Point:	NA
Flammability/Flash Point:	NA
Vapor Pressure:	NA

Section 3 – Physical Data (cont)

Specific Gravity	1.39 g/cm^3
Solubility:	Miscible
Viscosity:	NA
pH (3% solution):	11
Hazardous Decomposition Products:	Oxides of carbon and silicon may be formed when heated to decomposition.

Section 4 – Reactivity Data

Stability:	Stable under normal conditions.
Conditions to Avoid:	None.
Incompatibility:	Avoid hydrogen fluoride, fluorine, oxygen difluoride, chlorine trifluoride, strong acids, strong bases, oxidizers, aluminum, fiberglass, copper, brass, zinc, and galvanized containers.

Section 5 – Regulations

TSCA Inventory Listed:	Yes

CERCLA Hazardous Substance (40 CFR Part 302)

Listed Substance:	*No*
Unlisted Substance:	*Yes*

SARA, Title III, Sections 302/303 (40 CFR Part 355) – Emergency Planning and Notification

Extremely Hazardous Substance:	No

SARA, Title III, Sections 311/312 (40 CFR Part 370) – Hazardous Chemical Reporting: Community Right-To-Know

Hazard Category:	Acute

SARA, Title III, Sections 313 (40 CFR Part 372) – Toxic Chemical Release Reporting: Community Right-To-Know

Extremely Hazardous Substance:	No

Section 6 – Protective Measures, Storage and Handling

Technical Protective Measures

Storage:	Keep in a tightly closed container (steel or plastic) and store in a cool, well ventilated area away from all incompatible materials (acids, reactive metals, and ammonium salts). Store in a dry location away from heat above 60 degrees C and colder than 10 degrees C. Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized containers.
Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Use with adequate ventilation. Do not use product if it is brownish-yellow in color.

Personal Protective Equipment (PPE)

Engineering Controls:	General room ventilation is required if used indoors. Local exhaust ventilation, process enclosures or other engineering controls may be needed to maintain airborne levels below recommended exposure limits. Safety shower and eyewash station should be within direct access.
Respiratory Protection:	Use NIOSH-approved dust and mist respirator where spray mist exists. Respirators should be used in accordance with 29 CFR 1910.134.
Hand Protection:	Wear chemical resistant gloves.
Eye Protection:	Wear chemical safety goggles. A full face shield may be worn in lieu of safety goggles.
Skin Protection:	Try to avoid skin contact with this product. Gloves and protective clothing should be worn during use.
Other:	
Protection Against Fire & Explosion:	Product is non-explosive and non-combustible.

Section 7 – Hazards Identification

Potential Health Effects

Inhalation:	Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath, and irritations to mucous membranes, nose and throat.
Eye Contact:	Causes irritation, redness and pain.
Skin Contact:	Causes irritation. Symptoms include redness, itching and pain.
Ingestion:	May cause irritation to mouth, esophagus, and stomach.

Section 8 – Measures in Case of Accidents and Fire

After Spillage/Leakage (small):	Mop up and neutralize liquid, then discharge to sewer in accordance with local, state and federal regulations.
After Spillage/Leakage (large):	Keep unnecessary personnel away; isolate hazard area and do not allow entrance into the affected area. Do not touch or walk through spilled material. Stop leak if possible without risking injury. Prevent runoff from entering into storm sewers and ditches that lead to natural waterways. Isolate the material if at all possible. Sand or earth may be used to contain the spill. If containment is not possible, neutralize the contaminated area and flush with large quantities of water.
Extinguishing Media:	Material is compatible with all extinguishing media.
Further Information:	

First Aid

Eye Contact:	Flush eyes with running water for at least 15 minutes with eyelids held open. Seek a specialist.
Inhalation:	Remove affected person to fresh air. Give artificial respiration if individual is not breathing. If breathing is difficult, give oxygen. Seek medical attention if the effects persist.
Ingestion:	If the individual is conscious and not convulsing, give two-four cups of water to dilute the chemical and seek medical attention immediately. **DO NOT** induce vomiting.
Skin Contact:	Wash affected areas with soap and a mild detergent and large amounts of water. Remove contaminated clothing and shoes.

