PHASE II ENVIRONMENTAL SITE ASSESSMENT
WHITINGS AXE FACTORY PROPERTY
TAX MAP 21, LOT 5E
BELFAST, MAINE

Prepared for:

City of Belfast, Maine
131 Church Street
Belfast, Maine
(Using USEPA Brownfields Funding
Under Belfast's Assessment Grant No. BF96151001-0)

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EXECUTIVE SUMMARY

On behalf of the City of Belfast, the following report presents the findings of a Phase II Environmental Site Assessment (ESA) performed by Ransom Consulting, Inc. (Ransom) for the Whiting's Axe Factory property identified as Lot 5E on the City of Belfast Assessor's Tax Map 21 in the City of Belfast, Waldo County, Maine (the "Site"). The Phase II ESA was performed in conjunction with the United States Environmental Protection Agency (US EPA) and the Maine Department of Environmental Protection (MEDEP) and was conducted using US EPA Brownfield funding under the City of Belfast's municipal Brownfields Site Assessment Program (Grant No. BF96151001-0).

The Site encompasses an approximate 0.16-acre, irregular-shaped parcel of land located along the western side of Goose River and two irregular-shaped, right-of-way, strips of land along the western and eastern banks of Goose River, which encompass approximately 0.07-acres of land. The Site is not improved with buildings and currently consists of undeveloped wooded land and/or overgrown vegetated land, with the exception of a field stone wall, which is constructed along the southern property boundary of the Site. The right-of-way strips of land are located to the south of a wooden bridge that crosses the Goose River. The bridge is utilized by the residence on the eastern side of the river and was also utilized by the former, dilapidated residence on the western side of Goose River. The Site is proposed to be developed for hydroelectric power generation reuse.

Based on available information, Whiting's Axe Factory (also formerly Robertson's Sawmill) was reportedly located on the eastern side of Goose River across from the Site from circa 1855 to circa 1965. A field stone dam was reportedly constructed across Goose River, along the southern Site boundary and was utilized by the axe factory and sawmill; however, the Site was reportedly never improved with buildings/structures that were utilized by the axe factory or sawmill. The dam was reportedly never utilized for hydroelectric power generation and was breached/destroyed sometime in the 1990s.

A Phase I ESA, dated July 10, 2012, was completed by Ransom, which identified *Recognized Environmental Conditions (RECs)* associated with the former use of the eastern adjoining property as an axe factory and sawmill. Ransom identified that potential unknown and/or unreported oil and/or hazardous material (OHM) releases, associated with former axe manufacturing and/or sawmill operations and unknown and/or unreported OHM releases, associated with numerous trash piles containing wood, plastic, and metal debris, including an empty 55-gallon drum located on the southern adjoining property along the field stone wall that separates the Site from this property may have historically occurred at the Site. Based on the findings from the Phase I ESA, two areas of concern (AOCs) were identified and targeted for additional investigation through the completion of a Phase II ESA.

The objective of the Phase II ESA was to collect sufficient data to confirm or dismiss the *RECs* identified during the Phase I ESA, to identify potential exposure risks, and to evaluate the suitability of the Site for the proposed hydroelectric power generation reuse. The Phase II scope of work included the advancement of soil borings, installation of a temporary groundwater monitoring well, and the collection and chemical analysis of soil and groundwater samples throughout the Site. The Phase II ESA field investigation was completed in January 2013.

The results of the Phase II ESA indicate that no evidence of gross soil contamination was observed at the Site as a result of the former sawmill and axe factory industrial uses at the eastern adjoining property or numerous debris/trash piles at the southern adjoining property. Ransom also did not observe evidence of "petroleum-saturated soils" during our soil boring program or evidence of "free petroleum product" contamination in groundwater encountered during the soil boring advancements or gauging of the temporary groundwater monitoring well at the Site.

Low-level concentrations of two petroleum-related volatile organic compounds (VOCs), specifically, toluene and total xylenes, were detected in the groundwater sample collected at the Site. The VOCs were not detected in the groundwater sample at concentrations exceeding their respective Maine Center of Disease Control (MCDC) Maximum Exposure Guidelines (MEGs) or US EPA Maximum Contaminant Levels (MCLs) for drinking water scenarios, or MEDEP's State-wide Groundwater and Drinking Water Petroleum Remediation Guidelines. The presence of these petroleum-related VOCs in groundwater are likely associated with minor OHM release(s) originating from numerous debris/trash piles at the southern adjoining property, since our groundwater sample was collected in close proximity and downgradient from the debris/trash piles. No other VOCs or petroleum-related contaminants were detected at concentrations above their respective laboratory detection limits in the groundwater sample collected at the Site.

Arsenic was detected in surficial soils and subsurface soils throughout the Site at concentrations exceeding its corresponding MEDEP Remedial Action Guidelines (RAGs) for both "Outdoor Commercial Worker" and "Excavation/Construction Worker" exposure scenarios. Additionally, dissolved arsenic was detected in the groundwater sample collected at the Site at a concentration that slightly exceeded its MCDC MEG and USEPA MCL for drinking water exposure scenarios. However, in comparison to the background concentrations, the detected concentrations of arsenic in the soil and groundwater samples collected at the Site are anticipated to represent naturally occurring concentrations; therefore, the presence of arsenic in Site soils and groundwater are not likely the result of unknown and/or unreported OHM releases, associated with former sawmill and axe factory industrial uses at the eastern adjoining property or numerous debris/trash piles at the southern adjoining property. In addition, cadmium, chromium, and lead were also detected in soil and/or groundwater samples collected throughout the Site; however, these metals were detected at concentrations that appear to be representative of naturally occurring concentrations.

Based on the information obtained during this Phase II Investigation, Ransom concludes that additional environmental investigation and/or remedial activities are not warranted at this time; however, we recommend submitting the Site to the MEDEP Voluntary Response Action Program (VRAP) for No Further Action Assurance status. As part of the VRAP process, Ransom recommends that groundwater should be properly filtered to remove dissolved arsenic if Site groundwater is utilized as a potable water source. However, public water is currently supplied to the Site vicinity; therefore, Ransom recommends that the public water service should be provided to the Site for proposed hydroelectric power generation use, if needed.

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1.0 INTRODUCTION

On behalf of the City of Belfast, Ransom Consulting, Inc. (Ransom) is pleased to present this report documenting the results of a Phase II Environmental Site Assessment (ESA) performed for the Whiting's Axe Factory property identified as Lot 5E on the City of Belfast Assessor's Tax Map 21 in the City of Belfast, Waldo County, Maine (the "Site"). This Phase II ESA was performed in conjunction with the United States Environmental Protection Agency (US EPA) and the Maine Department of Environmental Protection (MEDEP) and was completed using US EPA Brownfields funding under the City of Belfast's Brownfields Assessment Program (Grant No. BF96151001-0). Furthermore, this investigation was completed in accordance with Ransom's Site-Specific Quality Assurance Project Plan (SSQAPP, Addendum No. 22), dated December 19, 2012. The SSQAPP was reviewed and approved by the MEDEP and the US EPA, prior to implementation of the field activities.

1.1 PURPOSE

A Phase I ESA, dated July 10, 2012, was completed by Ransom, which identified *Recognized Environmental Conditions (RECs)* associated with the former use of the eastern adjoining property as an axe factory and sawmill. Ransom identified potential unknown and/or unreported oil and/or hazardous materials (OHM) releases associated with former axe manufacturing and/or sawmill operations in the Site vicinity. Additionally, Ransom identified numerous trash piles containing wood, plastic, and metal debris, including an empty 55-gallon drum (unknown contents) located on the southern adjoining property along the field stone wall boundary from the Site that may have adversely impacted environmental conditions at the Site. Based on the findings from the Phase I ESA, two areas of concern (AOCs) were identified and targeted for additional investigation through the completion of a Phase II ESA. It is Ransom's understanding that the Site is proposed to be developed for hydroelectric power generation reuse.

The purpose of the Phase II ESA was to evaluate each of the identified AOCs for the potential presence of contaminants of concern (COCs), and to assess the potential risk of exposure to site workers, site visitors, and future site occupants. Furthermore, the objective of the Phase II ESA was to collect sufficient data to confirm or dismiss the *RECs* identified during the Phase I ESA and to determine if oil and/or hazardous materials OHM associated with these RECs have potentially impacted environmental conditions at the Site.

1.2 SPECIAL TERMS AND CONDITIONS

This Phase II ESA was conducted in accordance with our executed Master Services Agreement with the City of Belfast, dated April 27, 2012. Authorization to perform this Phase II ESA was provided by the City of Belfast.

This report was prepared using US EPA Brownfields funding under the City of Belfast's Brownfields Assessment Grant No. BF96151001-0, and therefore, is a public document. However, the services, findings, and conclusions, noted herein, and associated documents provided to the client by Ransom are solely for the benefit of the City of Belfast, their affiliates and subsidiaries and their successors, assigns, and grantees. Other than for public informational purposes, reliance or any use of this report by anyone other than City of Belfast, for whom it was prepared, is prohibited. Furthermore, reliance or use by any such third party without explicit authorization in the report does not make said third party a third party beneficiary to Ransom's contract with City of Belfast. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

1.3 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The Phase II Investigation was executed in accordance with the scope of work proposed in the SSQAPP. Any additional revisions to the scope of work or methodologies outlined in the SSQAPP were implemented, based on conditions encountered in the field, and are discussed in Section 2.0. Furthermore, the findings provided by Ransom in this report are based solely on the information reported in this document and the results of limited explorations and confirmatory laboratory testing. Our findings and conclusions must be considered as our professional opinion concerning the significance of the limited data gathered during the course of the environmental assessments. Ransom does not and cannot represent that the Site contains no OHM or other adverse environmental conditions beyond that observed by Ransom during the environmental assessments and field investigations. Should additional information become available in the future, this information can be reviewed by Ransom and the findings, presented herein, may be modified as a result of the review.

2.0 BACKGROUND

2.1 SITE DESCRIPTION, HISTORY, AND PHYSICAL SETTING

The Site encompasses an approximate 0.16-acre, irregular-shaped parcel of land located along the western side of Goose River and two irregular-shaped, right-of-way, strips of land along the western and eastern banks of Goose River, which encompass approximately 0.07-acres of land. The Site is not improved with buildings and currently consists of undeveloped wooded land and/or overgrown vegetated land with the exception of a field stone wall, which is constructed along the southern property boundary of the Site. The right-of-way strips of land are located to the south of a wooden bridge that crosses the Goose River. The bridge is utilized by the residence on the eastern side of the river and was also utilized by the former, dilapidated residence on the western side of Goose River.

Based on available information, Whiting's Axe Factory (also formerly Robertson's Sawmill) was reportedly located on the eastern side of Goose River across from the Site from circa 1855 to circa 1965. A field stone dam was reportedly constructed across Goose River along the southern Site boundary and was utilized by the axe factory and sawmill; however, the Site was reportedly never improved with buildings/structures that were utilized by the axe factory or sawmill. The dam was reportedly never utilized for hydroelectric power generation and was breached/destroyed sometime in the 1990s.

During our Phase I ESA reconnaissance, Ransom did not observe OHM storage and/or evidence of an OHM release at the Site; however, numerous trash piles containing wood, plastic, and metal debris were observed on the southern adjoining property along the field stone wall that separates the main portion of the Site from the southern adjoining property. These debris piles also contained automotive parts, unmarked containers, degraded furniture, concrete filler, HVAC ductwork, PVC piping, and one empty 55-gallon drum. No staining and/or leakage, indicative of a release of OHM, were observed in connection with these debris piles or 55-gallon drum during our reconnaissance.

2.2 RECOGNIZED ENVIRONMENTAL CONDITIONS

A Phase I ESA was completed by Ransom on July 10, 2012. Both the MEDEP and US EPA have reviewed and approved the Phase I ESA and agree that the *Recognized Environmental Conditions (RECs)* listed in the report were appropriate and inclusive based on the data presented, as stated below:

1. Former use of the eastern adjoining property as an axe factory and sawmill with potential unknown and/or unreported OHM releases associated with former axe manufacturing and/or sawmill operations. Due to the close proximity of this property from the Site and potential historical use of the Site for ancillary axe manufacturing and/or sawmill operations, OHM releases may have adversely impacted environmental conditions at the Site, specifically at riparian areas along the Goose River.

2. Unknown and/or unreported OHM releases associated with numerous trash piles containing wood, plastic, and metal debris, including an empty 55-gallon drum located on the southern adjoining property along the field stone wall that separates the Site from this property.

Based on the findings of our Phase I ESA, it was Ransom's opinion that additional investigation was warranted to address the above-stated *RECs*, document current Site conditions in relation to current regulatory cleanup guidelines, and evaluate the suitability of the Site property for redevelopment.

2.3 AREAS OF CONCERN

Based on the findings of the Phase I ESA and the identified RECs, two AOCs were identified at the Site and are summarized below.

AOC 1—Entire Site (Former Industrial Use of Eastern Adjoining Property)

AOC 1 encompasses the entire Site. Former industrial uses of the eastern adjoining property, including operation as a sawmill and axe factory, have the potential to have impacted soil and/or groundwater conditions at the Site. The objective for investigating AOC 1 was to assess current soil and groundwater conditions and evaluate potential exposure risks associated with former industrial operations at the eastern adjoining property.

The sources of COCs, associated with this AOC, include volatile and semi-volatile petroleum products, chlorinated solvents, combustion ash, and lubricant oils. Specific COC analytical parameters include volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbons (EPH) with Target polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs) (including petroleum and chlorinated solvents), polychlorinated biphenyls (PCBs), and metals. If present, these contaminants would likely be detected in surficial soils, subsurface soils, and/or groundwater at the Site. Several metals may be associated with historic coal combustion, waste oils, or other waste fluids, which may have been disposed of on the neighboring property. Of these, the metals arsenic, cadmium, chromium, and lead have the potential to represent an exposure risk due to their relatively high toxicity characteristics. The remaining metals associated with coal/wood combustion and waste fluids are not anticipated to represent an exposure risk due to their relatively low toxicity characteristics.

AOC 2—Southern Adjoining Property (Potential OHM Dumping/Releases)

AOC 2 encompasses Site areas in close proximity and/or downgradient of the southern adjoining property. The objective for investigating AOC 2 was to assess whether unknown and/or unreported OHM releases associated with numerous trash piles containing wood, plastic, and metal debris, including an empty 55-gallon drum located on the southern adjoining property have adversely impacted soil and/or groundwater conditions at the Site.

The sources of COCs associated with this AOC are unknown and may include several types of OHM. Specific COC analytical parameters include VPH, EPH, PAHs, VOCs (including petroleum and chlorinated solvents), PCBs, and metals (arsenic, cadmium, chromium, and lead). If present, these contaminants would likely be detected in surficial soils, subsurface soils, and/or groundwater at the Site). Dissolved phase contaminants may be migrating with localized groundwater flow direction. Public water is available in the vicinity of the Site; therefore, ingestion of impacted groundwater does not pose a risk at this time. However, potential contaminant concentrations in groundwater will be evaluated for the purpose of identifying source areas and potential remediation scenarios.

3.0 INVESTIGATION METHODOLOGY

The Phase II Investigation was designed to collect sufficient data to characterize the environmental condition of the Site in relation to current risk-based regulatory standards, identify potential exposure risks to current and future Site occupants, and evaluate the suitability of the Site for the proposed redevelopment.

The scope of work for the Phase II ESA was developed, based on the conceptual site model presented in the SSQAPP, and included the advancement of three soil borings, installation of one temporary groundwater monitoring well, and the collection and chemical analysis of soil and groundwater samples. Soil boring and monitoring well sample locations are shown on Figure 2.

3.1 SOIL BORING ADVANCEMENT

On January 21, 2013, Ransom observed the advancement of three soil borings, identified as B101 through B103, by Environmental Projects Inc. (EPI) of Auburn, Maine. The soil borings were advanced utilizing direct-push (i.e., GeoProbe®) drilling techniques. At each soil boring location, 4-foot macrocore soil samples were collected continuously from surface grade to the termination of each boring. The borings were advanced to depths ranging from 6 to 9 feet bgs.

As previously discussed, AOC 1 encompasses the entire Site since former industrial uses of the eastern adjoining property, including operation as a sawmill and axe factory may have impacted soil and/or groundwater conditions at the Site. AOC 2 encompasses Site areas in close proximity and/or downgradient of the southern adjoining property in order to investigate whether unknown and/or unreported OHM releases associated with numerous trash piles containing wood, plastic, and metal debris, including an empty 55-gallon drum located on the southern adjoining property have adversely impacted soil and/or groundwater at the Site. In order to characterize current site-wide soil conditions (AOC 1), three soil borings (B101 through B103) were advanced at the Site. Soil boring (B102) was advanced in close proximity to trash/debris piles at the southern adjoining property and was subsequently converted to a temporary groundwater monitoring well (MW101) in order to address soil and groundwater conditions at AOC 2.

Soil samples collected during the advancement of the soil borings were visually classified in the field by Ransom in general accordance with the Burmister Soil Classification System. Surficial soil samples (approximately zero to two feet bgs) were separated from subsurface soil samples (greater than two feet bgs) in order to evaluate exposure risks to site workers, site visitors and future site occupants.

3.2 QUALITATIVE FIELD SCREENING

Soil samples collected during the advancement of the soil borings and surficial soil sampling were screened in the field for the presence of total organic volatile compounds (TVOCs), using a photoionization detector (PID), equipped with a 10.6 eV lamp and calibrated to an isobutylene standard. Select soil samples (generally representing surficial soil conditions) were also screened for metals using an x-ray fluorescence meter (XRF).

Samples were collected for laboratory analysis from the locations and depths based on observations in the field (visual or olfactory evidence of contamination) and/or proximity to the ground water table. Sample intervals, sample recovery, and organic vapor concentrations (as determined by field screening) are included on the soil boring logs provided as Appendix A. Field screening results for concentrations of metals in soil are included in Table 1.

3.3 SOIL SAMPLING AND ANALYTICAL TESTING

Soil samples collected from the soil borings were submitted to Analytics Environmental Laboratory, LLC (Analytics) of Portsmouth, New Hampshire, for chemical analysis. Based on field screening results and observations, Ransom submitted one surficial soil sample (0-2 feet bgs) collected from boring B103 and one subsurface soil sample (4 to 8 feet bgs) collected from boring B102. Soil samples were collected directly from the sampling equipment and transferred into laboratory-prepared glassware. The samples were preserved in the field in accordance with applicable protocols and delivered on ice under chain-of-custody protocol for chemical analysis for the following parameters based on the nature of the suspected contaminant source as outlined in the AOCs described in Section 2.3:

1. Volatile Organic Compounds (VOCs), by U.S. EPA Method 8260B;

2. Volatile Petroleum Hydrocarbon (VPH) fractions, excluding the target petroleum VOCs, by Massachusetts Department of Environmental Protection (MA DEP) Method 98-1 (VPH Standard);

3. Extractable petroleum hydrocarbon (EPH) fractions, including target polycyclic aromatic hydrocarbons (PAHs), by MA DEP Method 98-1 (EPH Full);

4. Metals (arsenic, cadmium, chromium, and lead) by U.S. EPA Method Series 6000/7000; and

5. Polychlorinated Biphenyls (PCBs) by U.S. EPA Method 8082.

Additionally, a duplicate soil sample (SB10X) was collected from soil boring B102 and submitted for laboratory analysis for quality assurance/quality control (QA/QC) protocols as outlined in the SSQAPP.

3.4 BACKGROUND SOIL SAMPLING AND ANALYTICAL TESTING

In order to compare site-specific soil concentrations of metals and EPH with background soil conditions in the vicinity of the Site, one surficial soil sample (zero to two feet bgs) was collected at the southwestern side of the Goose River at the Site, which is presumed to be unaffected by industrial operations at the eastern adjoining property and miscellaneous dumping at the southern adjoining property, due to the distance of this sample from these properties. This background soil sample (designated as BK-1) was collected with hand tools (i.e., shovels and pick axes) concurrent with the field activities on January 21, 2013. The site-specific background soil sample location is shown on Figure 2.

The background soil sample was visually classified in the field by Ransom in general accordance with the Burmister Soil Classification System and field-screened for the presence of TVOCs using a PID and for the presence of metals (arsenic, cadmium, chromium, and lead) using an XRF. The background soil sample was collected directly from the sampling equipment and transferred into laboratory-prepared glassware. The sample was preserved in the field in accordance with applicable protocols and delivered on ice under chain-of-custody protocol to Analytics for laboratory analysis of EPH and metals (arsenic, cadmium, chromium, and lead).

In conjunction with the Site investigation, Phase II ESAs were also performed at three similar properties along the Goose River. Each of these investigations included the collection and analysis of site-specific background samples. Results of these samples were used to develop an area-wide database of background concentrations. The background samples are anticipated to be indicative of general conditions in the area of the Goose River, and are not expected to be influenced by historical operations associated with the sites investigated. Area-wide background results are also summarized in Table 2.

3.5 TEMPORARY GROUNDWATER MONITORING WELL INSTALLATION

On January 21, 2013, one soil boring (B102) was completed as a temporary groundwater monitoring well (MW101). During advancement of this soil boring, groundwater was encountered at an approximate depth of 6.5 feet bgs. Groundwater was not encountered in the other soil borings (B101 and B103), which were advanced to presumed bedrock refusal. The monitoring well was constructed using 1-inch-diameter Schedule 40 PVC well casing and 5 feet of factory-slotted screen. The temporary monitoring well was removed from the Site upon the completion of groundwater sampling activities. Well construction details can be found on the boring logs provided as Appendix A.

3.6 GROUNDWATER SAMPLING AND ANALYTICAL TESTING

Prior to sample collection, the monitoring well was developed using a peristaltic pump and dedicated tubing. The well was developed in an effort to remove silt and fines and to restore the natural permeability of the soils surrounding the well screen. During the course of well development, no evidence of light non-aqueous phase liquid (LNAPL) or dense non-aqueous phase liquid (DNAPL) were observed. When purging was complete, the monitoring well was sampled in accordance with the low-flow sampling methods specified in the SSQAPP.

The groundwater sample collected from temporary monitoring well MW101 was collected directly from the sampling equipment and transferred into laboratory-prepared sample containers. The sample was preserved in the field in accordance with applicable protocols and delivered on ice under chain-of-custody protocol to Analytics for laboratory analysis of the following parameters based on the nature of the suspected contaminant source as outlined in the AOCs described in Section 2.3:

1. VOCs by U.S. EPA Method 8260B;

2. VPH fractions, excluding the target petroleum VOCs, by MA DEP Method 98-1 (VPH Standard);

3. EPH fractions, including target PAHs, by MA DEP Method 98-1 (EPH Full); and

4. Dissolved metals (arsenic, cadmium, chromium, and lead) by U.S. EPA Method Series 6000/7000.

A duplicate groundwater sample (MW10X) was collected from monitoring well MW101 and submitted for laboratory analysis for quality assurance/quality control (QA/QC) protocols as outlined in the SSQAPP.

4.0 RESULTS

The following subsections document the results of the Phase II ESA activities. Soil sample analytical results are summarized in Table 3. Groundwater sample analytical results are summarized in Table 4. Copies of the laboratory chemical analysis data reports are provided as Appendix B.

4.1 GUIDELINES AND STANDARDS

Analytical results were compared to both background analyte concentrations and risk-based guidelines presented in the SSQAPP. The risk-based guidelines include the following:

- Maine Remedial Action Guidelines (RAGs) for Soil Contaminated with Hazardous Substances;
- Remediation Guidelines for Petroleum Contaminated Sites in Maine; and
- Maine Center for Disease Control (CDC) Maximum Exposure Guidelines (MEGs) for Drinking Water.

Soil

The analytical results of soil samples collected at the Site were compared to the MEDEP Bureau of Remediation and Waste Management's "*Remedial Action Guidelines (RAGs) for Soil Contaminated with Hazardous Substances*", dated January 6, 2010; and MEDEP's "*Remediation Guidelines for Petroleum Contaminated Sites in Maine*," dated November 20, 2009 (Petroleum Remediation Guidelines). For comparison purposes, the "DRAFT *RAGs for Sites Contaminated with Hazardous Substances*," dated January 11, 2012, have also been included in Table 3.

Since the Site is currently not developed and is proposed to be developed for hydroelectric power generation use, the MEDEP RAG for "Outdoor Commercial Worker" exposure scenario appears to be the most applicable guidance standard. In addition, potential exposure risks to Site workers during future construction activities and utility work (i.e., subsurface water and sewer lines) exist at the Site; and therefore, "Excavation/Construction Worker" scenarios also apply to areas at the Site in the vicinity of subsurface utilities in order to evaluate potentially unacceptable risks to excavation or construction workers during proposed Site redevelopment and/or future utility work at the Site.

Groundwater

Although, municipal drinking water is provided to the Site and vicinity, Ransom utilized MEDEP BRWM's "*Petroleum Remediation Guidelines*", which includes the Maine Department of Human Services MEGs, in order to compare analytical results of groundwater samples collected at the Site and to assess potential costs for managing contaminated groundwater and potentially unacceptable risks to site construction workers, during proposed Site redevelopment and/or future utility work at the Site.

4.2 GEOLOGY AND HYDROGEOLOGY

In general, soils encountered during the Phase II Investigation were relatively consistent throughout the Site. Shallow soils at the Site contained fill, which consisted of brown sand with varying amounts of silt to depths ranging from 0 to 6.5 feet bgs. Shallow soils also contained urban fill constituents (i.e., bricks and concrete) and were underlain by native glacial/fluvial soils consisting of brown to gray fine sand and silt with varying amounts of weathered rock to depths ranging from 4 to 9 feet bgs. Probe refusal (presumed bedrock) was encountered at depths ranging from 6 to 9 feet bgs. Groundwater was encountered at an approximate depth of 6.5 feet bgs at the Site.

No evidence of "petroleum-saturated soils" or evidence of "free petroleum product" contamination was observed in groundwater encountered during the soil boring advancements or gauging of the temporary groundwater monitoring well. Organic vapors were not detected in any of the soil samples collected from the soil borings at concentrations greater than 1 part per million by volume (ppmv), the practical detection limit of the PID.

4.3 AREA-WIDE BACKGROUND DATA

Area-wide background data was collected from the Site and three additional properties along the Goose River. Findings from the area-wide background samples indicated arsenic concentrations ranging from 5.9 to 44 milligrams per kilogram (mg/kg). Lead was observed to range from concentrations of 20 to 72 mg/kg. Concentrations of chromium ranged from 22 to 33 mg/kg. Cadmium was not detected above the laboratory detection limit in any of the area-wide background samples. Analytical results of the area-wide background samples are shown in Table 2.

For the purpose of this Phase II Investigation, arsenic, cadmium, chromium, and lead concentrations in soil samples collected at the Site are considered elevated, if they exceed the area-wide background concentrations identified at the Site and similar properties along the Goose River.

4.4 SITE-SPECIFIC BACKGROUND DATA

The following is a summary of laboratory analytical results of the site-specific background surficial soil sample (BK-1) collected during this investigation. Background soil sample analytical results are summarized in Table 3. A copy of the laboratory chemical analysis data report is provided as Appendix B.

Extractable Petroleum Hydrocarbons & Target Polycyclic Aromatic Hydrocarbons

As shown in Table 3, EPH fractions and target PAHs were not detected at concentrations above their respective laboratory detection limits in the surficial (zero to two feet bgs) background soil sample (BK-1) collected at the Site. For the purposes of this Phase II Investigation, target PAH and EPH concentrations in shallow soil samples collected at the Site are considered elevated, if they exceed their respective laboratory detection limits.

Metals

As shown in Table 3, arsenic, chromium, and lead were detected in the surficial (zero to two feet bgs) background soil sample (BK-1) at concentrations of 8.4, 31, and 72 mg/kg, respectively. The concentrations of these metals are indicative of naturally occurring, background

concentrations in Maine. Cadmium was not detected in the background soil sample at a concentration above its laboratory detection limit.

4.5 SITE DATA

Soil Sample Analytical Results

Volatile Organic Compounds

As shown in Table 3, VOCs were not detected in the surficial soil sample collected from boring B103 or the subsurface soil sample collected from boring B102 at concentrations above their respective laboratory detection limits.

Volatile Petroleum Hydrocarbons

As shown in Table 3, VPH fractions were not detected in the surficial soil sample collected from boring B103 or the subsurface soil sample collected from boring B102 at concentrations above their respective laboratory detection limits.

Extractable Petroleum Hydrocarbons

As shown in Table 3, EPH fractions were not detected in the surficial soil sample collected from boring B103 or the subsurface soil sample collected from boring B102 at concentrations above their respective laboratory detection limits.

Target Polycyclic Aromatic Hydrocarbons

As shown in Table 3, target PAHs were not detected in the surficial soil sample collected from boring B103 or the subsurface soil sample collected from boring B102 at concentrations above their respective laboratory detection limits.

Metals

As shown in Table 3, arsenic was detected in the surficial soil sample collected from boring B103 at a concentration of 10 mg/kg and in the subsurface soil sample collected from boring B102 at a concentration of 27 mg/kg. Although these arsenic concentrations slightly exceeded the site-specific background concentration (8.5 mg/kg) and MEDEP RAGs for "Outdoor Commercial Worker" and "Excavation/Construction Worker" exposure scenarios, these arsenic concentrations are inferred to be representative of naturally-occurring, background concentrations in Maine.

Cadmium was detected in the surficial soil sample collected from boring B103 at an estimated concentration of 0.28 mg/kg and in the subsurface soil sample collected from boring B102 at an estimated concentration of 0.25 mg/kg. Chromium was detected in the surficial soil sample collected from boring B103 at a concentration of 34 mg/kg and in the subsurface soil sample collected from boring B102 at a concentration of 26 mg/kg. Lead was detected in the surficial soil sample collected from boring B103 at an estimated concentration of 129 mg/kg and in the subsurface soil sample collected from boring B102 at an estimated concentration of 7.5 mg/kg. The concentrations of cadmium, chromium, and lead detected in these soil samples did not exceed their MEDEP RAGs for "Outdoor Commercial Worker" or "Excavation/Construction

Worker" exposure scenarios and are representative of naturally-occurring, background concentrations in the area of the Site.

Polychlorinated Biphenyls

As shown in Table 3, PCBs were not detected in the surficial soil sample collected from boring B103 or the subsurface soil sample collected from boring B102 at concentrations above their respective laboratory detection limits.

Groundwater Sample Analytical Results

Volatile Organic Compounds

As shown in Table 4, two petroleum-related VOCs, toluene and total xylenes, were detected in the groundwater sample collected from monitoring well MW101 at estimated concentrations of 0.6 and 0.8 micrograms per liter (µg/l), respectively. The concentrations of toluene and xylenes detected in this groundwater sample did not exceed their respective MEGs for drinking water, US EPA MCLs, or MEDEP's State-wide Groundwater and Drinking Water Petroleum Remediation Guidelines. No other VOCs were detected in the groundwater sample collected from MW101 at concentrations above their respective laboratory detection limits.

Volatile Petroleum Hydrocarbons

As shown in Table 4, VPH fractions were not detected in the groundwater sample collected from MW101 at concentrations above their respective laboratory detection limits.

Extractable Petroleum Hydrocarbons

As shown in Table 4, EPH fractions were not detected in the groundwater sample collected from MW101 at concentrations above their respective laboratory detection limits.

Target Polycyclic Aromatic Hydrocarbons

As shown in Table 4, target PAHs were not detected in the groundwater sample collected from MW101 at concentrations above their respective laboratory detection limits.

Dissolved Metals

As shown in Table 4, dissolved arsenic was detected in the groundwater sample collected from monitoring well MW101 at a concentration of 25 µg/l. Although this arsenic concentration slightly exceeded its MEG for drinking water and US EPA MCL of 10 µg/l, it is inferred to be representative of naturally-occurring dissolved arsenic in groundwater in Maine.

Dissolved cadmium was not detected in the groundwater sample collected from MW101 at a concentration above its respective laboratory detection limit. Dissolved chromium and lead were detected in the groundwater sample collected from monitoring well MW101 at concentrations of 17 and 7 µg/l, respectively. The concentrations of dissolved chromium and lead did not exceed their respective MEGs for drinking water or US EPA MCLs, and are inferred to be representative of naturally-occurring dissolved chromium and lead in groundwater in Maine.

5.0 QUALITY ANALYSIS/QUALITY CONTROL

The contracted laboratory, Analytics Environmental Laboratory (Analytics) of Portsmouth, New Hampshire, provided Level II analytical data according to US EPA protocols and laboratory data validation guidance included in Ransom's Generic QAPP for Brownfield sites in Maine. Analytics provided the following information in analytical reports:

- Data results sheets;
- Method blank results;
- Surrogate recoveries and acceptance limits;
- Duplicate results/acceptance limits;
- Spike/duplicate results/acceptance limits;
- Laboratory control sample results;
- Description of analytical methods and results; and
- Other pertinent results/limits as deemed appropriate.

As outlined in the Generic QAPP, at the completion of the field tasks and receipt of the analytical results, a data usability analysis was conducted to document the precision, bias, accuracy, representativeness, comparability, and completeness of the results. The following sections present this analysis. A summary of duplicate sample analytical results is included as Table 5.

5.1 PRECISION

Precision measures the reproducibility of measurements. The precision measurement is established using the relative percent difference (RPD) between the duplicate sample results. Relative percent differences were calculated for soil, groundwater, and soil vapor samples where both sample and duplicate values were greater than five times the Practical Quantitation Limit (PQL) of the analyte. The RPD is calculated as follows:

$$RPD = \frac{(\text{Sample Result - Duplicate Result})}{\text{Mean of the Two Results}} \times 100$$

One duplicate soil and groundwater sample were collected for laboratory analysis. The duplicate soil sample (SB10X) was collected from subsurface soil sample SB102 (4 to 8 feet bgs) and was submitted for laboratory analysis of VOCs, VPH, EPH, PAHs, PCBs, and metals (arsenic, cadmium, chromium, and lead). The duplicate groundwater sample (MW10X) was collected from temporary monitoring well MW101 and was submitted for laboratory analysis of VOCs, VPH, EPH, PAHs, and dissolved metals (arsenic, cadmium, chromium, and lead). A summary of duplicate sample analytical results and calculated RPDs is presented in the attached Table 5.

Subsurface Soil Sample (SB102-S3-012113)

- VOCs, VPH and EPH fractions, target PAHs, and PCBs were not detected in the subsurface soil sample collected from boring B102 or its duplicate soil sample (SB10X-S3-012113) above their respective laboratory reporting limits; therefore, no RPD was applicable for these compounds.

- Arsenic, chromium, and lead (metals) were detected in the subsurface soil sample collected from boring B102 and its duplicate soil sample (SB10X-S3-012113) at concentrations greater than five times their PQL for the compounds. The RPD for lead was above its 35 percent guideline; therefore, the precision of this compound result falls outside the guidance range; however, the RPDs for arsenic and chromium were below their 35 percent guideline; therefore, the precision of these sample results are acceptable. Cadmium was detected in the subsurface soil sample collected from boring B102, but was not detected in its duplicate soil sample (SB10X-S3-012113) above its respective laboratory reporting limit; therefore, no RPD was applicable for this compound.

Groundwater Sample (MW101)

- Two VOCs (toluene and total xylenes) were detected in the groundwater sample collected from monitoring well MW101, but were not detected in its duplicate groundwater sample (MW10X); therefore, RPDs were not applicable for these compounds.

- VPH and EPH fractions and target PAHs were not detected in the groundwater sample collected from monitoring well MW101 or its duplicate groundwater sample (MW10X) above their respective laboratory reporting limits; therefore, no RPD was applicable for these compounds.

- Dissolved arsenic and chromium were detected in the groundwater sample collected from monitoring well MW101, but were not detected in its duplicate groundwater sample (MW10X); therefore, RPDs were not applicable for these compounds. Dissolved lead was detected in the groundwater sample collected from monitoring well MW101 and its duplicate groundwater sample (MW10X) at concentrations greater than five times their PQL for this compound. The RPD for dissolved lead was above its 35 percent guideline; therefore, the precision of this compound result falls outside the guidance range. Dissolved cadmium was not detected in the groundwater sample collected from monitoring well MW101 or its duplicate groundwater sample (MW10X) above its respective laboratory reporting limits; therefore, no RPD was applicable for this compound.

5.2 BIAS

Bias is the systematic or persistent distortion of a measurement process that causes errors in one direction. Bias assessments are made using personnel, equipment, and spiking materials or reference materials, as independent as possible from those used in the calibration of the measurement system. Bias assessments were based on the analysis of spiked samples so that the effect of the matrix on recovery is incorporated into the assessment. A documented spiking protocol and consistency in following that protocol are important to obtaining meaningful data quality estimates.

Matrix spike and matrix spike duplicate samples (MS/MSD) were used to assess bias as prescribed in the specified methods. Acceptable recovery values were within the recoveries specified by each of the analysis methods. Control samples for assessing bias were analyzed at a rate as specified in the analytical SOPs and specified analytical methods.

The lab provides quality control non-conformance reports that indicate if Laboratory Control Samples/Laboratory Control Sample Duplicates (LCS/LCSD) and/or MS/MSD had low, failing, or high recoveries, and if the sample result was affected. Likewise, the lab reports any compounds that had failing RPDs in the LCS/LCSD pair or the MS/MSD pair. This indicates the percent difference between the lab sample and its duplicate or the spike and its' duplicate. Specific comments from the laboratory included the following:

Volatile Organic Compounds

There were no bias issues identified by the laboratory in the soil or groundwater samples collected and analyzed for VOCs.

Volatile Petroleum Hydrocarbons

There were no bias issues identified by the laboratory in the soil or groundwater samples collected and analyzed for VPH compounds.

Extractable Petroleum Hydrocarbons & Polycyclic Aromatic Hydrocarbons

There were no bias issues identified by the laboratory in the soil and groundwater samples collected and analyzed for EPH and PAH compounds.

Metals

There were no bias issues identified by the laboratory in the soil or groundwater samples collected and analyzed for Metals.

PCBs by EPA 8082

There were no bias issues identified by the laboratory in the soil samples collected and analyzed for PCBs.

5.3 ACCURACY

Accuracy is a statistical measurement of correctness and includes components of random error (variability due to imprecision) and systemic error. Therefore, it reflects the total error associated with a measurement. A measurement is accurate when the value reported does not differ from the true value or known concentration of the spike or standard. For volatile and semi-volatile organic compounds, surrogate compound recoveries are also used to assess accuracy and method performance for each sample analyzed. Analysis of performance evaluation samples will also be used to provide additional information for assessing the accuracy of the analytical data being produced. Both accuracy and precision are calculated for each analytical batch, and the associated sample results are interpreted by considering these specific measurements.

The lab provides a non-conformance summary that reports if all of the quality control criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for analysis were within acceptable limits. According to the laboratory, unless noted in the non-conformance summary, all of the quality control criteria for these analyses were within acceptable limits.

5.4 REPRESENTATIVENESS

Objectives for representativeness are defined for each sampling and analysis task and are a function of the investigative objectives. Representativeness was accomplished during this project through use of standard field, sampling, and analytical procedures. All objectives for sampling and analytical representativeness, as specified in SSQAPP, were met.

5.5 COMPARABILITY

Comparability is the confidence with which one data set can be compared to another data set. The objective for this QA/QC program is to produce data with the greatest possible degree of comparability. Comparability was achieved by using standard methods for sampling and analysis, reporting data in standard units, normalizing results to standard conditions, and using standard and comprehensive reporting formats. Complete field documentation was used, including standardized data collection forms to support the assessment of comparability. Historical comparability shall be achieved through consistent use of methods and documentation procedures throughout the project.

5.6 COMPLETENESS

Completeness is calculated by comparing the number of samples successfully analyzed to the number of samples collected. The goal for completeness is 95 percent. The completeness for this project was 100 percent, as there were no samples that could not be analyzed due to holding time violations, samples spilled or broken, or any other reason.

6.0 CONCLUSIONS

Based on the results of our Phase II ESA program, no evidence of gross soil contamination was observed at the Site, as a result of the former sawmill and axe factory industrial uses at the eastern adjoining property or numerous debris/trash piles at the southern adjoining property. Ransom also did not observe evidence of "petroleum-saturated soils" during our soil boring program or evidence of "free petroleum product" contamination in groundwater encountered during the soil boring advancements or gauging of the temporary groundwater monitoring well at the Site.

Low-level concentrations of two petroleum-related VOCs, toluene and total xylenes, were detected in the groundwater sample collected at the Site. The VOCs were not detected in the groundwater sample at concentrations exceeding their respective MEGs or US EPA MCLs for drinking water scenarios, or MEDEP's State-wide Groundwater and Drinking Water Petroleum Remediation Guidelines. The presence of these petroleum-related VOCs in groundwater are likely associated with minor OHM release(s) originating from numerous debris/trash piles at the southern adjoining property, since the groundwater sample was collected in close proximity and downgradient from the debris/trash piles. No other VOCs or petroleum-related contaminants were detected at concentrations above their respective laboratory detection limits in the groundwater sample collected at the Site.

Arsenic was detected in surficial soils and subsurface soils throughout the Site at concentrations exceeding its corresponding MEDEP RAGs for both "Outdoor Commercial Worker" and "Excavation/Construction Worker" exposure scenarios. Additionally, dissolved arsenic was detected in the groundwater sample collected at the Site at a concentration that slightly exceeded its MEG and USEPA MCL for drinking water exposure scenarios. In comparison to the background concentrations, the detected concentrations of arsenic in the soil and groundwater samples collected at the Site are anticipated to represent naturally occurring concentrations; therefore, the presence of arsenic in Site soils and groundwater are not likely the result of unknown and/or unreported OHM releases, associated with former sawmill and axe factory industrial uses at the eastern adjoining property or numerous debris/trash piles at the southern adjoining property.

Cadmium, chromium, and lead were also detected in soil and/or groundwater samples collected throughout the Site; however, these metals were detected at concentrations that appear to be representative of naturally occurring concentrations.

7.0 RECOMMENDATIONS

Based on the information obtained during this Phase II Investigation, Ransom concludes that additional environmental investigation and/or remedial activities are not warranted at this time; however, we recommend submitting the Site to the MEDEP Voluntary Response Action Program (VRAP) for No Further Action Assurance status. As part of the VRAP process, Ransom recommends that groundwater should be properly filtered to remove dissolved arsenic, if Site groundwater is utilized as a potable water source. However, public water is currently supplied to the Site vicinity; therefore, Ransom recommends that the public water service should be provided to the Site for proposed hydroelectric power generation use, if needed.

8.0 REFERENCES

1. MEDEP; December 1, 2009; Remediation Guidelines for Petroleum Contaminated Sites in Maine.

2. MEDEP; January 6, 2010; Maine Remedial Action Guidelines (RAGs) for Soil Contaminated with Hazardous Substances.

3. MEDEP; January 11, 2012; *Draft* Maine RAGs for Sites Contaminated with Hazardous Substances.

4. Maine Center for Disease Control (MCDC); September 30, 2011; Maximum Exposure Guidelines (MEGs) for Drinking Water.

5. Ransom Consulting Inc.; July 10, 2012; Phase I Environmental Site Assessment, Whiting's Axe Factory Property, Belfast, Maine.

6. Ransom Consulting Inc.; December 19, 2012; Site-Specific Quality Assurance Project Plan Addendum No. 22, Phase II Environmental Site Assessment, Whiting's Axe Factory Lot, Belfast, Maine.

7. Ransom Consulting Inc.; (DRAFT); Phase II Environmental Site Assessment, Mason Dam, Tax Map 23, Lots 9A and 12, Belfast, Maine.

8. Ransom Consulting Inc.; (DRAFT); Phase II Environmental Site Assessment, CMP Dam, Tax Map 20, Lot 15A, Belfast, Maine.

9. Ransom Consulting Inc.; (DRAFT); Phase II Environmental Site Assessment, Mill Dam, 67 Swan Lake Avenue, Belfast, Maine.

10. Ransom Environmental Consultants Inc.; August 27, 2008; State of Maine Brownfields Assessment Projects Generic Quality Assurance Project Plan (QAPP) RFA #08243.

9.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)

Ransom performed services in a manner consistent with the guidelines set forth in the American Society for Testing and Materials (ASTM) E 1903-97 (Standard Practices for Environmental Site Assessments: Phase II Environmental Site Assessment Process), and in accordance with the scope of work and standard operating procedures outlined in the Generic QAPP and SSQAPP.

The following Ransom personnel possess the sufficient training and experience necessary to conduct a Phase II Environmental Site Assessment, and from the information generated by such activities, have the ability to develop opinions and conclusions regarding recognized environmental conditions in connection with the Site.