Section 9 – Accidental Release Measures

Precautions:

PPE:	Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots (see Section 6).
Environmental Hazards:	Sinks and mixes with water. High pH of this material may be harmful to aquatic life. Only water will evaporate from a spill of this material.
Cleanup Methods:	Pick-up and place in an appropriate container for reclamation or disposal. US regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities.

Section 10 – Information on Toxicology

Toxicity Data

Sodium Silicate:	When tested for primary eye irritation potential according to OECD Guidelines, Section 405, a similar sodium silicate solution produced corneal, iridal and conjunctival irritation. Some eye irritation was still present 14 days after treatment, although the average primary irritation score has declined from 29.7 after 1 day to 4.0 after 14 days. When tested for primary skin irritation potential, a similar sodium silicate solution produced irritation with a primary irritation index of 3 to abraded skin and 0 to intact skin. Human experience confirms that irritation occurs when sodium silicates get on clothes at the collar, cuffs, or other areas where abrasion may exist. The acute oral toxicity of this product has not been tested.
Ferrous Sulfate:	LD50 Oral (rat): 319 mg/kg not a suspected carcinogen.

Section 11 – Information on Ecology

Ecology Data

Ecotoxicological Information:	Based on 100% solid sodium silicate, a 96 hour median tolerance for fish of 2,320 mg/l; a 96 hour median tolerance for water fleas of 247 mg/L; a 96 hour median tolerance for snail eggs of 632 mg/L; and a 96 hour median tolerance for Amphipoda of 160 mg/L.

Section 12 – Disposal Considerations

Waste Disposal Method

Waste Treatment:	Neutralize and landfill solids in an approved waste facility operated by an authorized contactor in compliance with local regulations.
Package (Pail) Treatment:	The empty and clean containers are to be recycled or disposed of in conformity with local regulations.

Section 13 – Shipping/Transport Information

D.O.T.	This product is not regulated as a hazardous material so there are no restrictions.

Section 14 – Other Information

HMIS® Rating	Health – 2 (moderate)	Reactivity – 0 (none)
	Flammability – 0 (none)	Lab PPE – goggles, gloves, and lab coat
	Contact – 1 (slight)	

HMIS® is a registered trademark of the National Painting and Coating Association.

Section 15 – Further Information

The information contained in this document is the best available to the supplier at the time of writing, but is provided without warranty of any kind. Some possible hazards have been determined by analogy to similar classes of material. The items in this document are subject to change and clarification as more information become available. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose.

Material Safety Data Sheet

Klozur® SP

MSDS #: 7775-27-1-12
Revision Date: 2013-02-19
Version 1.01

This MSDS has been prepared to meet U.S. OSHA Hazard Communication Standard 29 CFR 1910.1200
And Canadian Workplace Hazardous Materials Information System (WHMIS) requirements.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	**Klozur® SP**
Synonyms	Sodium Peroxydisulfate; Disodium Peroxydisulfate; Peroxydisulfuric acid, disodium salt; Peroxydisulfuric acid, sodium salt
Formula	H2O8S2.2Na
Recommended use:	In situ and ex situ chemical oxidation of contaminants and compounds of concern for environmental remediation applications
Uses advised against	No uses to be advised against were identified

Manufacturer

FMC CORPORATION
FMC Peroxygens
1735 Market Street
Philadelphia, PA 19103
Phone: +1 215/ 299-6000 (General Information)
E-Mail: msdsinfo@fmc.com

Emergency telephone number

For leak, fire, spill or accident emergencies, call:
+1 703-527-3887 (CHEMTREC)
1 303 / 595 9048 (Medical - U.S. - Call Collect)

2. Hazards identification

Emergency Overview

White, odorless crystals
Oxidizer; Contact with combustible material may cause fire
Decomposes in storage under conditions of moisture and/or excessive heat causing release of sulfur oxides and oxygen that supports combustion (See Section 10).

Potential health effects

Acute Toxicity

Eyes	Causes moderate eye irritation.
Skin	Moderately irritating to skin. May cause sensitization by skin contact.
Inhalation	May cause irritation of respiratory tract. Respiratory sensitizer.
Ingestion	Harmful if swallowed.

3. Composition/information on ingredients

Ingredients

Chemical Name	CAS-No	Weight %
Sodium Persulfate	7775-27-1	> 99

4. First aid measures

General advice Remove from exposure, lie down. Show this material safety data sheet to the doctor in attendance.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids intermittently. Consult a physician. In case of contact, immediately flush eyes with plenty of water. If symptoms persist, call a physician.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

Inhalation Remove from exposure, lie down. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.

Ingestion Do NOT induce vomiting. Call a physician or poison control center immediately. Rinse mouth. Drink 1 or 2 glasses of water.

5. Fire-fighting measures

Flash Point Not flammable

Suitable extinguishing media Water. Cool containers with flooding quantities of water until well after fire is out.

Unsuitable Extinguishing Media Do not use carbon dioxide or other gas filled fire extinguishers; they will have little effect on decomposing persulfate.

Explosion Data

Sensitivity to Mechanical Impact not applicable
Sensitivity to Static Discharge not applicable

Specific hazards arising from the chemical Decomposes under fire conditions to release oxygen that intensifies the fire.

Protective equipment and precautions for firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA	Health Hazard 2	Flammability 0	Stability 1	Special Hazards OX

6. Accidental release measures

Personal precautions Keep off any unprotected persons. Avoid contact with the skin and the eyes. Avoid breathing dust. Wear personal protective equipment.

Methods for containment Vacuum, shovel or pump waste into a drum and label contents for disposal. Avoid dust formation. Store in closed container.

Methods for cleaning up Clean up spill area and treat as special waste. Wash residue with plenty of water.

Other Never add other substances or combustible waste to product residues.

7. Handling and storage

Handling

Wear personal protective equipment. Refer to Section 8. Use only in area provided with appropriate exhaust ventilation. Avoid dust formation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Avoid contact with skin and eyes. Avoid breathing dust. Remove and wash contaminated clothing before re-use.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Do not store near combustible materials. Avoid contamination of opened product. Keep away from food, drink and animal feedingstuffs. Avoid formation and deposition of dust.

8. Exposure controls/personal protection

Exposure guidelines .

Chemical Name	British Columbia	Quebec	Ontario TWAEV	Alberta
Sodium Persulfate 7775-27-1	TWA: 0.1 mg/m^3		TWA: 0.1 mg/m^3	TWA: 0.1 mg/m^3

Occupational exposure controls

Engineering measures

Local exhaust ventilation w >90% efficiency.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Eye/face protection

Eye protection recommended. Chemical goggles consistent with EN 166 or equivalent.

Skin and body protection

Wear suitable protective clothing. Protective shoes or boots.

Hand protection

Protective gloves: Neoprene gloves, Polyvinylchloride, Natural Rubber

Hygiene measures

Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Wash hands before breaks and after shifts. Keep work clothes separate, remove contaminated clothing - launder after open handling of product.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Crystalline solid
Color	white
Physical state	solid
Odor	odorless
Odor Threshold	not applicable
pH	6.0 (1% solution)
Melting Point/Range	Decomposes on heating. 180 °C
Freezing point	not applicable
Boiling Point/Range	Decomposes
Flash Point	Not flammable
Evaporation rate	not applicable
Oxidizing properties	Oxidizer
Explosive properties	Not explosive
vapor pressure	6.07E-30 mm Hg at 25ºC

Vapor density	No information available.
Relative density	1.68
Molecular Weight	238.1
Water solubility	730 g/L @ 25 °C
Percent volatile	No information available.
Partition coefficient:	not applicable
Viscosity	(Solid)

9.2 Other information

Decomposition Temperature	> 100 °C
Autoignition Temperature	No evidence of combustion up to 600°C

10. Stability and reactivity

Stability

Stable.

Conditions to avoid

Heat; Moisture; Combustibles such as paper and wood.

Materials to avoid

Acids, Bases, Halides, Oxidizing agents, Strong reducing agents, Combustible materials,

Hazardous decomposition products

None known .

Hazardous polymerization

Hazardous polymerization does not occur.

Hazardous reactions

Use of persulfates in chemical reactions requires appropriate precautions and design considerations for pressure and thermal relief.

Decomposing persulfates will evolve large volumes of gas and/or vapor, can accelerate exponentially with heat generation, and create significant and hazardous pressures if contained and not properly controlled or mitigated.

Use with alcohols in the presence of water has been demonstrated to generate conditions that require rigorous adherence to process safety methods and standards to prevent escalation to an uncontrolled reaction.