Environmental Professionals:

Aaron R. Martin, C.G.
Associate Project Manager/Primary Author

Eriksen P. Phenix, C.G.
Project Geologist

Peter J. Sherr
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Peter J. Sherr, P.E.
Senior Project Manager/Belfast Brownfields Program Manager

TABLE 1: SOIL SAMPLE FIELD SCREENING RESULTS: METALS
Phase II Environmental Site Assessment
Whitings Axe Factory Property
Belfast, Maine

Boring ID	Sample Depth (ft.)	Arsenic	Cadmium	Chromium	Lead
		mg/kg			
B101	0-2	ND	ND	ND	16
	2-4	18	ND	ND	ND
	4-6	47	ND	ND	ND
B102	0-2	ND	ND	ND	17
	8-9	69	ND	ND	ND
B103	0-2	ND	ND	ND	54
	2-4	ND	ND	ND	116
	4-8	ND	ND	ND	52
BK-1	0-2	ND	ND	ND	45

NOTES:
mg/kg = milligrams per kilogram
Soil samples screened for metals using a Innov-X XRF in accordance with MEDEP's "*Protocol for Collecting Data Using a Field Portable X-Ray Fluorescence Spectrometer For Certain Metals In Solid Media,"* SOP: DR#015, Rev. 1, July 26, 2001.
ND = Not detected above instrument detection limit

Table 2: Area-Wide Background Soil Sample Analytical Data
Goose River Hydroelectric Properties
Phase II Environmental Site Assessments
Belfast, Maine

Sample Location	Whitings Axe Factory	Mason Dam	CMP Dam	Mill Dam	Mill Dam	**MEDEP Remedial Action Guidelines (RAGs) for Soil Contaminated with Hazardous Substances (Jan. 6, 2010)**				**Draft MEDEP Remedial Action Guidelines for Sites Contaminated with Hazardous Substances (Jan 11, 2012)**						**MEDEP Remediation Guidelines for Petroleum Contaminated Sites in Maine (Dec. 1, 2009)**			
Sample Identification	BK-1	BK-1	BK-1	BK1	BK2														
Sample Depth (ft bgs)	0-2	0-2	0-2	0-2	0-2	**Residential**	**Park User**	**Outdoor Commercial Worker**	**Excavation/ Construction Worker**	**Residential**	**Park User**	**Outdoor Commercial Worker**	**Excavation/ Construction Worker**	**Background Rural**	**Background Urban**	**Tier 2 Residential**	**Tier 2 Park User**	**Tier 2 Outdoor Commercial Worker**	**Tier 2 Excavation/ Construction Worker**
Date Collected	1/22/2013	1/22/2013	1/22/2013	1/22/2013	1/22/2013														
Volatile Organic Compounds (VOCs)																			
All VOCs	NA	NA	NA	NA	NA	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various
Target Polycyclic Aromatic Hydrocarbons (PAHs)																			
Acenaphthene	ND	ND	ND	ND	NA	970	1,600	2,000	110	7,500	10,000	10,000	9,800	0.479	0.6072	970	1,600	2,000	110
Acenaphthylene	ND	ND	ND	ND	NA	1,000	1,700	2,200	130	7,500	10,000	10,000	10,000	0.4937	0.6606	1,000	1,700	2,200	130
Anthracene	ND	ND	ND	ND	NA	4,300	7,200	7,800	430	10,000	10,000	10,000	3,800	0	1.63	4,300	7,200	7,800	430
Benzo(g,h,i) perylene	ND	ND	ND	ND	NA	750	1,200	5,500	10,000	3,700	6,200	10,000	10,000	1	2.035	NE	NE	NE	NE
Benzo[a]pyrene	ND	ND	ND	ND	NA	0.026	0.044	0.35	4.3	0.26	0.44	3.5	43	2	4.57	0.026	0.044	0.35	4.3
Benzo[a]anthracene	ND	ND	ND	ND	NA	0.26	0.44	3.5	43	2.6	4.4	35	430	2	4.15	0.26	0.44	3.5	43
Benzo[b]fluoranthene	ND	ND	ND	0.226 J	NA	0.26	0.44	3.5	43	2.6	4.4	35	430	3	5.335	0.26	0.44	3.5	43
Benzo[k]fluoranthene	ND	ND	ND	ND	NA	2.6	4.4	35	430	26	44	350	4300	2	3.225	2.6	4.4	35	430
Chrysene	ND	ND	ND	ND	NA	26	44	350	4,300	260	440	3,500	10,000	4	4.1	26	44	350	4,300
Dibenz[a,h]anthracene	ND	ND	ND	ND	NA	0.026	0.044	0.35	4.3	0.26	0.44	3.5	43	NE	NE	0.026	0.044	0.35	4.3
Fluoranthene	ND	ND	ND	0.318 J	NA	1,000	1,700	7,300	10,000	5,000	8,300	10,000	10,000	4	7.635	1,000	1,700	7,300	10,000
Fluorene	ND	ND	ND	ND	NA	830	1,400	2,700	200	5,000	8,300	10,000	10,000	0	0.708	830	1,400	2,700	200
Indeno[1,2,3-cd]pyrene	ND	ND	ND	ND	NA	0.26	0.44	3.5	43	2.6	4.4	35	430	2	2.6	0.26	0.44	3.5	43
2-Methylnaphthalene	ND	ND	ND	ND	NA	94	160	480	35	500	830	3,600	600	0.414	0.804	94	160	480	35
Naphthalene	ND	ND	ND	ND	NA	200	330	200	32	2,500	4,200	10,000	10,000	0.041	0.8368	NE	NE	NE	NE
Phenanthrene	ND	ND	ND	ND	NA	700	1,200	3,600	470	3,700	6,200	10,000	10,000	1.608	4.064	700	1,200	3,600	470
Pyrene	ND	ND	ND	0.295 J	NA	750	1,200	5,500	10,000	3,700	6,200	10,000	10,000	4.016	6.71	750	1,200	5,500	10,000
Extractable Petroleum Hydrocarbon (EPH) Fractions																			
C9-C18 Aliphatics	ND	ND	ND	ND	NA	NE	NE	NE	NE	2,600	4,400	10,000	7,300	NE	NE	2,600	4,400	10,000	7,300
C19-C36 Aliphatics	ND	ND	ND	26.5	NA	NE	NE	NE	NE	10,000	10,000	10,000	10,000	NE	NE	10,000	10,000	10,000	10,000
C11-C22 Aromatics	ND	ND	ND	30.1	NA	NE	NE	NE	NE	730	1,200	4,500	4,700	NE	NE	730	1,200	4,500	4,700
Volatile Petroleum Hydrocarbon (VPH) Fractions																			
C5-C8 Aliphatics	NA	NA	NA	NA	NA	NE	NE	NE	NE	1,400	2,300	10,000	10,000	NE	NE	1,400	2,300	10,000	10,000
C9-C12 Aliphatics	NA	NA	NA	NA	NA	NE	NE	NE	NE	2,600	4,400	10,000	9,800	NE	NE	2,600	4,400	10,000	9,800
C9-C10 Aromatics	NA	NA	NA	NA	NA	NE	NE	NE	NE	740	1,200	5,100	5,500	NE	NE	740	1,200	5,100	5,500
Metals																			
Arsenic	**8.4**	**5.9**	**7.3**	**22**	**44**	0.14	0.23	0.42	4.2	1.4	2.3	4.2	42	15	NE	NE	NE	NE	NE
Cadmium	ND	ND	ND	ND	ND	2.1	3.6	19	3.9	11	18	94	19	NE	NE	NE	NE	NE	NE
Chromium	31	33	23	22	33	100	170	1,000	560	510	850	5,100	2,800	NE	NE	NE	NE	NE	NE
Lead	72	29	20	38	32	170	280	560	950	340	530	1,100	950	NE	NE	170	280	560	950
Polychlorinated Biphenyls (PCBs)																			
All PCBs	NA	NA	NA	NA	NA	0.49 [(1)]	0.82 [(1)]	1.2 [(1)]	1.3 [(1)]	2.4 [(1)]	4.1 [(1)]	12 [(1)]	6.1 [(1)]	NE	NE	NE	NE	NE	NE

Notes:
MEDEP = Maine Department of Environmental Protection
mg/kg = milligrams per kilogram
ND = Not Detected above laboratory reporting limit
NA = Not Analyzed
NE = indicates that a standard or guideline is "not established' for the referenced parameter.
B = compound detected in laboratory blank
J = estimated concentration detected below laboratory quantitation limit
Values in **bold** text exceed applicable MEDEP RAGs for current or proposed reuse/exposure scenarios for Outdoor Commercial Worker and/or Excavation/Construction Worker
[(1)] Standard is for total of all isomers (i.e., total PCBs, not individual Aroclors).

Table 3: Soil Sample Laboratory Analytical Results
Phase II Environmental Site Assessment
Whiting's Axe Factory Property
Belfast, Maine

Sample Location	B102	B103	**MEDEP Remedial Action Guidelines (RAGs) for Soil Contaminated with Hazardous Substances (Jan. 6, 2010)**				**Draft MEDEP Remedial Action Guidelines for Sites Contaminated with Hazardous Substances (Jan 11, 2012)**						**MEDEP Remediation Guidelines for Petroleum Contaminated Sites in Maine (Dec. 1, 2009)**			
Sample Identification	SB102-S3-012113	SB103-S1-012113														
Sample Depth (ft bgs)	4-8	0-2	**Residential**	**Park User**	**Outdoor Commercial Worker**	**Excavation/ Construction Worker**	**Residential**	**Park User**	**Outdoor Commercial Worker**	**Excavation/ Construction Worker**	**Background Rural**	**Background Urban**	**Tier 2 Residential**	**Tier 2 Park User**	**Tier 2 Outdoor Commercial Worker**	**Tier 2 Excavation/ Construction Worker**
Date Collected	1/21/2013	1/21/2013														
Volatile Organic Compounds (VOCs)	**milligrams per kilogram (mg/kg)**															
All VOCs	ND	ND	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various
Target Polycyclic Aromatic Hydrocarbons (PAHs)	**milligrams per kilogram (mg/kg)**															
All PAHs	ND	ND	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various
Extractable Petroleum Hydrocarbon (EPH) Fractions	**milligrams per kilogram (mg/kg)**															
C9-C18 Aliphatics	ND	ND	NE	NE	NE	NE	2,600	4,400	10,000	7,300	NE	NE	2,600	4,400	10,000	7,300
C19-C36 Aliphatics	ND	ND	NE	NE	NE	NE	10,000	10,000	10,000	10,000	NE	NE	10,000	10,000	10,000	10,000
C11-C22 Aromatics	ND	ND	NE	NE	NE	NE	730	1,200	4,500	4,700	NE	NE	730	1,200	4,500	4,700
Volatile Petroleum Hydrocarbon (VPH) Fractions	**milligrams per kilogram (mg/kg)**															
C5-C8 Aliphatics	ND	ND	NE	NE	NE	NE	1,400	2,300	10,000	10,000	NE	NE	1,400	2,300	10,000	10,000
C9-C12 Aliphatics	ND	ND	NE	NE	NE	NE	2,600	4,400	10,000	9,800	NE	NE	2,600	4,400	10,000	9,800
C9-C10 Aromatics	ND	ND	NE	NE	NE	NE	740	1,200	5,100	5,500	NE	NE	740	1,200	5,100	5,500
Metals	**milligrams per kilogram (mg/kg)**															
Arsenic	**27**	**10**	0.14	0.23	0.42	4.2	1.4	2.3	4.2	42	15	NE	NE	NE	NE	NE
Cadmium	0.25 J	0.28 J	2.1	3.6	19	3.9	11	18	94	19	NE	NE	NE	NE	NE	NE
Chromium	26	34	100	170	1,000	560	510	850	5,100	2,800	NE	NE	NE	NE	NE	NE
Lead	7.5	129	170	280	560	950	340	530	1,100	950	NE	NE	170	280	560	950
Polychlorinated Biphenyls (PCBs)	**milligrams per kilogram (mg/kg)**															
Total PCBs	ND	ND	0.49 [(1)]	0.82 [(1)]	1.2 [(1)]	1.3 [(1)]	2.4 [(1)]	4.1 [(1)]	12 [(1)]	6.1 [(1)]	NE	NE	NE	NE	NE	NE

Notes:
MEDEP = Maine Department of Environmental Protection
mg/kg = milligrams per kilogram
ND = Not Detected above laboratory reporting limit
NA = Not Analyzed
NE = indicates that a standard or guideline is "not established' for the referenced parameter.
B = compound detected in laboratory blank
J = estimated concentration detected below laboratory quantitation limit
Values in **bold** text exceed applicable MEDEP RAGs for current Park User exposure scenario or proposed reuse/exposure scenarios of Residential, Outdoor Commercial Worker, and/or Excavation/Construction Worker
[(1)] Standard is for total of all isomers (i.e., total PCBs, not individual Arochlors).

Table 4: Groundwater Sample Analytical Results
Phase II Environmental Site Assessment
Whiting's Axe Factory Property
Belfast, Maine

Sample Identification	MW101	MECDC Maximum Exposure Guidelines (MEGs)	USEPA Maximum Contaminant Level (MCLs)	MEDEP Remediation Guidelines for Petroleum Contaminated Sites in Maine (Tier 1 Guidelines)
Date Collected	**1/23/2013**			
Volatile Organic Compounds (VOCs)	**micrograms per liter (ug/L)**			
Toluene	0.6 J	600	1,000	600
Xylenes (total)	0.8 J	1,000 [(1)]	1,000 [(1)]	1,000 [(1)]
All other VOCs	ND	Various	Various	Various
Target Polycyclic Aromatic Hydrocarbons (PAHs)	**micrograms per liter (ug/L)**			
All PAHs	ND	Various	NE	Various
Extractable Petroleum Hydrocarbon (EPH) Fractions	**micrograms per liter (ug/L)**			
C9-C18 Aliphatics	ND	700	NE	700
C19-C36 Aliphatics	ND	10,000	NE	10,000
C11-C22 Aromatics	ND	200	NE	200
Volatile Petroleum Hydrocarbon (VPH) Fractions	**micrograms per liter (ug/L)**			
C5-C8 Aliphatics	ND	300	NE	300
C9-C12 Aliphatics	ND	700	NE	700
C9-C10 Aromatics	ND	200	NE	200
Metals	**micrograms per liter (ug/L)**			
Arsenic	**25**	10	10	NE
Cadmium	ND	1	5	NE
Chromium	17	20	100	NE
Lead	7	10	15	10

Notes:
USEPA = United States Environmental Protection Agency
MECDC = Maine Center for Disease Control and Prevention
ug/L = micrograms per liter
NE indicates that a standard or guideline is "not established' for the referenced parameter.
ND = Not Detected above the laboratory detection limit
Values in **bold** text exceed drinking water and/or clenaup guidelines
[(1)] Standard is for total of all isomers (i.e., total xylenes).

TABLE 5: SUMMARY OF DUPLICATE SAMPLE ANALYTICAL RESULTS
Phase II Environmental Site Assessment
Whiting's Axe Factory Property
Belfast, Maine

Sample Location	SB102-S3-012113	SB10X-S3-012113		MW101	MW10X	
Sample Depth (ft bgs)	4-8	4-8	Relative Percent Difference	6.5-9	6.5-9	Relative Percent Difference
Sample Date	1/21/2013	1/21/2013		1/23/2013	1/23/2013	
Volatile Organic Compounds (VOCs)	Concentrations in mg/kg		%	Concentrations in µg/l		%
Toluene	ND	ND		0.6	ND	
Xylenes (total)	ND	ND		0.8	ND	
All other VOCs	ND	ND		ND	ND	
Target PAH Compounds	Concentrations in mg/kg		%	Concentrations in µg/l		%
All Target PAH Compounds	ND	ND		ND	ND	
Volatile Petroleum Hydrocarbon (VPH) Fractions	Concentrations in mg/kg		%	Concentrations in µg/l		%
C_5 through C_8 Aliphatics	ND	ND		ND	ND	
C_9 through C_{12} Aliphatics	ND	ND		ND	ND	
C_9 through C_{10} Aromatics	ND	ND		ND	ND	
Extractable Petroleum Hydrocarbon (EPH) Fractions	Concentrations in mg/kg		%	Concentrations in µg/l		%
C_9 through C_{18} Aliphatics	ND	ND		ND	ND	
C_{19} through C_{36} Aliphatics	ND	ND		ND	ND	
C_{11} through C_{22} Aromatics	ND	ND		ND	ND	
Metals	Concentrations in mg/kg		%	Concentrations in µg/l		%
Arsenic	27	20	30	25	ND	
Cadmium	0.25	ND		ND	ND	
Chromium	26	28	-7	17	ND	
Lead	7.5	24.0	-105	7	3	80
Polychlorinated Biphenyls (PCBs)	Concentrations in mg/kg		%	Concentrations in µg/l		%
All PCBs	ND	ND		NA	NA	

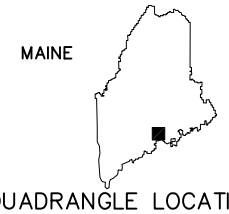
TAKEN FROM U.S.G.S. 7.5x15 MINUTE SERIES TOPOGRAPHIC MAP OF BELFAST, MAINE–1960 (REVISED 1979).

CONTOUR INTERVAL IS 10 FEET

SITE COORDINATES: LATITUDE 44°26'53"
LONGITUDE 69°00'08"

UTM COORDINATES: 49: 21: 541mN
4: 99: 879mE

N
W E
S



QUADRANGLE LOCATION

0 1000 2000 3000 4000

SCALE in FEET
1: 24,000

RANSOM Consulting, Inc.

SITE LOCATION MAP

PREPARED FOR:

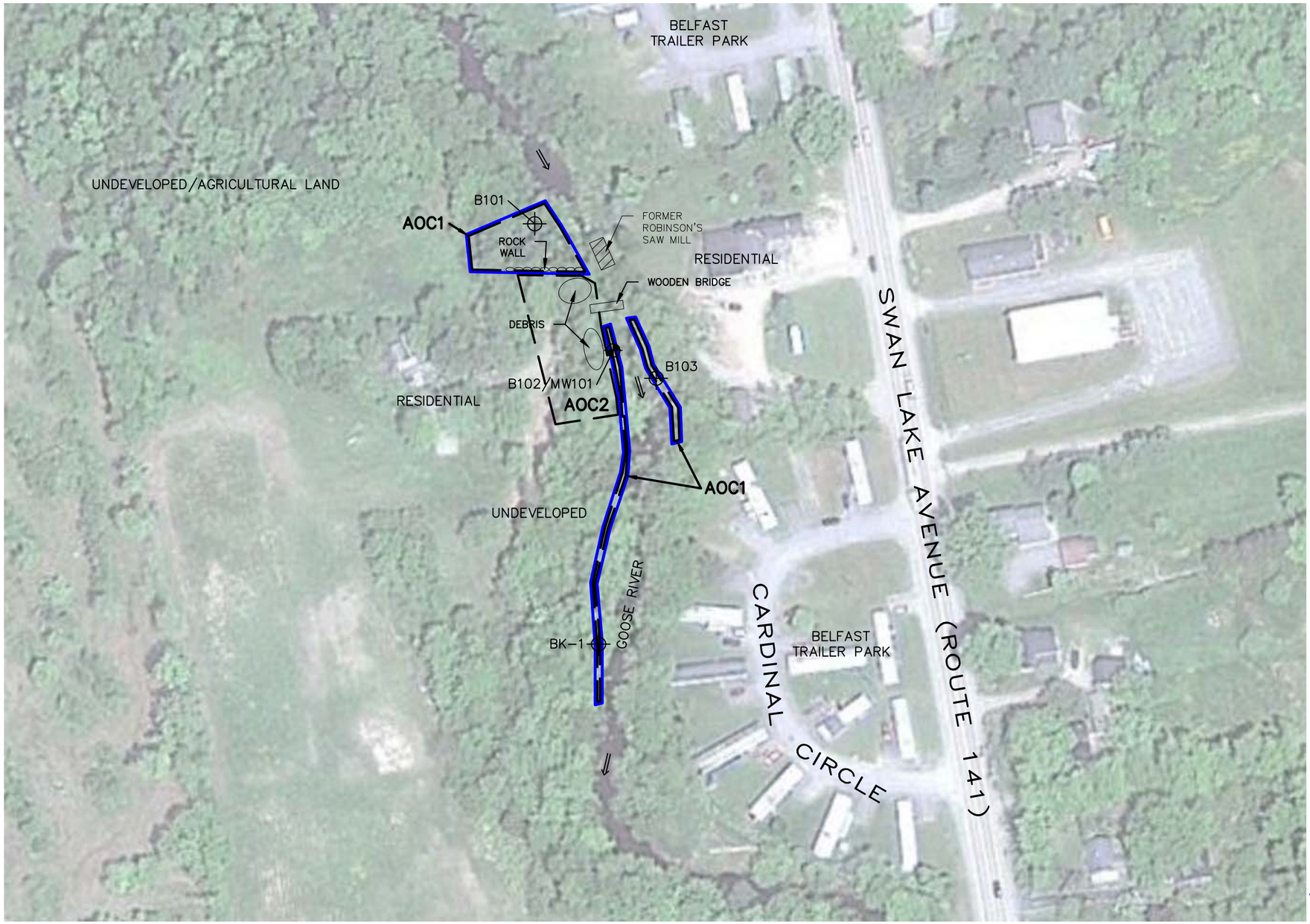
CITY OF BELFAST
131 CHURCH STREET
BELFAST, MAINE

SITE:

WHITINGS AXE FACTORY
SWAN LAKE AVENUE
BELFAST, MAINE

DATE: FEBRUARY 2013
PROJECT: 111.06134
FIGURE: 1

O:\ME-DWGS\2011\111.06134\111.06134-SLM.dwg



N

LEGEND:

- B101/MW101 — SOIL BORING/MONITORING WELL
- B103 — SOIL BORING
- BK-1 — BACKGROUND SOIL BORING
- FLOW DIRECTION
- AOC1 — APPROXIMATE LIMITS OF AREA OF CONCERN (AOC)
- APPROXIMATE PROPERTY BOUNDARY (BOUNDARY TAKEN FROM CITY OF BELFAST TAX MAP)

NOTES:

1. SITE PLAN BASED ON OBSERVATIONS MADE BY RANSOM CONSULTING, INC. FROM MAY 2012 TO JANUARY 2013. AERIAL IMAGE PROVIDED BY GOOGLE EARTH.
2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
3. THIS PLAN HAS BEEN PREPARED FOR THE CITY OF BELFAST. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM CONSULTING, INC.

0 50 100 200

SCALE in FEET
1"=100'

RANSOM Consulting, Inc.

PREPARED FOR:
CITY OF BELFAST
131 CHURCH STREET
BELFAST, MAINE

SITE:
WHITINGS AXE FACTORY
SWAN LAKE AVENUE
BELFAST, MAINE

SITE PLAN

DATE: FEBRUARY 2013
PROJECT: 111.06134
FIGURE: 2

G:\ME-DWGS\2011\111.06134\Whitings\111.06134-012.dwg Feb 12, 2013 - 10:54am

APPENDIX A

Boring Logs

Phase II Environmental Site Assessment
Whiting's Axe Factory Property
Tax Map 21, Lot 5E
Belfast, Maine

RANSOM Consulting Engineers and Scientists

BORING LOG: B101

Reviewed By: Erik Phelps	Total Depth: 6 Feet	Logged By: ARM	
Date Reviewed: 2/20/13	Boring Diameter: 2 Inches	Date Drilled: 1/21/13 to 1/21/13	
GW Observed at: NO Feet	Well Stickup: NA	Driller: EPI	

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - 24" - Brown, fine SAND and SILT, dry, Glacial/Fluvial		S1	-	24/24	<1		
	S2(2.0'-4.0') - 8" - Brown, fine SAND and SILT, moist, Glacial/Fluvial		S2	-	24/8	<1		
5	S3(4.0'-6.0') - 18" - Brown, fine SAND and SILT with weathered rock, moist, Glacial/Fluvial.		S3	-	24/18	<1		5
	Refusal @ 6' bgs.							
10								10
15								15

NOTES:
1) Boring advanced using GeoProbe direct-push technology.
2) Sample designated with solid fill submitted for laboratory analysis.
3) Groundwater not encountered.
4) NA = Not Applicable; NO = Not Observed.

CLIENT:
City of Belfast

SITE:
Whiting's Axe Factory Property
Tax Map 21, Lot 5E
Belfast, ME

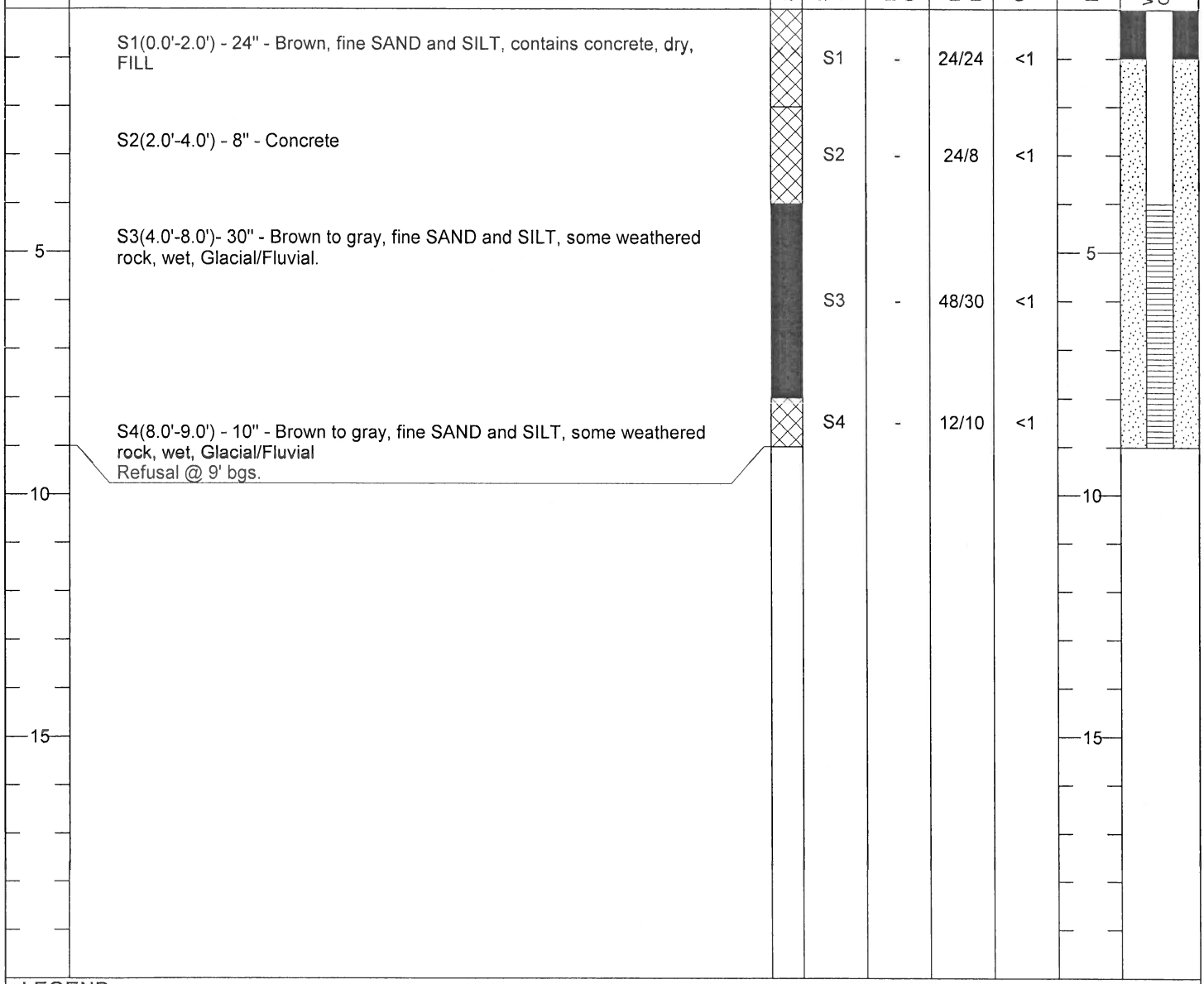
Project No.: 111.06134

RANSOM
Consulting
Engineers
and Scientists

BORING AND MONITORING WELL LOG: B102-MW101

Reviewed by: Erik Phelps		Total Depth:	9 Feet	Logged By:	ARM
Date Reviewed: 2/20/13		Boring Diameter:	2 Inches	Date Drilled:	1/21/13 to 1/21/13
GW Observed at:	4.9 Feet	Well Stickup:	1.5	Driller:	EPI

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)
	S1(0.0'-2.0') - 24" - Brown, fine SAND and SILT, contains concrete, dry, FILL		S1	-	24/24	<1
	S2(2.0'-4.0') - 8" - Concrete		S2	-	24/8	<1
5	S3(4.0'-8.0')- 30" - Brown to gray, fine SAND and SILT, some weathered rock, wet, Glacial/Fluvial.		S3	-	48/30	<1
	S4(8.0'-9.0') - 10" - Brown to gray, fine SAND and SILT, some weathered rock, wet, Glacial/Fluvial Refusal @ 9' bgs.		S4	-	12/10	<1
10						
15						



LEGEND:

Filter Sand | Native Fill | Bentonite | Bentonite Grout | Concrete | PVC Screen | Solid PVC Riser

NOTES:
1) Boring advanced using GeoProbe direct-push technology.
2) Sample designated with solid fill submitted for laboratory analysis.
3) Groundwater entountered at 4.9 ft. bgs.
4) NA = Not Applicable; NO = Not Observed.

CLIENT:
City of Belfast

SITE:
Whiting's Axe Factory Property
Tax Map 21, Lot 5E
Belfast, ME

Project No.: 111.06134 | Page: 1

RANSOM Consulting Engineers and Scientists

BORING LOG: B103

Reviewed By: Erik Pheasey	Total Depth: 6.5 Feet	Logged By: ARM	
Date Reviewed: 2/20/13	Boring Diameter: 2 Inches	Date Drilled: 1/21/13 to 1/21/13	
GW Observed at: NO Feet	Well Stickup: NA	Driller: EPI	

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - 24" - Brown, fine SAND and SILT, dry, FILL		S1	-	24/24	<1		
	S2(2.0'-4.0') - 6" - Brown, fine SAND and SILT, dry, FILL		S2	-	24/6	<1		
5	S3(4.0'-6.5') - 12" - Brown, fine SAND and SILT contains bricks and concrete, moist, FILL		S3	-	30/12	<1		5
	Refusal @ 6.5' bgs.							
10								10
15								15

NOTES:
1) Boring advanced using GeoProbe direct-push technology.
2) Sample designated with solid fill submitted for laboratory analysis.
3) Groundwater not encountered.
4) NA = Not Applicable; NO = Not Observed.

CLIENT:
City of Belfast

SITE:
Whiting's Axe Factory Property
Tax Map 21, Lot 5E
Belfast, ME

Project No.: 111.06134

APPENDIX B

Laboratory Reports

Phase II Environmental Site Assessment
Whiting's Axe Factory Property
Tax Map 21, Lot 5E
Belfast, Maine

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
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800-929-9906
www.analyticslab.com

February 7, 2013

Mr. Erik Phenix
Ransom Consulting, Inc.
400 Commercial Street Suite 404
Portland, ME 04101

RE: Analytical Results Case Narrative
Whitings Axe Factory
Project No: 111.06134.019
Analytics #74727

Dear Mr. Phenix:

Enclosed please find the analytical report for samples collected from the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed for Volatile Organic Compounds (VOCs) using EPA Method 8260B, Volatile Petroleum Hydrocarbons (VPH) using MADEP VPH Method 2004 Rev 1.1, Extractable Petroleum Hydrocarbons (EPH) using MADEP EPH Method 2004 Rev 1.1, Polychlorinated Biphenyls (PCBs) by EPA Method 8082A and selected Metals using EPA Method 6010C

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II package has been assembled in the following order:

- Case Narrative/Non-Conformance Summary
- Sample Log Sheet - Cover Page
- VOC Form 1 Sample Data Results for Samples
  - Chromatograms
- VOC Blank Summaries & Form 3 MS/MSD and LCS Recoveries
- VPH Form I Data Sheet for Samples
  - Chromatograms
- VPH Blank Summaries & Form 3 MS/MSD (LCS) Recoveries
  - Chromatograms
- EPH Form I Data Sheet for Samples
  - Chromatograms
- EPH Blank Summaries & Form 3 MS/MSD (LCS) Recoveries
- PCB Form I Data Sheet for Samples
  - Chromatograms
- PCB Blank Summaries & Form 3 MS/MSD (LCS) Recoveries
- Metals Form I Data Sheet
- Metals Blank Summaries & Form 3 MS/MSD (LCS) Recoveries
- Chain of Custody (COC) Forms
- Sample Receipt Checklist

QC NON-CONFORMANCE SUMMARY

Sample Receipt:
No discrepancies.

Volatile Organic Compounds (VOCs) by EPA 8260B:
This narrative is specific to target analytes reported on the Form 1 data pages. Non-target (NT) analyte deviations were not addressed. The following analytes were not 'J" flagged in this report; Chloromethane, Methylene chloride, Acetone and Hexachlorobutadiene.

The following compounds used quadratic fit for quantitation: Bromomethane, 2,2-Dichloropropane, Dibromochloromethane, 1,2-Dibromomethane, o-Xylene and Isopropylbenzene.

The soil continuing calibration standard (file#C85119SC) had %D greater than 20% for but less than 30% for Dibromomethane. The laboratory control samples (LS01253C/LS0123C2) had a few analytes with recoveries outside the laboratory acceptance criteria (see form 3). These analytes were not detected in any samples associated with this QC and results were reported without qualification.

The aqueous continuing calibration standard (file#B895362SC) had %D greater than 20% for but less than 30% for Bomomethane. Bromomethane was not detected in any samples associated with this QC and results were reported without qualification.

Volatile Petroleum Hydrocarbons (VPH):
This narrative is specific to target analytes reported on the Form 1 data pages. Non-target (NT) analyte deviations were not addressed. At the client's request only the hydrocarbon ranges were reported.

Extractable Petroleum Hydrocarbons (EPH):
No QC deviations.

PCBs by EPA 8082A:
No results were reported below the Quantitation Limit.

Selected Metals by EPA Method 6010C:
No QC deviations.

If you have any questions or I can be of further assistance please do not hesitate to contact me.

Sincerely,
ANALYTICS Environmental Laboratory, LLC

Stephen Knollmeyer
Laboratory Director

analytics environmental laboratory LLC

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800-929-9906
www.analyticslab.com

Mr. Erik Phenix
Ransom Consulting, Inc.
400 Commercial Street Suite 404
Portland, ME 04101

Report Number: 74727

Revision: Rev. 0

Re: Whitings Axe Factory (Project No: 111.06134.019)

Enclosed are the results of the analyses on your sample(s). Samples were received on 24 January 2013 and analyzed for the tests listed. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Sample Analysis: The attached pages detail the Client Sample IDs, Lab Sample IDs, and Analyses requested

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, Virginia, Maryland, North Carolina, and is accredited by the Deparment of Defense (DOD) ELAP program. A list of actual certified parameters is available upon request.

If you have any questions on these results, please do not hesitate to contact us.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 2/7/2013

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

CLIENT: Ransom Consulting, Inc. **REPORT NUMBER: 74727** **REV: Rev. 0**

PROJECT: Whitings Axe Factory (Project No: 111.06134.019)

Lab Number	Sample Date	Station Location	Analysis	Comments
74727-1	01/21/13	BK1	MADEP EPH	
	01/21/13	BK1	Metals	
74727-2	01/21/13	SB103-S1-012113	EPA 8082 (PCBs only)	
	01/21/13	SB103-S1-012113	EPA 8260 Volatile Organics	
	01/21/13	SB103-S1-012113	MADEP EPH	
	01/21/13	SB103-S1-012113	Metals	
	01/21/13	SB103-S1-012113	Volatile Petroleum Hydrocarbons	
74727-3	01/21/13	SB102-S3-012113	EPA 8082 (PCBs only)	
	01/21/13	SB102-S3-012113	EPA 8260 Volatile Organics	
	01/21/13	SB102-S3-012113	MADEP EPH	
	01/21/13	SB102-S3-012113	Metals	
	01/21/13	SB102-S3-012113	Volatile Petroleum Hydrocarbons	
74727-4	01/21/13	SB10X-S3-012113	EPA 8082 (PCBs only)	
	01/21/13	SB10X-S3-012113	EPA 8260 Volatile Organics	
	01/21/13	SB10X-S3-012113	MADEP EPH	
	01/21/13	SB10X-S3-012113	Metals	
	01/21/13	SB10X-S3-012113	Volatile Petroleum Hydrocarbons	
74727-5	01/23/13	MW101	EPA 8260 Volatile Organics	
	01/23/13	MW101	MADEP EPH	
	01/23/13	MW101	Metals	
	01/23/13	MW101	Volatile Petroleum Hydrocarbons	
74727-6	01/23/13	MW10X	Electronic Data Deliverable	
	01/23/13	MW10X	EPA 8260 Volatile Organics	
	01/23/13	MW10X	MADEP EPH	
	01/23/13	MW10X	Metals	
	01/23/13	MW10X	Volatile Petroleum Hydrocarbons	

Surrogate Compound Limits

Matrix: / Units:	Aqueous % Recovery	Solid % Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-120	70-120	EPA 624/8260B
Toluene-d8	85-120	85-120	
Bromofluorobenzene	75-120	75-120	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 625/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA)	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH
Volatile Petroleum Hydrocarbons			
2,5-Dibromotoluene (PID)	70-130	70-130	MADEP VPH May 2004 Rev1.1
2,5-Dibromotoluene (FID)	70-130	70-130	
Extracatable Petroleum Hydrocarbons			
1-chloro-octadecane (aliphatic)	40-140	40-140	MADEP EPH May 2004 Rev1.1
o-Terphenyl (aromatic)	40-140	40-140	
2-Fluorobiphenyl (Fractionation)	40-140	40-140	
2-Bromonaphthalene (fractionation)	40-140	40-140	

analytics environmental laboratory LLC

VOLATILE
DATA SUMMARIES

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:VOC.doc

analytics environmental laboratory LLC

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800-929-9906

Mr. Erik Phenix
Ransom Consulting, Inc.
400 Commercial Street Suite 404
Portland, ME 04101

January 29, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019

Field Sample ID: SB103-S1-012113

SAMPLE DATA

Lab Sample ID: 74727-2
Matrix: Solid
Percent Solid: 76
Dilution Factor: 138
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Analysis Date: 01/25/13

ANALYTICAL RESULTS VOLATILE ORGANICS

COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	138	U	1,3-Dichloropropane	138	U
Bromobenzene	138	U	cis-1,3-Dichloropropene	138	U
Bromochloromethane	138	U	trans-1,3-Dichloropropene	138	U
Bromodichloromethane	103	U	2,2-Dichloropropane	138	U
Bromoform	103	U	1,1-Dichloropropene	138	U
Bromomethane	138	U	Ethylbenzene	138	U
n-butylbenzene	138	U	Hexachlorobutadiene	138	U
sec-butylbenzene	138	U	Isopropylbenzene	138	U
tert-butylbenzene	138	U	p-isopropyltoluene	138	U
Carbon Tetrachloride	138	U	Methylene Chloride	688	U
Chlorobenzene	138	U	Methyl-tert-butyl ether (MTBE)	103	U
Chloroethane	138	U	Naphthalene	138	U
Chloroform	103	U	n-Propylbenzene	138	U
Chloromethane	138	U	Styrene	138	U
2-Chlorotoluene	138	U	1,1,1,2-Tetrachloroethane	138	U
4-Chlorotoluene	138	U	1,1,2,2-Tetrachloroethane	103	U
Dibromochloromethane	103	U	Tetrachloroethene	138	U
1,2-Dibromo-3-chloropropane	138	U	Toluene	138	U
1,2-Dibromoethane	103	U	1,2,3-Trichlorobenzene	138	U
Dibromomethane	138	U	1,2,4-Trichlorobenzene	138	U
1,2-Dichlorobenzene	138	U	1,1,1-Trichloroethane	138	U
1,3-Dichlorobenzene	138	U	1,1,2-Trichloroethane	103	U
1,4-Dichlorobenzene	138	U	Trichloroethene	138	U
Dichlorodifluoromethane	138	U	Trichlorofluoromethane	138	U
1,1-Dichloroethane	138	U	1,2,3-Trichloropropane	138	U
1,2-Dichloroethane	103	U	1,2,4-Trimethylbenzene	138	U
1,1-Dichloroethene	103	U	1,3,5-Trimethylbenzene	138	U
cis-1,2-Dichloroethene	138	U	Vinyl Chloride	138	U
trans-1,2-Dichloroethene	138	U	o-Xylene	138	U
1,2-Dichloropropane	103	U	m,p-Xylene	138	U
Acetone	1380	U	Diethyl ether	138	U
Carbon Disulfide	138	U	2-Hexanone	1380	U
Tetrahydrofuran	688	U	Methyl isobutyl ketone	1380	U
Methyl ethyl ketone	1380	U	Di-isopropyl ether (DIPE)	138	U
t-Butyl alcohol (TBA)	2750	U	Ethyl t-butyl ether (ETBE)	138	U
t-Amyl methyl ether (TAME)	138	U	1,3,5-Trichlorobenzene	138	U
			1,4-Dioxane	4130	U

Surrogate Standard Recovery

d4-1,2-Dichloroethane	77 %	d8-Toluene	80 %	Bromofluorobenzene	87 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

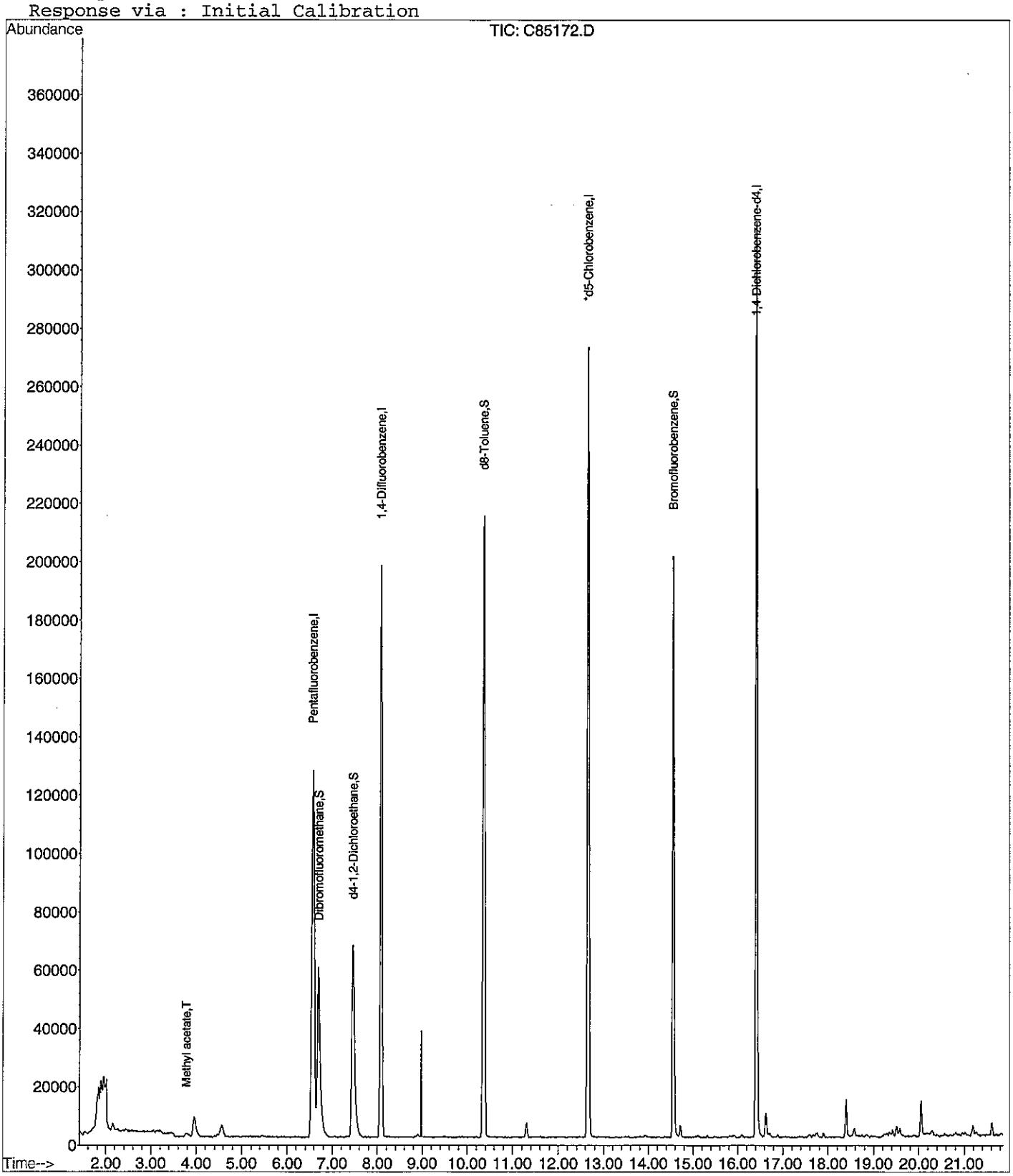
COMMENTS: Results are expressed on a dry weight basis.

8260 2009 + Dioxane:Res(73):Rec(3)

Authorized signature

Data File : C:\HPCHEM\1\DATA\DATA\012513-C\C85172.D Vial: 13
Acq On : 25 Jan 2013 4:20 pm Operator: MT
Sample : 74727-2 Inst : Instr_C
Misc : 50,9.53,SOIL Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 28 11:32 2013 Quant Results File: V801143C.RES

Method : C:\HPCHEM\1\METHODS\MATHODS\METHODS\V801143C.M (RTE Integrator)
Title : 8260 Purgable Organics
Last Update : Fri Jan 25 10:35:45 2013
Response via : Initial Calibration



Analytics environmental laboratory LLC

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Mr. Erik Phenix
Ransom Consulting, Inc.
400 Commercial Street Suite 404
Portland, ME 04101

January 29, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019

Field Sample ID: SB102-S3-012113

SAMPLE DATA

Lab Sample ID: 74727-3
Matrix: Solid
Percent Solid: 89
Dilution Factor: 133
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Analysis Date: 01/25/13

ANALYTICAL RESULTS VOLATILE ORGANICS

COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	133	U	1,3-Dichloropropane	133	U
Bromobenzene	133	U	cis-1,3-Dichloropropene	133	U
Bromochloromethane	133	U	trans-1,3-Dichloropropene	133	U
Bromodichloromethane	100	U	2,2-Dichloropropane	133	U
Bromoform	100	U	1,1-Dichloropropene	133	U
Bromomethane	133	U	Ethylbenzene	133	U
n-butylbenzene	133	U	Hexachlorobutadiene	133	U
sec-butylbenzene	133	U	Isopropylbenzene	133	U
tert-butylbenzene	133	U	p-isopropyltoluene	133	U
Carbon Tetrachloride	133	U	Methylene Chloride	666	U
Chlorobenzene	133	U	Methyl-tert-butyl ether (MTBE)	100	U
Chloroethane	133	U	Naphthalene	133	U
Chloroform	100	U	n-Propylbenzene	133	U
Chloromethane	133	U	Styrene	133	U
2-Chlorotoluene	133	U	1,1,1,2-Tetrachloroethane	133	U
4-Chlorotoluene	133	U	1,1,2,2-Tetrachloroethane	100	U
Dibromochloromethane	100	U	Tetrachloroethene	133	U
1,2-Dibromo-3-chloropropane	133	U	Toluene	133	U
1,2-Dibromoethane	100	U	1,2,3-Trichlorobenzene	133	U
Dibromomethane	133	U	1,2,4-Trichlorobenzene	133	U
1,2-Dichlorobenzene	133	U	1,1,1-Trichloroethane	133	U
1,3-Dichlorobenzene	133	U	1,1,2-Trichloroethane	100	U
1,4-Dichlorobenzene	133	U	Trichloroethene	133	U
Dichlorodifluoromethane	133	U	Trichlorofluoromethane	133	U
1,1-Dichloroethane	133	U	1,2,3-Trichloropropane	133	U
1,2-Dichloroethane	100	U	1,2,4-Trimethylbenzene	133	U
1,1-Dichloroethene	100	U	1,3,5-Trimethylbenzene	133	U
cis-1,2-Dichloroethene	133	U	Vinyl Chloride	133	U
trans-1,2-Dichloroethene	133	U	o-Xylene	133	U
1,2-Dichloropropane	100	U	m,p-Xylene	133	U
Acetone	1330	U	Diethyl ether	133	U
Carbon Disulfide	133	U	2-Hexanone	1330	U
Tetrahydrofuran	666	U	Methyl isobutyl ketone	1330	U
Methyl ethyl ketone	1330	U	Di-isopropyl ether (DIPE)	133	U
t-Butyl alcohol (TBA)	2660	U	Ethyl t-butyl ether (ETBE)	133	U
t-Amyl methyl ether (TAME)	133	U	1,3,5-Trichlorobenzene	133	U
			1,4-Dioxane	3990	U

Surrogate Standard Recovery

d4-1,2-Dichloroethane	86	%	d8-Toluene	88	%	Bromofluorobenzene	95 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

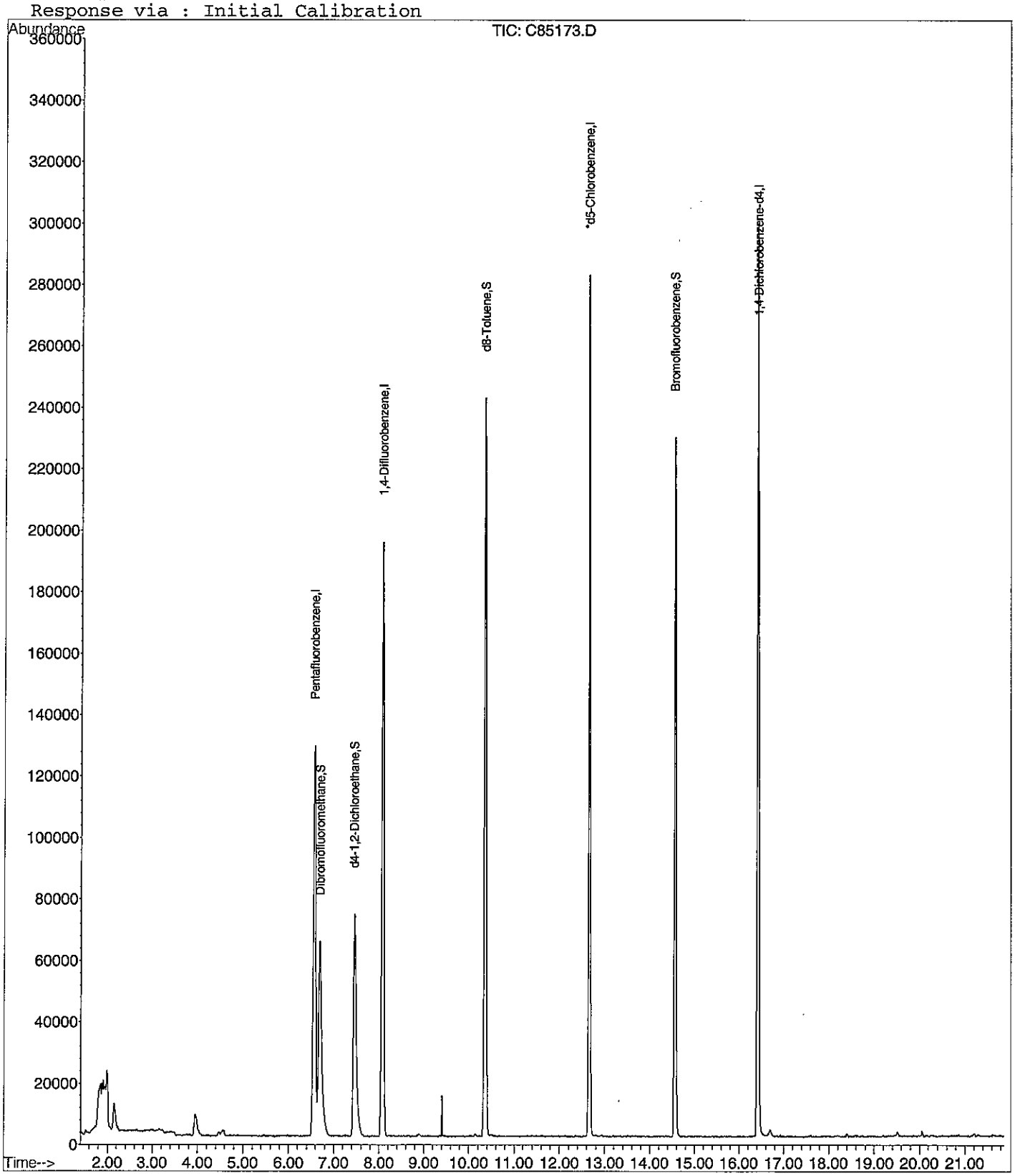
COMMENTS: Results are expressed on a dry weight basis.