11. Toxicological information

Acute effects

Eye irritation

Irritating to eyes. Has been shown to exhibit eye irritation properties in human case reports following occupational exposure and consumer use. Slight irritation (rabbit).

Skin irritation

Irritating to skin. Persulfates in general, specifically diammonium persulfate and dipotassium persulfate, exhibited skin irritation properties in human case reports, following occupational exposure and consumer use. Slight irritation (rabbit).

LD50 Oral	1200 mg/kg (Rat) Sodium Persulfate
LD50 Dermal	> 10,000 mg/kg (rabbit) Sodium Persulfate
LC50 Inhalation:	= > 5.1 mg/L (4-hr) (Rat) Sodium Persulfate

Sensitization

Sensitizing to skin and respiratory system Positive in a local lymph node assay.

Chronic Toxicity

Carcinogenicity

Did not show carcinogenic effects in animal experiments

Mutagenicity

In vivo tests did not show mutagenic effects. In vitro tests did not show mutagenic effects.

Target Organ Effects Eyes, Skin, Respiratory system.

12. Ecological information

Ecotoxicity

Sodium Persulfate (7775-27-1)

Active Ingredient(s)	Duration	Species	Value	Units:
Sodium Persulfate	96 h LC50	Rainbow trout	163	mg/L
Sodium Persulfate	48 h LC50	Daphnia magna	133	mg/L
Sodium Persulfate	96 h LC50	Grass shrimp	519	mg/L
Sodium Persulfate	72 h EC50	Algae S. Capricornutum	116	mg/L

Persistence and degradability Biodegradability does not pertain to inorganic substances.

Bioaccumulation Does not bioaccumulate.

Mobility Dissociates into ions.

Other adverse effects None known

13. Disposal considerations

Waste disposal methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations.

RCRA D Waste Code D001 (ignitable)

Contaminated packaging Dispose of in accordance with local regulations.

14. Transport information

DOT

UN/ID No UN 1505
Proper shipping name SODIUM PERSULFATE
Hazard Class 5.1
Packing group III
Reportable Quantity (RQ) not applicable

TDG

UN/ID No UN 1505
Proper shipping name SODIUM PERSULFATE
Hazard Class 5.1
Packing group III

ICAO/IATA

UN/ID No UN 1505
Proper shipping name SODIUM PERSULFATE
Hazard Class 5.1
Packing group III
Special Provisions Combination packaging is recommended for air transport

IMDG/IMO

UN/ID No UN 1505

Proper shipping name	SODIUM PERSULFATE
Hazard Class	5.1
Packing group	III

15. Regulatory information

International Inventories

TSCA Inventory (United States of America)	Complies
DSL (Canada)	Complies
NDSL (Canada)	Complies
EINECS/ELINCS (Europe)	Complies
ENCS (Japan)	Complies
IECSC (China)	Complies
KECL (Korea)	Complies
PICCS (Philippines)	Complies
AICS (Australia)	Complies
NZIoC (New Zealand)	Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	yes
Chronic Health Hazard	no
Fire Hazard	yes
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Sodium Persulfate	100 lb	

International Regulations

Mexico - Grade Moderate risk, Grade 2

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

C Oxidizing materials
D2A Very toxic materials
D2B Toxic materials

16. Other information

HMIS	Health Hazard 2	Flammability 0	Stability 1	Special precautions J

Protection=J (Safety goggles, gloves, apron, combination dust and vapor respirator)

Revision Date: 2013-02-19
Reason for revision: Initial Release.

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Prepared By

Product Stewardship

FMC Corporation
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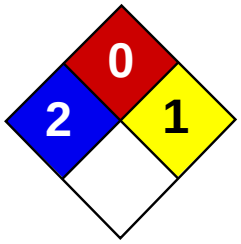
End of Material Safety Data Sheet



Health	3
Fire	0
Reactivity	1
Personal Protection	

Material Safety Data Sheet
Hydrogen Peroxide 30% MSDS

Section 1: Chemical Product and Company Identification

Product Name: Hydrogen Peroxide 30%

Catalog Codes: SLH1552

CAS#: Mixture.

RTECS: Not applicable.

TSCA: TSCA 8(b) inventory: Water; Hydrogen Peroxide

CI#: Not applicable.

Synonym: Hydrogen Peroxide 30%

Chemical Name: Not applicable.

Chemical Formula: Not applicable.