8260 2009 + Dioxane:Res(73):Rec(3)

Authorized signature

Data File : C:\HPCHEM\1\DATA\DATA\012513-C\C85173.D Vial: 14
Acq On : 25 Jan 2013 4:57 pm Operator: MT
Sample : 74727-3 Inst : Instr_C
Misc : 50,8.46,SOIL Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 28 11:32 2013 Quant Results File: V801143C.RES

Method : C:\HPCHEM\1\METHODS\MATHODS\METHODS\V801143C.M (RTE Integrator)
Title : 8260 Purgable Organics
Last Update : Fri Jan 25 10:35:45 2013
Response via : Initial Calibration



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Mr. Erik Phenix
Ransom Consulting, Inc.
400 Commercial Street Suite 404
Portland, ME 04101

January 29, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019

Field Sample ID: SB10X-S3-012113

SAMPLE DATA

Lab Sample ID: 74727-4
Matrix: Solid
Percent Solid: 71
Dilution Factor: 219
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Analysis Date: 01/25/13

ANALYTICAL RESULTS VOLATILE ORGANICS

COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	219	U	1,3-Dichloropropane	219	U
Bromobenzene	219	U	cis-1,3-Dichloropropene	219	U
Bromochloromethane	219	U	trans-1,3-Dichloropropene	219	U
Bromodichloromethane	164	U	2,2-Dichloropropane	219	U
Bromoform	164	U	1,1-Dichloropropene	219	U
Bromomethane	219	U	Ethylbenzene	219	U
n-butylbenzene	219	U	Hexachlorobutadiene	219	U
sec-butylbenzene	219	U	Isopropylbenzene	219	U
tert-butylbenzene	219	U	p-isopropyltoluene	219	U
Carbon Tetrachloride	219	U	Methylene Chloride	1090	U
Chlorobenzene	219	U	Methyl-tert-butyl ether (MTBE)	164	U
Chloroethane	219	U	Naphthalene	219	U
Chloroform	164	U	n-Propylbenzene	219	U
Chloromethane	219	U	Styrene	219	U
2-Chlorotoluene	219	U	1,1,1,2-Tetrachloroethane	219	U
4-Chlorotoluene	219	U	1,1,2,2-Tetrachloroethane	164	U
Dibromochloromethane	164	U	Tetrachloroethene	219	U
1,2-Dibromo-3-chloropropane	219	U	Toluene	219	U
1,2-Dibromoethane	164	U	1,2,3-Trichlorobenzene	219	U
Dibromomethane	219	U	1,2,4-Trichlorobenzene	219	U
1,2-Dichlorobenzene	219	U	1,1,1-Trichloroethane	219	U
1,3-Dichlorobenzene	219	U	1,1,2-Trichloroethane	164	U
1,4-Dichlorobenzene	219	U	Trichloroethene	219	U
Dichlorodifluoromethane	219	U	Trichlorofluoromethane	219	U
1,1-Dichloroethane	219	U	1,2,3-Trichloropropane	219	U
1,2-Dichloroethane	164	U	1,2,4-Trimethylbenzene	219	U
1,1-Dichloroethene	164	U	1,3,5-Trimethylbenzene	219	U
cis-1,2-Dichloroethene	219	U	Vinyl Chloride	219	U
trans-1,2-Dichloroethene	219	U	o-Xylene	219	U
1,2-Dichloropropane	164	U	m,p-Xylene	219	U
Acetone	2190	U	Diethyl ether	219	U
Carbon Disulfide	219	U	2-Hexanone	2190	U
Tetrahydrofuran	1090	U	Methyl isobutyl ketone	2190	U
Methyl ethyl ketone	2190	U	Di-isopropyl ether (DIPE)	219	U
t-Butyl alcohol (TBA)	4370	U	Ethyl t-butyl ether (ETBE)	219	U
t-Amyl methyl ether (TAME)	219	U	1,3,5-Trichlorobenzene	219	U
			1,4-Dioxane	6560	U

Surrogate Standard Recovery

d4-1,2-Dichloroethane	83	%	d8-Toluene	83	%	Bromofluorobenzene	91 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

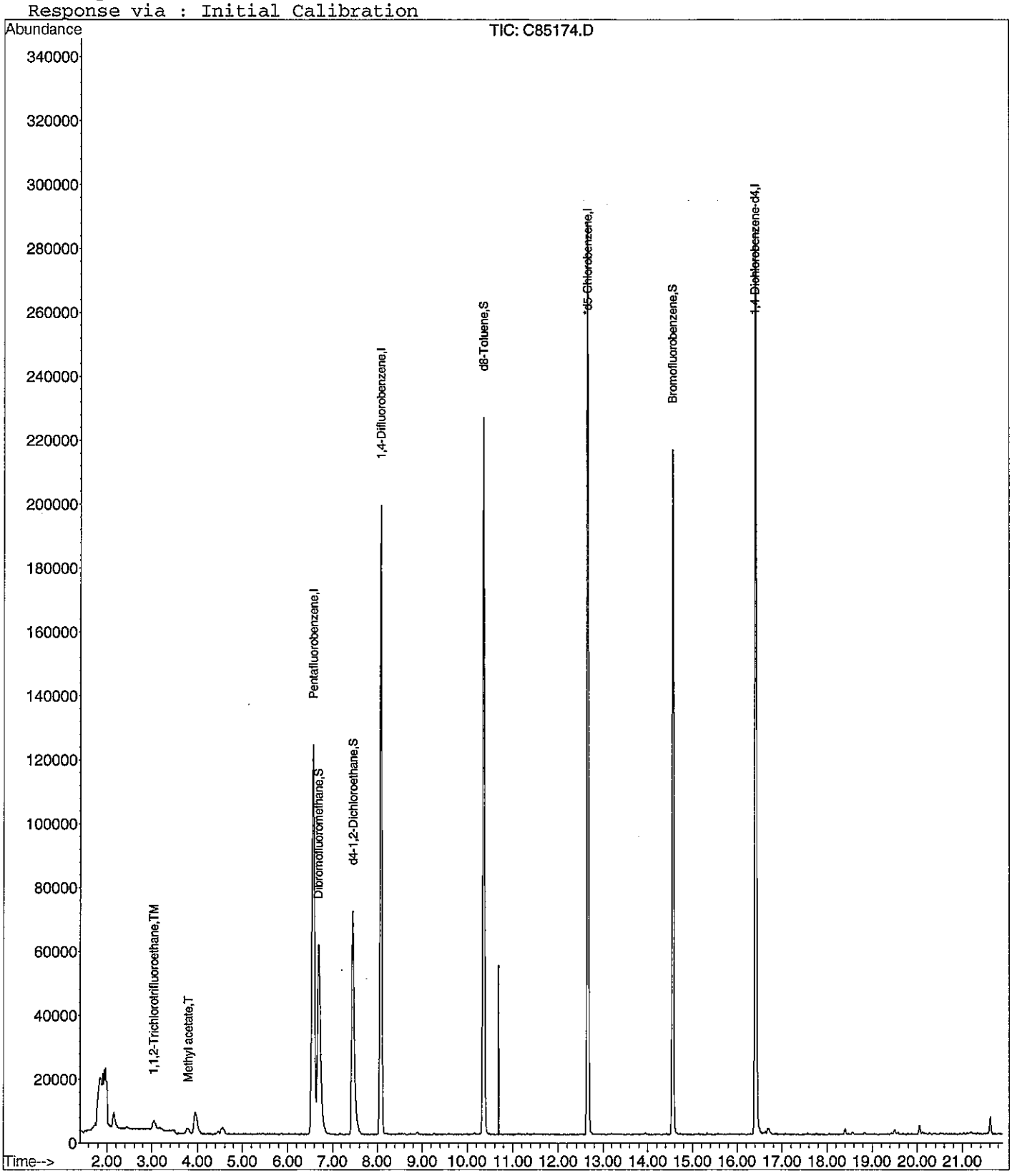
COMMENTS: Results are expressed on a dry weight basis.

8260 2009 + Dioxane:Res(73):Rec(3)

Authorized signature

Data File : C:\HPCHEM\1\DATA\DATA\012513-C\C85174.D Vial: 15
Acq On : 25 Jan 2013 5:06 pm Operator: MT
Sample : 74727-4 Inst : Instr_C
Misc : 50,6.43,SOIL Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 28 11:32 2013 Quant Results File: V801143C.RES

Method : C:\HPCHEM\1\METHODS\MATHODS\METHODS\V801143C.M (RTE Integrator)
Title : 8260 Purgable Organics
Last Update : Fri Jan 25 10:35:45 2013
Response via : Initial Calibration



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January 30, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019

Field Sample ID: MW101

SAMPLE DATA

Lab Sample ID: 74727-5
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 01/23/13
Lab Receipt Date: 01/24/13
Analysis Date: 01/29/13

ANALYTICAL RESULTS VOLATILE ORGANICS

COMPOUND	Quantitation Limit µg/L	Result µg/L	COMPOUND	Quantitation Limit µg/L	Result µg/L
Benzene	1	U	1,3-Dichloropropane	1	U
Bromobenzene	1	U	cis-1,3-Dichloropropene	1	U
Bromochloromethane	1	U	trans-1,3-Dichloropropene	1	U
Bromodichloromethane	1	U	2,2-Dichloropropane	1	U
Bromoform	1	U	1,1-Dichloropropene	1	U
Bromomethane	2	U	Ethylbenzene	1	U
n-butylbenzene	1	U	Hexachlorobutadiene	1	U
sec-butylbenzene	1	U	Isopropylbenzene	1	U
tert-butylbenzene	1	U	p-isopropyltoluene	1	U
Carbon Tetrachloride	1	U	Methylene Chloride	5	U
Chlorobenzene	1	U	Methyl-tert-butyl ether (MTBE)	1	U
Chloroethane	1	U	Naphthalene	1	U
Chloroform	1	U	n-Propylbenzene	1	U
Chloromethane	1	U	Styrene	1	U
2-Chlorotoluene	1	U	1,1,1,2-Tetrachloroethane	1	U
4-Chlorotoluene	1	U	1,1,2,2-Tetrachloroethane	1	U
Dibromochloromethane	1	U	Tetrachloroethene	1	U
1,2-Dibromo-3-chloropropane	1	U	Toluene	1	**0.6 J**
1,2-Dibromoethane	1	U	1,2,3-Trichlorobenzene	1	U
Dibromomethane	1	U	1,2,4-Trichlorobenzene	1	U
1,2-Dichlorobenzene	1	U	1,1,1-Trichloroethane	1	U
1,3-Dichlorobenzene	1	U	1,1,2-Trichloroethane	1	U
1,4-Dichlorobenzene	1	U	Trichloroethene	1	U
Dichlorodifluoromethane	1	U	Trichlorofluoromethane	1	U
1,1-Dichloroethane	1	U	1,2,3-Trichloropropane	1	U
1,2-Dichloroethane	1	U	1,2,4-Trimethylbenzene	1	U
1,1-Dichloroethene	1	U	1,3,5-Trimethylbenzene	1	U
cis-1,2-Dichloroethene	1	U	Vinyl Chloride	1	U
trans-1,2-Dichloroethene	1	U	o-Xylene	1	U
1,2-Dichloropropane	1	U	m,p-Xylene	1	**0.8 J**
Acetone	10	U	Diethyl ether	1	U
Carbon Disulfide	1	U	2-Hexanone	10	U
Tetrahydrofuran	2	U	Methyl isobutyl ketone	10	U
Methyl ethyl ketone	10	U	Di-isopropyl ether (DIPE)	1	U
t-Butyl alcohol (TBA)	20	U	Ethyl t-butyl ether (ETBE)	1	U
t-Amyl methyl ether (TAME)	1	U	1,3,5-Trichlorobenzene	1	U
			1,4-Dioxane	30	U

Surrogate Standard Recovery

d4-1,2-Dichloroethane	99 %	d8-Toluene	97 %	Bromofluorobenzene	97 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

COMMENTS:

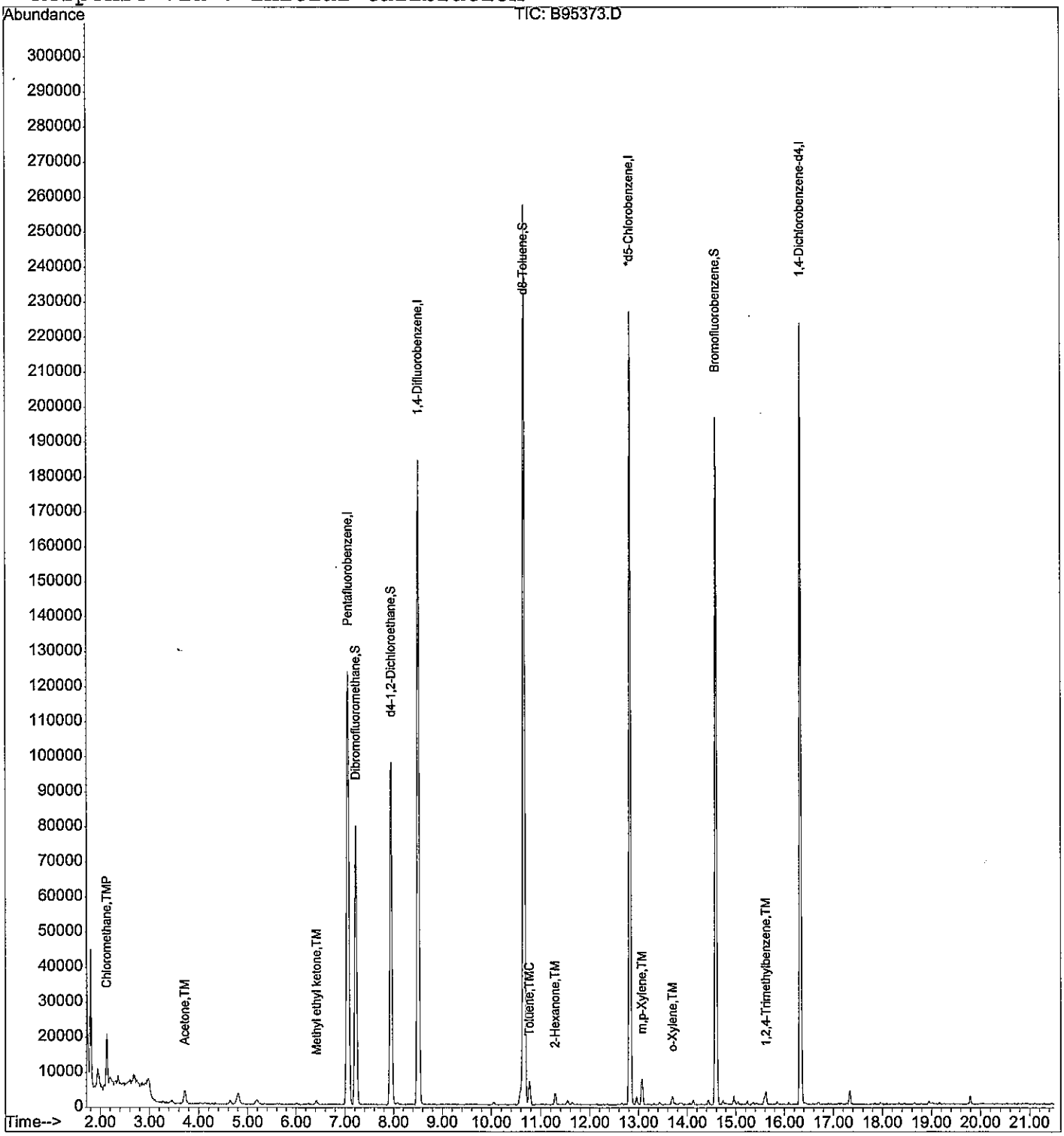
8260 2009 + Dioxane:Res(73):Rec(3)

Authorized signature

Quantitation Report

Data File : C:\HPCHEM\1\DATA\012913-B\B95373.D Vial: 14
Acq On : 29 Jan 2013 4:21 pm Operator: MT
Sample : 74727-5 Inst : Instrumen
Misc : 5000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 30 8:54 2013 Quant Results File: V801283B.RES

Method : C:\HPCHEM\1\METHODS\V801283B.M (RTE Integrator)
Title : 8260 Purgable Organics
Last Update : Wed Jan 30 08:53:49 2013
Response via : Initial Calibration



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January 30, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019

Field Sample ID: MW10X

SAMPLE DATA

Lab Sample ID: 74727-6
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 01/23/13
Lab Receipt Date: 01/24/13
Analysis Date: 01/29/13

ANALYTICAL RESULTS VOLATILE ORGANICS

COMPOUND	Quantitation Limit µg/L	Result µg/L	COMPOUND	Quantitation Limit µg/L	Result µg/L
Benzene	1	U	1,3-Dichloropropane	1	U
Bromobenzene	1	U	cis-1,3-Dichloropropene	1	U
Bromochloromethane	1	U	trans-1,3-Dichloropropene	1	U
Bromodichloromethane	1	U	2,2-Dichloropropane	1	U
Bromoform	1	U	1,1-Dichloropropene	1	U
Bromomethane	2	U	Ethylbenzene	1	U
n-butylbenzene	1	U	Hexachlorobutadiene	1	U
sec-butylbenzene	1	U	Isopropylbenzene	1	U
tert-butylbenzene	1	U	p-isopropyltoluene	1	U
Carbon Tetrachloride	1	U	Methylene Chloride	5	U
Chlorobenzene	1	U	Methyl-tert-butyl ether (MTBE)	1	U
Chloroethane	1	U	Naphthalene	1	U
Chloroform	1	U	n-Propylbenzene	1	U
Chloromethane	1	U	Styrene	1	U
2-Chlorotoluene	1	U	1,1,1,2-Tetrachloroethane	1	U
4-Chlorotoluene	1	U	1,1,2,2-Tetrachloroethane	1	U
Dibromochloromethane	1	U	Tetrachloroethene	1	U
1,2-Dibromo-3-chloropropane	1	U	Toluene	1	U
1,2-Dibromoethane	1	U	1,2,3-Trichlorobenzene	1	U
Dibromomethane	1	U	1,2,4-Trichlorobenzene	1	U
1,2-Dichlorobenzene	1	U	1,1,1-Trichloroethane	1	U
1,3-Dichlorobenzene	1	U	1,1,2-Trichloroethane	1	U
1,4-Dichlorobenzene	1	U	Trichloroethene	1	U
Dichlorodifluoromethane	1	U	Trichlorofluoromethane	1	U
1,1-Dichloroethane	1	U	1,2,3-Trichloropropane	1	U
1,2-Dichloroethane	1	U	1,2,4-Trimethylbenzene	1	U
1,1-Dichloroethene	1	U	1,3,5-Trimethylbenzene	1	U
cis-1,2-Dichloroethene	1	U	Vinyl Chloride	1	U
trans-1,2-Dichloroethene	1	U	o-Xylene	1	U
1,2-Dichloropropane	1	U	m,p-Xylene	1	U
Acetone	10	U	Diethyl ether	1	U
Carbon Disulfide	1	U	2-Hexanone	10	U
Tetrahydrofuran	2	U	Methyl isobutyl ketone	10	U
Methyl ethyl ketone	10	U	Di-isopropyl ether (DIPE)	1	U
t-Butyl alcohol (TBA)	20	U	Ethyl t-butyl ether (ETBE)	1	U
t-Amyl methyl ether (TAME)	1	U	1,3,5-Trichlorobenzene	1	U
			1,4-Dioxane	30	U

Surrogate Standard Recovery

d4-1,2-Dichloroethane	99 %	d8-Toluene	98 %	Bromofluorobenzene	99 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

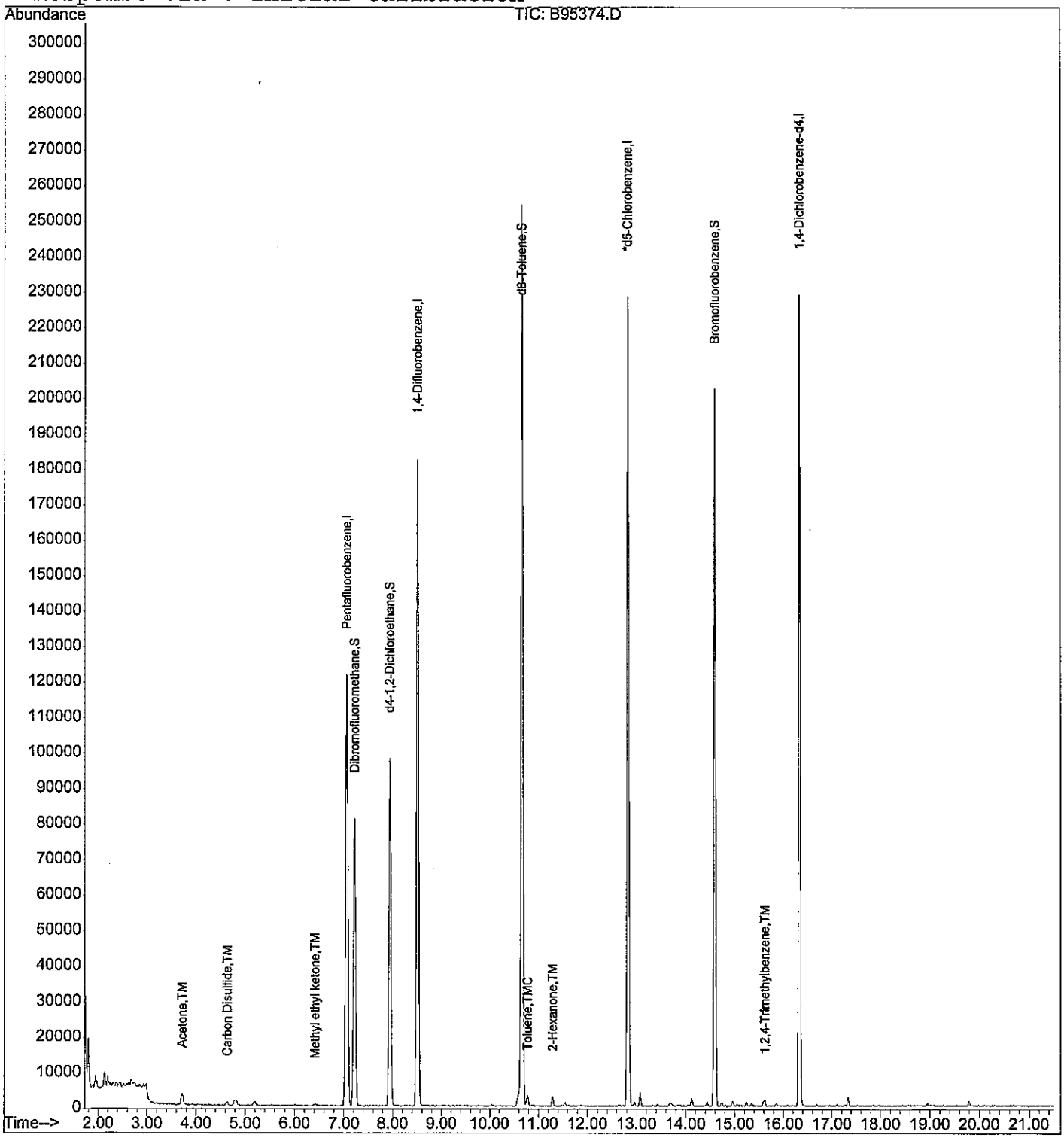
COMMENTS:

8260 2009 + Dioxane:Res(73):Rec(3)

Authorized signature

Data File : C:\HPCHEM\1\DATA\012913-B\B95374.D Vial: 15
Acq On : 29 Jan 2013 4:50 pm Operator: MT
Sample : 74727-6 Inst : Instrumen
Misc : 5000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 30 8:54 2013 Quant Results File: V801283B.RES

Method : C:\HPCHEM\1\METHODS\V801283B.M (RTE Integrator)
Title : 8260 Purgable Organics
Last Update : Wed Jan 30 08:53:49 2013
Response via : Initial Calibration



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VOLATILE
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:VOCQC.doc

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January 29, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019

Field Sample ID: LAB QC

SAMPLE DATA

Lab Sample ID: B801253C
Matrix: Solid
Percent Solid: 100
Dilution Factor: 100
Collection Date: N/A
Lab Receipt Date: N/A
Analysis Date: 01/25/13

ANALYTICAL RESULTS VOLATILE ORGANICS

COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	100	U	1,3-Dichloropropane	100	U
Bromobenzene	100	U	cis-1,3-Dichloropropene	100	U
Bromochloromethane	100	U	trans-1,3-Dichloropropene	100	U
Bromodichloromethane	75	U	2,2-Dichloropropane	100	U
Bromoform	75	U	1,1-Dichloropropene	100	U
Bromomethane	100	U	Ethylbenzene	100	U
n-butylbenzene	100	U	Hexachlorobutadiene	100	U
sec-butylbenzene	100	U	Isopropylbenzene	100	U
tert-butylbenzene	100	U	p-isopropyltoluene	100	U
Carbon Tetrachloride	100	U	Methylene Chloride	500	U
Chlorobenzene	100	U	Methyl-tert-butyl ether (MTBE)	75	U
Chloroethane	100	U	Naphthalene	100	U
Chloroform	75	U	n-Propylbenzene	100	U
Chloromethane	100	U	Styrene	100	U
2-Chlorotoluene	100	U	1,1,1,2-Tetrachloroethane	100	U
4-Chlorotoluene	100	U	1,1,2,2-Tetrachloroethane	75	U
Dibromochloromethane	75	U	Tetrachloroethene	100	U
1,2-Dibromo-3-chloropropane	100	U	Toluene	100	U
1,2-Dibromoethane	75	U	1,2,3-Trichlorobenzene	100	U
Dibromomethane	100	U	1,2,4-Trichlorobenzene	100	U
1,2-Dichlorobenzene	100	U	1,1,1-Trichloroethane	100	U
1,3-Dichlorobenzene	100	U	1,1,2-Trichloroethane	75	U
1,4-Dichlorobenzene	100	U	Trichloroethene	100	U
Dichlorodifluoromethane	100	U	Trichlorofluoromethane	100	U
1,1-Dichloroethane	100	U	1,2,3-Trichloropropane	100	U
1,2-Dichloroethane	75	U	1,2,4-Trimethylbenzene	100	U
1,1-Dichloroethene	75	U	1,3,5-Trimethylbenzene	100	U
cis-1,2-Dichloroethene	100	U	Vinyl Chloride	100	U
trans-1,2-Dichloroethene	100	U	o-Xylene	100	U
1,2-Dichloropropane	75	U	m,p-Xylene	100	U
Acetone	1000	U	Diethyl ether	100	U
Carbon Disulfide	100	U	2-Hexanone	1000	U
Tetrahydrofuran	500	U	Methyl isobutyl ketone	1000	U
Methyl ethyl ketone	1000	U	Di-isopropyl ether (DIPE)	100	U
t-Butyl alcohol (TBA)	2000	U	Ethyl t-butyl ether (ETBE)	100	U
t-Amyl methyl ether (TAME)	100	U	1,3,5-Trichlorobenzene	100	U
			1,4-Dioxane	3000	U

Surrogate Standard Recovery

d4-1,2-Dichloroethane	93	%	d8-Toluene	98	%	Bromofluorobenzene	106 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

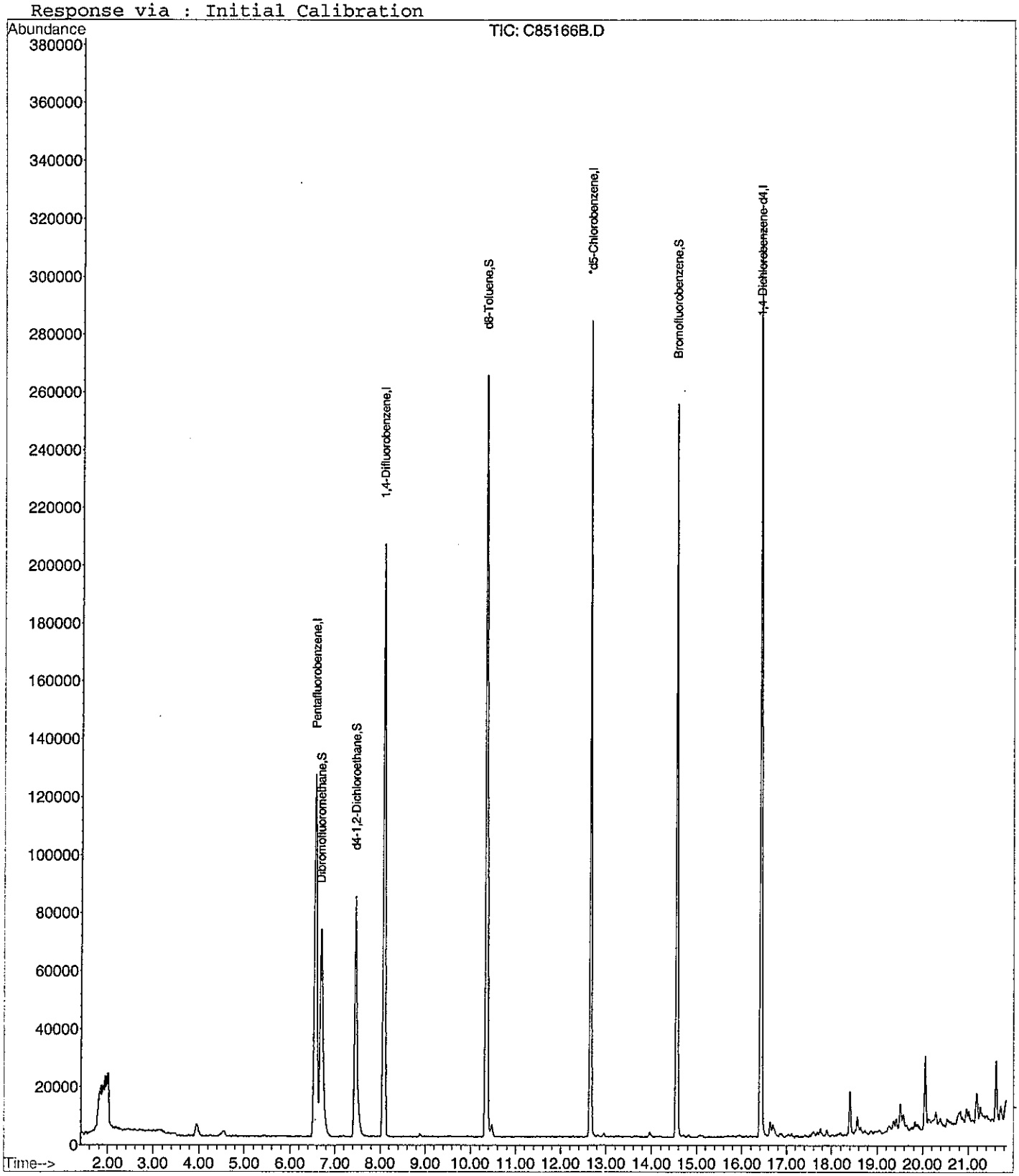
COMMENTS: Results are expressed on a dry weight basis.

8260 2009 + Dioxane:Res(73):Rec(3)

Authorized signature

Data File : C:\HPCHEM\1\DATA\DATA\012513-C\C85166B.D Vial: 6
Acq On : 25 Jan 2013 1:13 pm Operator: MT
Sample : B801253C Inst : Instr_C
Misc : 50,10.00,SOIL Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 28 11:32 2013 Quant Results File: V801143C.RES

Method : C:\HPCHEM\1\METHODS\MATHODS\METHODS\V801143C.M (RTE Integrator)
Title : 8260 Purgable Organics
Last Update : Fri Jan 25 10:35:45 2013
Response via : Initial Calibration



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January 30, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019

Field Sample ID: LAB QC

SAMPLE DATA

Lab Sample ID: B801293B
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: N/A
Lab Receipt Date: N/A
Analysis Date: 01/29/13

ANALYTICAL RESULTS VOLATILE ORGANICS

COMPOUND	Quantitation Limit µg/L	Result µg/L	COMPOUND	Quantitation Limit µg/L	Result µg/L
Benzene	1	U	1,3-Dichloropropane	1	U
Bromobenzene	1	U	cis-1,3-Dichloropropene	1	U
Bromochloromethane	1	U	trans-1,3-Dichloropropene	1	U
Bromodichloromethane	1	U	2,2-Dichloropropane	1	U
Bromoform	1	U	1,1-Dichloropropene	1	U
Bromomethane	2	U	Ethylbenzene	1	U
n-butylbenzene	1	U	Hexachlorobutadiene	1	U
sec-butylbenzene	1	U	Isopropylbenzene	1	U
tert-butylbenzene	1	U	p-isopropyltoluene	1	U
Carbon Tetrachloride	1	U	Methylene Chloride	5	U
Chlorobenzene	1	U	Methyl-tert-butyl ether (MTBE)	1	U
Chloroethane	1	U	Naphthalene	1	U
Chloroform	1	U	n-Propylbenzene	1	U
Chloromethane	1	U	Styrene	1	U
2-Chlorotoluene	1	U	1,1,1,2-Tetrachloroethane	1	U
4-Chlorotoluene	1	U	1,1,2,2-Tetrachloroethane	1	U
Dibromochloromethane	1	U	Tetrachloroethene	1	U
1,2-Dibromo-3-chloropropane	1	U	Toluene	1	U
1,2-Dibromoethane	1	U	1,2,3-Trichlorobenzene	1	U
Dibromomethane	1	U	1,2,4-Trichlorobenzene	1	U
1,2-Dichlorobenzene	1	U	1,1,1-Trichloroethane	1	U
1,3-Dichlorobenzene	1	U	1,1,2-Trichloroethane	1	U
1,4-Dichlorobenzene	1	U	Trichloroethene	1	U
Dichlorodifluoromethane	1	U	Trichlorofluoromethane	1	U
1,1-Dichloroethane	1	U	1,2,3-Trichloropropane	1	U
1,2-Dichloroethane	1	U	1,2,4-Trimethylbenzene	1	U
1,1-Dichloroethene	1	U	1,3,5-Trimethylbenzene	1	U
cis-1,2-Dichloroethene	1	U	Vinyl Chloride	1	U
trans-1,2-Dichloroethene	1	U	o-Xylene	1	U
1,2-Dichloropropane	1	U	m,p-Xylene	1	U
Acetone	10	U	Diethyl ether	1	U
Carbon Disulfide	1	U	2-Hexanone	10	U
Tetrahydrofuran	2	U	Methyl isobutyl ketone	10	U
Methyl ethyl ketone	10	U	Di-isopropyl ether (DIPE)	1	U
t-Butyl alcohol (TBA)	20	U	Ethyl t-butyl ether (ETBE)	1	U
t-Amyl methyl ether (TAME)	1	U	1,3,5-Trichlorobenzene	1	U
			1,4-Dioxane	30	U

Surrogate Standard Recovery

d4-1,2-Dichloroethane	99 %	d8-Toluene	99 %	Bromofluorobenzene	96 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

COMMENTS:

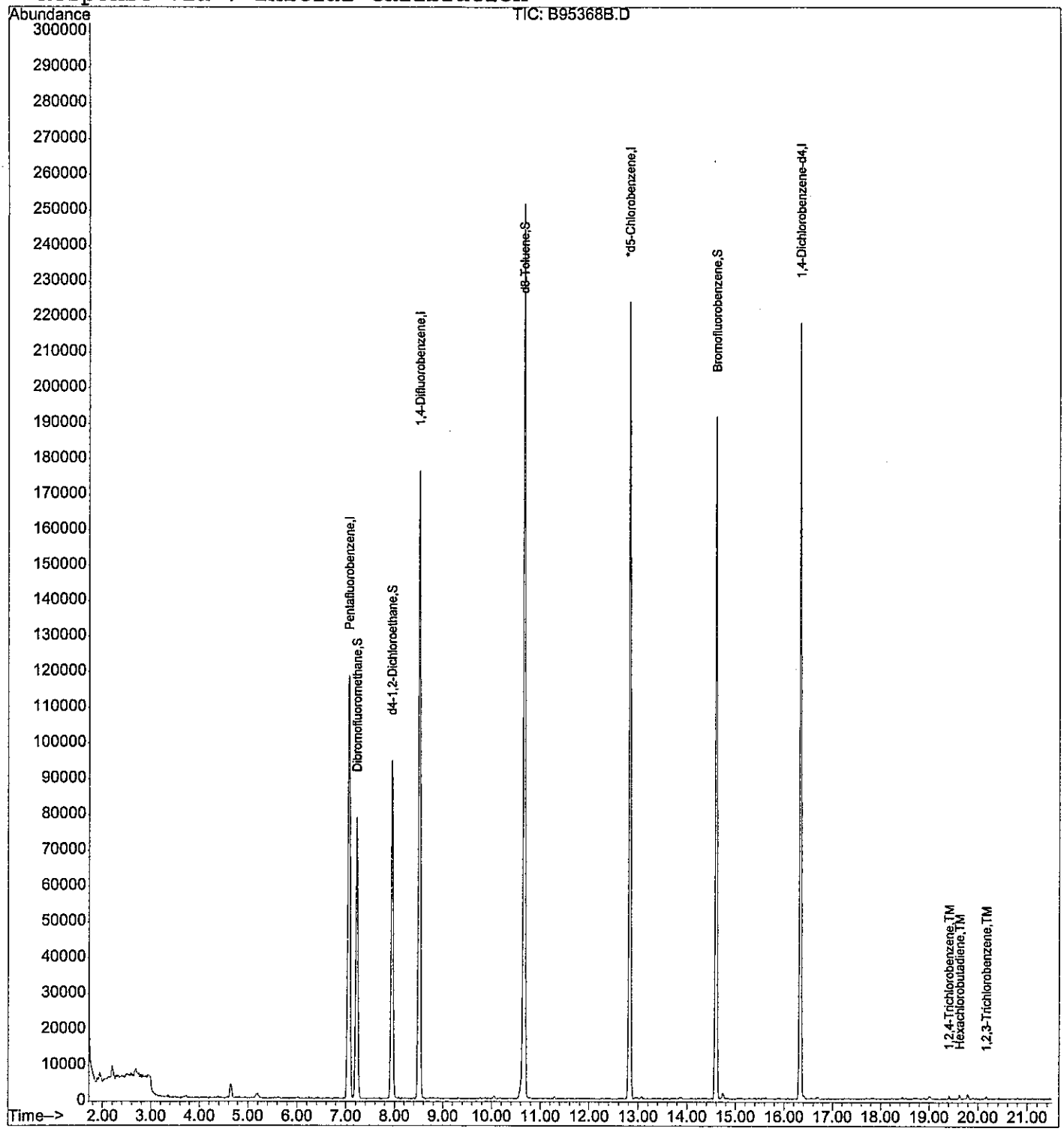
8260 2009 + Dioxane:Res(73):Rec(3)

Authorized signature

Quantitation Report

Data File : C:\HPCHEM\1\DATA\012913-B\B95368B.D Vial: 9
Acq On : 29 Jan 2013 1:05 pm Operator: MT
Sample : B801293B Inst : Instrumen
Misc : 5000 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 30 8:53 2013 Quant Results File: V801283B.RES

Method : C:\HPCHEM\1\METHODS\V801283B.M (RTE Integrator)
Title : 8260 Purgable Organics
Last Update : Wed Jan 30 08:53:22 2013
Response via : Initial Calibration



VOLATILE ORGANIC SOIL
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE
PERCENT RECOVERY

Instrument ID: C
GC Column: RTX-502.2
Column ID: 0.25 mm
Heated purge (Y/N): N

SDG: 74727
Non-spiked sample: B801253C
Spike: LS01253C
Spike duplicate: LS01253C2

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
Dichlorodifluoromethane	2000	2000	49	82	25	0	1455	73		1299	65		11	
Chloromethane	2000	2000	75	125	25	0	1776	89		1419	71	*	22	
Vinyl Chloride	2000	2000	75	125	25	0	1882	94		1489	74	*	23	
Bromomethane	2000	2000	75	125	25	0	2201	110		2151	108		2	
Chloroethane	2000	2000	75	125	25	0	1468	73	*	1661	83		12	
t-Butyl alcohol (TBA)	10000	10000	60	140	25	0	7479	75		8968	90		18	
Trichlorofluoromethane	2000	2000	75	125	25	0	2060	103		1997	100		3	
Diethyl ether	2000	2000	75	125	25	0	1296	65	*	1595	80		21	
1,1,2-Trichlorotrifluoroethane	2000	2000	75	125	25	0	1687	84		1730	86		3	
Acetone	5000	5000	75	125	25	0	6519	130	*	5952	119		9	
1,1-Dichloroethene	2000	2000	75	125	25	0	1601	80		1729	86		8	
Di-isopropyl ether (DIPE)	2000	2000	75	125	25	0	1739	87		1740	87		0	
Methylene Chloride	2000	2000	75	125	25	0	1569	78		1613	81		3	
Carbon Disulfide	2000	2000	75	125	25	0	1421	71	*	1447	72	*	2	
Acrylonitrile	2000	2000	75	125	25	0	1649	82		1791	90		8	
Methyl-tert-butyl ether (MTBE)	2000	2000	75	125	25	0	1863	93		1908	95		2	
trans-1,2-Dichloroethene	2000	2000	75	125	25	0	1629	81		1647	82		1	
1,1-Dichloroethane	2000	2000	75	125	25	0	1753	88		1750	87		0	
Methyl ethyl ketone	5000	5000	60	140	25	0	4435	89		4492	90		1	
Ethyl t-butyl ether (ETBE)	2000	2000	75	125	25	0	1865	93		1867	93		0	
2,2-Dichloropropane	2000	2000	75	125	25	0	2236	112		2114	106		6	
cis-1,2-Dichloroethene	2000	2000	75	125	25	0	1781	89		1811	91		2	
t-Amyl methyl ether (TAME)	2000	2000	75	125	25	0	1878	94		1930	96		3	
Chloroform	2000	2000	75	125	25	0	1729	86		1827	91		5	
Bromochloromethane	2000	2000	75	125	25	0	1840	92		1845	92		0	
Tetrahydrofuran	2000	2000	60	140	25	0	1655	83		1770	88		7	
1,1,1-Trichloroethane	2000	2000	75	125	25	0	2027	101		2033	102		0	
1,1-Dichloropropene	2000	2000	75	125	25	0	1658	83		1690	84		2	
Carbon Tetrachloride	2000	2000	75	125	25	0	1724	86		1797	90		4	
1,2-Dichloroethane	2000	2000	75	125	25	0	1804	90		1850	93		3	
Benzene	2000	2000	75	125	25	0	1653	83		1690	84		2	
Trichloroethene	2000	2000	75	125	25	0	1852	93		1848	92		0	
1,2-Dichloropropane	2000	2000	75	125	25	0	1616	81		1618	81		0	
Methylmethacrylate	2000	2000	75	125	25	0	1647	82		1712	86		4	
Bromodichloromethane	2000	2000	75	125	25	0	1867	93		1881	94		1	
Dibromomethane	2000	2000	75	125	25	0	1676	84		1691	85		1	
1,4-Dioxane	25000	25000	60	140	25	0	18430	74		26324	105		35	*
2-Hexanone	5000	5000	75	125	25	0	4838	97		5038	101		4	
Methyl isobutyl ketone	5000	5000	75	125	25	0	4549	91		4793	96		5	
cis-1,3-Dichloropropene	2000	2000	75	125	25	0	1873	94		1808	90		4	
Toluene	2000	2000	75	125	25	0	1964	98		1934	97		2	
trans-1,3-Dichloropropene	2000	2000	75	125	25	0	1873	94		1808	90		4	
1,1,2-Trichloroethane	2000	2000	75	125	25	0	1827	91		1857	93		2	
1,3-Dichloropropane	2000	2000	75	125	25	0	1848	92		1838	92		1	
Tetrachloroethene	2000	2000	75	125	25	0	1820	91		1898	95		4	
Dibromochloromethane	2000	2000	75	125	25	0	1654	83		1685	84		2	
1,2-Dibromoethane	2000	2000	75	125	25	0	1570	79		1648	82		5	
Chlorobenzene	2000	2000	75	125	25	0	2054	103		1986	99		3	
1,1,1,2-Tetrachloroethane	2000	2000	75	125	25	0	2068	103		2062	103		0	
Ethylbenzene	2000	2000	75	125	25	0	2074	104		2004	100		3	

VOLATILE ORGANIC SOIL
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE
PERCENT RECOVERY

Instrument ID: C
GC Column: RTX-502.2
Column ID: 0.25 mm
Heated purge (Y/N): N

SDG: 74727
Non-spiked sample: B801253C
Spike: LS01253C
Spike duplicate: LS01253C2

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
m,p-Xylene	4000	4000	75	125	25	0	4150	104		4037	101		3	
o-Xylene	2000	2000	75	125	25	0	2012	101		1997	100		1	
Styrene	2000	2000	75	125	25	0	2171	109		2103	105		3	
Bromoform	2000	2000	75	125	25	0	1963	98		2037	102		4	
Isopropylbenzene	2000	2000	75	125	25	0	2043	102		2009	100		2	
1,1,2,2-Tetrachloroethane	2000	2000	75	125	25	0	1893	95		1832	92		3	
1,2,3-Trichloropropane	2000	2000	75	125	25	0	1895	95		1892	95		0	
trans-1,4-Dichloro-2-butene	2000	2000	75	125	25	0	2174	109		2103	105		3	
n-Propylbenzene	2000	2000	75	125	25	0	2041	102		2032	102		0	
Bromobenzene	2000	2000	75	125	25	0	2073	104		2099	105		1	
1,3,5-Trimethylbenzene	2000	2000	75	125	25	0	2229	111		2249	112		1	
2-Chlorotoluene	2000	2000	75	125	25	0	2411	121		2421	121		0	
4-Chlorotoluene	2000	2000	75	125	25	0	2404	120		2344	117		3	
tert-butylbenzene	2000	2000	75	125	25	0	2389	119		2224	111		7	
1,2,4-Trimethylbenzene	2000	2000	75	125	25	0	2169	108		2037	102		6	
sec-butylbenzene	2000	2000	75	125	25	0	2252	113		2217	111		2	
p-isopropyltoluene	2000	2000	75	125	25	0	2276	114		2180	109		4	
1,3-Dichlorobenzene	2000	2000	75	125	25	0	2093	105		2088	104		0	
1,4-Dichlorobenzene	2000	2000	75	125	25	0	1969	98		1917	96		3	
n-butylbenzene	2000	2000	75	125	25	0	2008	100		1996	100		1	
1,2-Dichlorobenzene	2000	2000	75	125	25	0	1962	98		1926	96		2	
1,2-Dibromo-3-chloropropane	2000	2000	75	125	25	0	1866	93		1960	98		5	
1,2,4-Trichlorobenzene	2000	2000	75	125	25	0	2116	106		2007	100		5	
Hexachlorobutadiene	2000	2000	75	125	25	0	2069	103		2150	108		4	
Naphthalene	2000	2000	75	125	25	0	2173	109		2070	103		5	
1,2,3-Trichlorobenzene	2000	2000	75	125	25	0	2187	109		2135	107		2	

Column to be used to flag recovery and RPD values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

VOLATILE ORGANIC AQUEOUS
LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
PERCENT RECOVERY

Instrument ID: B
GC Column: RTX-502.2
Column ID: 0.25 mm
Heated purge (Y/N): N

SDG: 74727
Non-spiked sample: B801293B
Spike: L801293B
Spike duplicate: L801293B2

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
Dichlorodifluoromethane	20	40	155	15	0.0	24	122		24	118		3	
Chloromethane	20	40	125	15	0.0	20	98		19	96		3	
Vinyl Chloride	20	70	130	15	0.0	20	102		19	95		7	
Bromomethane	20	40	145	15	0.0	21	107		20	99		8	
Chloroethane	20	70	130	15	0.0	20	98		19	97		2	
t-Butyl alcohol (TBA)	100	70	130	15	0.0	100	100		92	92		9	
Trichlorofluoromethane	20	70	130	15	0.0	20	101		20	99		3	
Diethyl ether	20	70	130	15	0.0	19	93		19	94		0	
1,1,2-Trichlorotrifluoroethane	20	70	130	15	0.0	19	93		18	89		4	
Acetone	100	40	140	15	0.0	99	99		97	97		2	
1,1-Dichloroethene	20	75	125	15	0.0	19	93		18	90		4	
Methyl iodide	20	70	130	15	0.0	18	92		18	90		3	
Di-isopropyl ether (DIPE)	20	70	130	15	0.0	19	97		19	97		0	
Methylene Chloride	20	70	130	15	0.0	20	98		19	93		5	
Carbon Disulfide	20	70	130	15	0.0	18	90		17	87		3	
Acrylonitrile	20	70	130	15	0.0	22	112		22	109		2	
Methyl-tert-butyl ether (MTBE)	40	70	130	15	0.0	39	97		38	95		2	
trans-1,2-Dichloroethene	20	75	125	15	0.0	19	97		19	94		3	
1,1-Dichloroethane	20	70	130	15	0.0	19	97		19	94		2	
Methyl ethyl ketone	100	40	150	15	0.0	99	99		96	96		3	
Ethyl t-butyl ether (ETBE)	20	70	130	15	0.0	20	99		20	99		0	
2,2-Dichloropropane	20	70	130	15	0.0	21	106		19	94		12	
cis-1,2-Dichloroethene	20	75	125	15	0.0	20	99		20	99		0	
t-Amyl methyl ether (TAME)	20	70	130	15	0.0	20	99		20	100		1	
Chloroform	20	70	130	15	0.0	20	100		20	98		3	
Bromochloromethane	20	70	130	15	0.0	21	106		21	107		1	
Tetrahydrofuran	20	70	130	15	0.0	21	105		20	98		7	
1,1,1-Trichloroethane	20	75	125	15	0.0	20	102		20	100		2	
1,1-Dichloropropene	20	75	130	15	0.0	19	96		19	94		1	
Carbon Tetrachloride	20	75	125	15	0.0	20	99		19	94		5	
1,2-Dichloroethane	20	70	130	15	0.0	20	98		20	99		1	
Benzene	20	80	120	15	0.0	18	90		18	90		0	
Trichloroethene	20	75	125	15	0.0	19	97		18	92		5	
1,2-Dichloropropane	20	75	125	15	0.0	20	99		20	98		1	
Methylmethacrylate	20	70	130	15	0.0	21	104		20	99		5	
Bromodichloromethane	20	75	120	15	0.0	21	106		20	101		5	
Dibromomethane	20	75	125	15	0.0	20	99		19	95		4	
1,4-Dioxane	500	40	160	15	0.0	551	110		485	97		13	
2-Hexanone	100	55	130	15	0.0	113	113		104	104		9	
Methyl isobutyl ketone	100	60	135	15	0.0	107	107		99	99		8	
cis-1,3-Dichloropropene	20	70	130	15	0.0	21	105		20	101		4	
Toluene	20	75	120	15	0.0	19	97		18	92		6	
trans-1,3-Dichloropropene	20	70	130	15	0.0	21	105		20	102		3	
1,1,2-Trichloroethane	20	75	125	15	0.0	20	102		20	101		1	
1,3-Dichloropropane	20	75	125	15	0.0	20	101		20	99		2	
Tetrachloroethene	20	75	125	15	0.0	21	105		20	99		6	
Dibromochloromethane	20	70	130	15	0.0	21	105		20	101		4	

VOA FORM 3

VOLATILE ORGANIC AQUEOUS
LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
PERCENT RECOVERY

Instrument ID: B
GC Column: RTX-502.2
Column ID: 0.25 mm
Heated purge (Y/N): N

SDG: 74727
Non-spiked sample: B801293B
Spike: L801293B
Spike duplicate: L801293B2

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
1,2-Dibromoethane	20	80	120	15	0.0	21	103		20	100		3	
Chlorobenzene	20	80	120	15	0.0	20	100		19	95		4	
1,1,1,2-Tetrachloroethane	20	80	130	15	0.0	20	102		20	99		3	
Ethylbenzene	20	75	125	15	0.0	19	97		19	95		3	
m,p-Xylene	40	75	125	15	0.0	40	101		39	97		4	
o-Xylene	20	80	120	15	0.0	21	105		20	101		4	
Styrene	20	70	130	15	0.0	20	100		19	96		4	
Bromoform	20	70	130	15	0.0	21	105		20	102		3	
Isopropylbenzene	20	75	125	15	0.0	21	103		20	100		3	
1,1,2,2-Tetrachloroethane	20	70	130	15	0.0	21	104		20	100		5	
1,2,3-Trichloropropane	20	75	125	15	0.0	20	101		20	98		4	
n-Propylbenzene	20	70	130	15	0.0	20	99		19	96		3	
Bromobenzene	20	75	125	15	0.0	20	98		19	96		2	
1,3,5-Trimethylbenzene	20	75	130	15	0.0	20	98		19	96		2	
2-Chlorotoluene	20	75	125	15	0.0	20	100		19	97		3	
4-Chlorotoluene	20	75	130	15	0.0	20	98		18	92		6	
tert-butylbenzene	20	70	130	15	0.0	20	102		20	98		3	
1,2,4-Trimethylbenzene	20	75	130	15	0.0	20	98		19	95		4	
sec-butylbenzene	20	70	125	15	0.0	20	101		19	94		7	
p-isopropyltoluene	20	75	130	15	0.0	20	101		19	97		4	
1,3-Dichlorobenzene	20	75	125	15	0.0	20	101		20	99		2	
1,4-Dichlorobenzene	20	75	125	15	0.0	19	97		19	95		2	
n-butylbenzene	20	70	130	15	0.0	20	99		19	95		3	
1,2-Dichlorobenzene	20	70	120	15	0.0	20	101		20	98		4	
1,2-Dibromo-3-chloropropane	20	70	130	15	0.0	23	114		20	102		11	
1,2,4-Trichlorobenzene	20	70	130	15	0.0	20	100		19	95		6	
Hexachlorobutadiene	20	70	130	15	0.0	20	101		20	98		2	
Naphthalene	20	70	130	15	0.0	21	107		19	95		11	
1,2,3-Trichlorobenzene	20	70	130	15	0.0	21	105		20	98		6	
1,3,5-Trichlorobenzene	20	70	130	15	0.0	21	104		19	97		7	

Column to be used to flag recovery and RPD values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: _____

VOA FORM 3

VOLATILE ORGANIC AQUEOUS
MATRIX SPIKE/DUPLICATE
PERCENT RECOVERY

Instrument ID: B
GC Column: RTX-502.2
Column ID: 0.25 mm
Heated purge (Y/N): N

SDG: 74727
Non-spiked sample: 74727-5
Spike: 74727-5,MS
Spike duplicate: 74727-5,MSD

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
Dichlorodifluoromethane	20	40	155	15	0.0	26	131		27	134		2	
Chloromethane	20	40	125	15	0.0	21	107		22	109		2	
Vinyl Chloride	20	70	130	15	0.0	22	110		23	114		4	
Bromomethane	20	40	145	15	0.0	17	83		22	110		28	*
Chloroethane	20	70	130	15	0.0	21	104		22	109		4	
t-Butyl alcohol (TBA)	100	70	130	25	0.0	104	104		100	100		4	
Trichlorofluoromethane	20	70	130	15	0.0	23	113		23	117		3	
Diethyl ether	20	70	130	15	0.0	19	96		20	100		5	
1,1,2-Trichlorotrifluoroethane	20	70	130	15	0.0	20	98		20	100		3	
Acetone	100	40	140	25	0.0	110	110		107	107		3	
1,1-Dichloroethene	20	75	125	15	0.0	20	99		20	101		2	
Methyl iodide	20	70	130	25	0.0	18	92		21	103		10	
Di-isopropyl ether (DIPE)	20	70	130	15	0.0	20	100		20	100		1	
Methylene Chloride	20	70	130	15	0.0	20	99		20	98		1	
Carbon Disulfide	20	70	130	25	0.0	19	96		19	96		0	
Acrylonitrile	20	70	130	25	0.0	23	116		22	109		7	
Methyl-tert-butyl ether (MTBE)	40	70	130	15	0.0	39	98		39	97		1	
trans-1,2-Dichloroethene	20	75	125	15	0.0	21	106		21	106		0	
1,1-Dichloroethane	20	70	130	15	0.0	21	105		21	104		1	
Methyl ethyl ketone	100	40	150	25	0.0	103	103		100	100		3	
Ethyl t-butyl ether (ETBE)	20	70	130	15	0.0	20	101		20	102		1	
2,2-Dichloropropane	20	70	130	15	0.0	21	104		21	103		1	
cis-1,2-Dichloroethene	20	75	125	15	0.0	22	108		22	108		1	
t-Amyl methyl ether (TAME)	20	70	130	15	0.0	20	100		20	100		0	
Chloroform	20	70	130	15	0.0	21	106		21	105		1	
Bromochloromethane	20	70	130	15	0.0	22	112		22	112		0	
Tetrahydrofuran	20	70	130	25	0.0	23	115		21	106		8	
1,1,1-Trichloroethane	20	75	125	15	0.0	22	109		22	111		2	
1,1-Dichloropropene	20	75	130	15	0.0	21	104		21	105		0	
Carbon Tetrachloride	20	75	125	15	0.0	21	107		22	109		2	
1,2-Dichloroethane	20	70	130	15	0.0	21	104		21	105		1	
Benzene	20	80	120	15	0.0	19	96		19	96		1	
Trichloroethene	20	75	125	15	0.0	21	105		21	103		2	
1,2-Dichloropropane	20	75	125	15	0.0	21	104		21	103		1	
Methylmethacrylate	20	70	130	25	0.0	21	106		20	102		3	
Bromodichloromethane	20	75	120	15	0.0	22	110		22	109		1	
Dibromomethane	20	75	125	15	0.0	20	102		20	100		2	
1,4-Dioxane	500	40	160	30	0.0	550	110		538	108		2	
2-Hexanone	100	55	130	25	0.0	118	118		112	112		5	
Methyl isobutyl ketone	100	60	135	25	0.0	108	108		104	104		4	
cis-1,3-Dichloropropene	20	70	130	15	0.0	21	105		21	105		0	
Toluene	20	75	120	15	0.6	21	103		21	101		2	
trans-1,3-Dichloropropene	20	70	130	15	0.0	21	105		20	102		3	
1,1,2-Trichloroethane	20	75	125	15	0.0	21	106		21	104		2	
1,3-Dichloropropane	20	75	125	15	0.0	21	104		21	103		0	
Tetrachloroethene	20	75	125	15	0.0	22	111		22	111		0	
Dibromochloromethane	20	70	130	15	0.0	22	109		21	107		2	

VOLATILE ORGANIC AQUEOUS
MATRIX SPIKE/DUPLICATE
PERCENT RECOVERY

Instrument ID: B
GC Column: RTX-502.2
Column ID: 0.25 mm
Heated purge (Y/N): N

SDG: 74727
Non-spiked sample: 74727-5
Spike: 74727-5,MS
Spike duplicate: 74727-5,MSD

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
1,2-Dibromoethane	20	80	120	15	0.0	21	107		21	103		4	
Chlorobenzene	20	80	120	15	0.0	21	104		21	104		1	
1,1,1,2-Tetrachloroethane	20	80	130	15	0.0	21	103		21	103		1	
Ethylbenzene	20	75	125	15	0.0	21	104		21	104		0	
m,p-Xylene	40	75	125	15	0.8	43	105		43	105		0	
o-Xylene	20	80	120	15	0.0	22	110		22	112		2	
Styrene	20	70	130	15	0.0	20	102		21	103		1	
Bromoform	20	70	130	15	0.0	21	107		21	104		2	
Isopropylbenzene	20	75	125	15	0.0	22	108		22	109		1	
1,1,2,2-Tetrachloroethane	20	70	130	15	0.0	21	107		21	103		4	
1,2,3-Trichloropropane	20	75	125	15	0.0	21	104		20	98		6	
n-Propylbenzene	20	70	130	15	0.0	21	104		21	106		1	
Bromobenzene	20	75	125	15	0.0	20	102		21	103		0	
1,3,5-Trimethylbenzene	20	75	130	15	0.0	21	103		21	104		1	
2-Chlorotoluene	20	75	125	15	0.0	21	106		21	107		1	
4-Chlorotoluene	20	75	130	15	0.0	20	101		20	99		3	
tert-butylbenzene	20	70	130	15	0.0	21	104		21	107		2	
1,2,4-Trimethylbenzene	20	75	130	15	0.0	21	103		21	103		0	
sec-butylbenzene	20	70	125	15	0.0	20	101		21	105		4	
p-isopropyltoluene	20	75	130	15	0.0	20	101		21	104		3	
1,3-Dichlorobenzene	20	75	125	15	0.0	21	105		21	105		0	
1,4-Dichlorobenzene	20	75	125	15	0.0	19	97		19	97		0	
n-butylbenzene	20	70	130	15	0.0	19	96		20	100		4	
1,2-Dichlorobenzene	20	70	120	15	0.0	21	103		20	102		0	
1,2-Dibromo-3-chloropropane	20	70	130	15	0.0	21	107		21	107		0	
1,2,4-Trichlorobenzene	20	70	130	15	0.0	18	91		20	98		6	
Hexachlorobutadiene	20	70	130	15	0.0	19	95		20	101		6	
Naphthalene	20	70	130	15	0.0	20	100		21	103		3	
1,2,3-Trichlorobenzene	20	70	130	15	0.0	19	97		20	102		5	
1,3,5-Trichlorobenzene	20	70	130	15	0.0	19	97		20	101		4	

Column to be used to flag recovery and RPD values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: _____

VOA FORM 3

VPH
DATA SUMMARIES

analytics environmental laboratory LLC

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Mr. Erik Phenix
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Portland, ME 04101

January 31, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: SB103-S1-012113

SAMPLE DATA

Lab Sample ID: 74727-2
Matrix: Solid
Percent Solid: 76
Dilution Factor: 86
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Analysis Date: 01/30/13

VPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics[1]	N/A	4290	µg/kg	U
Unadjusted C9-C12 Aliphatics[1]	N/A	4290	µg/kg	U
C5-C8 Aliphatics Hydrocarbons[1,2]	N/A	4290	µg/kg	U
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	4290	µg/kg	U
C9-C10 Aromatic Hydrocarbons[1]	N/A	859	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				107
Surrogate % Recovery (Trifluorotoluene) FID				113
Surrogate Acceptance Range				70-130%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that
[2]C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. 0f C9-C10 Aromatic Hydrocarbons.
*Recovery is outside the laboratory acceptance criteria. RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis,Revision 1.1 May 2004.

COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

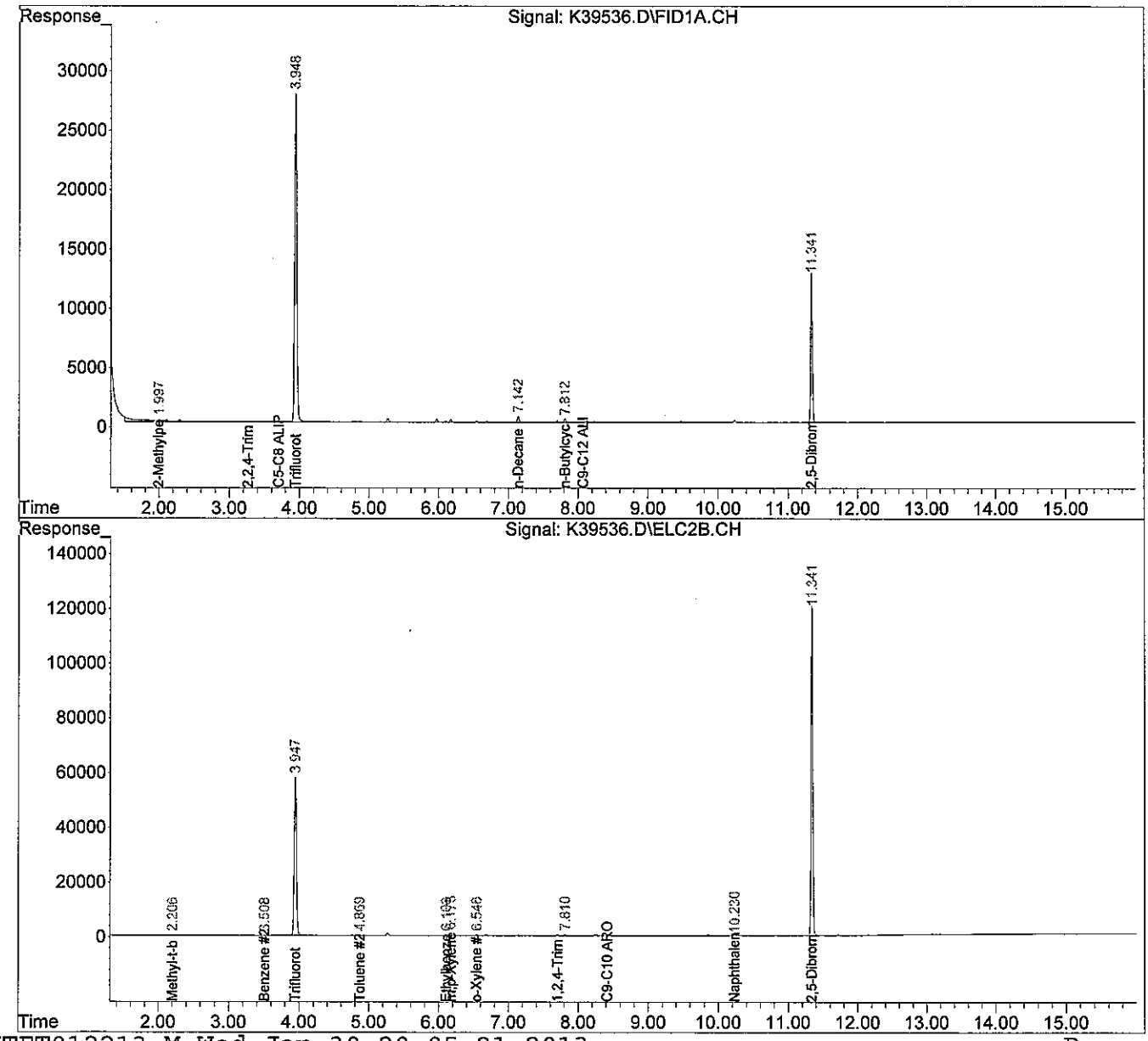
Authorized signature: Angelina Richard

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\012913-K\
Data File : K39536.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 30 Jan 2013 7:15 pm
Operator : AR/JK
Sample : 74727-2
Misc : 100,9.33,SOIL
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 30 19:37:56 2013
Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M
Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004
QLast Update : Wed Jan 23 11:31:20 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



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400 Commercial Street Suite 404
Portland, ME 04101

January 30, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: SB102-S3-012113

SAMPLE DATA

Lab Sample ID: 74727-3
Matrix: Solid
Percent Solid: 89
Dilution Factor: 70
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Analysis Date: 01/29/13

VPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics[1]	N/A	3520	µg/kg	U
Unadjusted C9-C12 Aliphatics[1]	N/A	3520	µg/kg	U
C5-C8 Aliphatics Hydrocarbons[1,2]	N/A	3520	µg/kg	U
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	3520	µg/kg	U
C9-C10 Aromatic Hydrocarbons[1]	N/A	703	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				120
Surrogate % Recovery (Trifluorotoluene) FID				122
Surrogate Acceptance Range				70-130%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that
[2]C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. 0f C9-C10 Aromatic Hydrocarbons.
*Recovery is outside the laboratory acceptance criteria. RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis,Revision 1.1 May 2004.

COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

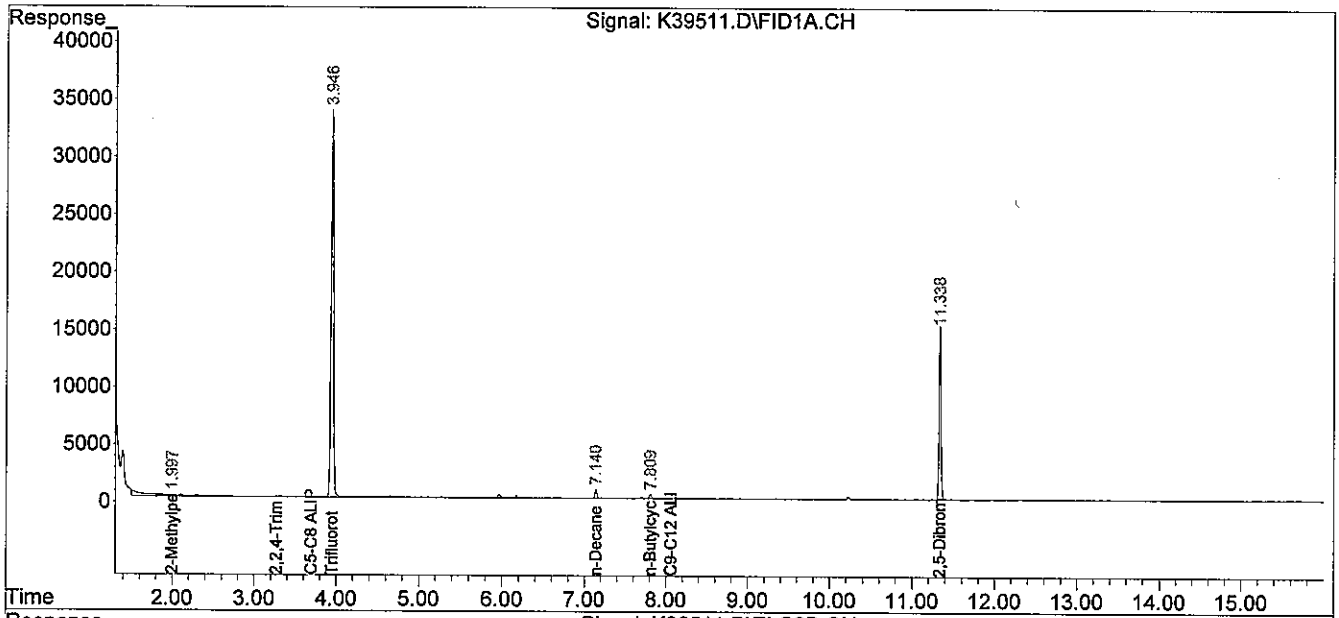
Authorized signature Angelina Richard

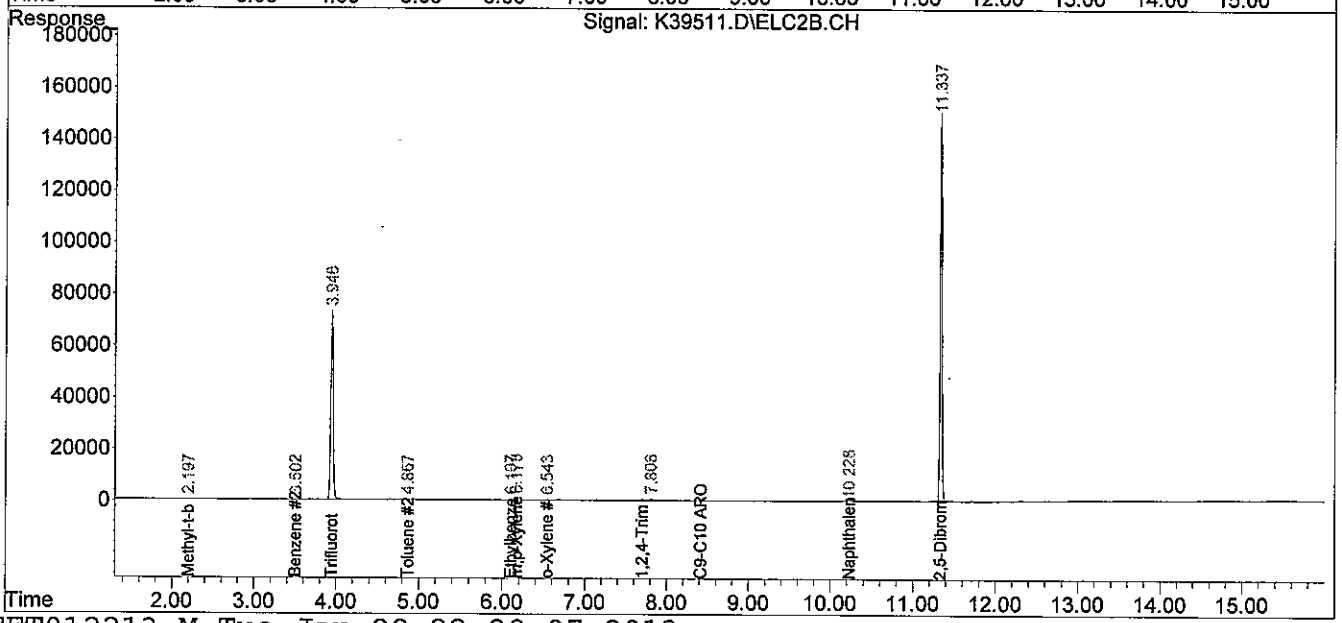
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\012913-K\
Data File : K39511.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 29 Jan 2013 9:52 pm
Operator : AR
Sample : 74727-3
Misc : 100,8.80,SOIL
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 29 22:28:55 2013
Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M
Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004
QLast Update : Wed Jan 23 11:31:20 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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January 31, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: SB10X-S3-012113

SAMPLE DATA

Lab Sample ID: 74727-4
Matrix: Solid
Percent Solid: 71
Dilution Factor: 126
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Analysis Date: 01/30/13

VPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics[1]	N/A	6290	µg/kg	U
Unadjusted C9-C12 Aliphatics[1]	N/A	6290	µg/kg	U
C5-C8 Aliphatics Hydrocarbons[1,2]	N/A	6290	µg/kg	U
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	6290	µg/kg	U
C9-C10 Aromatic Hydrocarbons[1]	N/A	1260	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				106
Surrogate % Recovery (Trifluorotoluene) FID				113
Surrogate Acceptance Range				70-130%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that
[2]C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. 0f C9-C10 Aromatic Hydrocarbons.
*Recovery is outside the laboratory acceptance criteria. RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis,Revision 1.1 May 2004.

COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

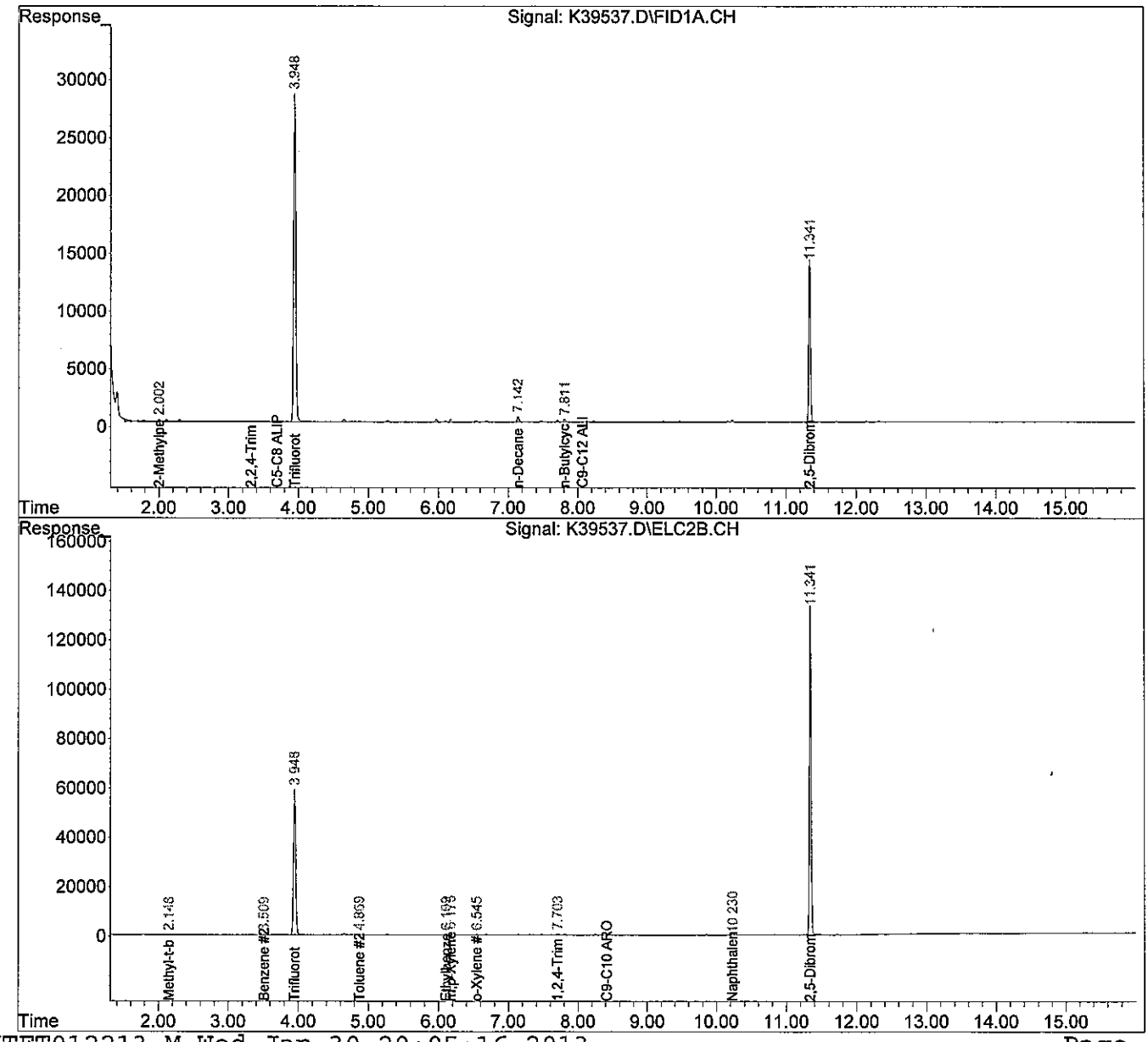
Authorized signature: Angelina Richard

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\012913-K\
Data File : K39537.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 30 Jan 2013 7:42 pm
Operator : AR/JK
Sample : 74727-4
Misc : 100,6.66,SOIL
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 30 20:04:26 2013
Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M
Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004
QLast Update : Wed Jan 23 11:31:20 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



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January 29, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: MW101

SAMPLE DATA

Lab Sample ID: 74727-5
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 01/23/13
Lab Receipt Date: 01/24/13
Analysis Date: 01/28/13

VPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics[1]	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics[1]	N/A	50	µg/L	U
C5-C8 Aliphatics Hydrocarbons[1,2]	N/A	50	µg/L	U
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	µg/L	U
C9-C10 Aromatic Hydrocarbons[1]	N/A	10	µg/L	U
Surrogate % Recovery (Trifluorotoluene) PID				111
Surrogate % Recovery (Trifluorotoluene) FID				116
Surrogate Acceptance Range				70-130%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that
[2]C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. 0f C9-C10 Aromatic Hydrocarbons.
*Recovery is outside the laboratory acceptance criteria. RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis,Revision 1.1 May 2004.

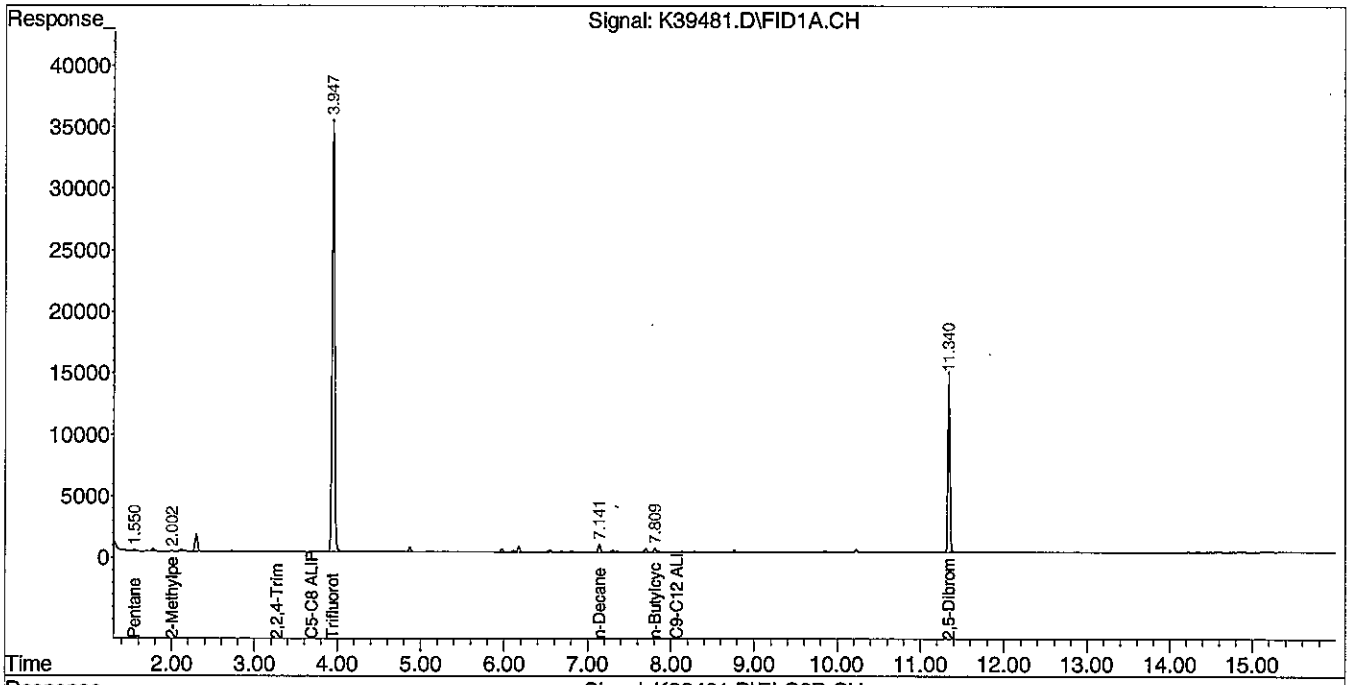
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

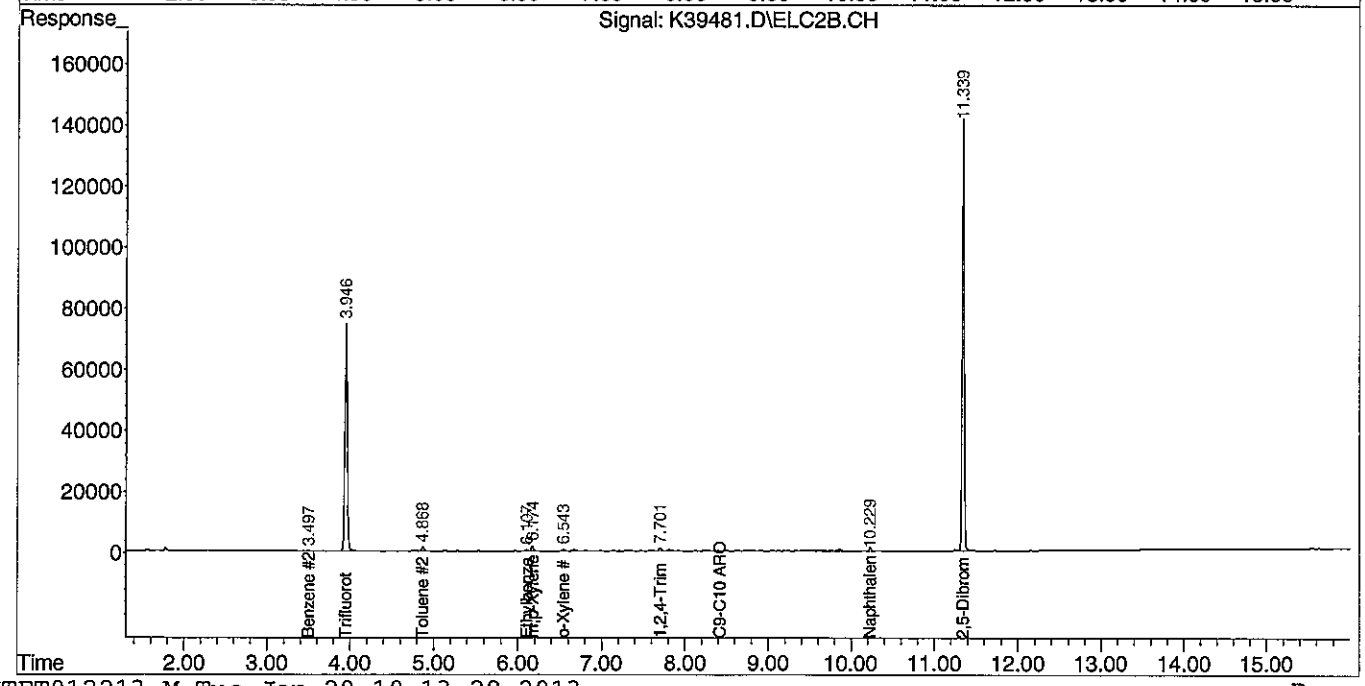
Authorized signature: Angelina Richard

Data Path : C:\msdchem\1\DATA\012813-K\
Data File : K39481.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 28 Jan 2013 11:20 pm
Operator : AR/JK
Sample : 74727-5
Misc : 5000
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 29 10:13:22 2013
Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M
Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004
QLast Update : Wed Jan 23 11:31:20 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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January 29, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: MW10X

SAMPLE DATA

Lab Sample ID: 74727-6
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 01/23/13
Lab Receipt Date: 01/24/13
Analysis Date: 01/28/13

VPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics[1]	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics[1]	N/A	50	µg/L	U
C5-C8 Aliphatics Hydrocarbons[1,2]	N/A	50	µg/L	U
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	µg/L	U
C9-C10 Aromatic Hydrocarbons[1]	N/A	10	µg/L	U
Surrogate % Recovery (Trifluorotoluene) PID				111
Surrogate % Recovery (Trifluorotoluene) FID				116
Surrogate Acceptance Range				70-130%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that
[2]C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. 0f C9-C10 Aromatic Hydrocarbons.
*Recovery is outside the laboratory acceptance criteria. RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis,Revision 1.1 May 2004.

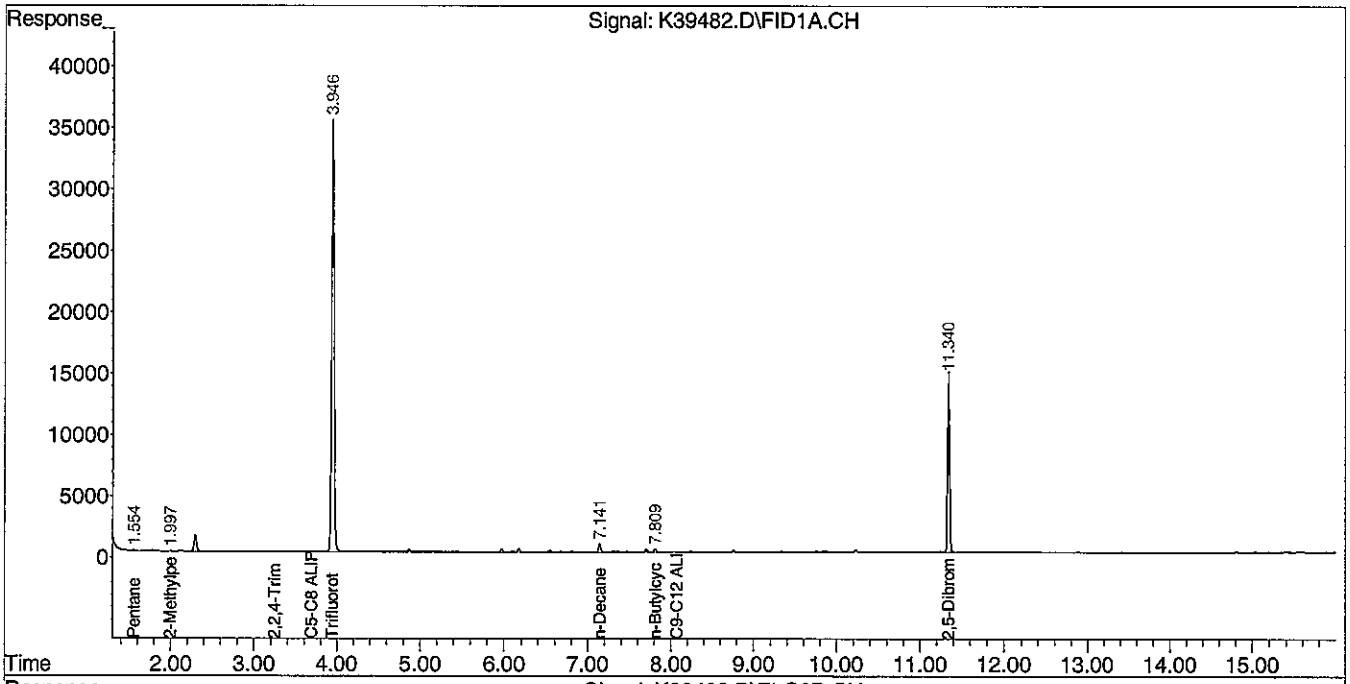
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

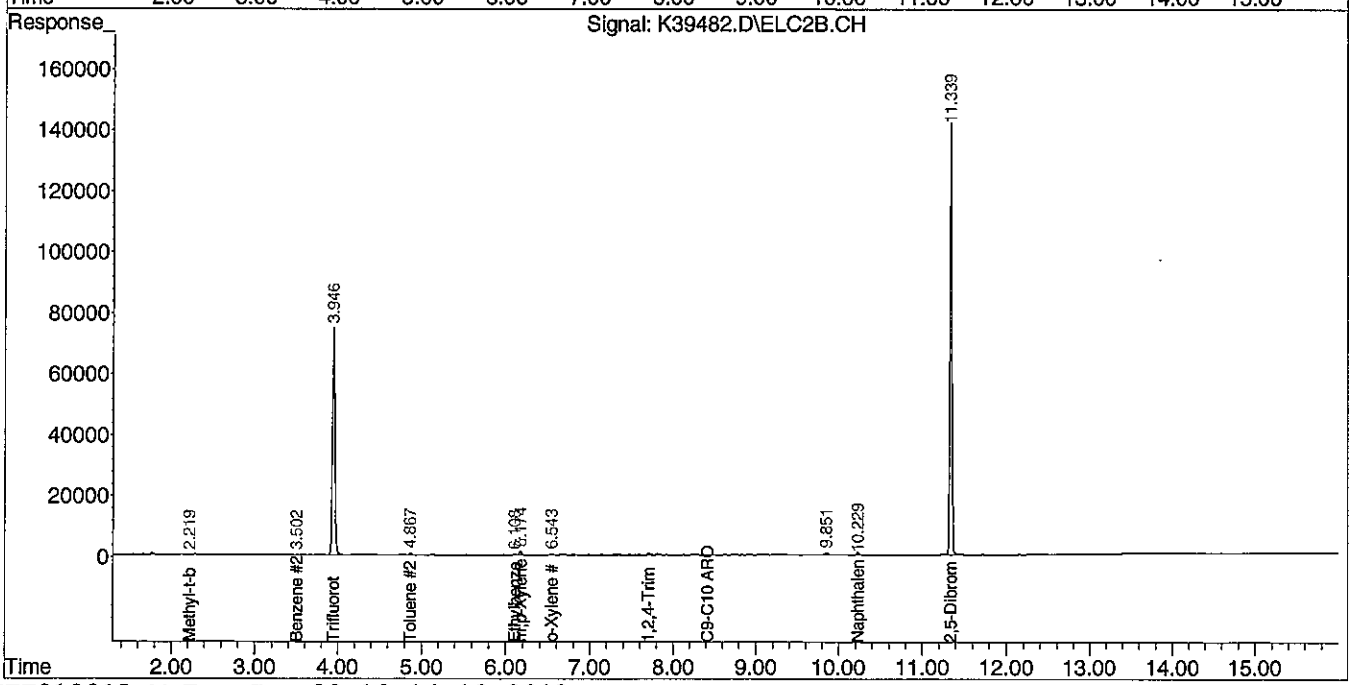
Authorized signature: Angelina Richard

Data Path : C:\msdchem\1\DATA\012813-K\
Data File : K39482.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 28 Jan 2013 11:47 pm
Operator : AR/JK
Sample : 74727-6
Misc : 5000
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 29 10:14:11 2013
Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M
Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004
QLast Update : Wed Jan 23 11:31:20 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





VPH
QC FORMS

analytics environmental laboratory LLC

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Portsmouth, New Hampshire 03801
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800-929-9906

Mr. Erik Phenix
Ransom Consulting, Inc.
400 Commercial Street Suite 404
Portland, ME 04101

January 29, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: LabQC

SAMPLE DATA

Lab Sample ID: BV012813K
Matrix: Aqueous
Percent Solid: 0
Dilution Factor: 1
Collection Date:
Lab Receipt Date:
Analysis Date: 01/28/13

VPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics[1]	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics[1]	N/A	50	µg/L	U
C5-C8 Aliphatics Hydrocarbons[1,2]	N/A	50	µg/L	U
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	µg/L	U
C9-C10 Aromatic Hydrocarbons[1]	N/A	10	µg/L	U
Surrogate % Recovery (Trifluorotoluene) PID				112
Surrogate % Recovery (Trifluorotoluene) FID				116
Surrogate Acceptance Range				70-130%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that
[2]C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. 0f C9-C10 Aromatic Hydrocarbons.
*Recovery is outside the laboratory acceptance criteria. RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis,Revision 1.1 May 2004.