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Water	7732-18-5	70
Hydrogen Peroxide	7722-84-1	30

Toxicological Data on Ingredients: Hydrogen Peroxide: ORAL (LD50): Acute: 2000 mg/kg [Mouse]. DERMAL (LD50): Acute: 4060 mg/kg [Rat]. 2000 mg/kg [pig]. VAPOR (LC50): Acute: 2000 mg/m 4 hours [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:
Very hazardous in case of skin contact (irritant), of eye contact (irritant). Hazardous in case of skin contact (corrosive), of eye contact (corrosive), of ingestion, . Slightly hazardous in case of inhalation (lung sensitizer). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact:
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Serious Inhalation:
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: combustible materials

Explosion Hazards in Presence of Various Substances: Slightly explosive in presence of open flames and sparks, of heat, of organic materials, of metals, of acids.

Fire Fighting Media and Instructions:
Fire: Small fires: Use water. Do not use dry chemicals or foams. CO_2, or Halon may provide limited control. Large fires: Flood fire area with water from a distance. Move containers from fire area if you can do it without risk. Do not move cargo or vehicle if cargo has been exposed to heat. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. / Hydrogen peroxide, aqueous solution, with not less than 8% but less than 20% Hydrogen peroxide; Hydrogen peroxide, aqueous solution, with not less than 20% but not more than 60% Hydrogen peroxide (stabilized as necessary)/ [QC Reviewed] [U.S. Department of Transportation. 2000 Emergency Response Guidebook. RSPA P 5800.8 Edition. Washington, D.C: U.S. Government Printing Office, 2000,p. G-140]

Special Remarks on Fire Hazards:
Most cellulose (wood, cotton) materials contain enough catalyst to cause spontaneous ignition with 90% Hydrogen Peroxide. Hydrogen Peroxide is a strong oxider. It is not flammable itself, but it can cause spontaneous combustion of flammable materials and continued support of the combustion because it liberates oxygen as it decomposes. Hydrogen peroxide mixed with magnesium and a trace of magnesium dioxide will ignite immediately.

Special Remarks on Explosion Hazards:

Soluble fuels (acetone, ethanol, glycerol) will detonate on a mixture with peroxide over 30% concentration, the violence increasing with concentration. Explosive with acetic acid, acetic anhydride, acetone, alcohols, carboxylic acids, nitrogen containing bases, As2S3, Cl2 + KOH, FeS, FeSO4 + 2 methylpryidine + H2SO4, nitric acid, potassium permanganate, P2O5, H2Se, Alcohols + H2SO4, Alcohols + tin chloride, Antimoy trisulfide, chlorosulfonic acid, Aromatic hydrocarbons + trifluoroacetic acid, Azeliac acid + sulfuric acid (above 45 C), Benzenesulfonic anhydride, tert-butanol + sulfuric acid, Hydrazine, Sulfuric acid, Sodium iodate, Tetrahydrothiophene, Thiodiglycol, Mercurous oxide, mercuric oxide, Lead dioxide, Lead oxide, Manganese dioxide, Lead sulfide, Gallium + HCl, Ketenes + nitric acid, Iron (II) sulfate + 2-methylpyridine + sulfuric acid, Iron (II) sulfate + nitric acid, + sodium carboxymethylcellulose (when evaporated), Vinyl acetate, trioxane, water + oxygenated compounds (eg: acetaldehyde, acetic acid, acetone, ethanol, formaldehyde, formic acid, methanol, 2-propanol, propionaldehyde), organic compounds. Beware: Many mixitures of hydrogen peroxide and organic materials may not explode upon contact. However, the resulting combination is detonatable either upon catching fire or by impact. EXPLOSION HAZARD: SEVERE, WHEN HIGHLY CONCENTRATED OR PURE H2O2 IS EXPOSED TO HEAT, MECHANICAL IMPACT, OR CAUSED TO DECOMPOSE CATALYTICALLY BY METALS & THEIR SALTS, DUSTS & ALKALIES. ANOTHER SOURCE OF HYDROGEN PEROXIDE EXPLOSIONS IS FROM SEALING THE MATERIAL IN STRONG CONTAINERS. UNDER SUCH CONDITIONS EVEN GRADUAL DECOMPOSITION OF HYDROGEN PEROXIDE TO WATER + 1/2 OXYGEN CAN CAUSE LARGE PRESSURES TO BUILD UP IN THE CONTAINERS WHICH MAY BURST EXPLOSIVELY. Fire or explosion: May explode from friction, heat or contamination. These substances will accelerate burning when involved in a fire. May ignite combustibles (wood, paper, oil, clothing, etc.). Some will react explosively with hydrocarbons (fuels). Containers may explode when heated. Runoff may create fire or explosion hazard. /Hydrogen peroxide, aqueous solution, stabilized, with more than 60% Hydrogen peroxide; Hydrogen peroxide, stabilized/ [QC Reviewed] [U.S. Department of Transportation. 2000 Emergency Response Guidebook. RSPA P 5800.8 Edition. Washington, D.C: U.S. Government Printing Office, 2000,p. G-143] . Fire or explosion: These substances will accelerate burning when involved in a fire. Some may decompose explosively when heated or involved in a fire. May explode from heat or contamination. Some will react explosively with hydrocarbons (fuels). May ignite combustibles (wood, paper, oil, clothing, etc.). Containers may explode when heated. Runoff may create fire or explosion hazard. /Hydrogen peroxide, aqueous solution, with not less than 8% but less than 20% Hydrogen peroxide; Hydrogen peroxide, aqueous solution, with not less than 20% but not more than 60% Hydrogen peroxide (stabilized as necessary)/ [QC Reviewed] [U.S. Department of Transportation. 2000 Emergency Response Guidebook. RSPA P 5800.8 Edition. Washington, D.C: U.S. Government Printing Office, 2000,p. G-140] (Hydrogen Peroxide)