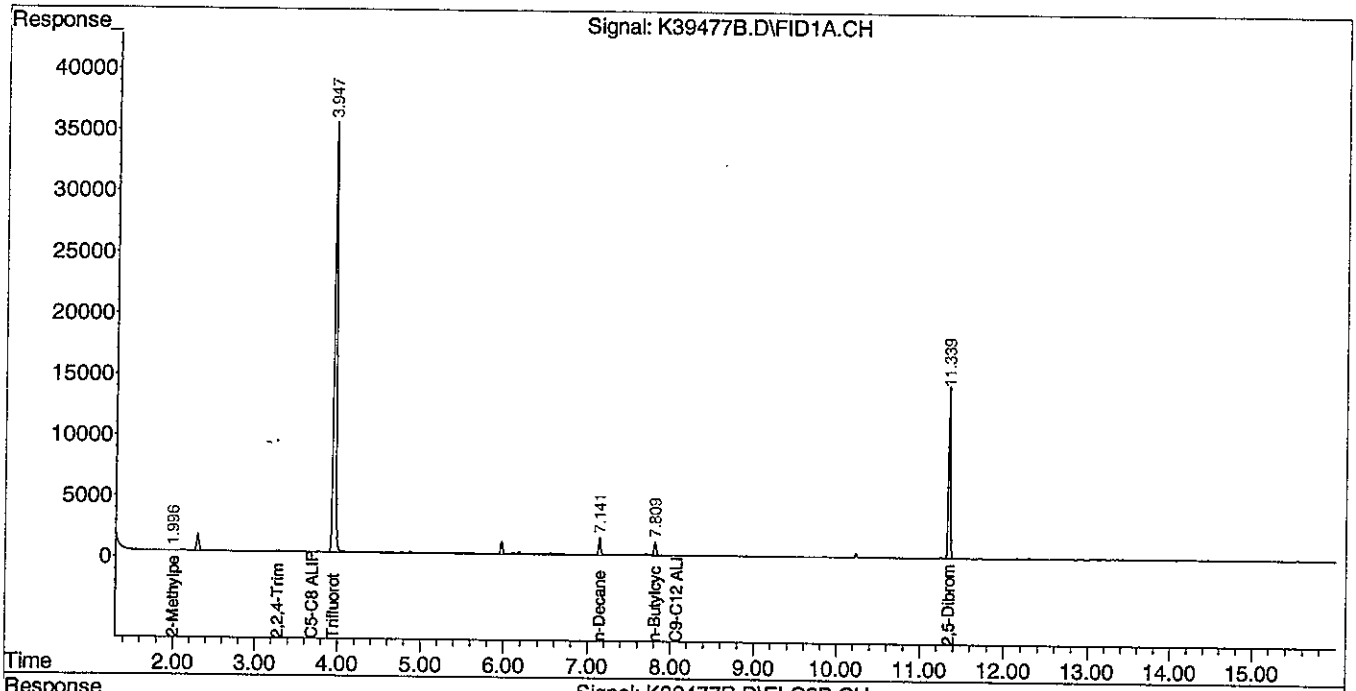
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

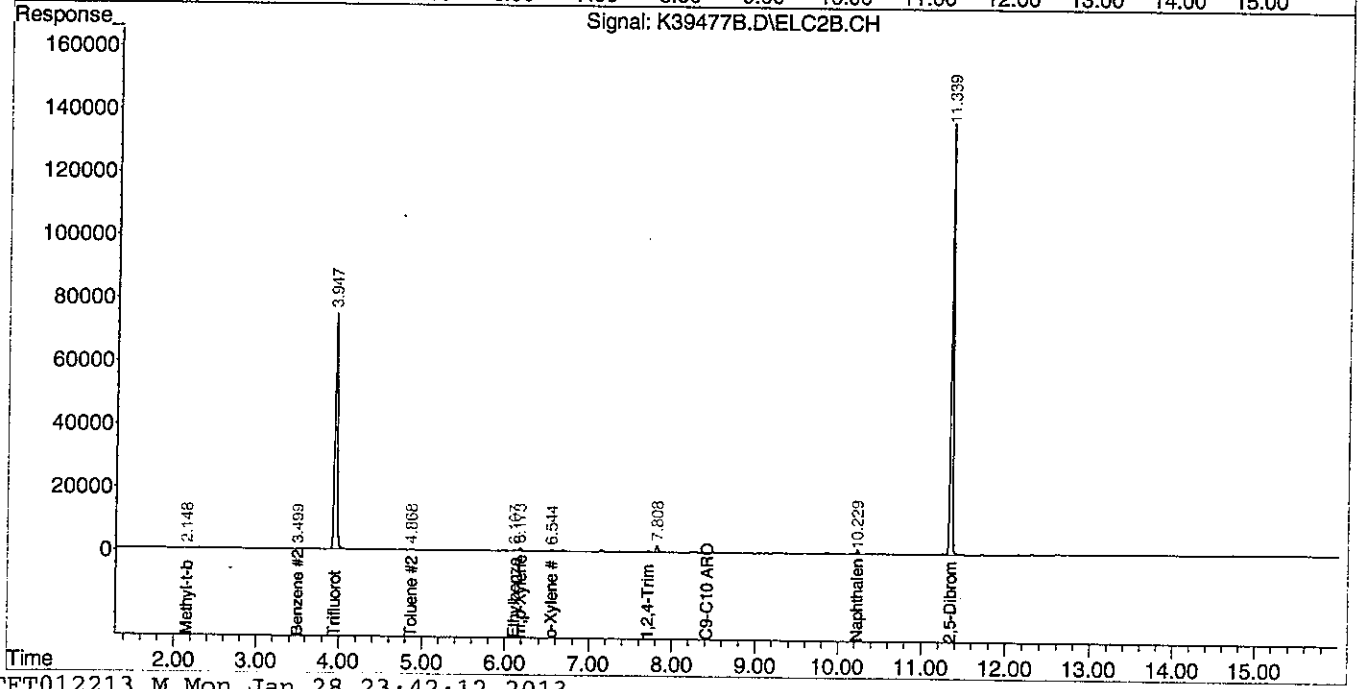
Authorized signature: Angelina Richard

Data Path : C:\msdchem\1\DATA\012813-K\
Data File : K39477B.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 28 Jan 2013 9:12 pm
Operator : AR/JK
Sample : BV012813K2
Misc : 5000
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 28 23:42:03 2013
Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M
Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004
QLast Update : Wed Jan 23 11:31:20 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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Portland, ME 04101

January 30, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: LabQC

SAMPLE DATA

Lab Sample ID: MBV012913K
Matrix: Soil
Percent Solid: 0
Dilution Factor: 50
Collection Date:
Lab Receipt Date:
Analysis Date: 01/29/13

VPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics[1]	N/A	2500	µg/kg	U
Unadjusted C9-C12 Aliphatics[1]	N/A	2500	µg/kg	U
C5-C8 Aliphatics Hydrocarbons[1,2]	N/A	2500	µg/kg	U
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2500	µg/kg	U
C9-C10 Aromatic Hydrocarbons[1]	N/A	500	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				98
Surrogate % Recovery (Trifluorotoluene) FID				101
Surrogate Acceptance Range				70-130%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that
[2]C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. 0f C9-C10 Aromatic Hydrocarbons.
*Recovery is outside the laboratory acceptance criteria. RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis,Revision 1.1 May 2004.

COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

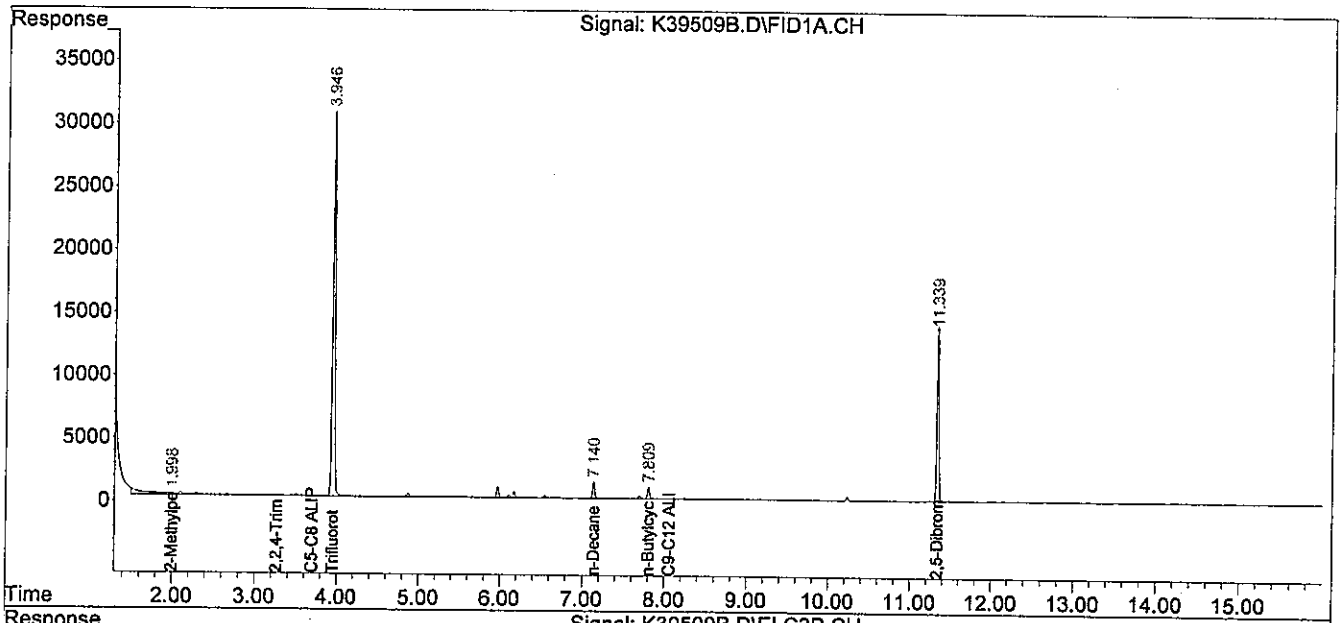
Authorized signature: Angelina Richard

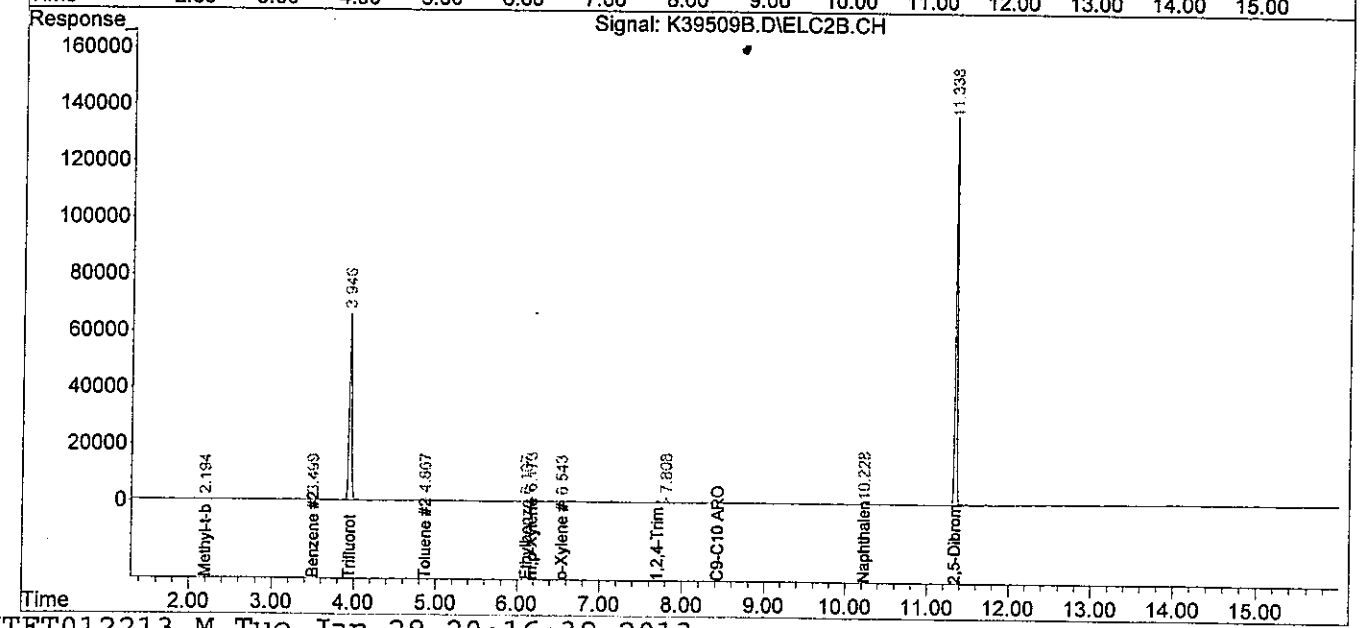
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\012913-K\
Data File : K39509B.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 29 Jan 2013 7:59 pm
Operator : AR
Sample : MBV012913K
Misc : 100,10,SOIL
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 29 20:16:39 2013
Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M
Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004
QLast Update : Wed Jan 23 11:31:20 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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Mr. Erik Phenix
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Portland, ME 04101

January 31, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: LabQC

SAMPLE DATA

Lab Sample ID: MBV012913K RR2
Matrix: Soil
Percent Solid: 0
Dilution Factor: 50
Collection Date:
Lab Receipt Date:
Analysis Date: 01/30/13

VPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics[1]	N/A	2500	µg/kg	U
Unadjusted C9-C12 Aliphatics[1]	N/A	2500	µg/kg	U
C5-C8 Aliphatics Hydrocarbons[1,2]	N/A	2500	µg/kg	U
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	2500	µg/kg	U
C9-C10 Aromatic Hydrocarbons[1]	N/A	500	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				96
Surrogate % Recovery (Trifluorotoluene) FID				101
Surrogate Acceptance Range				70-130%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that
[2]C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. 0f C9-C10 Aromatic Hydrocarbons.
*Recovery is outside the laboratory acceptance criteria. RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis,Revision 1.1 May 2004.

COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

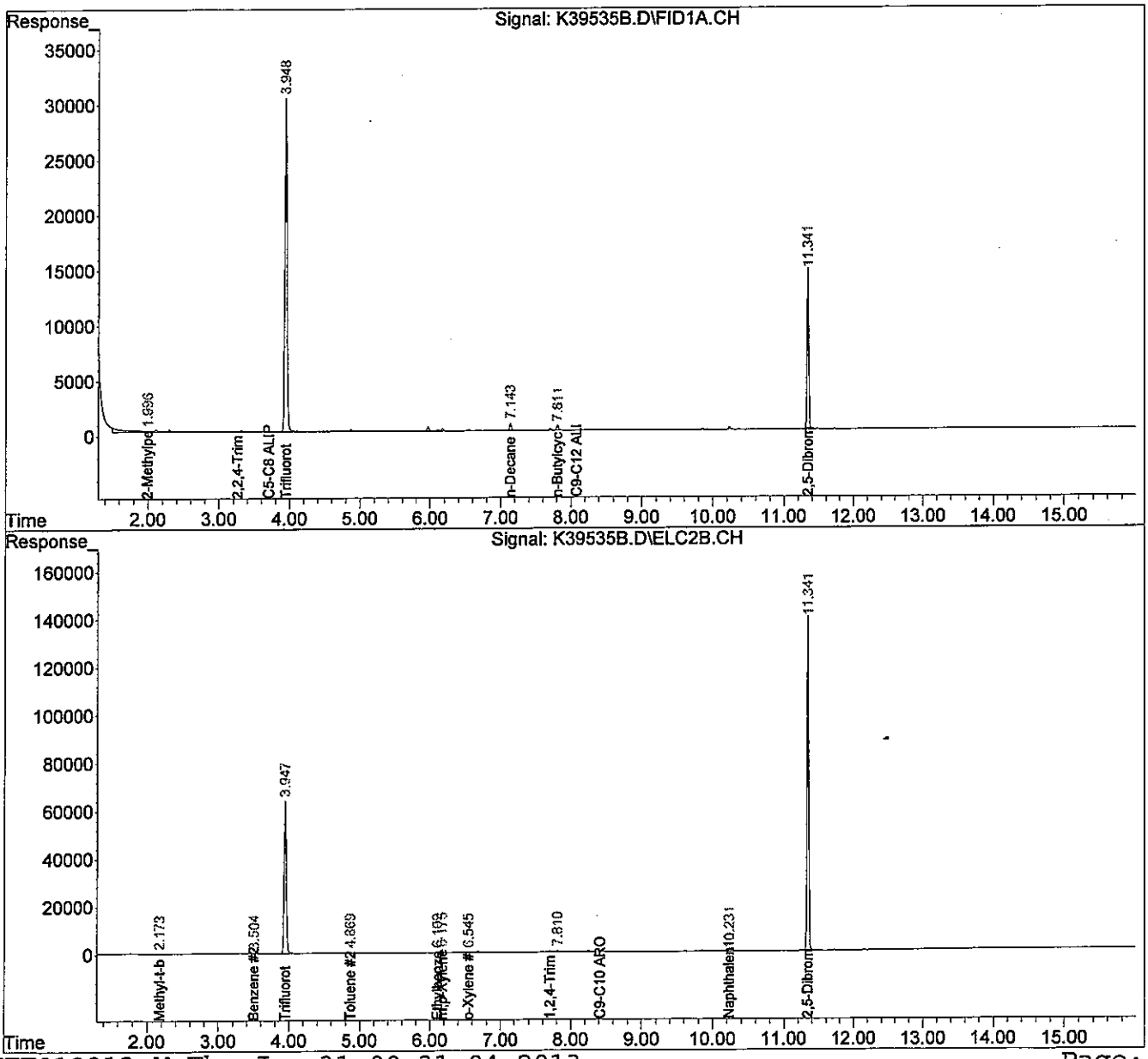
Authorized signature: Angelina Richard

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\012913-K\
Data File : K39535B.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 30 Jan 2013 6:48 pm
Operator : AR/JK
Sample : MBV012913K,RR2
Misc : 100,10.00,SOIL
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 30 19:25:06 2013
Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M
Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004
QLast Update : Wed Jan 23 11:31:20 2013
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



VOLATILE PETROLEUM HYDROCARBONS
LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
PERCENT RECOVERY

Instrument ID: K
GC Column: RTX-502.2
Column ID: 0.25 mm

SDG:
Non-spiked sample: BV012813K2
Spike: LV012813K
Spike duplicate: LV012813K2

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
Pentane	100	70	130	25	0.0	119	119		116	116		2	
2-Methylpentane	100	70	130	25	0.0	120	120		120	120		0	
2,2,4-Trimethylpentane	100	70	130	25	0.0	113	113		103	103		9	
n-Decane	100	70	130	25	0.0	106	106		100	100		6	
n-Butylcyclohexane	100	70	130	25	0.0	108	108		103	103		5	
Methyl-t-butylether #2	100	70	130	25	0.0	99	99		99	99		1	
Benzene #2	100	70	130	25	0.0	106	106		105	105		1	
Toluene #2	100	70	130	25	0.0	105	105		104	104		1	
Ethylbenzene #2	100	70	130	25	0.0	107	107		105	105		2	
m,p-Xylene #2	200	70	130	25	0.0	212	106		208	104		2	
o-Xylene #2	100	70	130	25	0.0	106	106		103	103		3	
1,2,4-Trimethylbenzene #2	100	70	130	25	0.0	109	109		104	104		4	
Naphthalene #2	100	70	130	25	0.0	93	93		98	98		5	
C5-C8 Aliphatics	300	70	130	25	0.0	352	117		339	113		4	
C9-C12 Aliphatics	200	70	130	25	0.0	214	107		203	102		5	
C9-C10 Aromatics #2	100	70	130	25	0.0	109	109		104	104		4	

Column to be used to flag recovery and RPD values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: _____

VOLATILE PETROLEUM HYDROCARBONS SOIL
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE
PERCENT RECOVERY

Instrument ID: K
GC Column: RTX-502.2
Column ID: 0.25 mm

SDG:
Non-spiked sample: MBV012913K
Spike: LSV012913K
Spike duplicate: LSV012913K2

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
Pentane	5000	5000	70	130	25	0	5506	110		5107	102		8	
2-Methylpentane	5000	5000	70	130	25	0	5843	117		5428	109		7	
2,2,4-Trimethylpentane	5000	5000	70	130	25	0	5354	107		5060	101		6	
n-Decane	5000	5000	70	130	25	0	5485	110		5249	105		4	
n-Butylcyclohexane	5000	5000	70	130	25	0	5697	114		5276	106		8	
Methyl-t-butylether #2	5000	5000	70	130	25	0	4795	96		4782	96		0	
Benzene #2	5000	5000	70	130	25	0	5276	106		5012	100		5	
Toluene #2	5000	5000	70	130	25	0	5251	105		4981	100		5	
Ethylbenzene #2	5000	5000	70	130	25	0	5382	108		5108	102		5	
m,p-Xylene #2	10000	10000	70	130	25	0	10728	107		10175	102		5	
o-Xylene #2	5000	5000	70	130	25	0	5332	107		5060	101		5	
1,2,4-Trimethylbenzene #2	5000	5000	70	130	25	0	5454	109		5137	103		6	
Naphthalene #2	5000	5000	70	130	25	0	4792	96		4614	92		4	
C5-C8 Aliphatics	15000	15000	70	130	25	0	16702	111		15595	104		7	
C9-C12 Aliphatics	10000	10000	70	130	25	0	11182	112		10525	105		6	
C9-C10 Aromatics #2	5000	5000	70	130	25	0	5454	109		5137	103		6	

Column to be used to flag recovery and RPD values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

EPH
DATA SUMMARIES

analytics environmental laboratory LLC

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February 6, 2013

Mr. Erik Phenix
Ransom Consulting, Inc.
400 Commercial Street Suite 404
Portland, ME 04101

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: BK1

SAMPLE DATA

Lab Sample ID: 74727-1
Matrix: Solid
Percent Solid: 45
Dilution Factor: 2.1
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Extraction Date: 01/31/13
Analysis Date: 02/05/13

EPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE		RL	Units	Result
Unadjusted C11-C22 Aromatics[1]		28600	µg/kg	U
Diesel PAH Analytes	Naphthalene	572	µg/kg	U
	2-Methylnaphthalene	572	µg/kg	U
	Phenanthrene	572	µg/kg	U
	Acenaphthene	572	µg/kg	U
Other Target PAH Analytes	Acenaphthylene	572	µg/kg	U
	Fluorene	572	µg/kg	U
	Anthracene	572	µg/kg	U
	Fluoranthene	572	µg/kg	U
	Pyrene	572	µg/kg	U
	Benzo[a]anthracene	572	µg/kg	U
	Chrysene	572	µg/kg	U
	Benzo[b]fluoranthene	572	µg/kg	U
	Benzo[k]fluoranthene	572	µg/kg	U
	Benzo[a]pyrene	572	µg/kg	U
	Indeno[1,2,3-cd]pyrene	572	µg/kg	U
	Dibenzo[a,h]anthracene	572	µg/kg	U
	Benzo[g,h,i]perylene	572	µg/kg	U
C9-C18 Aliphatic Hydrocarbons[1]		28600	µg/kg	U
C19-C36 Aliphatic Hydrocarbons[1]		28600	µg/kg	U
C11-C22 Aromatic Hydrocarbons[1,2]		28600	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)				59
Aromatic Surrogate % Recovery (O-Terphenyl)				68
Sample Surrogate Acceptance Range		--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)				90
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)				89
Fractionation Surrogate Acceptance Range		--	--	40-140%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
[2]C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

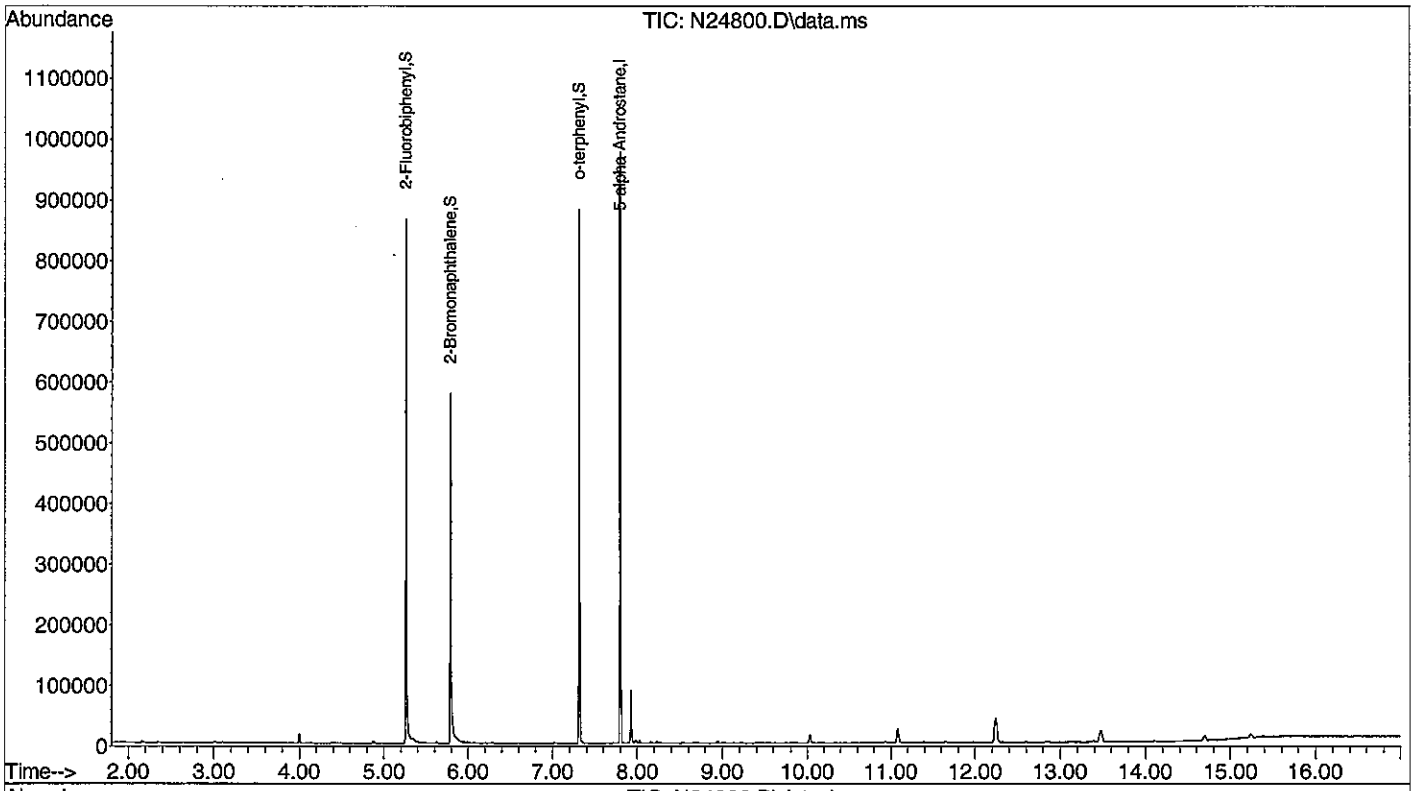
METHODOLOGY: MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

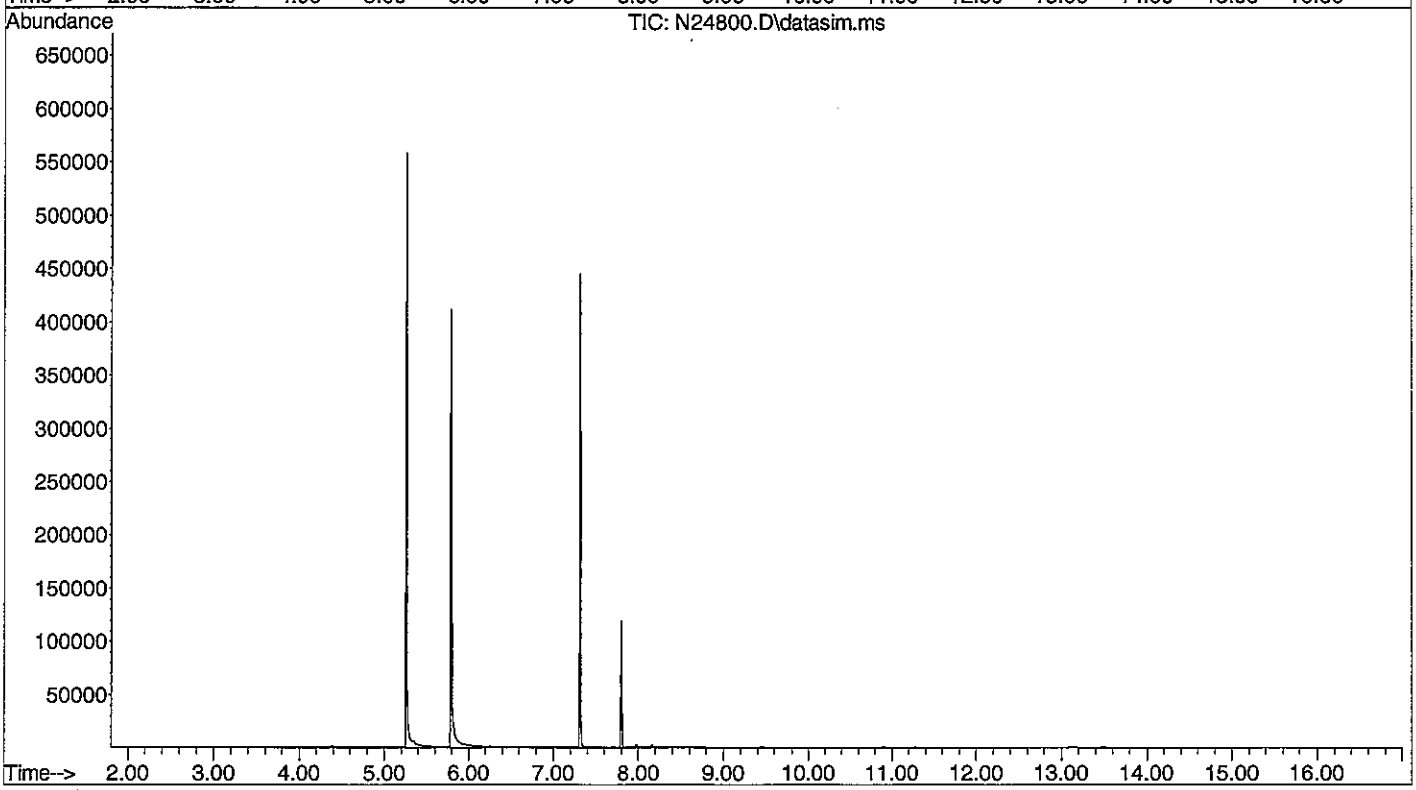
COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.
Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\
Data File : N24800.D
Acq On : 5 Feb 2013 8:13 pm
Operator : AR
Sample : 74727-1
Misc : SOIL,ARO
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 05 22:48:58 2013
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
Quant Title : EPH MS AROMATICS
QLast Update : Tue Feb 05 18:13:49 2013
Response via : Initial Calibration

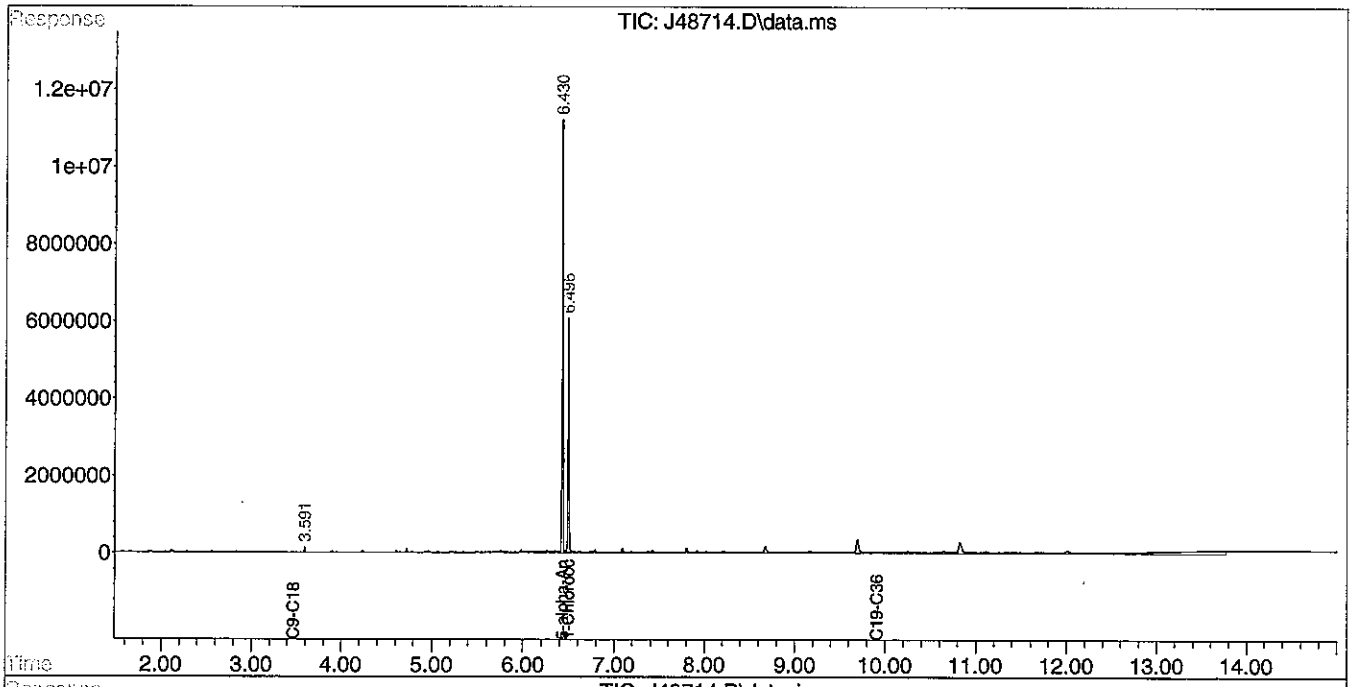


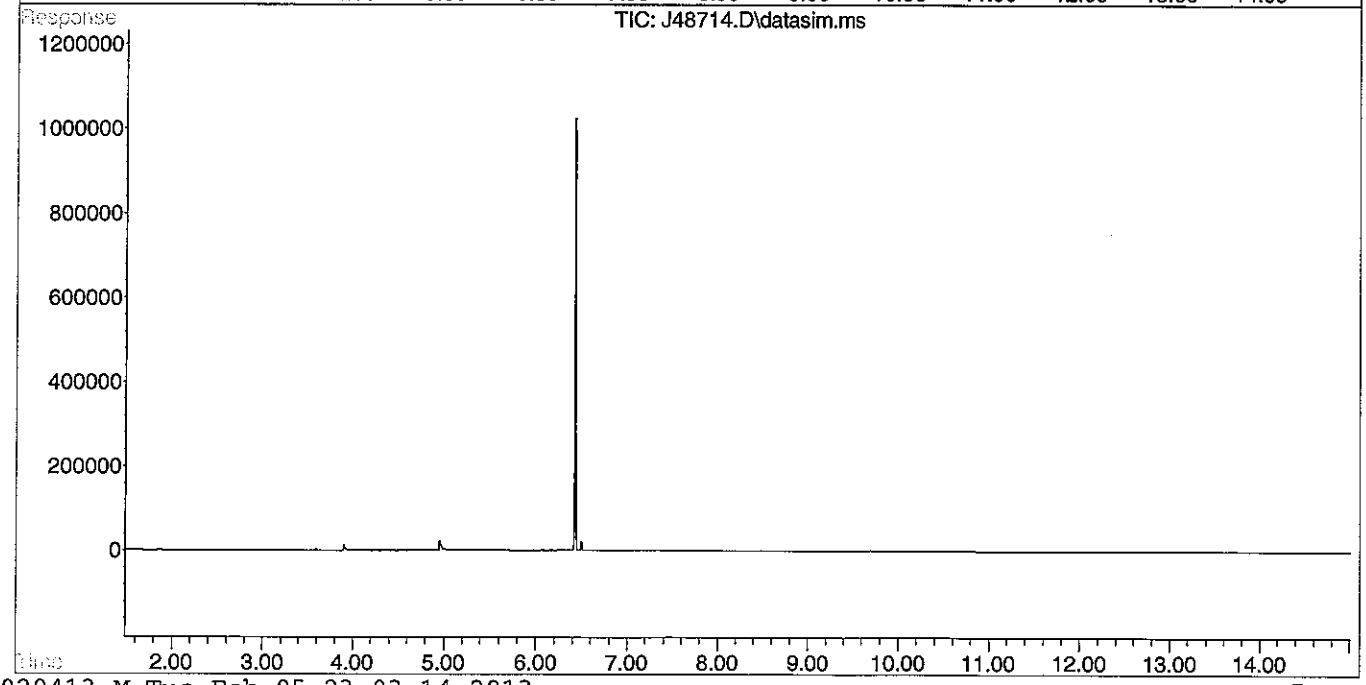


Data Path : C:\msdchem\1\DATA\020513-J\
Data File : J48714.D
Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
Acq On : 5 Feb 2013 7:27 pm
Operator : MG/AR
Sample : 74727-1
Misc : SOIL,ALI
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 05 23:02:36 2013
Quant Method : C:\msdchem\1\METHODS\ALG020413.M
Quant Title : EPH GC ALIPHATICS
QLast Update : Tue Feb 05 15:32:52 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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February 6, 2013

Mr. Erik Phenix
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Portland, ME 04101

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: SB103-S1-012113

SAMPLE DATA

Lab Sample ID: 74727-2
Matrix: Solid
Percent Solid: 76
Dilution Factor: 1.3
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Extraction Date: 01/31/13
Analysis Date: 02/05/13

EPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE		RL	Units	Result
Unadjusted C11-C22 Aromatics[1]		17100	µg/kg	U
Diesel PAH Analytes	Naphthalene	342	µg/kg	U
	2-Methylnaphthalene	342	µg/kg	U
	Phenanthrene	342	µg/kg	U
	Acenaphthene	342	µg/kg	U
Other Target PAH Analytes	Acenaphthylene	342	µg/kg	U
	Fluorene	342	µg/kg	U
	Anthracene	342	µg/kg	U
	Fluoranthene	342	µg/kg	U
	Pyrene	342	µg/kg	U
	Benzo[a]anthracene	342	µg/kg	U
	Chrysene	342	µg/kg	U
	Benzo[b]fluoranthene	342	µg/kg	U
	Benzo[k]fluoranthene	342	µg/kg	U
	Benzo[a]pyrene	342	µg/kg	U
	Indeno[1,2,3-cd]pyrene	342	µg/kg	U
	Dibenzo[a,h]anthracene	342	µg/kg	U
	Benzo[g,h,i]perylene	342	µg/kg	U
C9-C18 Aliphatic Hydrocarbons[1]		17100	µg/kg	U
C19-C36 Aliphatic Hydrocarbons[1]		17100	µg/kg	U
C11-C22 Aromatic Hydrocarbons[1,2]		17100	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)				60
Aromatic Surrogate % Recovery (O-Terphenyl)				74
Sample Surrogate Acceptance Range		--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)				81
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)				82
Fractionation Surrogate Acceptance Range		--	--	40-140%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
[2]C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

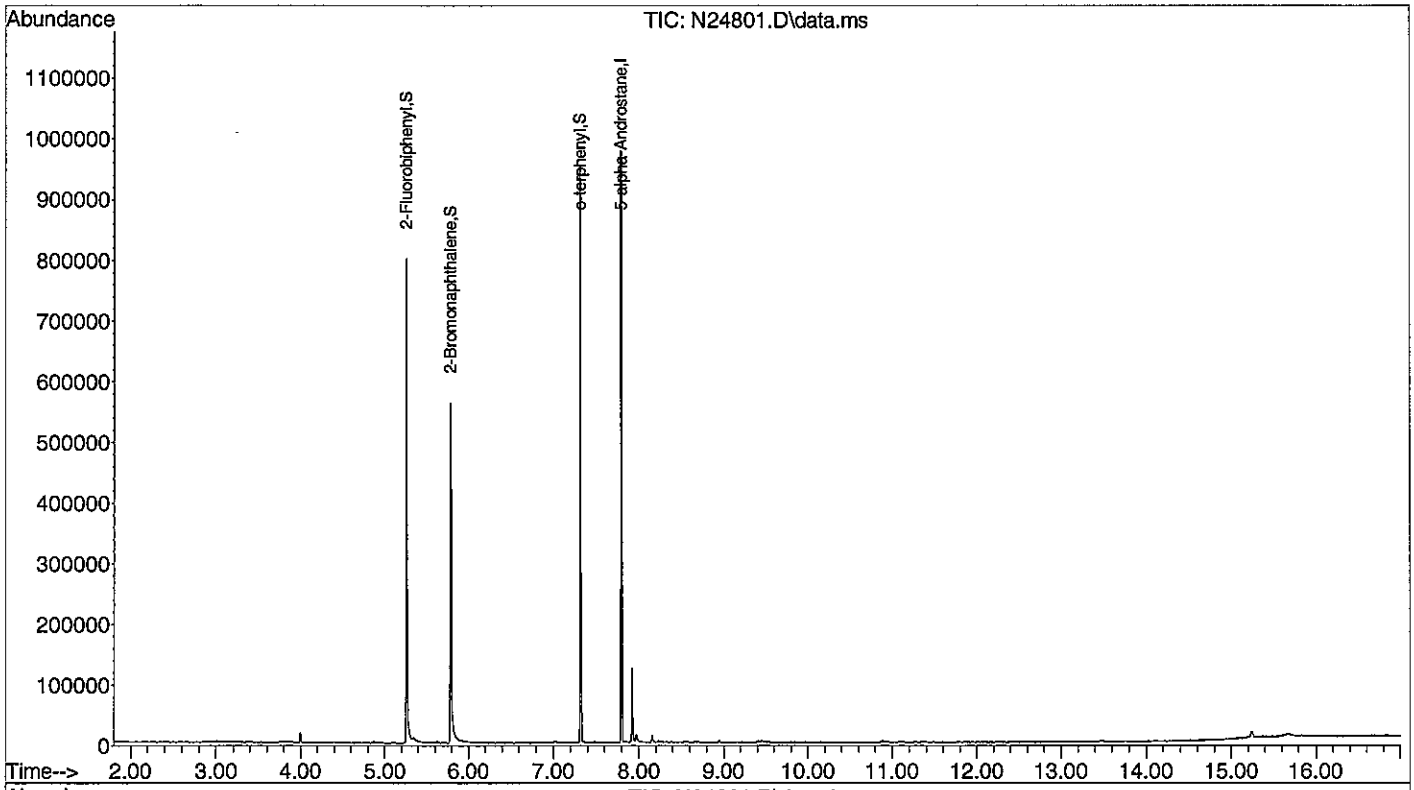
METHODOLOGY: MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

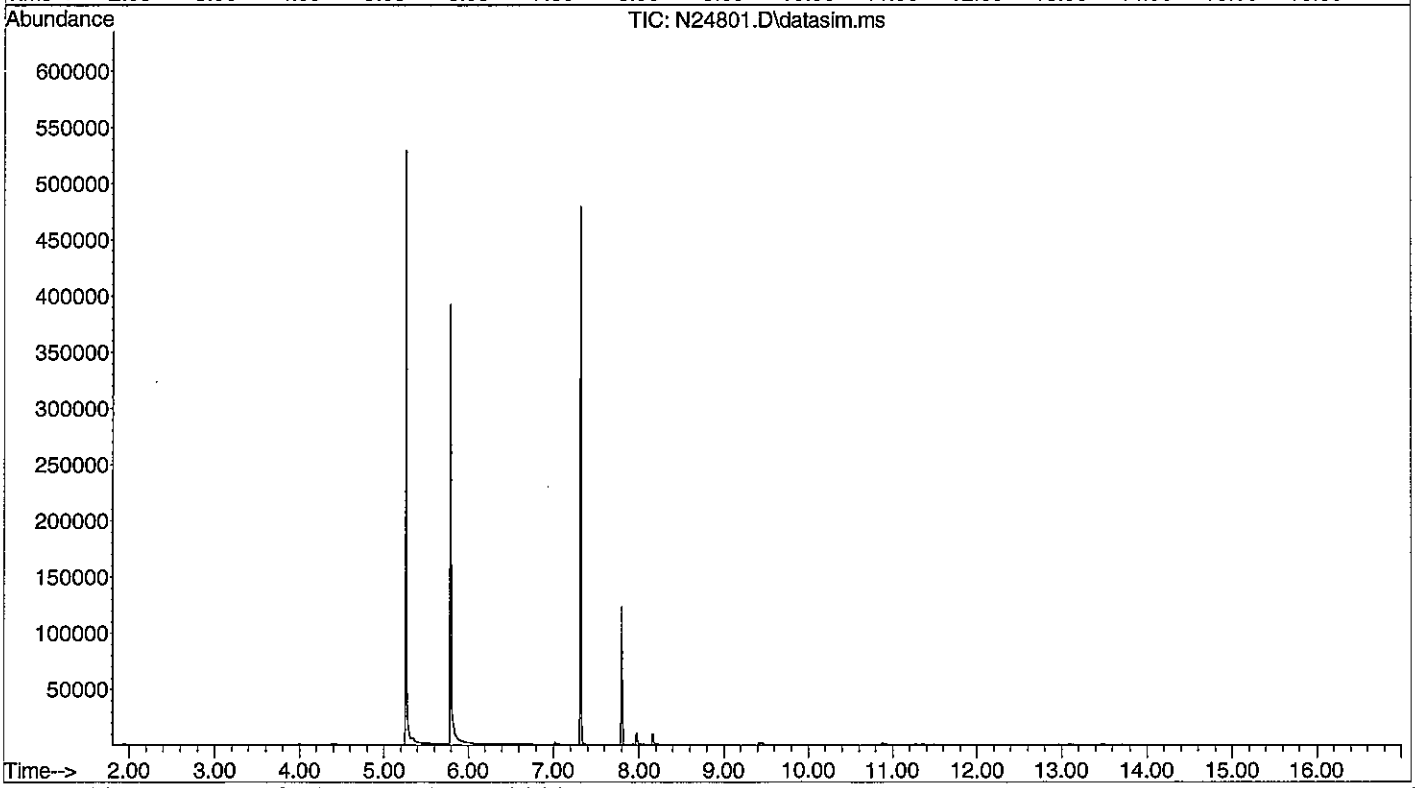
COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.
Results are expressed on a dry weight basis.

SIGNATURE: Martha Tarrif

Data Path : C:\msdchem\1\DATA\020513-N\
Data File : N24801.D
Acq On : 5 Feb 2013 8:34 pm
Operator : AR
Sample : 74727-2
Misc : SOIL,ARO
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 05 22:50:41 2013
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
Quant Title : EPH MS AROMATICS
QLast Update : Tue Feb 05 18:13:49 2013
Response via : Initial Calibration

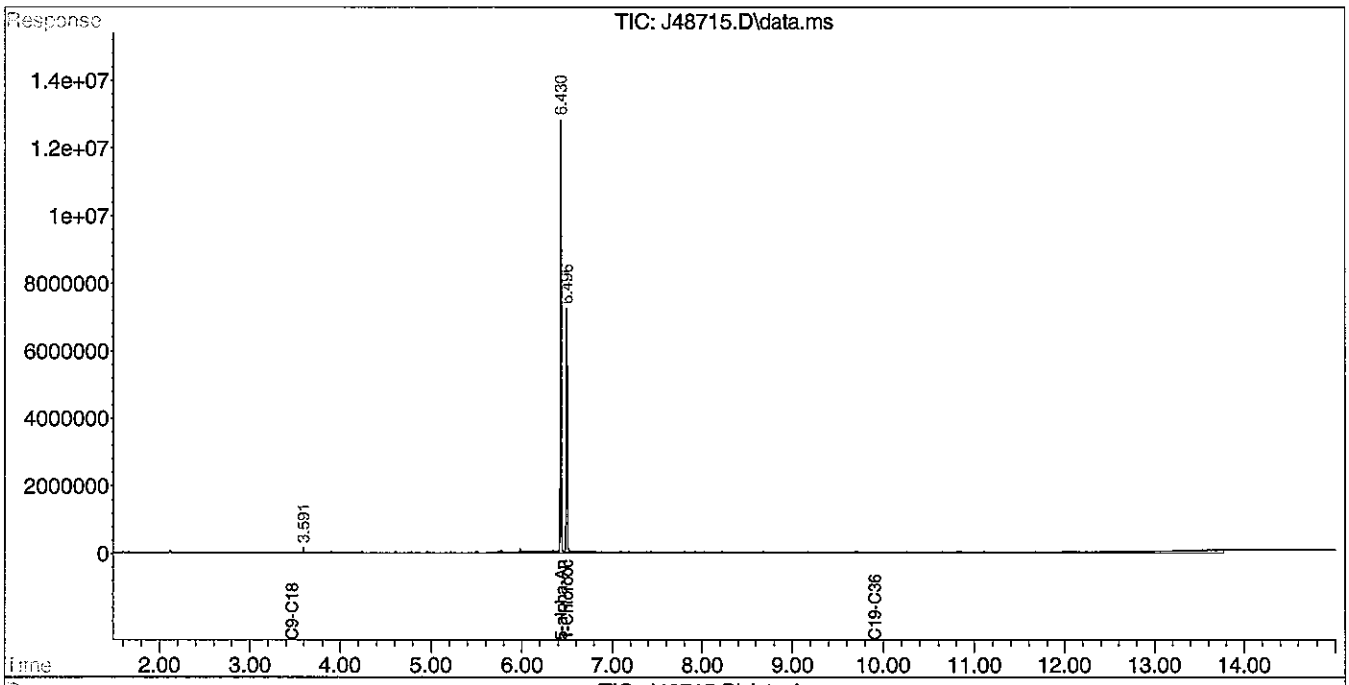


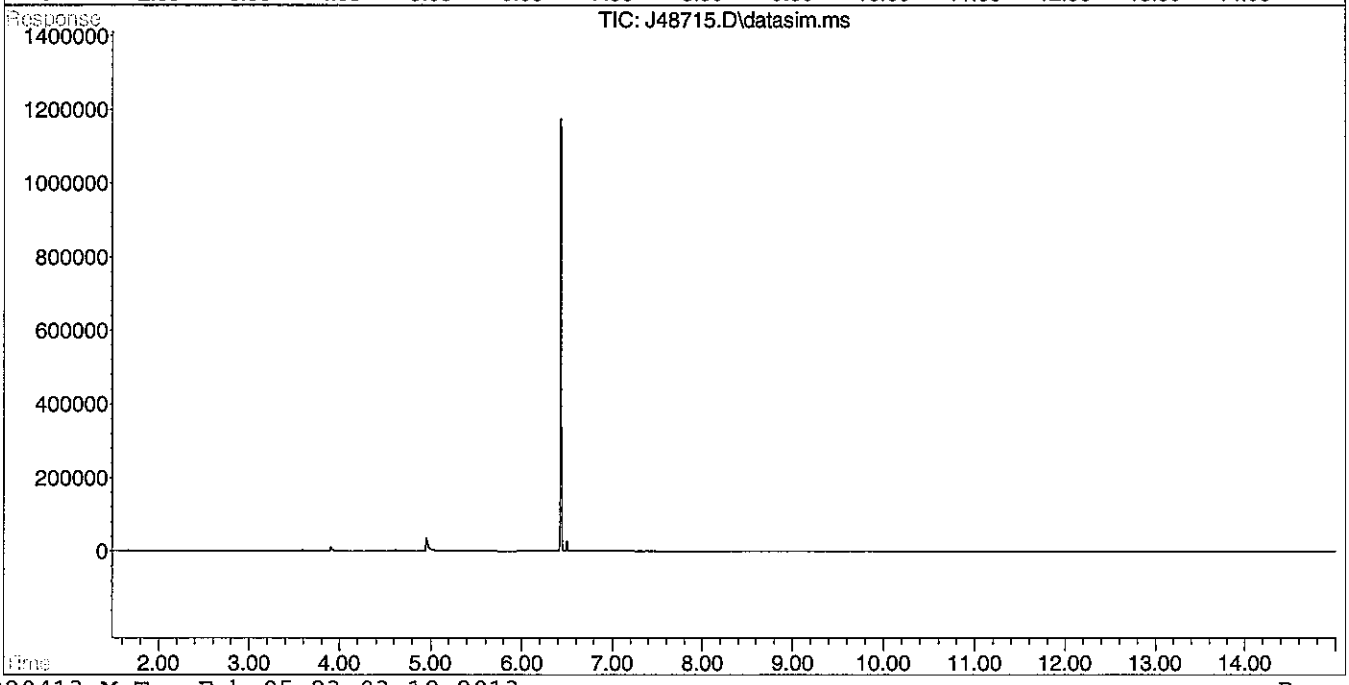


Data Path : C:\msdchem\1\DATA\020513-J\
Data File : J48715.D
Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
Acq On : 5 Feb 2013 7:48 pm
Operator : MG/AR
Sample : 74727-2
Misc : SOIL,ALI
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 05 23:02:37 2013
Quant Method : C:\msdchem\1\METHODS\ALG020413.M
Quant Title : EPH GC ALIPHATICS
QLast Update : Tue Feb 05 15:32:52 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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Mr. Erik Phenix
Ransom Consulting, Inc.
400 Commercial Street Suite 404
Portland, ME 04101

February 6, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: SB102-S3-012113

SAMPLE DATA

Lab Sample ID: 74727-3
Matrix: Solid
Percent Solid: 89
Dilution Factor: 1.1
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Extraction Date: 01/31/13
Analysis Date: 02/05/13

EPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE		RL	Units	Result
Unadjusted C11-C22 Aromatics[1]		14800	µg/kg	U
Diesel PAH Analytes	Naphthalene	297	µg/kg	U
	2-Methylnaphthalene	297	µg/kg	U
	Phenanthrene	297	µg/kg	U
	Acenaphthene	297	µg/kg	U
Other Target PAH Analytes	Acenaphthylene	297	µg/kg	U
	Fluorene	297	µg/kg	U
	Anthracene	297	µg/kg	U
	Fluoranthene	297	µg/kg	U
	Pyrene	297	µg/kg	U
	Benzo[a]anthracene	297	µg/kg	U
	Chrysene	297	µg/kg	U
	Benzo[b]fluoranthene	297	µg/kg	U
	Benzo[k]fluoranthene	297	µg/kg	U
	Benzo[a]pyrene	297	µg/kg	U
	Indeno[1,2,3-cd]pyrene	297	µg/kg	U
	Dibenzo[a,h]anthracene	297	µg/kg	U
	Benzo[g,h,i]perylene	297	µg/kg	U
C9-C18 Aliphatic Hydrocarbons[1]		14800	µg/kg	U
C19-C36 Aliphatic Hydrocarbons[1]		14800	µg/kg	U
C11-C22 Aromatic Hydrocarbons[1,2]		14800	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)				69
Aromatic Surrogate % Recovery (O-Terphenyl)				79
Sample Surrogate Acceptance Range		--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)				88
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)				88
Fractionation Surrogate Acceptance Range		--	--	40-140%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
[2]C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

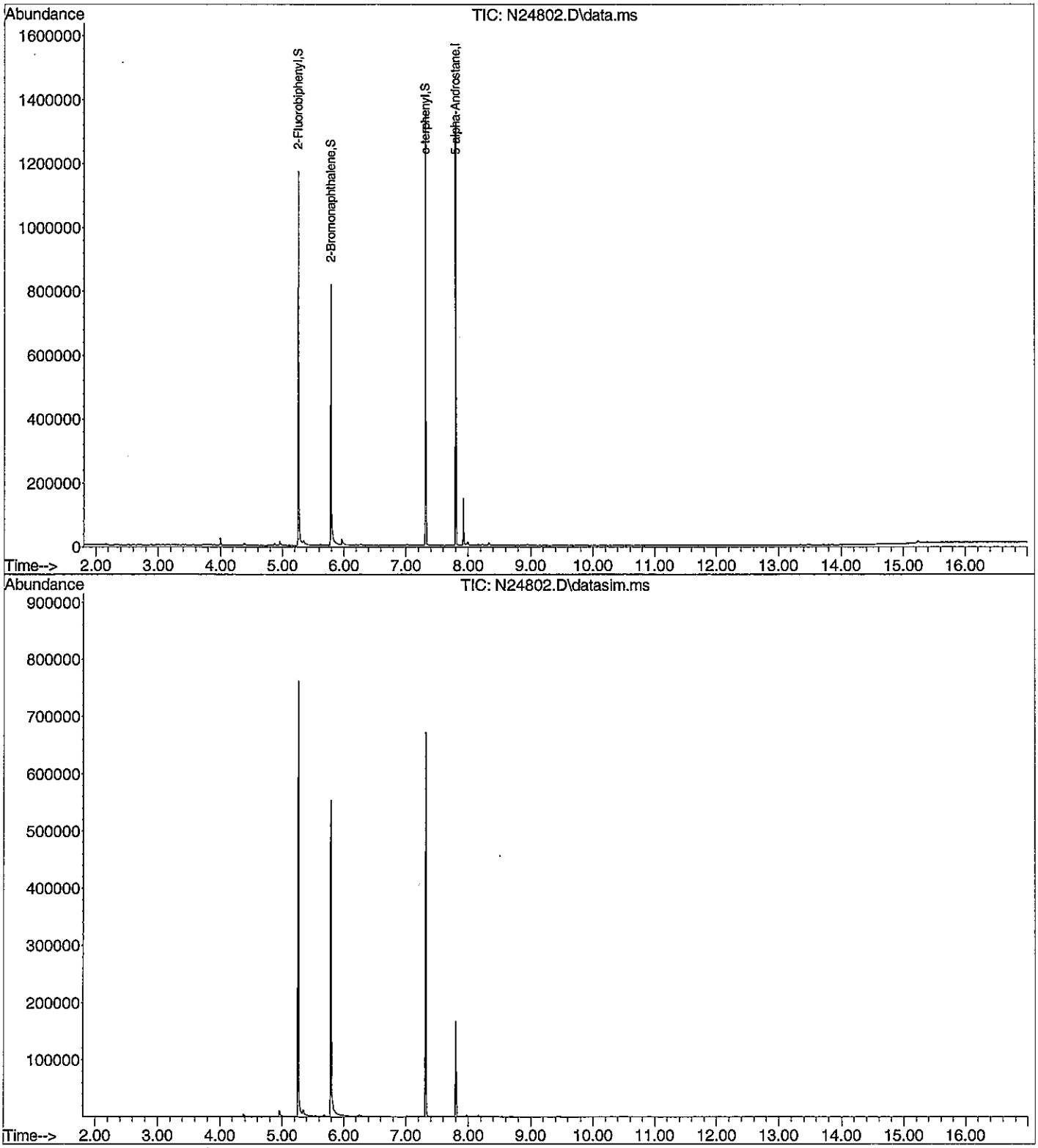
METHODOLOGY: MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.
Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\
Data File : N24802.D
Acq On : 5 Feb 2013 8:54 pm
Operator : AR
Sample : 74727-3
Misc : SOIL,ARO
ALS Vial : 8 Sample Multiplier: 1

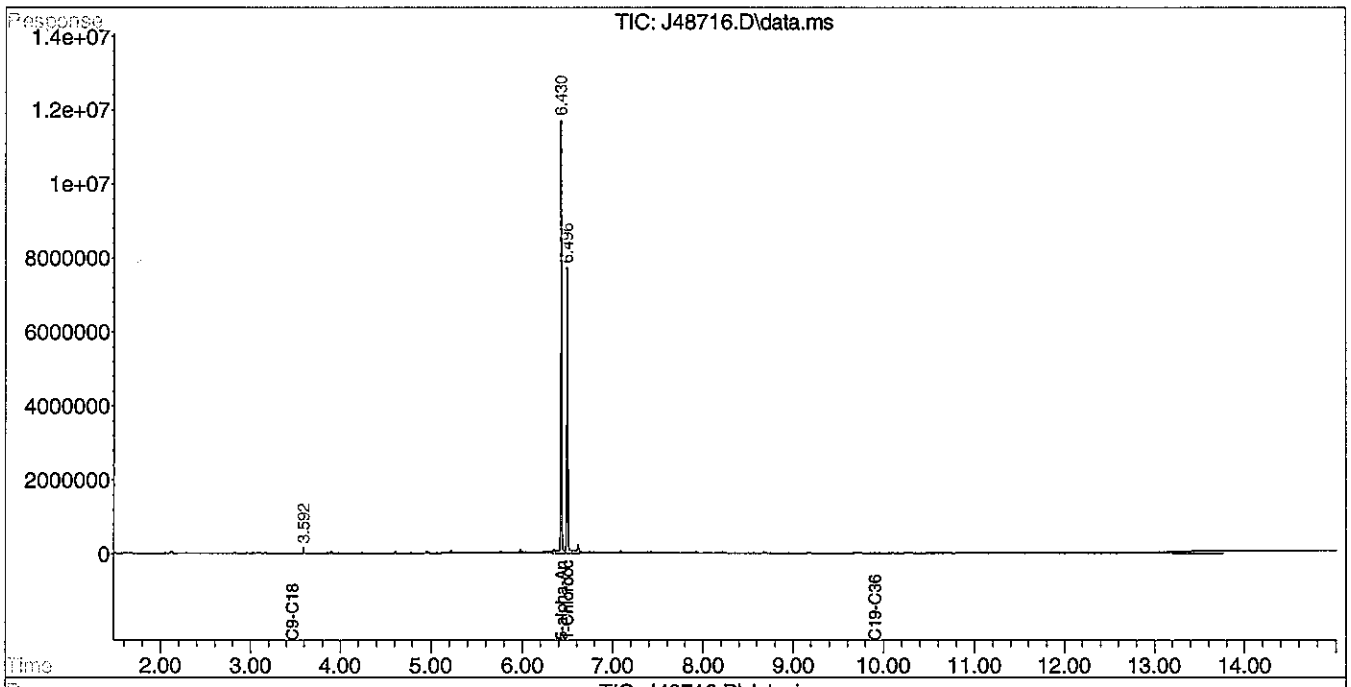
Quant Time: Feb 05 22:51:59 2013
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
Quant Title : EPH MS AROMATICS
QLast Update : Tue Feb 05 18:13:49 2013
Response via : Initial Calibration

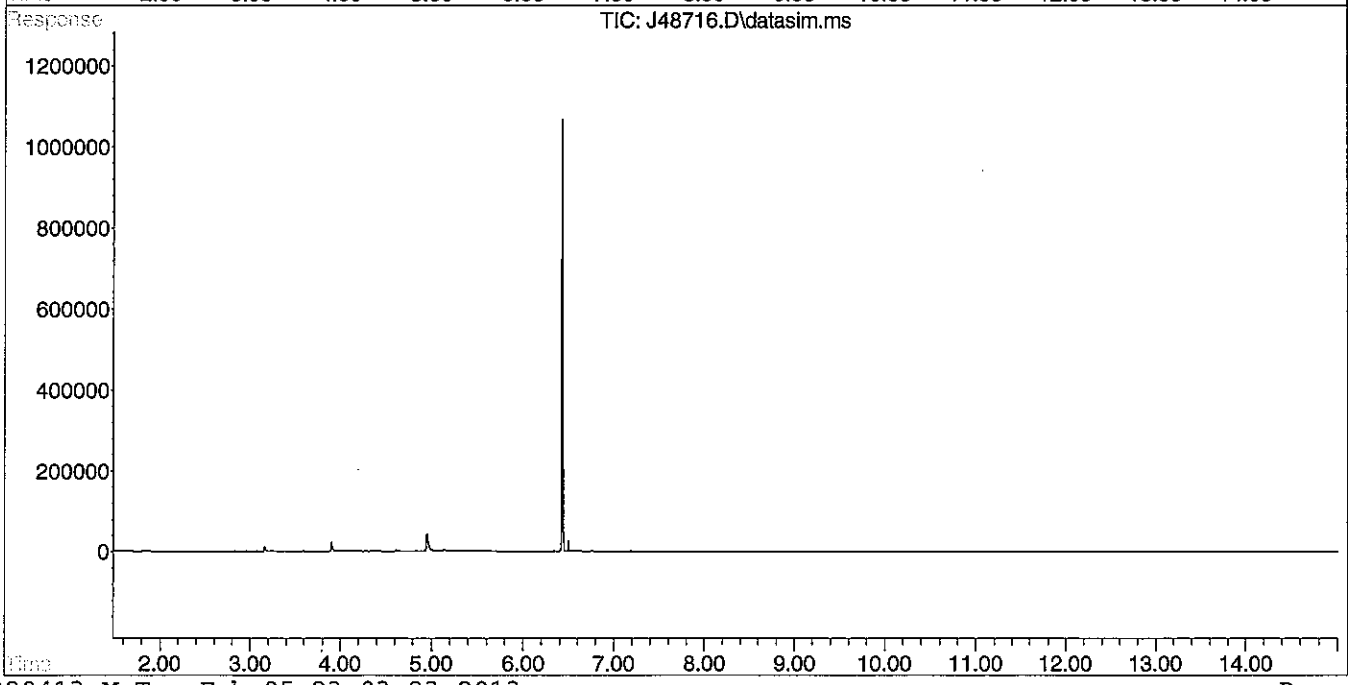


Data Path : C:\msdchem\1\DATA\020513-J\
Data File : J48716.D
Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
Acq On : 5 Feb 2013 8:09 pm
Operator : MG/AR
Sample : 74727-3
Misc : SOIL,ALI
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 05 23:02:38 2013
Quant Method : C:\msdchem\1\METHODS\ALG020413.M
Quant Title : EPH GC ALIPHATICS
QLast Update : Tue Feb 05 15:32:52 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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February 6, 2013

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400 Commercial Street Suite 404
Portland, ME 04101

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: SB10X-S3-012113

SAMPLE DATA

Lab Sample ID: 74727-4
Matrix: Solid
Percent Solid: 71
Dilution Factor: 1.4
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Extraction Date: 01/31/13
Analysis Date: 02/05/13

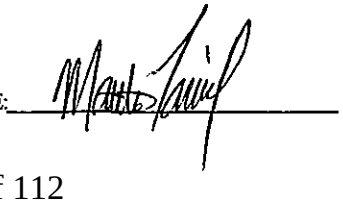
EPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE		RL	Units	Result
Unadjusted C11-C22 Aromatics[1]		18600	µg/kg	U
Diesel PAH Analytes	Naphthalene	372	µg/kg	U
	2-Methylnaphthalene	372	µg/kg	U
	Phenanthrene	372	µg/kg	U
	Acenaphthene	372	µg/kg	U
Other Target PAH Analytes	Acenaphthylene	372	µg/kg	U
	Fluorene	372	µg/kg	U
	Anthracene	372	µg/kg	U
	Fluoranthene	372	µg/kg	U
	Pyrene	372	µg/kg	U
	Benzo[a]anthracene	372	µg/kg	U
	Chrysene	372	µg/kg	U
	Benzo[b]fluoranthene	372	µg/kg	U
	Benzo[k]fluoranthene	372	µg/kg	U
	Benzo[a]pyrene	372	µg/kg	U
	Indeno[1,2,3-cd]pyrene	372	µg/kg	U
	Dibenzo[a,h]anthracene	372	µg/kg	U
	Benzo[g,h,i]perylene	372	µg/kg	U
C9-C18 Aliphatic Hydrocarbons[1]		18600	µg/kg	U
C19-C36 Aliphatic Hydrocarbons[1]		18600	µg/kg	U
C11-C22 Aromatic Hydrocarbons[1,2]		18600	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)				75
Aromatic Surrogate % Recovery (O-Terphenyl)				76
Sample Surrogate Acceptance Range		--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)				83
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)				82
Fractionation Surrogate Acceptance Range		--	--	40-140%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
[2]C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

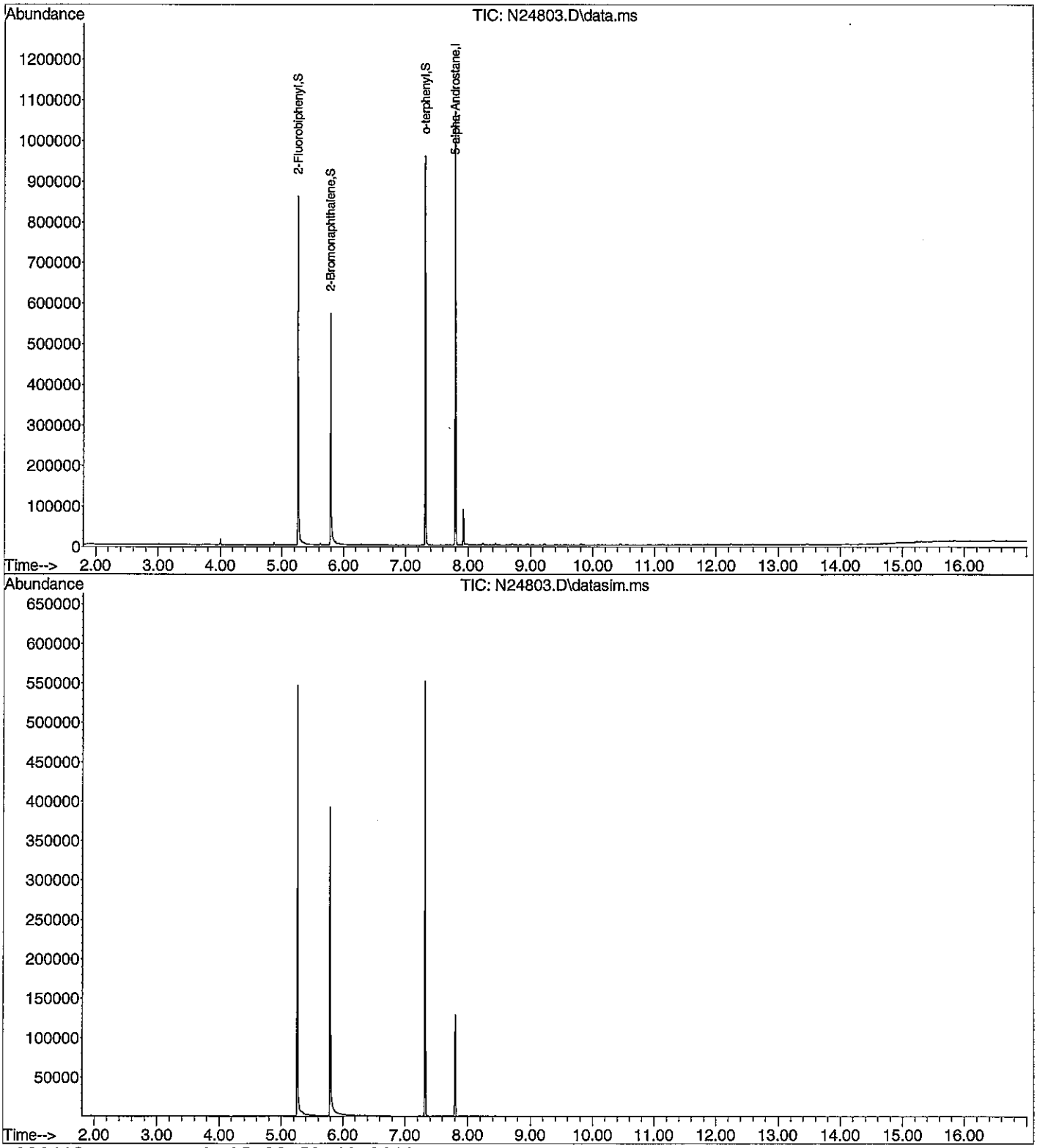
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.
Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\
Data File : N24803.D
Acq On : 5 Feb 2013 9:15 pm
Operator : AR
Sample : 74727-4
Misc : SOIL,ARO
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 05 22:53:49 2013
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
Quant Title : EPH MS AROMATICS
QLast Update : Tue Feb 05 18:13:49 2013
Response via : Initial Calibration



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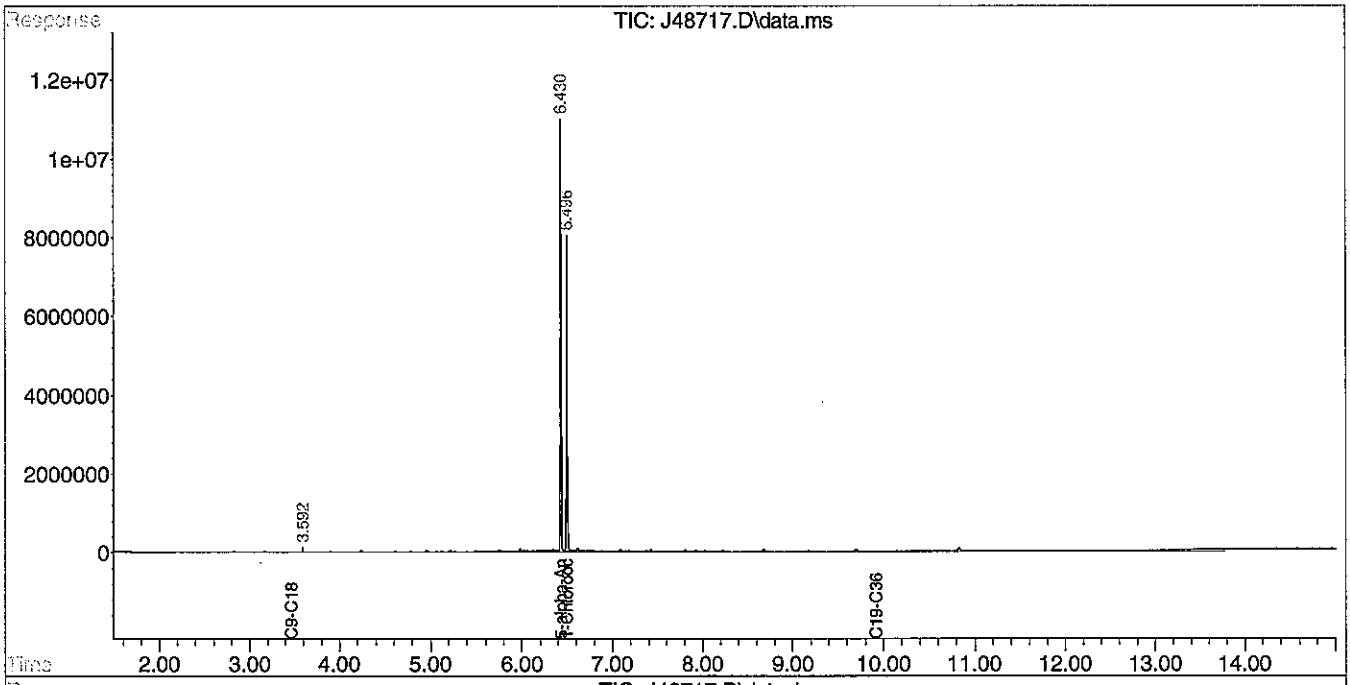
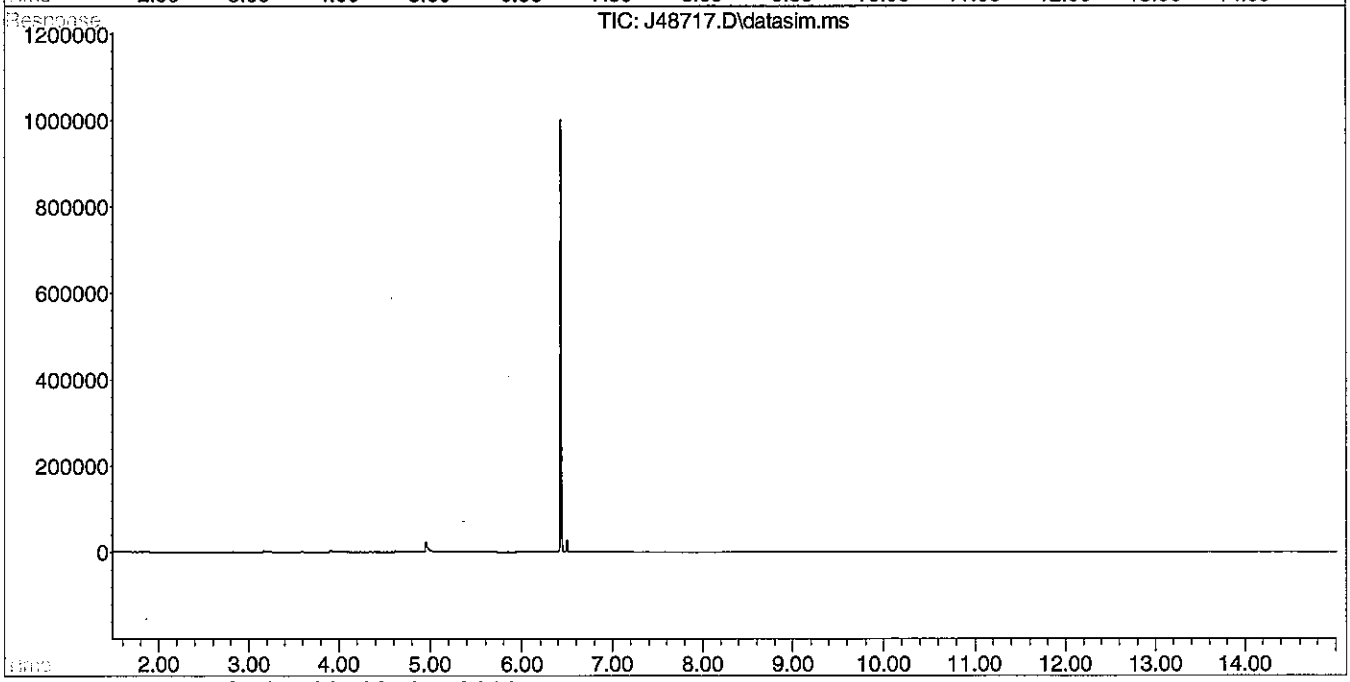
Data File : J48717.D
Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
Acq On : 5 Feb 2013 8:29 pm
Operator : MG/AR
Sample : 74727-4
Misc : SOIL,ALI
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 05 23:02:39 2013
Quant Method : C:\msdchem\1\METHODS\ALG020413.M
Quant Title : EPH GC ALIPHATICS
QLast Update : Tue Feb 05 15:32:52 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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February 7, 2013

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Portland, ME 04101

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: MW101

SAMPLE DATA

Lab Sample ID: 74727-5
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date: 01/23/13
Lab Receipt Date: 01/24/13
Extraction Date: 02/04/13
Analysis Date: 02/06/13

EPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE		RL	Units	Result
Unadjusted C11-C22 Aromatics[1]		100	µg/L	U
Diesel PAH Analytes	Naphthalene	4	µg/L	U
	2-Methylnaphthalene	4	µg/L	U
	Phenanthrene	4	µg/L	U
	Acenaphthene	4	µg/L	U
Other Target PAH Analytes	Acenaphthylene	4	µg/L	U
	Fluorene	4	µg/L	U
	Anthracene	4	µg/L	U
	Fluoranthene	4	µg/L	U
	Pyrene	4	µg/L	U
	Benzo[a]anthracene	4	µg/L	U
	Chrysene	4	µg/L	U
	Benzo[b]fluoranthene	4	µg/L	U
	Benzo[k]fluoranthene	4	µg/L	U
	Benzo[a]pyrene	4	µg/L	U
	Indeno[1,2,3-cd]pyrene	4	µg/L	U
	Dibenzo[a,h]anthracene	4	µg/L	U
	Benzo[g,h,i]perylene	4	µg/L	U
C9-C18 Aliphatic Hydrocarbons[1]		100	µg/L	U
C19-C36 Aliphatic Hydrocarbons[1]		100	µg/L	U
C11-C22 Aromatic Hydrocarbons[1,2]		100	µg/L	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)				38*
Aromatic Surrogate % Recovery (O-Terphenyl)				92
Sample Surrogate Acceptance Range		--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)				91
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)				93
Fractionation Surrogate Acceptance Range		--	--	40-140%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
[2]C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

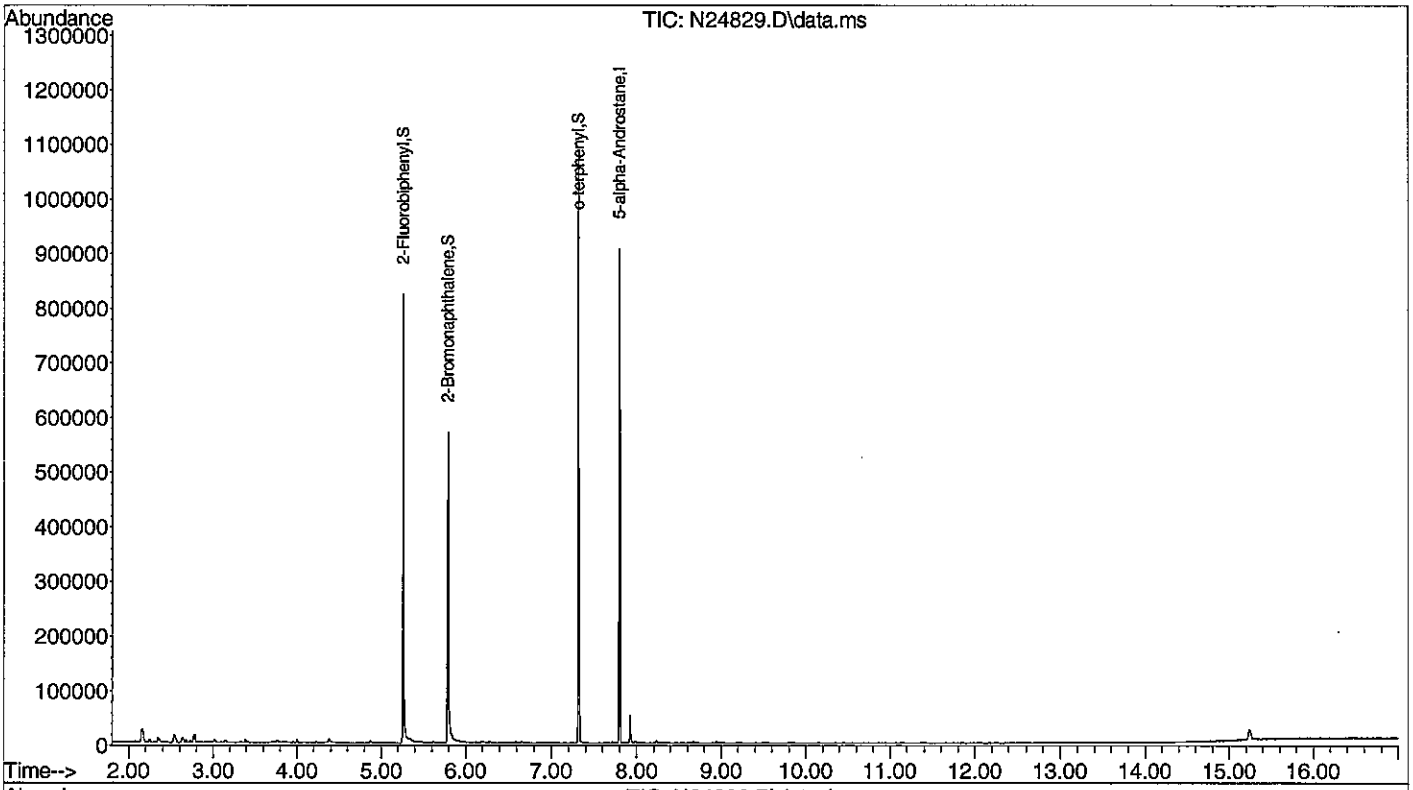
METHODOLOGY: MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3510C.

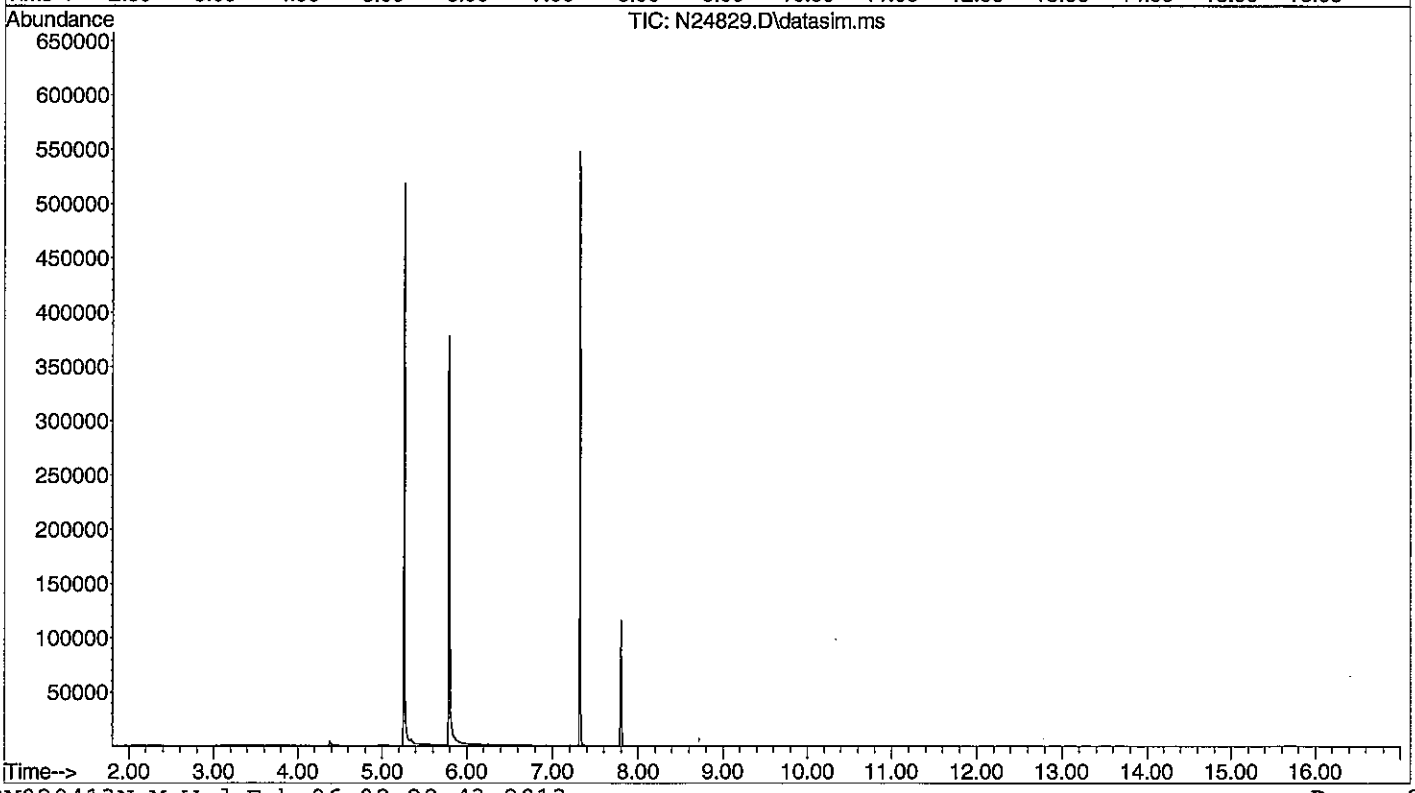
COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.
* Surrogate recovery outside of laboratory acceptance criteria. Sample was reanalyzed with similar results.