Section 6: Accidental Release Measures

Small Spill:
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill:
Corrosive liquid. Oxidizing material. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:
Keep locked up.. Keep container dry. Keep away from heat. Keep away from sources of ignition. Keep away from combustible material.. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, combustible materials, organic materials, metals, acids, alkalis.

Storage:
Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalies, reducing agents and combustibles. See NFPA 43A, Code for the Storage of Liquid and Solid Oxidizers. Do not store above 8°C (46.4°F). Refrigerate Sensitive to light. Store in light-resistant containers.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:
Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:
Hydrogen Peroxide TWA: 1 (ppm) from ACGIH (TLV) [United States] TWA: 1 (ppm) from OSHA (PEL) [United States] TWA: 1 STEL: 2 [Canada] TWA: 1.4 (mg/m3) from NIOSH TWA: 1.4 (mg/m3) from OSHA (PEL) [United States] TWA: 1 (ppm) [United Kingdom (UK)] TWA: 1.4 (mg/m3) [United Kingdom (UK)]Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid.

Odor: Odorless.

Taste: Slightly acid. Bitter

Molecular Weight: Not applicable.

Color: Clear Colorless.

pH (1% soln/water): Not available

Boiling Point: 108°C (226.4°F)

Melting Point: -33°C (-27.4°F)

Critical Temperature: Not available.

Specific Gravity: 1.1 (Water = 1)

Vapor Pressure: 3.1 kPa (@ 20°C)

Vapor Density: 1.1 (Air = 1)

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, diethyl ether.

Solubility:
Easily soluble in cold water. Soluble in diethyl ether.

Section 10: Stability and Reactivity Data

Stability: The product is stable. It contains a stabilizer.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, incompatible materials

Incompatibility with various substances: Reactive with reducing agents, combustible materials, organic materials, metals, acids, alkalis.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:
Light sensitive. Incompatible with reducing materials, ethers (dioxane, furfuran, tetrahydrofuran), oxidizing materials, Metals(eg. potassium, sodium lithium, iron, copper, brass, bronze, chromium, zinc, lead, silver, nickel), metal oxides (eg. cobalt oxide, iron oxide, lead oxide, lead hydroxide, manganese oxide), metal salts (eg. calcium permanganate, salts of iron), manganese, asbestos, vanadium, platinium, tungsten, molybdeum, triethylamine, palladium, sodium pyrophosphate, carboxylic acids, cyclopentadiene, formic acid, rust, ketones, sodium carbonate, alcohols, sodium borate, aniline, mercurous chloride, rust, nitric acid, sodium pyrophosphate, hexavalent chromium compounds, tetrahydrofuran, sodium fluoride organic matter, potassium permanganate, urea, chlorosulfonic acid, manganese dioxide, hydrogen selenide, charcoal, coal, sodium borate, alkalies, cyclopentadiene, glycerine, cyanides (potassium, cyanide, sodium cyanide), nitrogen compounds.. Caused to decompose catalytically by metals (in order of decreasing effectiveness): Osmium, Palladium, Platinum, Iridium, Gold, Silver, Manganese, Cobalt, Copper, Lead. Concentrated hydrogen peroxide may decompose violently or explosively in contact with iron, copper, chromium, and most other metals and their salts, and dust. (Hydrogen Peroxide)

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact.