SIGNATURE:_____

Data Path : C:\msdchem\1\DATA\020513-N\
Data File : N24829.D
Acq On : 6 Feb 2013 6:10 am
Operator : AR
Sample : 74727-5
Misc : ARO
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Feb 06 08:28:43 2013
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
Quant Title : EPH MS AROMATICS
QLast Update : Tue Feb 05 18:13:49 2013
Response via : Initial Calibration

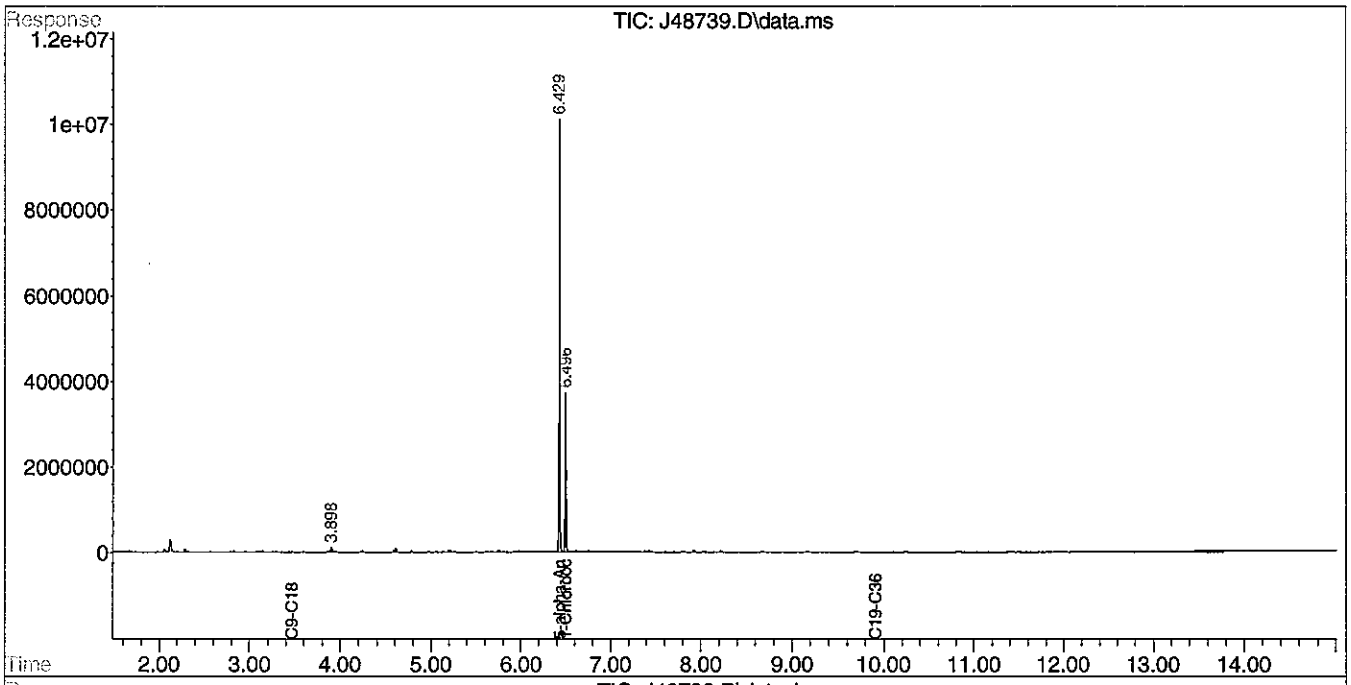


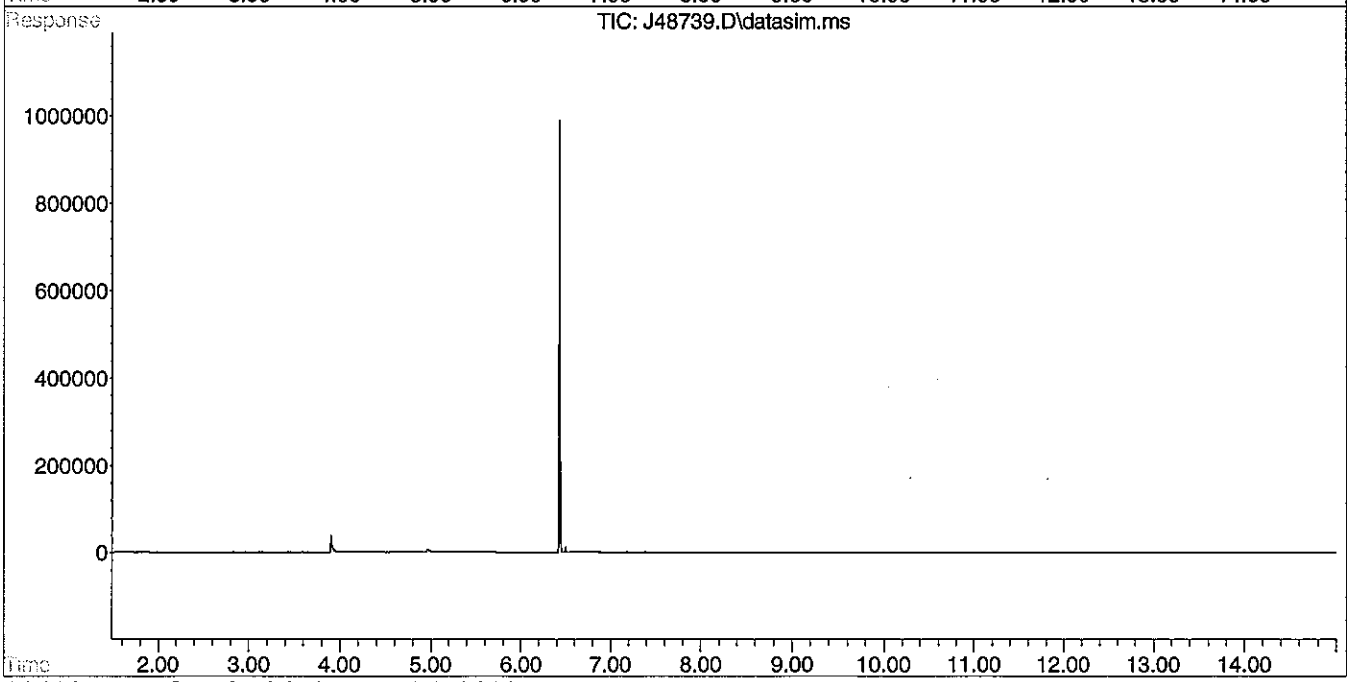


Data Path : C:\msdchem\1\DATA\020513-J\
Data File : J48739.D
Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
Acq On : 6 Feb 2013 4:28 am
Operator : MG/AR
Sample : 74727-5
Misc : ALI
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 06 08:45:26 2013
Quant Method : C:\msdchem\1\METHODS\ALG020413.M
Quant Title : EPH GC ALIPHATICS
QLast Update : Tue Feb 05 15:32:52 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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February 7, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: MW10X

SAMPLE DATA

Lab Sample ID: 74727-6
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date: 01/23/13
Lab Receipt Date: 01/24/13
Extraction Date: 02/04/13
Analysis Date: 02/06/13

EPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE		RL	Units	Result
Unadjusted C11-C22 Aromatics[1]		100	µg/L	U
Diesel PAH Analytes	Naphthalene	4	µg/L	U
	2-Methylnaphthalene	4	µg/L	U
	Phenanthrene	4	µg/L	U
	Acenaphthene	4	µg/L	U
Other Target PAH Analytes	Acenaphthylene	4	µg/L	U
	Fluorene	4	µg/L	U
	Anthracene	4	µg/L	U
	Fluoranthene	4	µg/L	U
	Pyrene	4	µg/L	U
	Benzo[a]anthracene	4	µg/L	U
	Chrysene	4	µg/L	U
	Benzo[b]fluoranthene	4	µg/L	U
	Benzo[k]fluoranthene	4	µg/L	U
	Benzo[a]pyrene	4	µg/L	U
	Indeno[1,2,3-cd]pyrene	4	µg/L	U
	Dibenzo[a,h]anthracene	4	µg/L	U
	Benzo[g,h,i]perylene	4	µg/L	U
C9-C18 Aliphatic Hydrocarbons[1]		100	µg/L	U
C19-C36 Aliphatic Hydrocarbons[1]		100	µg/L	U
C11-C22 Aromatic Hydrocarbons[1,2]		100	µg/L	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)				42
Aromatic Surrogate % Recovery (O-Terphenyl)				94
Sample Surrogate Acceptance Range		--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)				90
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)				92
Fractionation Surrogate Acceptance Range		--	--	40-140%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
[2]C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

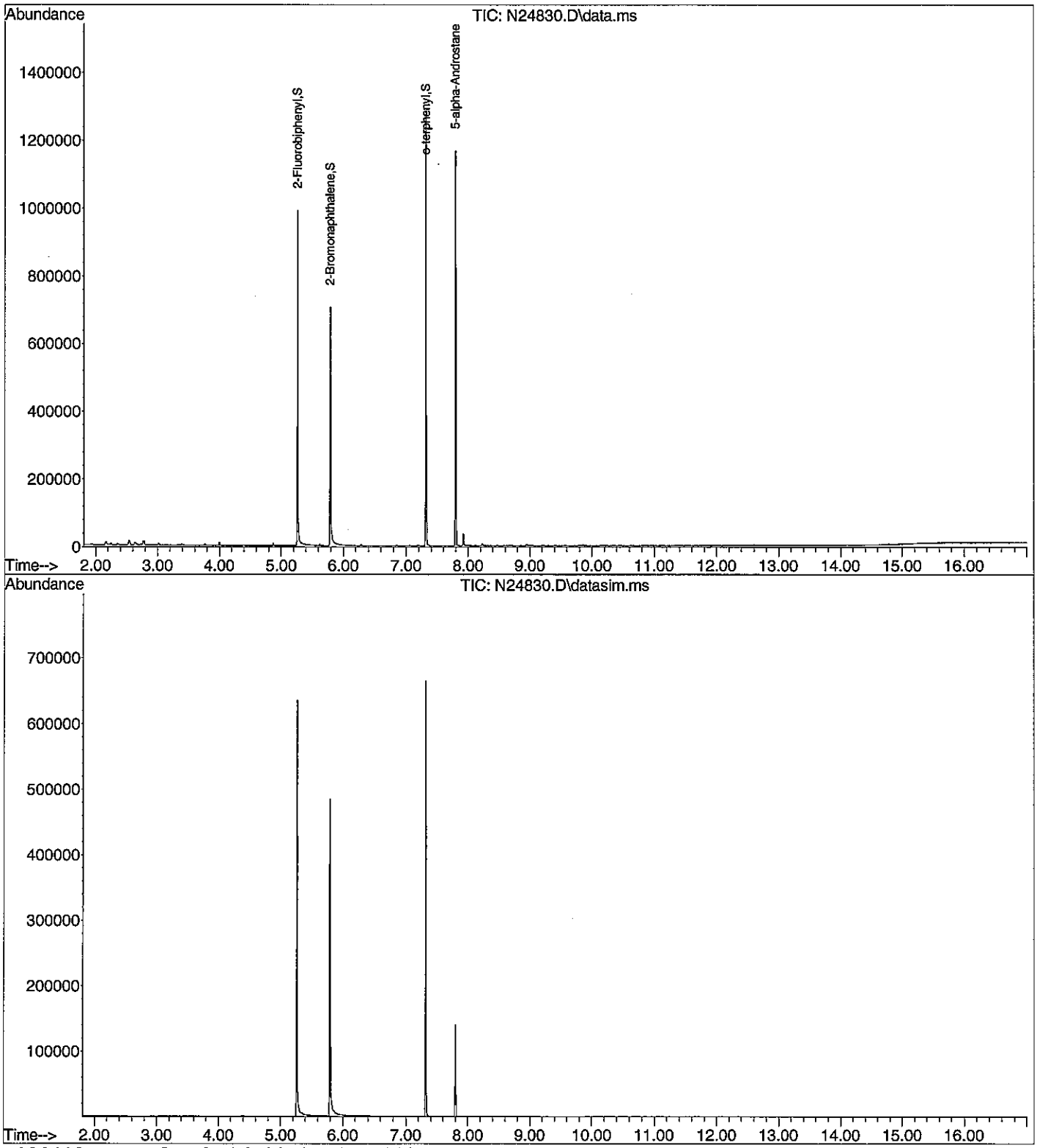
METHODOLOGY: MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3510C.

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\
Data File : N24830.D
Acq On : 6 Feb 2013 6:30 am
Operator : AR
Sample : 74727-6
Misc : ARO
ALS Vial : 31 Sample Multiplier: 1

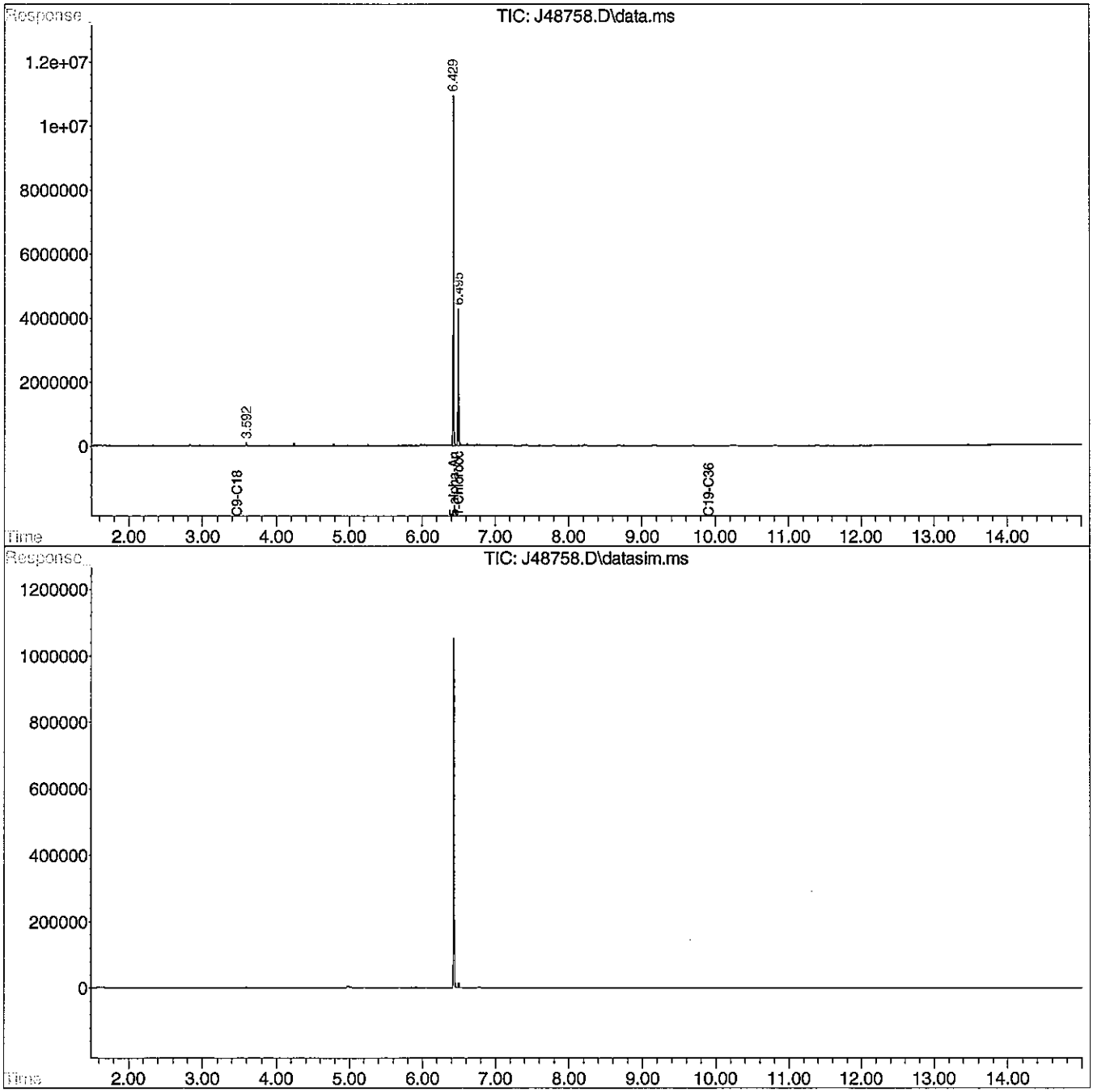
Quant Time: Feb 06 08:28:45 2013
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
Quant Title : EPH MS AROMATICS
QLast Update : Tue Feb 05 18:13:49 2013
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\
Data File : J48758.D
Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
Acq On : 6 Feb 2013 11:04 am
Operator : MG/AR
Sample : 74727-6,RR
Misc : ALI
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 06 12:03:27 2013
Quant Method : C:\msdchem\1\METHODS\ALG020413.M
Quant Title : EPH GC ALIPHATICS
QLast Update : Tue Feb 05 15:32:52 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



EPH
QC FORMS

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February 6, 2013

Mr. Erik Phenix
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Portland, ME 04101

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: LabQC

SAMPLE DATA

Lab Sample ID: B013113EASE
Matrix: Solid
Percent Solid: 100
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 01/31/13
Analysis Date: 02/05/13

EPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE		RL	Units	Result
Unadjusted C11-C22 Aromatics[1]		13300	µg/kg	U
Diesel PAH Analytes	Naphthalene	267	µg/kg	U
	2-Methylnaphthalene	267	µg/kg	U
	Phenanthrene	267	µg/kg	U
	Acenaphthene	267	µg/kg	U
Other Target PAH Analytes	Acenaphthylene	267	µg/kg	U
	Fluorene	267	µg/kg	U
	Anthracene	267	µg/kg	U
	Fluoranthene	267	µg/kg	U
	Pyrene	267	µg/kg	U
	Benzo[a]anthracene	267	µg/kg	U
	Chrysene	267	µg/kg	U
	Benzo[b]fluoranthene	267	µg/kg	U
	Benzo[k]fluoranthene	267	µg/kg	U
	Benzo[a]pyrene	267	µg/kg	U
	Indeno[1,2,3-cd]pyrene	267	µg/kg	U
	Dibenzo[a,h]anthracene	267	µg/kg	U
	Benzo[g,h,i]perylene	267	µg/kg	U
C9-C18 Aliphatic Hydrocarbons[1]		13300	µg/kg	U
C19-C36 Aliphatic Hydrocarbons[1]		13300	µg/kg	U
C11-C22 Aromatic Hydrocarbons[1,2]		13300	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)				60
Aromatic Surrogate % Recovery (O-Terphenyl)				85
Sample Surrogate Acceptance Range		--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)				81
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)				83
Fractionation Surrogate Acceptance Range		--	--	40-140%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
[2]C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

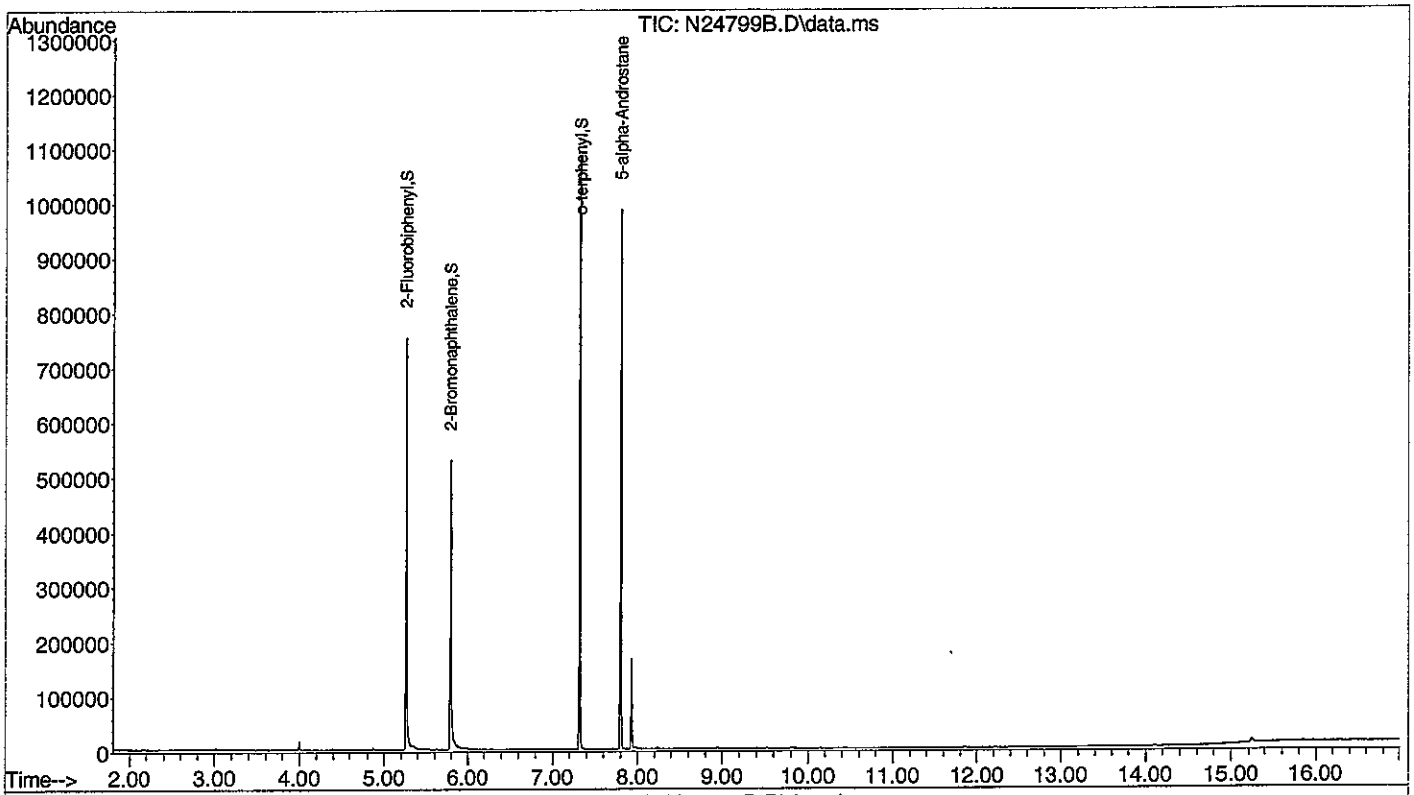
METHODOLOGY: MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

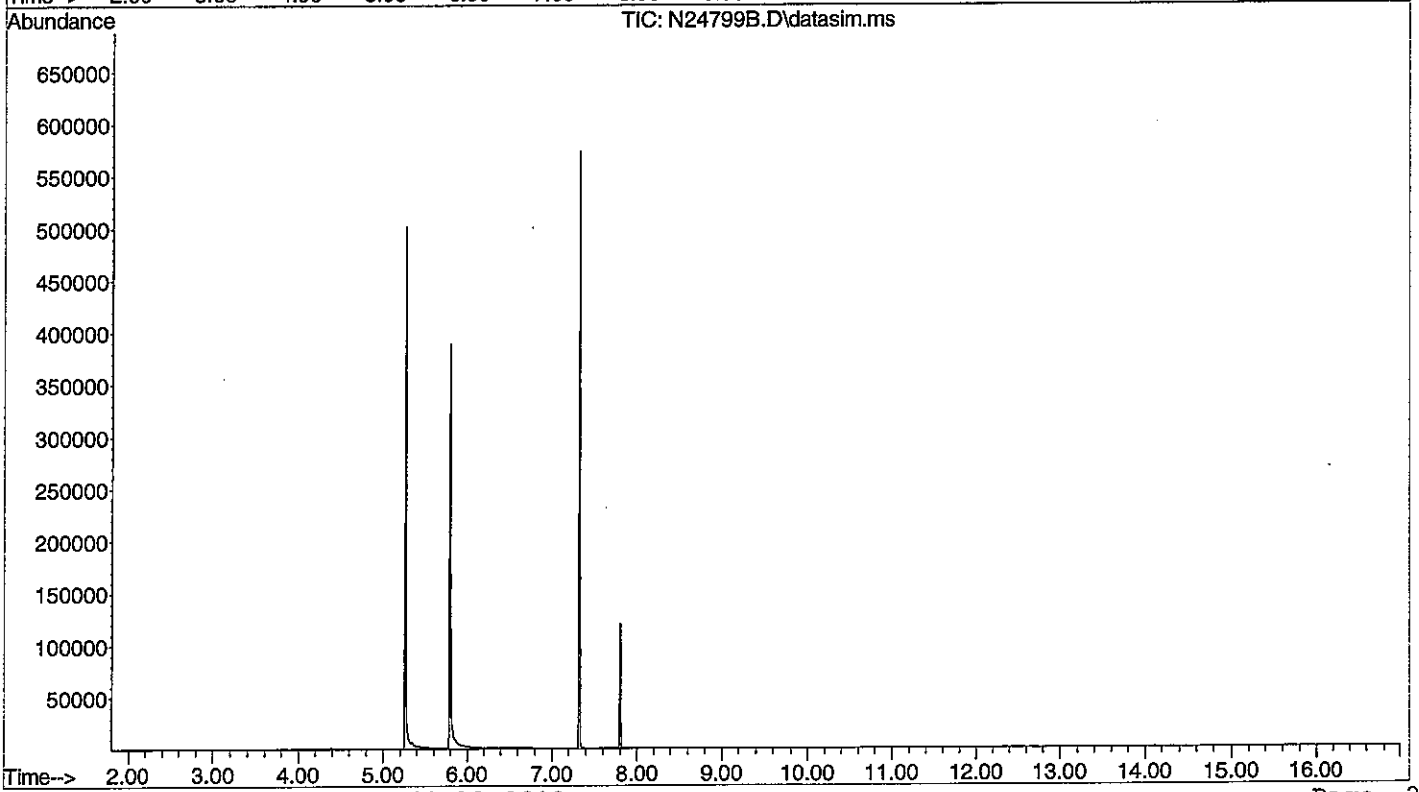
COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.
Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\
Data File : N24799B.D
Acq On : 5 Feb 2013 7:53 pm
Operator : AR
Sample : B013113EASE,,RF
Misc : SOIL,ARO
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 05 22:48:31 2013
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
Quant Title : EPH MS AROMATICS
QLast Update : Tue Feb 05 18:13:49 2013
Response via : Initial Calibration

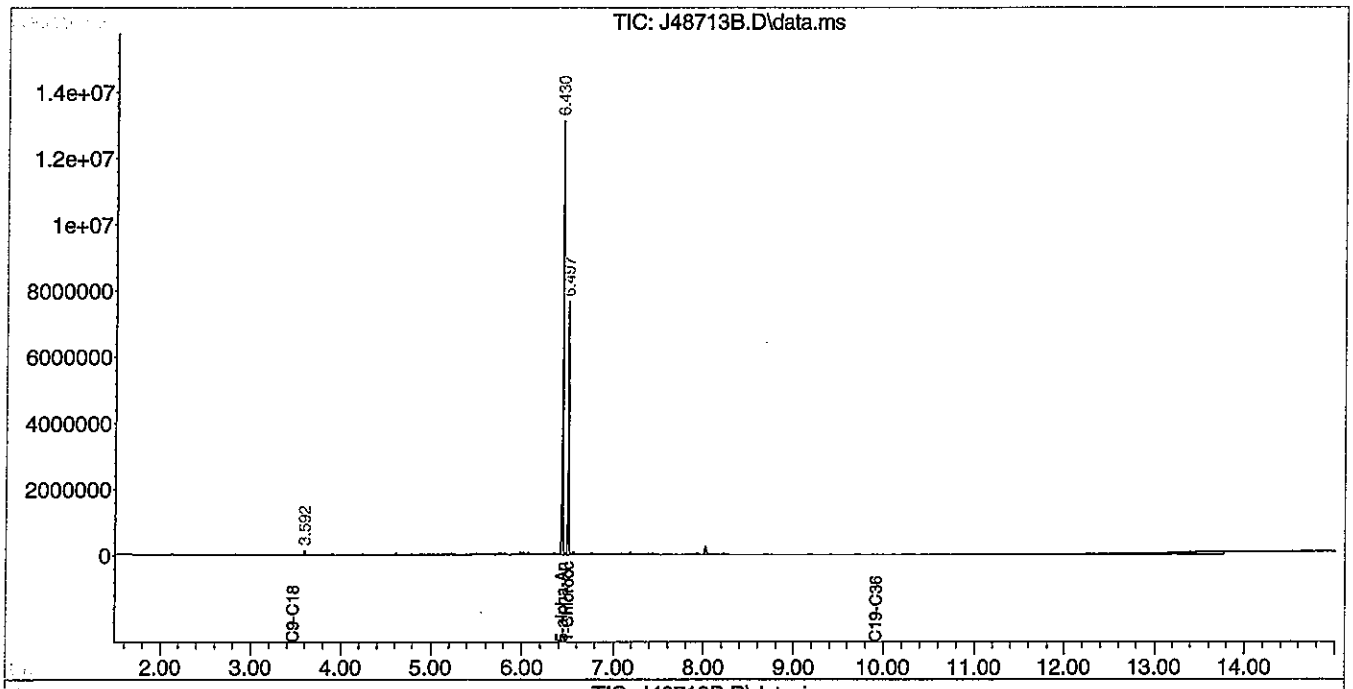


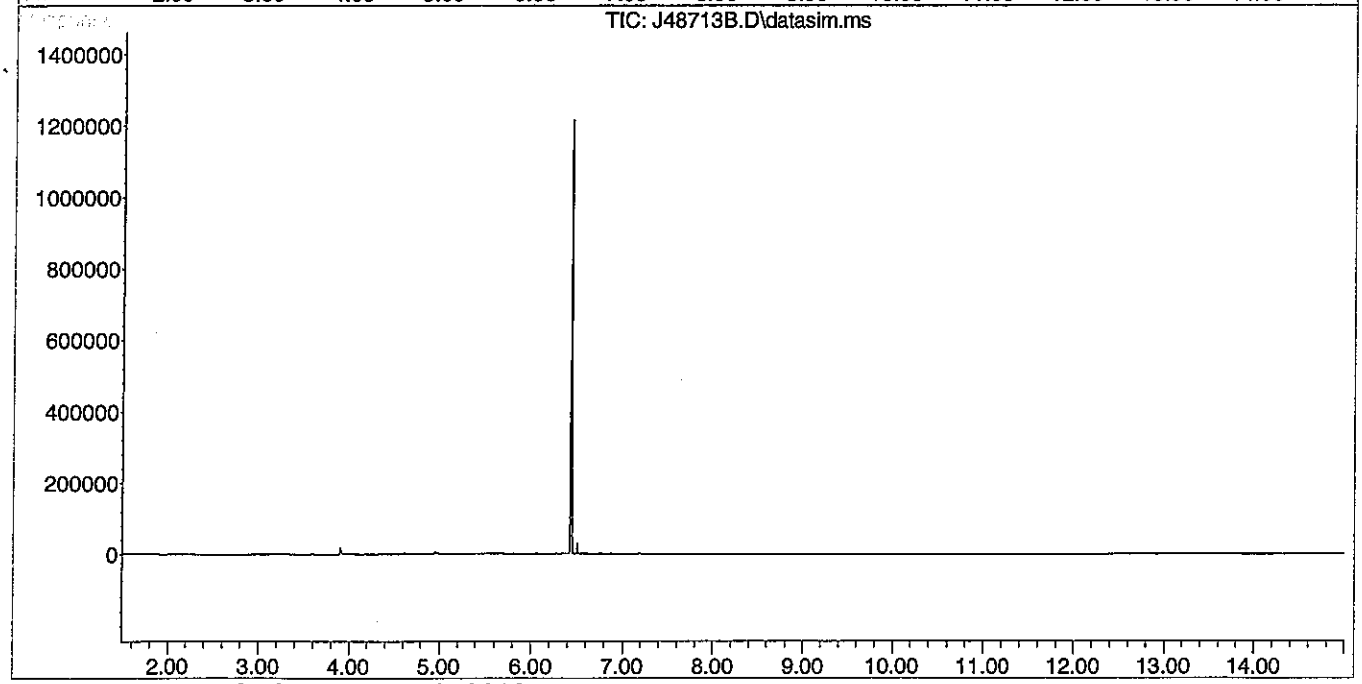


Data Path : C:\msdchem\1\DATA\020513-J\
Data File : J48713B.D
Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
Acq On : 5 Feb 2013 7:06 pm
Operator : MG/AR
Sample : B013113EASE,,RF
Misc : SOIL,ALI
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 05 23:02:35 2013
Quant Method : C:\msdchem\1\METHODS\ALG020413.M
Quant Title : EPH GC ALIPHATICS
QLast Update : Tue Feb 05 15:32:52 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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Mr. Erik Phenix
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400 Commercial Street Suite 404
Portland, ME 04101

February 7, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019
Client Sample ID: LabQC

SAMPLE DATA

Lab Sample ID: B020413EW
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 02/04/13
Analysis Date: 02/06/13

EPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE		RL	Units	Result
Unadjusted C11-C22 Aromatics[1]		100	µg/L	U
Diesel PAH Analytes	Naphthalene	4	µg/L	U
	2-Methylnaphthalene	4	µg/L	U
	Phenanthrene	4	µg/L	U
	Acenaphthene	4	µg/L	U
Other Target PAH Analytes	Acenaphthylene	4	µg/L	U
	Fluorene	4	µg/L	U
	Anthracene	4	µg/L	U
	Fluoranthene	4	µg/L	U
	Pyrene	4	µg/L	U
	Benzo[a]anthracene	4	µg/L	U
	Chrysene	4	µg/L	U
	Benzo[b]fluoranthene	4	µg/L	U
	Benzo[k]fluoranthene	4	µg/L	U
	Benzo[a]pyrene	4	µg/L	U
	Indeno[1,2,3-cd]pyrene	4	µg/L	U
	Dibenzo[a,h]anthracene	4	µg/L	U
	Benzo[g,h,i]perylene	4	µg/L	U
C9-C18 Aliphatic Hydrocarbons[1]		100	µg/L	U
C19-C36 Aliphatic Hydrocarbons[1]		100	µg/L	U
C11-C22 Aromatic Hydrocarbons[1,2]		100	µg/L	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)				61
Aromatic Surrogate % Recovery (O-Terphenyl)				94
Sample Surrogate Acceptance Range		--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)				94
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)				95
Fractionation Surrogate Acceptance Range		--	--	40-140%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
[2]C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
RL = Report Limit
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

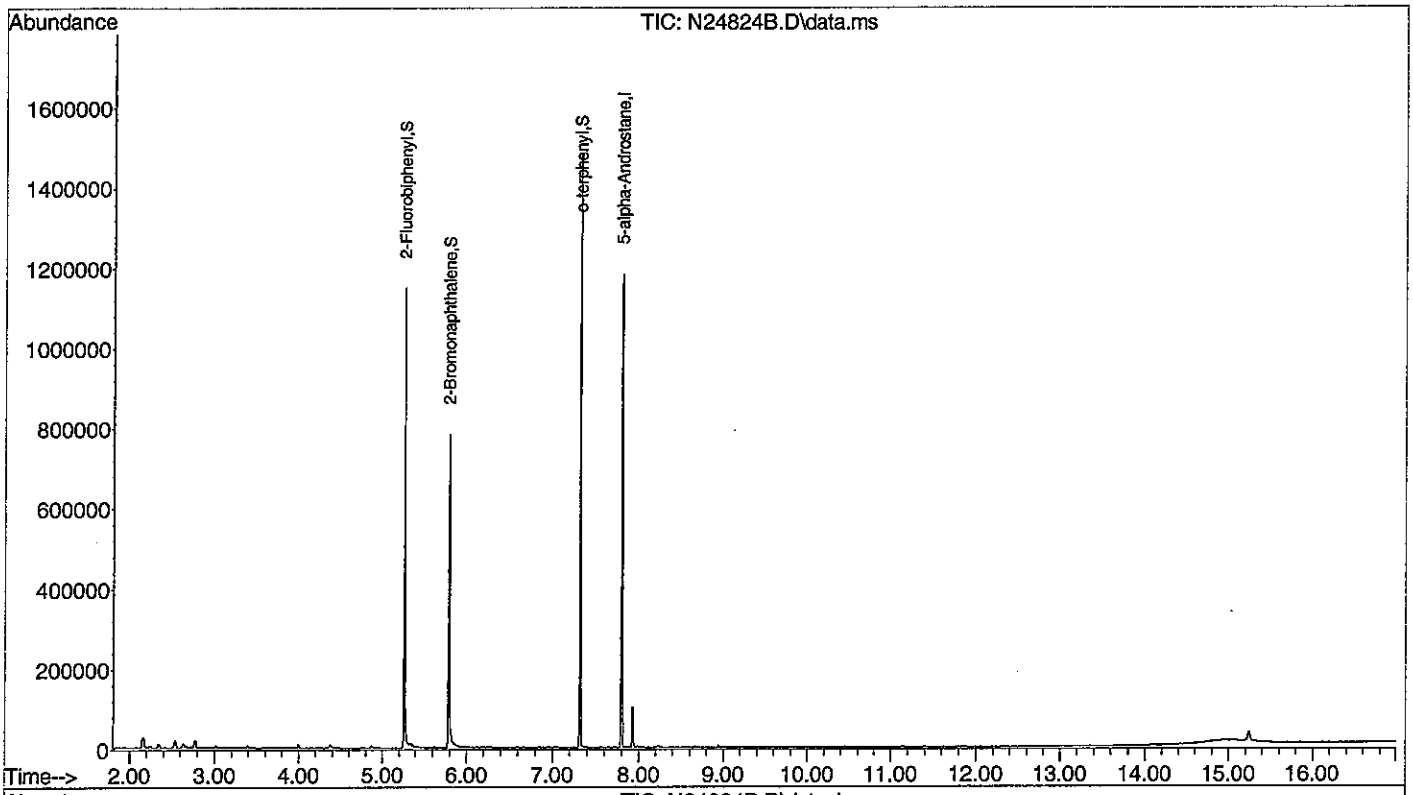
METHODOLOGY: MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3510C.

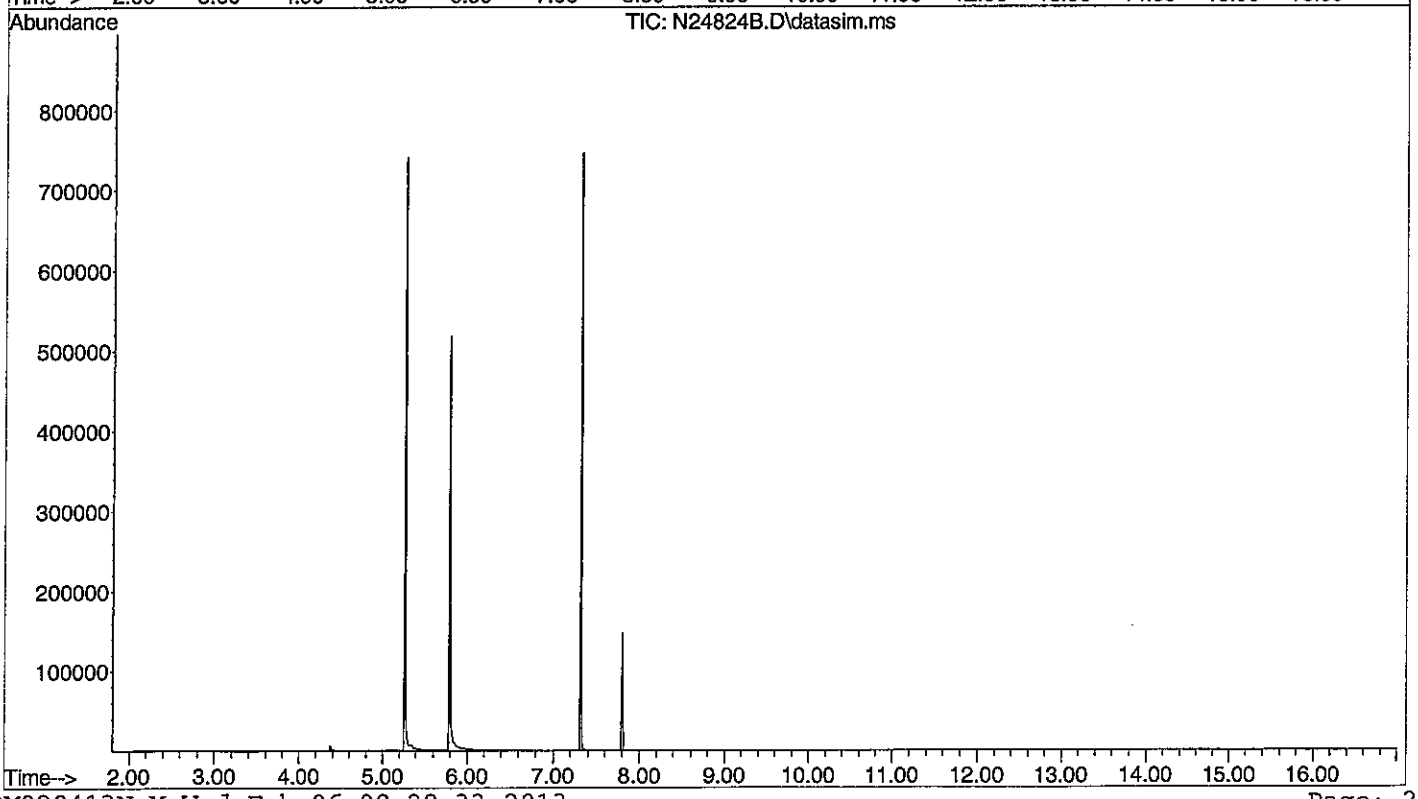
COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\
Data File : N24824B.D
Acq On : 6 Feb 2013 4:27 am
Operator : AR
Sample : B020413EW
Misc : ARO
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 06 08:28:33 2013
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
Quant Title : EPH MS AROMATICS
QLast Update : Tue Feb 05 18:13:49 2013
Response via : Initial Calibration

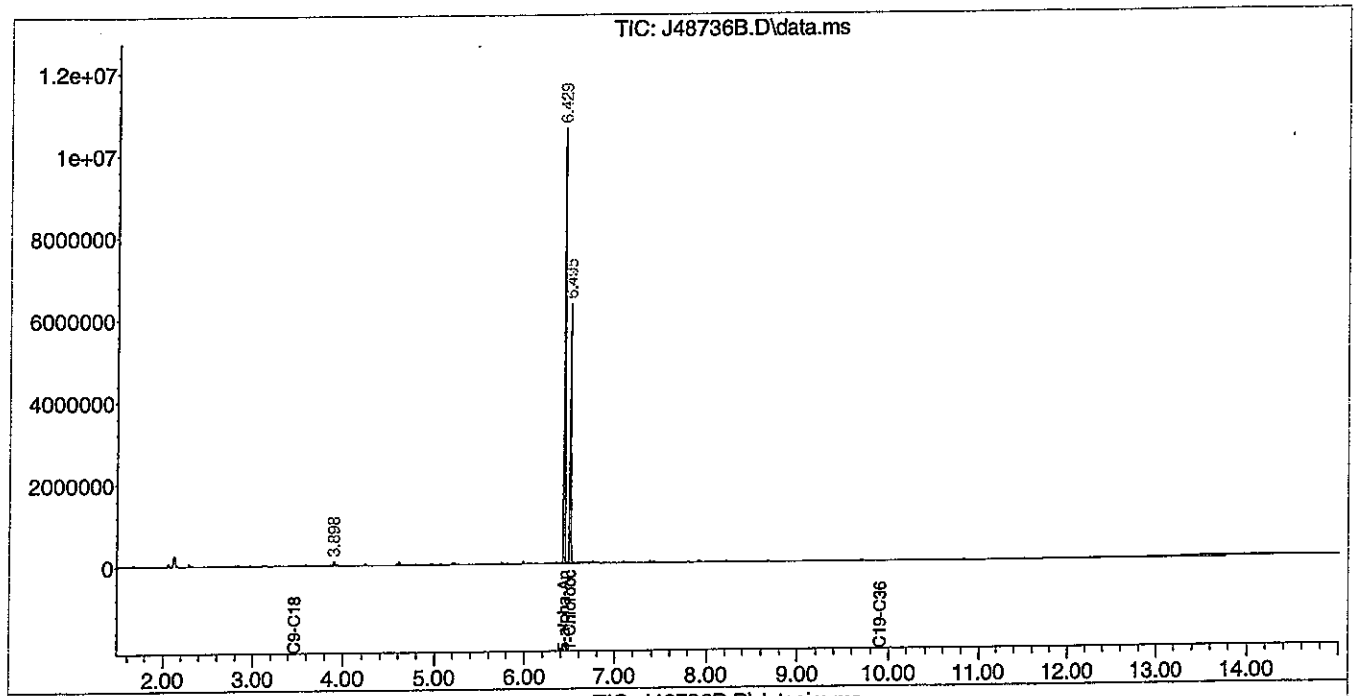


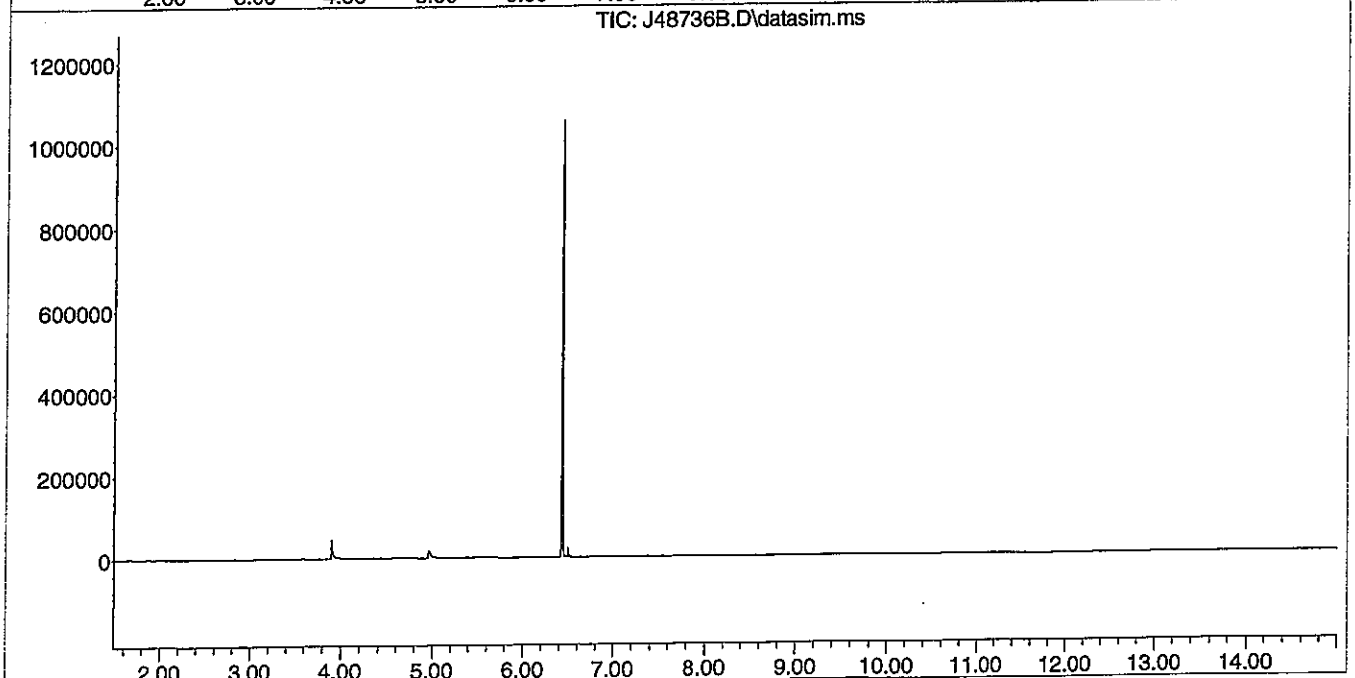


Data Path : C:\msdchem\1\DATA\020513-J\
Data File : J48736B.D
Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
Acq On : 6 Feb 2013 3:26 am
Operator : MG/AR
Sample : B020413EW
Misc : ALI
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 06 08:42:40 2013
Quant Method : C:\msdchem\1\METHODS\ALG020413.M
Quant Title : EPH GC ALIPHATICS
QLast Update : Tue Feb 05 15:32:52 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





EPH ALIPHATICS
SOIL LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
PERCENT RECOVERY

Instrument ID: N
GC Column: ZB-5ms
Column ID: 0.25 mm

SDG:
Non-spiked sample: B013113EASE
Spike: L013113EASE
Spike duplicate: LD013113EASE

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
C-9	3333	3333	30	140	25	0	1735	52		1840	55		6	
C-10	3333	3333	40	140	25	0	2044	61		2139	64		5	
C-12	3333	3333	40	140	25	0	2312	69		2437	73		5	
C-14	3333	3333	40	140	25	0	2456	74		2608	78		6	
C-16	3333	3333	40	140	25	0	2545	76		2711	81		6	
C-18	3333	3333	40	140	25	0	2603	78		2828	85		8	
C-19	3333	3333	40	140	25	0	2449	73		2576	77		5	
C-20	3333	3333	40	140	25	0	2739	82		2919	88		6	
C-22	3333	3333	40	140	25	0	2689	81		2881	86		7	
C-24	3333	3333	40	140	25	0	2721	82		2924	88		7	
C-26	3333	3333	40	140	25	0	2703	81		2901	87		7	
C-28	3333	3333	40	140	25	0	2712	81		2835	85		4	
C-30	3333	3333	40	140	25	0	2700	81		2819	85		4	
C-36	3333	3333	40	140	25	0	2651	80		2748	82		4	
C9-C18 Aliphatics	20000	20000	40	140	25	0	13695	68		14563	73		6	
C19-C36 Aliphatics	26667	26667	40	140	25	0	21364	80		22603	85		6	

Column to be used to flag recovery and RPD values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments:

EPH AROMATICS
SOIL LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
PERCENT RECOVERY

Instrument ID: N
GC Column: ZB-5ms
Column ID: 0.25 mm

SDG:
Non-spiked sample: B013113EASE
Spike: L013113EASE
Spike duplicate: LD013113EASE

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
Naphthalene	3333	3333	40	140	30	0	2733	82		2780	83		2	
2-Methylnaphthalene	3333	3333	40	140	30	0	2921	88		2954	89		1	
Acenaphthylene	3333	3333	40	140	30	0	3011	90		3089	93		3	
Acenaphthene	3333	3333	40	140	30	0	2890	87		2947	88		2	
Fluorene	3333	3333	40	140	30	0	3052	92		3166	95		4	
Phenanthrene	3333	3333	40	140	30	0	3326	100		3440	103		3	
Anthracene	3333	3333	40	140	30	0	3090	93		3253	98		5	
Fluoranthene	3333	3333	40	140	30	0	3268	98		3417	103		4	
Pyrene	3333	3333	40	140	30	0	3182	95		3336	100		5	
Benzo[a]anthracene	3333	3333	40	140	30	0	3487	105		3634	109		4	
Chrysene	3333	3333	40	140	30	0	3061	92		3256	98		6	
Benzo[b] fluoranthene	3333	3333	40	140	30	0	3391	102		3617	108		6	
Benzo[k] fluoranthene	3333	3333	40	140	30	0	3109	93		3340	100		7	
Benzo[a] pyrene	3333	3333	40	140	30	0	3334	100		3550	106		6	
Indeno [1,2,3-cd] pyrene	3333	3333	40	140	30	0	3480	104		3742	112		7	
Dibenz [a,h] anthracene	3333	3333	40	140	30	0	3205	96		3457	104		8	
Benzo(g,h,i) perylene	3333	3333	40	140	30	0	3200	96		3425	103		7	