Toxicity to Animals:
Acute oral toxicity (LD50): 6667 mg/kg (Mouse) (Calculated value for the mixture). Acute dermal toxicity (LD50): 6667 mg/kg (pig) (Calculated value for the mixture).

Chronic Effects on Humans:
CARCINOGENIC EFFECTS: Classified A3 (Proven for animal.) by ACGIH [Hydrogen Peroxide]. Classified 3 (Not classifiable for human.) by IARC [Hydrogen Peroxide]. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. [Hydrogen Peroxide]. Mutagenic for bacteria and/or yeast. [Hydrogen Peroxide]. Contains material which may cause damage to the following organs: blood, upper respiratory tract, skin, eyes, central nervous system (CNS).

Other Toxic Effects on Humans:
Very hazardous in case of skin contact (irritant). Hazardous in case of skin contact (corrosive), of eye contact (corrosive), of ingestion, of inhalation (lung corrosive).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:
May cause cancer and may affect genetic material based on animal data. May be tumorigenic. (Hydrogen Peroxide)

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: Causes severe skin irritation and possible burns. Absorption into skin may affect behavior/central nervous system (tremor, ataxia, convulsions), respiration (dyspnea, pulmonary emboli), brain. Eyes: Causes severe eye irritation, superficial clouding, corneal edema, and may cause burns. Inhalation: Causes respiratory tract irritation with coughing, lacrimation. May cause chemical burns to the respiratory tract. May affect behavior/Central nervous system (insomnia, headache, ataxia, nervous tremors with numb extremities) and may cause ulceration of nasal tissue, and , chemical pneumonia, unconciousness, and possible death. At high concentrations, respiratory effects may include acute lung damage, and delayed pulmonary edema. May affect blood. Ingestion: Causes gastrointestional tract irritation with nausea, vomiting, hypermotility, and diarrhea. Causes gastrointestional tract burns. May affect cardiovascular system and cause vascular collapse and damage. May affect blood (change in leukocyte count, pigmented or nucleated red blood cells). May cause difficulty in swallowing, stomach distension and possible cerebal swelling. May affect behavior/central nervous system (tetany, excitement). Chronic Potential Health Effects: Prolonged or repeated skin contact may cause dermatitis. Repeated contact may also cause corneal damage. Prolonged or repeated ingestion may affect metabolism (weight loss). Prolonged or repeated inhalation may affect respiration, blood. (Hydrogen Peroxide)

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation: Possibly hazardous short/long term degradation products are to be expected.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: CLASS 5.1: Oxidizing material.

Identification: : Hydrogen peroxide, aqueous solution UNNA: 2014 PG: II

Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information

Federal and State Regulations:
New York acutely hazardous substances: Hydrogen Peroxide Rhode Island RTK hazardous substances: Hydrogen Peroxide Pennsylvania RTK: Hydrogen Peroxide Florida: Hydrogen Peroxide Minnesota: Hydrogen Peroxide Massachusetts RTK: Hydrogen Peroxide New Jersey: Hydrogen Peroxide TSCA 8(b) inventory: Hydrogen Peroxide SARA 302/304/311/312 extremely hazardous substances: Hydrogen Peroxide CERCLA: Hazardous substances.: Hydrogen Peroxide: 1 lbs. (0.4536 kg);

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada):
CLASS C: Oxidizing material. CLASS E: Corrosive liquid. CLASS F: Dangerously reactive material.

DSCL (EEC):

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 0

Reactivity: 1

Personal Protection:

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 0

Reactivity: 1

Specific hazard:

Protective Equipment:
Gloves. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Face shield.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: 10/09/2005 05:46 PM

Last Updated: 05/21/2013 12:00 PM

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