Column to be used to flag recovery and RPD values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

EPH AROMATIC BREAKTHOUGH REPORT
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: N
GC Column: ZB-5ms
Column ID: 0.25 mm

SDG:
Aliphatic LCS: L013113EASE
Aromatic LCS: L013113EASE

COMPOUND	LOWER LIMIT	UPPER LIMIT	ALIPHATIC RESULT (ug/mL)	AROMATIC RESULT (ug/mL)	% BREAKTHROUGH	#
Naphthalene	0	5	0.00	20.5	0.0	
2-Methylnaphthalene	0	5	0.00	21.9	0.0	

Column to be used to flag breakthrough values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: _____

EPH AROMATIC BREAKTHOUGH REPORT
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: N
GC Column: ZB-5ms
Column ID: 0.25 mm

SDG:
Aliphatic LCS: LD013113EASE
Aromatic LCS: LD013113EASE

COMPOUND	LOWER LIMIT	UPPER LIMIT	ALIPHATIC RESULT (ug/mL)	AROMATIC RESULT (ug/mL)	% BREAKTHROUGH	#
Naphthalene	0	5	0.00	20.8	0.0	
2-Methylnaphthalene	0	5	0.00	22.2	0.0	

Column to be used to flag breakthrough values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: _____

EPH AROMATICS
SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE
PERCENT RECOVERY

Instrument ID: N
GC Column: ZB-5ms
Column ID: 0.25 mm

SDG:
Non-spiked sample: 74727-4
Spike: 74727-4,MS
Spike duplicate: 74727-4,MSD

COMPOUND	MS SPIKE ADDED (ug/kg)	MSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
Naphthalene	4529	4651	40	140	50	0	2978	66		2940	63		1	
2-Methylnaphthalene	4529	4651	40	140	50	0	2937	65		2989	64		2	
Acenaphthylene	4529	4651	40	140	50	0	3034	67		2986	64		2	
Acenaphthene	4529	4651	40	140	50	0	2983	66		2944	63		1	
Fluorene	4529	4651	40	140	50	0	3029	67		3046	65		1	
Phenanthrene	4529	4651	40	140	50	0	3240	72		3297	71		2	
Anthracene	4529	4651	40	140	50	0	3189	70		3165	68		1	
Fluoranthene	4529	4651	40	140	50	0	3276	72		3263	70		0	
Pyrene	4529	4651	40	140	50	0	3284	73		3265	70		1	
Benzo[a]anthracene	4529	4651	40	140	50	0	3482	77		3407	73		2	
Chrysene	4529	4651	40	140	50	0	3438	76		3409	73		1	
Benzo[b] fluoranthene	4529	4651	40	140	50	0	3484	77		3423	74		2	
Benzo[k] fluoranthene	4529	4651	40	140	50	0	3438	76		3389	73		1	
Benzo[a] pyrene	4529	4651	40	140	50	0	3545	78		3454	74		3	
Indeno [1,2,3-cd] pyrene	4529	4651	40	140	50	0	3626	80		3497	75		4	
Dibenz [a,h] anthracene	4529	4651	40	140	50	0	3660	81		3479	75		5	
Benzo(g,h,i) perylene	4529	4651	40	140	50	0	3582	79		3415	73		5	

Column to be used to flag recovery and RPD values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

EPH ALIPHATICS
SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE
PERCENT RECOVERY

Instrument ID: J
GC Column: ZB-5ms
Column ID: 0.25 mm

SDG:
Non-spiked sample: 74727-4
Spike: 74727-4,MS
Spike duplicate: 74727-4,MSD

COMPOUND	MS SPIKE ADDED (ug/kg)	MSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
C-9	4529	4651	30	140	50	0	2646	58		2656	57		0	
C-10	4529	4651	40	140	50	0	3096	68		3157	68		2	
C-12	4529	4651	40	140	50	0	3399	75		3380	73		1	
C-14	4529	4651	40	140	50	0	3650	81		3553	76		3	
C-16	4529	4651	40	140	50	0	3913	86		3847	83		2	
C-18	4529	4651	40	140	50	0	4067	90		4048	87		0	
C-19	4529	4651	40	140	50	0	4093	90		4130	89		1	
C-20	4529	4651	40	140	50	0	4159	92		4109	88		1	
C-22	4529	4651	40	140	50	0	4248	94		4084	88		4	
C-24	4529	4651	40	140	50	0	4027	89		4146	89		3	
C-26	4529	4651	40	140	50	0	3992	88		4062	87		2	
C-28	4529	4651	40	140	50	0	3909	86		3960	85		1	
C-30	4529	4651	40	140	50	0	3830	85		3904	84		2	
C-36	4529	4651	40	140	50	0	3546	78		3398	73		4	
C9-C18 Aliphatics	27172	27909	40	140	50	0	20771	76		20640	74		1	
C19-C36 Aliphatics	36229	37212	40	140	50	0	31805	88		31794	85		0	

Column to be used to flag recovery and RPD values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

EPH AROMATICS
AQUEOUS LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
PERCENT RECOVERY

Instrument ID: N
GC Column: ZB-5ms
Column ID: 0.25 mm

SDG:
Non-spiked sample: B020413EW
Spike: L020413EW
Spike duplicate: LD020413EW

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
Naphthalene	25	40	140	20	0.0	19	76		19	76		1	
2-Methylnaphthalene	25	40	140	20	0.0	20	79		20	81		3	
Acenaphthylene	25	40	140	20	0.0	21	82		21	84		2	
Acenaphthene	25	40	140	20	0.0	20	82		21	83		1	
Fluorene	25	40	140	20	0.0	21	85		22	90		5	
Phenanthrene	25	40	140	20	0.0	23	92		24	97		6	
Anthracene	25	40	140	20	0.0	22	89		23	93		5	
Fluoranthene	25	40	140	20	0.0	23	91		24	97		5	
Pyrene	25	40	140	20	0.0	23	91		24	96		5	
Benzo[a]anthracene	25	40	140	20	0.0	24	98		25	101		3	
Chrysene	25	40	140	20	0.0	23	90		24	95		5	
Benzo[b] fluoranthene	25	40	140	20	0.0	24	97		25	100		3	
Benzo[k] fluoranthene	25	40	140	20	0.0	23	91		23	93		3	
Benzo[a] pyrene	25	40	140	20	0.0	24	96		25	98		3	
Indeno [1,2,3-cd] pyrene	25	40	140	20	0.0	25	99		26	103		4	
Dibenz [a,h] anthracene	25	40	140	20	0.0	23	94		24	98		5	
Benzo(g,h,i) perylene	25	40	140	20	0.0	23	93		24	98		5	

Column to be used to flag recovery and RPD values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: _____

EPH ALIPHATICS
AQUEOUS LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
PERCENT RECOVERY

Instrument ID: J
GC Column: ZB-5ms
Column ID: 0.25 mm

SDG:
Non-spiked sample: B020413EW
Spike: L020413EW
Spike duplicate: LD020413EW

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
C-9	25	30	140	25	0.0	20	79		17	68		16	
C-10	25	40	140	25	0.0	21	85		18	74		15	
C-12	25	40	140	25	0.0	24	95		21	84		12	
C-14	25	40	140	25	0.0	24	97		22	87		10	
C-16	25	40	140	25	0.0	25	100		23	92		9	
C-18	25	40	140	25	0.0	25	101		24	94		7	
C-19	25	40	140	25	0.0	25	101		23	94		7	
C-20	25	40	140	25	0.0	25	98		23	92		6	
C-22	25	40	140	25	0.0	25	102		24	95		7	
C-24	25	40	140	25	0.0	25	99		23	93		6	
C-26	25	40	140	25	0.0	24	96		23	93		3	
C-28	25	40	140	25	0.0	24	94		23	92		2	
C-30	25	40	140	25	0.0	23	93		23	92		1	
C-36	25	40	140	25	0.0	21	83		21	84		1	
C9-C18 Aliphatics	150	40	140	25	0	139	93		125	83		11	
C19-C36 Aliphatics	200	40	140	25	0	191	96		184	92		4	

Column to be used to flag recovery and RPD values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: _____

EPH ALI FORM 3

EPH AROMATIC BREAKTHOUGH REPORT
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: J
GC Column: ZB-5ms
Column ID: 0.25 mm

SDG:
Aliphatic LCS: L020413EW
Aromatic LCS: L020413EW

COMPOUND	LOWER LIMIT	UPPER LIMIT	ALIPHATIC RESULT (ug/mL)	AROMATIC RESULT (ug/mL)	% BREAKTHROUGH	#
Naphthalene	0	5	0.00	19.1	0.0	
2-Methylnaphthalene	0	5	0.00	19.7	0.0	

Column to be used to flag breakthrough values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: _____

EPH AROMATIC BREAKTHOUGH REPORT
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: N
GC Column: ZB-5ms
Column ID: 0.25 mm

SDG:
Aliphatic LCS: LD020413EW
Aromatic LCS: LD020413EW

COMPOUND	LOWER LIMIT	UPPER LIMIT	ALIPHATIC RESULT (ug/mL)	AROMATIC RESULT (ug/mL)	% BREAKTHROUGH	#
Naphthalene	0	5	0.00	18.9	0.0	
2-Methylnaphthalene	0	5	0.00	20.3	0.0	

Column to be used to flag breakthrough values outside of QC limits
* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: _____

analytics environmental laboratory LLC

PCB
DATA SUMMARIES

analytics environmental laboratory LLC

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800-929-9906

Mr. Erik Phenix
Ransom Consulting, Inc.
400 Commercial Street Suite 404
Portland, ME 04101

February 5, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019

Field Sample ID: SB103-S1-012113

SAMPLE DATA

Lab Sample ID: 74727-2
Matrix: Solid
Percent Solid: 76
Dilution Factor: 1.2
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Extraction Date: 01/28/13
Analysis Date: 01/30/13

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	40	U
PCB-1221	40	U
PCB-1232	40	U
PCB-1242	40	U
PCB-1248	40	U
PCB-1254	40	U
PCB-1260	40	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	77	%
Decachlorobiphenyl	67	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A. Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Sample cleanup was conducted according to SW-846 Method 3665A.

COMMENTS: Results are expressed on a dry weight basis.

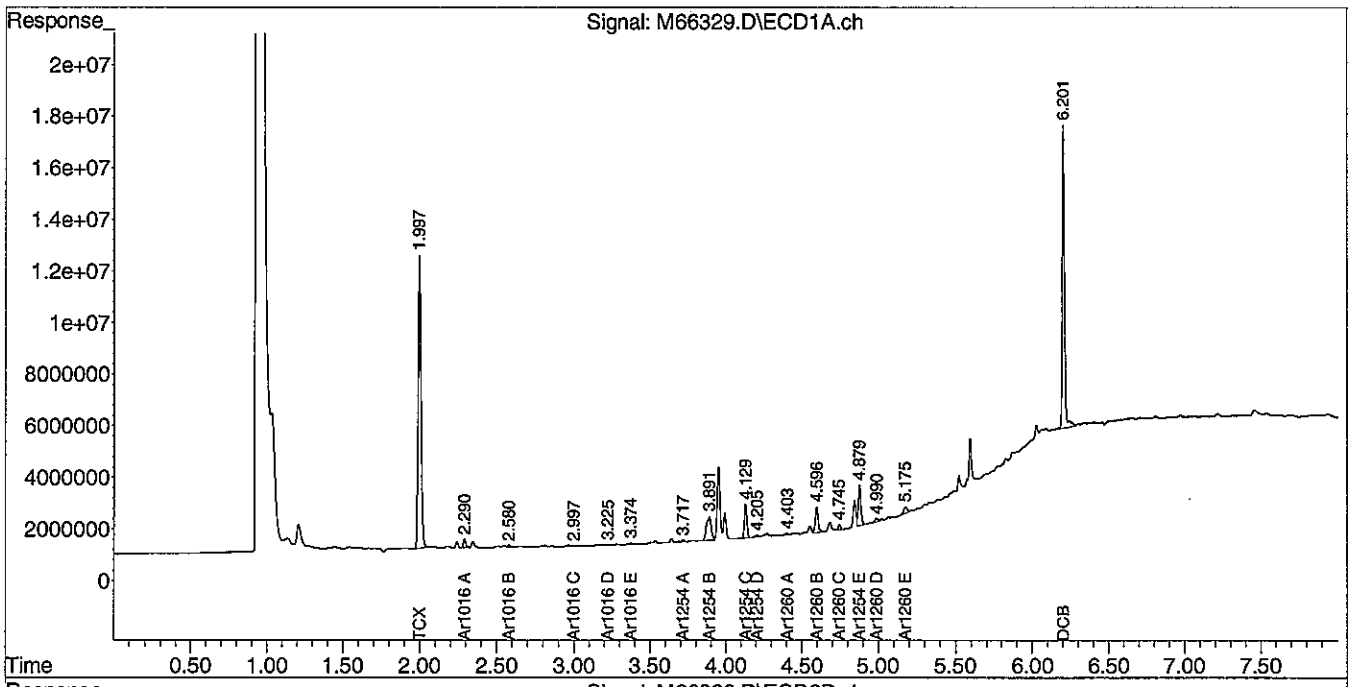
PCB Report

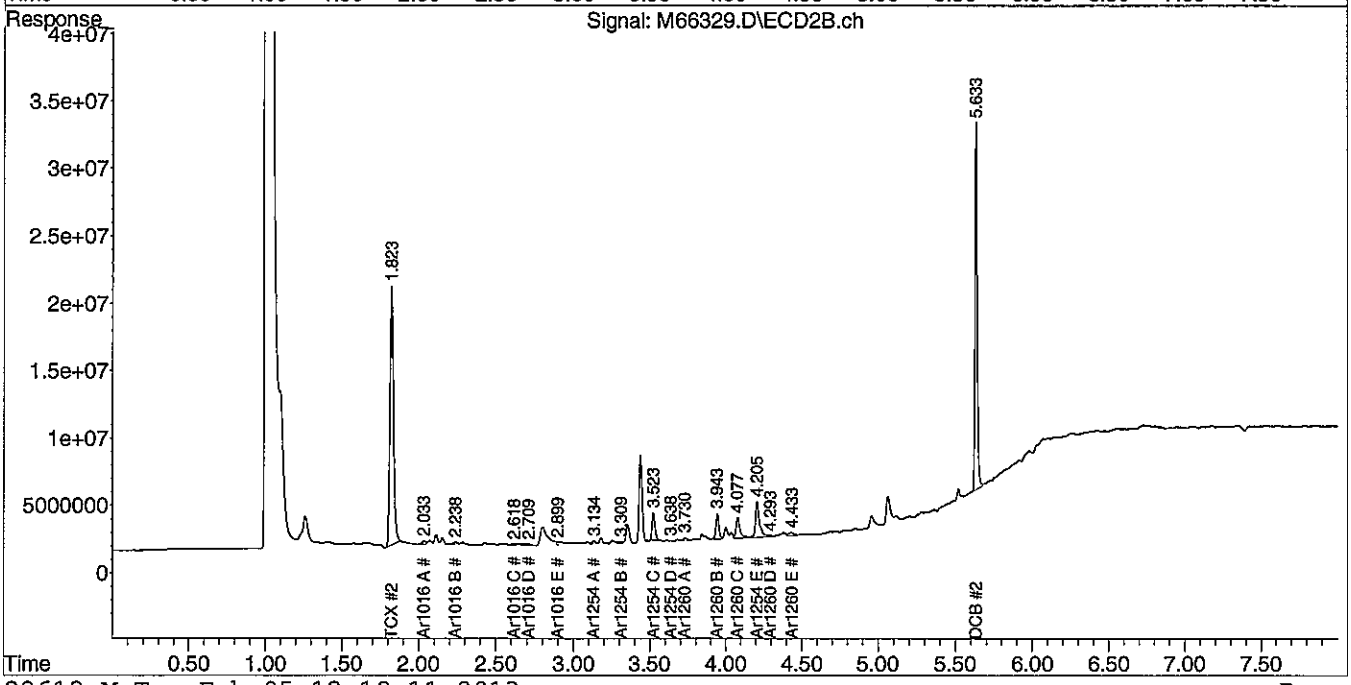
Authorized signature

Data Path : C:\msdchem\1\DATA\013013-M\
Data File : M66329.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 30 Jan 2013 11:09 am
Operator : JK
Sample : 74727-2,,A/C
Misc : SOIL
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Feb 05 12:14:53 2013
Quant Method : C:\msdchem\1\METHODS\PCB122612.M
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254
QLast Update : Tue Feb 05 12:14:30 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um





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Mr. Erik Phenix
Ransom Consulting, Inc.
400 Commercial Street Suite 404
Portland, ME 04101

February 5, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019

Field Sample ID: SB102-S3-012113

SAMPLE DATA

Lab Sample ID: 74727-3
Matrix: Solid
Percent Solid: 89
Dilution Factor: 1.1
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Extraction Date: 01/28/13
Analysis Date: 01/30/13

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	36	U
PCB-1221	36	U
PCB-1232	36	U
PCB-1242	36	U
PCB-1248	36	U
PCB-1254	36	U
PCB-1260	36	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	61	%
Decachlorobiphenyl	51	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A. Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Sample cleanup was conducted according to SW-846 Method 3665A.

COMMENTS: Results are expressed on a dry weight basis.

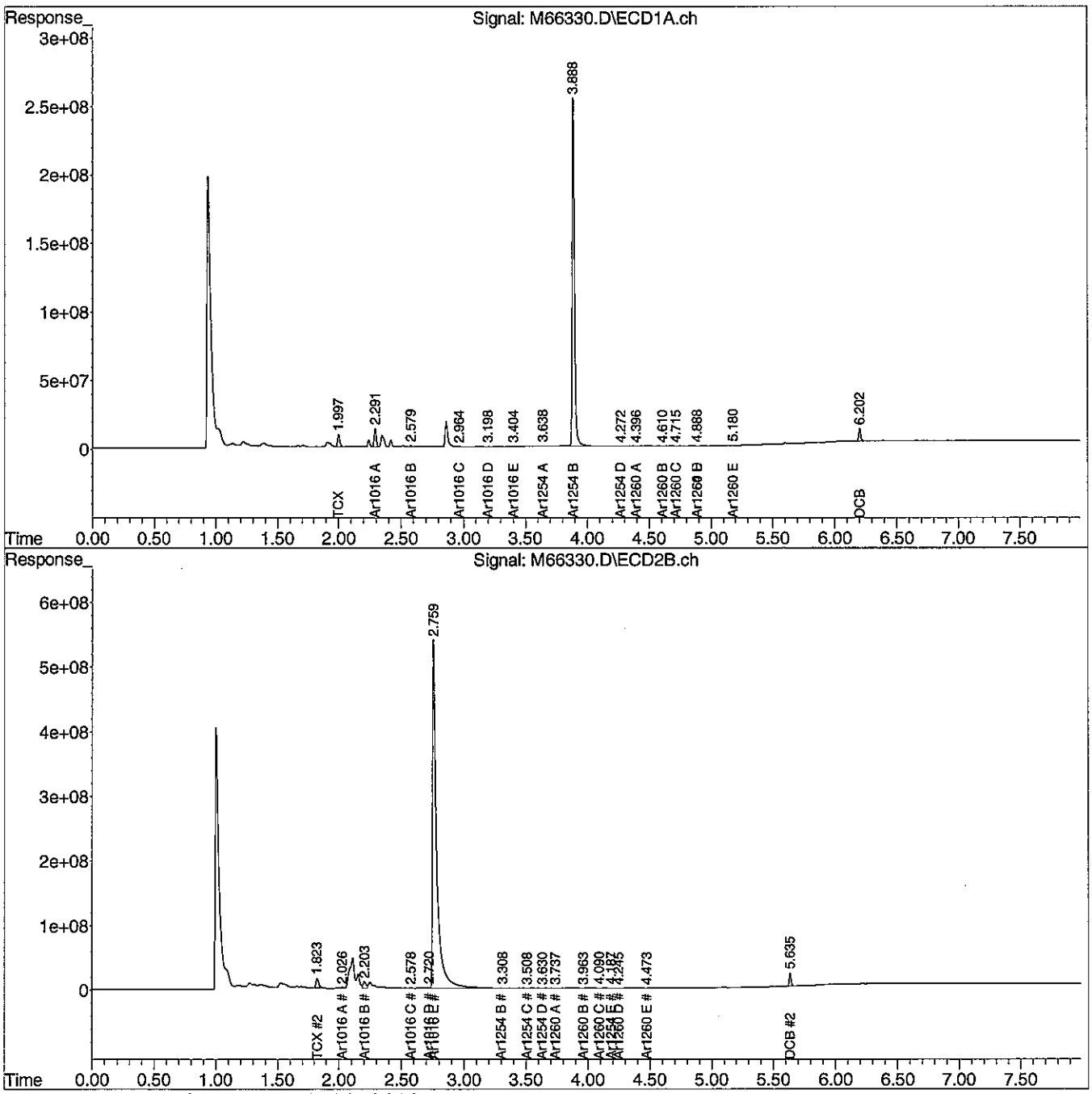
PCB Report

Authorized signature

Data Path : C:\msdchem\1\DATA\013013-M\
Data File : M66330.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 30 Jan 2013 11:19 am
Operator : JK
Sample : 74727-3,,A/C
Misc : SOIL
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Feb 05 12:14:55 2013
Quant Method : C:\msdchem\1\METHODS\PCB122612.M
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254
QLast Update : Tue Feb 05 12:14:30 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



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February 5, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019

Field Sample ID: SB10X-S3-012113

SAMPLE DATA

Lab Sample ID: 74727-4
Matrix: Solid
Percent Solid: 71
Dilution Factor: 1.3
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Extraction Date: 01/28/13
Analysis Date: 01/30/13

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	43	U
PCB-1221	43	U
PCB-1232	43	U
PCB-1242	43	U
PCB-1248	43	U
PCB-1254	43	U
PCB-1260	43	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	73	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A. Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Sample cleanup was conducted according to SW-846 Method 3665A.

COMMENTS: Results are expressed on a dry weight basis.

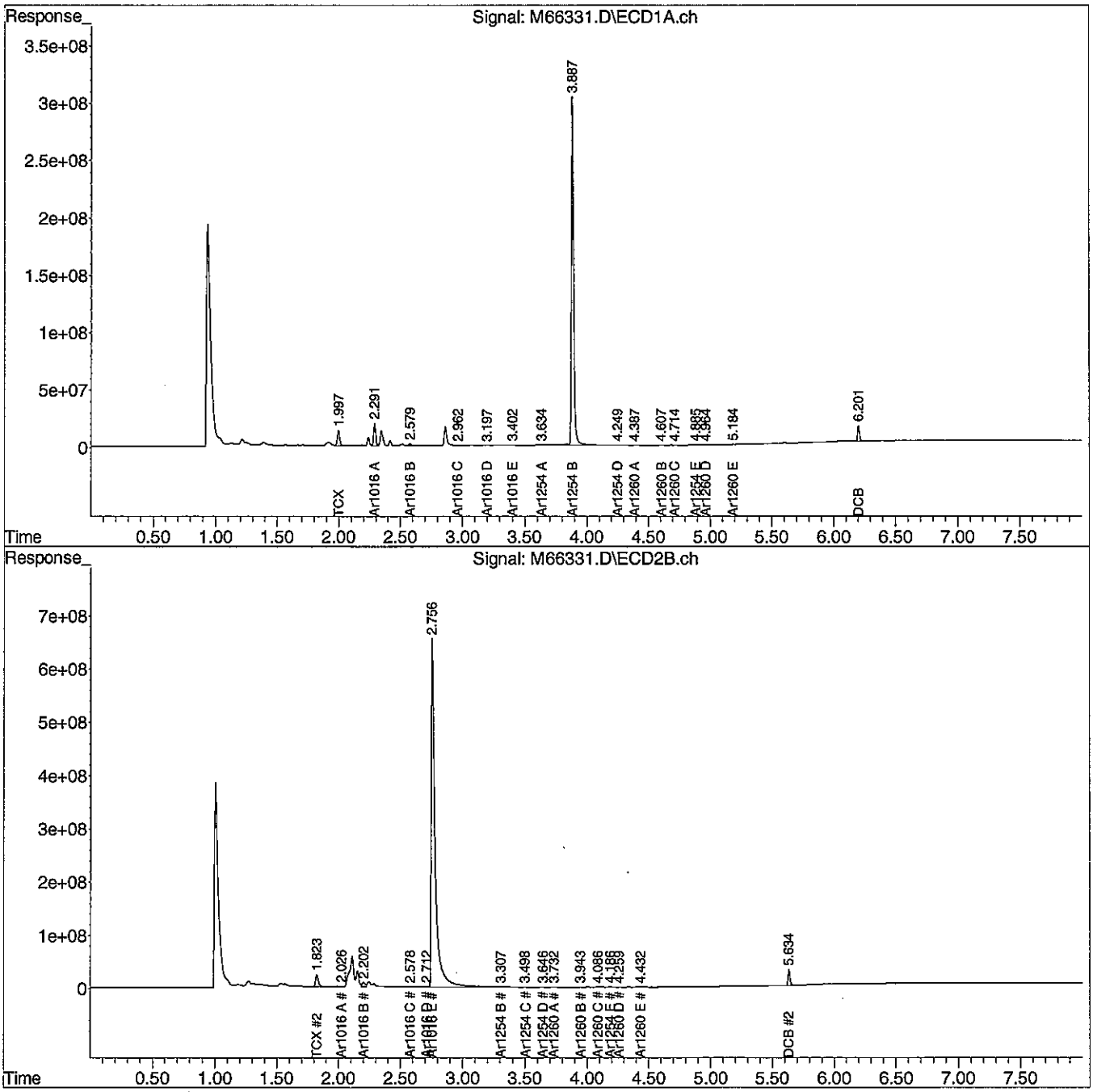
PCB Report

Authorized signature

Data Path : C:\msdchem\1\DATA\013013-M\
Data File : M66331.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 30 Jan 2013 11:29 am
Operator : JK
Sample : 74727-4,,A/C
Misc : SOIL
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Feb 05 12:14:57 2013
Quant Method : C:\msdchem\1\METHODS\PCB122612.M
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254
QLast Update : Tue Feb 05 12:14:30 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



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PCB
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:PCBQC.doc

analytics environmental laboratory LLC

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800-929-9906

Mr. Erik Phenix
Ransom Consulting, Inc.
400 Commercial Street Suite 404
Portland, ME 04101

February 5, 2013

CLIENT SAMPLE ID

Project Name: Whitings Axe Factory

Project Number: 111.06134.019

Field Sample ID: Lab QC

SAMPLE DATA

Lab Sample ID: B012813PSOX RR
Matrix: Soil
Percent Solid: 100
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 01/28/13
Analysis Date: 01/30/13

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	82	%
Decachlorobiphenyl	74	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A. Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C. Sample cleanup was conducted according to SW-846 Method 3665A.

COMMENTS: Results are expressed on a dry weight basis.

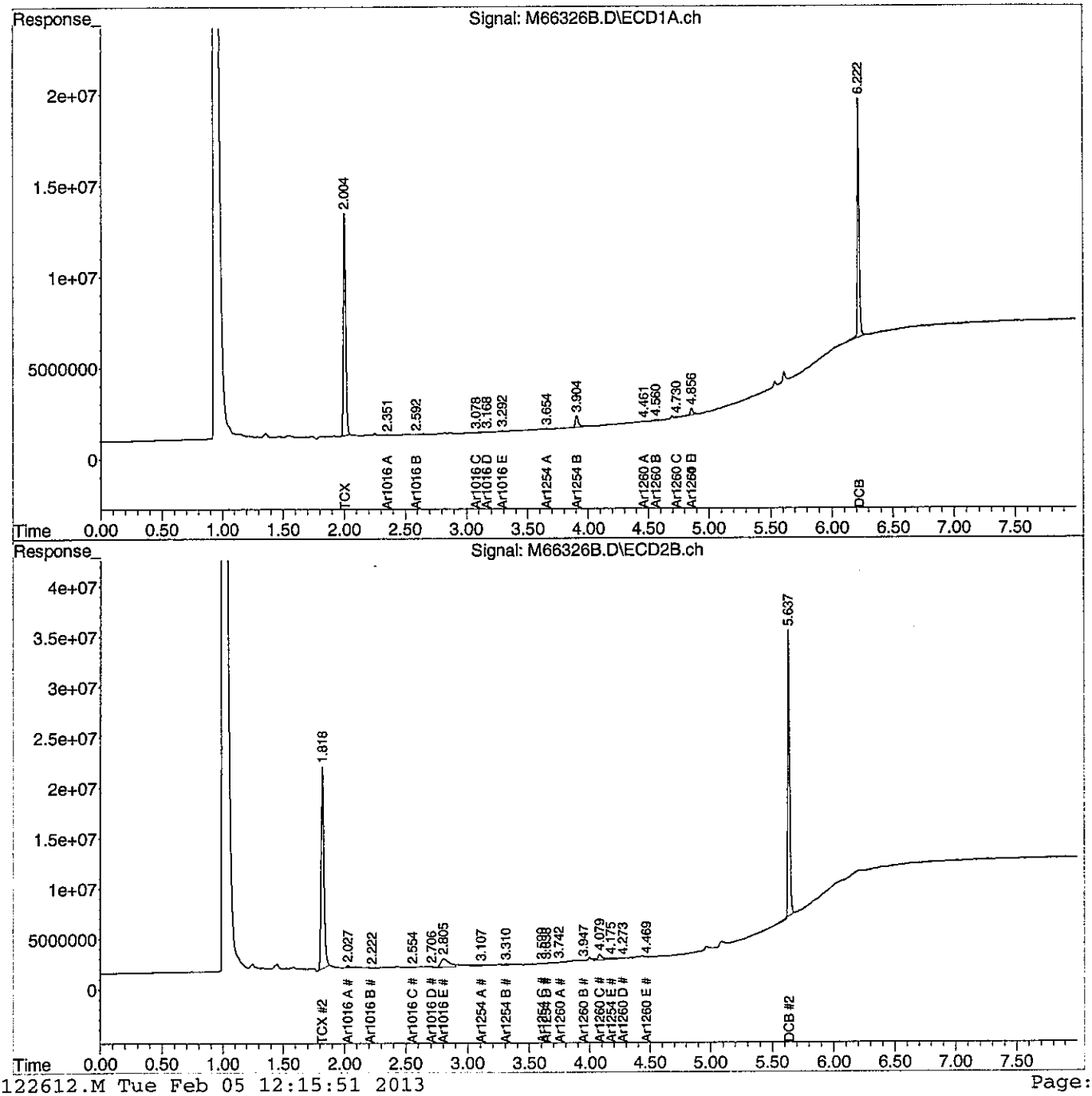
PCB Report

Authorized signature

Data Path : C:\msdchem\1\DATA\013013-M\
Data File : M66326B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 30 Jan 2013 10:38 am
Operator : JK
Sample : B012813PSOX,RR,,A/C
Misc : SOIL
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Feb 05 12:14:47 2013
Quant Method : C:\msdchem\1\METHODS\PCB122612.M
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254
QLast Update : Tue Feb 05 12:14:29 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



PCB SOIL
SYSTEM MONITORING COMPOUNDS
SUMMARY

Instrument ID: M
GC Column #1: STX-CLPesticides I
Column ID: 0.25 mm
GC Column #2: STX-CLPesticides II
Column ID: 0.25 mm

SDG: 74727

	Column #1				Column #2			
SAMPLE ID	SMC 1 (%)	#	SMC 2 (%)	#	SMC 1 (%)	#	SMC 2 (%)	#
B012813PSOX,RR,,A/C	82		74		80		79	
L012813PSOX,RR,,A/C	84		73		82		82	
LD012813PSOX,RR,,A/C	85		72		83		84	
74727-2,,A/C	77		67		76		74	
74727-3,,A/C	61		51		60		56	
74727-4,,A/C	92		73		91		83	

		Lower Limit	Upper Limit
SMC #1 =	TCX	40	130
SMC #2 =	DCB	40	130

\# Column to be used to flag recovery values outside of QC limits
* Values outside QC limits
D System Monitoring Compound diluted out

PCB SOIL
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG:

Non-spiked sample: B012813PSOX,RR,,A/C

Spike: L012813PSOX,RR,,A/C

Spike duplicate: LD012813PSOX,RR,,A/C

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
PCB 1016	200	200	65	140	30	0	169	85		173	87		2.4	
PCB 1260	200	200	60	130	30	0	168	84		171	86		2.3	
PCB 1016 #2	200	200	65	140	30	0	166	83		177	88		6.4	
PCB 1260 #2	200	200	60	130	30	0	203	102		207	103		1.8	

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

_____

METALS
DATA SUMMARIES

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151

Client: Ransom Consulting, Inc.
Project name: Whitings Axe Factory
Project NO: 111.06134.019

Sample ID: BK1

Report Date: 01/29/2013

SDG ID: 74727
Lab ID: 74727-1
Date Sampled: 01/21/13
Date Received: 01/24/13
Matrix: Solid
% Solid: 45
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	8.4		mg/Kg	1.1	2.1	01/28/13	01/29/13	TD	1.00
Cadmium (Total)	U		mg/Kg	0.54	1.1	01/28/13	01/29/13	TD	1.00
Chromium (Total)	31		mg/Kg	0.81	1.6	01/28/13	01/29/13	TD	1.00
Lead (Total)	72		mg/Kg	0.27	0.54	01/28/13	01/29/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revsion 3 February 2007.
Preparation: SW-846 3050B

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151

Client: Ransom Consulting, Inc.
Project name: Whitings Axe Factory
Project NO: 111.06134.019

Sample ID: SB103-S1-012113

Report Date: 01/29/2013

SDG ID: 74727
Lab ID: 74727-2
Date Sampled: 01/21/13
Date Received: 01/24/13
Matrix: Solid
% Solid: 76
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	10		mg/Kg	0.56	1.1	01/28/13	01/29/13	TD	1.00
Cadmium (Total)	0.28	J	mg/Kg	0.28	0.56	01/28/13	01/29/13	TD	1.00
Chromium (Total)	34		mg/Kg	0.42	0.83	01/28/13	01/29/13	TD	1.00
Lead (Total)	129		mg/Kg	0.14	0.28	01/28/13	01/29/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revsion 3 February 2007.
Preparation: SW-846 3050B

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Client: Ransom Consulting, Inc.
Project name: Whitings Axe Factory
Project NO: 111.06134.019

Sample ID: SB102-S3-012113

Report Date: 01/29/2013

SDG ID: 74727
Lab ID: 74727-3
Date Sampled: 01/21/13
Date Received: 01/24/13
Matrix: Solid
% Solid: 89
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	27		mg/Kg	0.45	0.91	01/28/13	01/29/13	TD	1.00
Cadmium (Total)	0.25	J	mg/Kg	0.23	0.45	01/28/13	01/29/13	TD	1.00
Chromium (Total)	26		mg/Kg	0.34	0.68	01/28/13	01/29/13	TD	1.00
Lead (Total)	7.5		mg/Kg	0.11	0.23	01/28/13	01/29/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revsion 3 February 2007.
Preparation: SW-846 3050B

analytics environmental laboratory LLC

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Portsmouth, New Hampshire 03801
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Client: Ransom Consulting, Inc.
Project name: Whitings Axe Factory
Project NO: 111.06134.019

Sample ID: SB10X-S3-012113

Report Date: 01/29/2013

SDG ID: 74727
Lab ID: 74727-4
Date Sampled: 01/21/13
Date Received: 01/24/13
Matrix: Solid
% Solid: 71
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	20		mg/Kg	0.7	1.4	01/28/13	01/29/13	TD	1.00
Cadmium (Total)	U		mg/Kg	0.35	0.7	01/28/13	01/29/13	TD	1.00
Chromium (Total)	28		mg/Kg	0.52	1	01/28/13	01/29/13	TD	1.00
Lead (Total)	24		mg/Kg	0.17	0.35	01/28/13	01/29/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revsion 3 February 2007.
Preparation: SW-846 3050B

analytics environmental laboratory LLC

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Client: Ransom Consulting, Inc.
Project name: Whitings Axe Factory
Project NO: 111.06134.019

Sample ID: MW101

Report Date: 01/28/2013

SDG ID: 74727
Lab ID: 74727-5
Date Sampled: 01/23/13
Date Received: 01/24/13
Matrix: Aqueous
% Solid: NA
Method: 6010C
Preparation: 3005A

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	0.025		mg/L	0.004	0.008	01/25/13	01/28/13	TD	1.00
Cadmium (Total)	U		mg/L	0.002	0.003	01/25/13	01/28/13	TD	1.00
Chromium (Total)	0.017		mg/L	0.008	0.015	01/25/13	01/28/13	TD	1.00
Lead (Total)	0.007		mg/L	0.003	0.005	01/25/13	01/28/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revsion 3 February 2007.
Preparation: SW-846 Method 3005A

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
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Client: Ransom Consulting, Inc.
Project name: Whitings Axe Factory
Project NO: 111.06134.019

Sample ID: MW10X

Report Date: 01/28/2013

SDG ID: 74727
Lab ID: 74727-6
Date Sampled: 01/23/13
Date Received: 01/24/13
Matrix: Aqueous
% Solid: NA
Method: 6010C
Preparation: 3005A

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	U		mg/L	0.004	0.008	01/25/13	01/28/13	TD	1.00
Cadmium (Total)	U		mg/L	0.002	0.003	01/25/13	01/28/13	TD	1.00
Chromium (Total)	U		mg/L	0.008	0.015	01/25/13	01/28/13	TD	1.00
Lead (Total)	0.003	J	mg/L	0.003	0.005	01/25/13	01/28/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revsion 3 February 2007.
Preparation: SW-846 Method 3005A

analytics environmental laboratory LLC

METALS
QC FORMS

AEL_Documents:_TopLevelOldServer:AEL Documents LLC:Pkg Dividers:METALSQC.doc

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151

Client: Ransom Consulting, Inc.
Project name: Whitings Axe Factory
Project NO: 111.06134.019

Sample ID: Lab QC

Report Date: 01/28/2013

SDG ID: 74727
Lab ID: B012513MW
Date Sampled: NA
Date Received: NA
Matrix: Aqueous
% Solid: NA
Method: 6010C
Preparation: 3005A

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	U		mg/L	0.004	0.008	01/25/13	01/28/13	TD	1.00
Cadmium (Total)	U		mg/L	0.002	0.003	01/25/13	01/28/13	TD	1.00
Chromium (Total)	U		mg/L	0.008	0.015	01/25/13	01/28/13	TD	1.00
Lead (Total)	U		mg/L	0.003	0.005	01/25/13	01/28/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revsion 3 February 2007.
Preparation: SW-846 Method 3005A

analytics environmental laboratory LLC

195 Commerce Way
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151

Client: Ransom Consulting, Inc.
Project name: MILL DAM
Project NO: 111.06134.017

Sample ID: Lab QC

Report Date: 01/29/2013

SDG ID: 74728
Lab ID: B012813MS
Date Sampled: NA
Date Received: NA
Matrix: Solid
% Solid: 100
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	U		mg/Kg	0.5	1	01/28/13	01/29/13	TD	1.00
Cadmium (Total)	U		mg/Kg	0.25	0.5	01/28/13	01/29/13	TD	1.00
Chromium (Total)	U		mg/Kg	0.38	0.75	01/28/13	01/29/13	TD	1.00
Lead (Total)	U		mg/Kg	0.13	0.25	01/28/13	01/29/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revsion 3 February 2007.
Preparation: SW-846 3050B

7-IN
Metals
Laboratory Control Sample
Laboratory Control Sample Duplicate
Percent Recovery

Method: 6010C
Matrix: Aqueous
Date Analyzed: 1/28/2013

SDG: 74727
Non-spiked Sample B012513MW
Spike: L012513MW
Spike Duplicate: LD012513MW

Analyte	Spike added	LCS Result	Unit	% Rec	% Rec Limits
Arsenic	0.5	0.5132	mg/L	103%	80-120
Cadmium	0.5	0.4925	mg/L	99%	80-120
Chromium	0.5	0.5001	mg/L	100%	80-120
Lead	0.5	0.4946	mg/L	99%	80-120

Analyte	Spike added	LCSD Result	Unit	% Rec	% Rec Limits	RPD	RPD Limit
Arsenic	0.5	0.5203	mg/L	104%	80-120	1%	20
Cadmium	0.5	0.4947	mg/L	99%	80-120	0%	20
Chromium	0.5	0.5016	mg/L	100%	80-120	0%	20
Lead	0.5	0.5034	mg/L	101%	80-120	2%	20

7-IN
Metals
Laboratory Control Sample
Laboratory Control Sample Duplicate
Percent Recovery

Method: 6010C
Matrix: Solid
Date Analyzed: 1/29/2013

SDG: 74727
Non-spiked Sample B012813MS
Spike: L012813MS
Spike Duplicate: LD012813MS

Analyte	Spike added	LCS Result	Unit	% Rec	Low Limit	High Limit
Arsenic	71.7	64.1	mg/kg	89%	12	131
Cadmium	44.4	37.6	mg/kg	85%	32.4	64.2
Chromium	39	36.4	mg/kg	93%	25.6	55.4
Lead	46.9	39.4	mg/kg	84%	29.4	64.4

Analyte	Spike added	LCSD Result	Unit	% Rec	Low Limit	High Limit	RPD	RPD Limit
Arsenic	71.7	67.5	mg/kg	94%	12	131	5%	20
Cadmium	44.4	40.8	mg/kg	92%	32.4	64.2	8%	20
Chromium	39	39.6	mg/kg	101%	25.6	55.4	8%	20
Lead	46.9	42.1	mg/kg	90%	29.4	64.4	7%	20

CHAIN OF CUSTODIES

Chain Of Custody Form

analytics environmental laboratory LLC
195 Commerce Way, Suite E
Portsmouth, NH 03801
(800) 929-9906
(603) 436-5111
(603) 430-2151 Fax

Project Name: Whitings Axe Factory
Project#: 111.06134.019
Company: Ransom Consulting
Report to: Erik Phenix / Peter Shaw
Address: 400 Commercial St., Suite 400
Portland, ME 04101
Phone: 207-772-2891
Quote #:
PO# (if required): 4976

Preservation Code: Please fill in preservation code here

Preseravtion Key:
A= HCL
B= 4°C
C= Unpres
D = MeOH
E = HNO3
F = H2SO4
G = Hexane
H = Other

Circle and/or Write Required Analysis Followed by Preservation Code

Sample Identification	Sample Date	Sample Time	Field Filtered? Y or N	VOC: 8260 524.2 624	SVOC: 8270 625 PAH only SIM	Pesticides: 8081 608 PCB: 8082 608	Soxhlet? Y or N	TPH: 8015 (Gas Range) ME4217	TPH: 8015 (Diesel Range) 8100M ME4125	EPH: Full or Ranges only TETPH	VPH: Full or Ranges only	Metals: RCRA8 PP13 TAL23 Other**	Matrix	No. of Containers	pH checked	Analytics Sample #
BK1	1/21/13	900								X		X	S	1		74727-1
SB103-S1-012113	1/21/13	1000		X		X				X	X	X	S	5		-2
SB102-S3-012113	1/21/13	1030		X		X				X	X	X	S	5		-3
SB10X-S3-012/13	1/21/13	1030		X		X				X	X	X	S	5		-4
MW101	1/23/13	900	Y	X						X	X	X	GW	8	1.5/X	-5
MW10X	1/23/13	900	Y	X						X	X	X	GW	8	1.5/1.5	-6

For Analytics Use Only
Samples were:
1) Shipped or hand-delivered
2) Temperature (°C): 1-2°
3) Received in good condition: (Y) or N
4) pH checked by: JBB 1/24/13
5) Labels checked by: KEJ 1/24/13

Matrix Key:
C = Concrete
WP = Wipe
WW = Wastewater
SW = Surface Water
E = Extract
GW = Groundwater
DW = Drinking Water
S = Soil / Sludge
O = Oil
X = Other

Email Results to:
ephenix@ransomenv.com
peter.shaw@ransomenv.com

Turnaround Time (TAT)
- [ ] 1 Day*
- [ ] 2 Days*
- [ ] 3 Days*
- [ ] 4 Days*
- [ ] 5 Days
- [x] Standard (8-10 business days)

*Fee may apply; lab approval required

Comments, Additional Analyses, or Special Instructions: ** List requested metals here
MEDEP/USEPA Brownfields Project
Metals: Please analyze for Arsenic (As), Cadmium (Cd) Chromium (Cr) + Lead (Pb) only.
*Initial pH was 5.0, added 1/2 pipette of 1:1 HNO3 for final pH of 1.0 JBB 1/24/13

Please note: For volatile analyses, a trip blank has been provided in the cooler. If you want the trip blank run and reported please write the trip blank on the COC. Trip Blank analyses will be charged unless other arrangements have been made.

Project Requirements:
*Fee may apply

Report Type:
- [ ] MCP*
- [x] Level II*
- [ ] CTRCP*
- [ ] Level III*
- [ ] DOD*
- [ ] Level IV*
- [ ] Standard

State:
- [ ] NH
- [ ] MA
- [x] ME
- [ ] CT
- [ ] RI
- Other:

State Standard: MEDEP RAGs (eg. S-1 or GW-1)
EDD Required: (Y*) N
Type: MEDEP

Sampler Name (Print): Aaron Martin

	Date	Time	Received By
Relinquished By Sampler:	1/24/13	950	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Page 1 of 1

ANALYTICS SAMPLE RECEIPT CHECKLIST

analytics environmental laboratory LLC

AEL LAB#: 74727 COOLER NUMBER: 98è306è25

CLIENT: Ransom NUMBER OF COOLERS: 3

PROJECT: Whitings Axe Factory

A: PRELIMINARY EXAMINATION:

1. Cooler received by(initials): KS DATE COOLER RECEIVED/OPENED: 1/24/13

2. Circle one: Hand delivered (If so, skip 3) Shipped

3. Did cooler come with a shipping slip? Y (N/A)

3a. Enter carrier name and airbill number here: _____

4. Were custody seals on the outside of cooler? Y (N)
How many & where: _____ Seal Date: _____ Seal Name: _____

5. Did the custody seals arrive unbroken and intact upon arrival? Y (N/A)

6. COC#: _____

7. Were Custody papers filled out properly (ink,signed, legible, project information etc)?	(Y)	N
8. Were custody papers sealed in a plastic bag?	(Y)	N
9. Did you sign the COC in the appropriate place?	(Y)	N
10. Was enough ice used to chill the cooler? (Y) N Temp. of cooler: 1-2°C		

B. Log-In: Date samples were logged in: 1/24/13 By: KB

11. Were all bottles sealed in separate plastic bags?	(Y)	N
12. Did all bottles arrive unbroken and were labels in good condition?	(Y)	N
13. Were all bottle labels complete(ID,Date,time,etc.)	(Y)	N
14. Did all bottle labels agree with custody papers?	(Y)	N
15. Were the correct containers used for the tests indicated:	(Y)	N
16. Were samples received at the correct pH?	Y	(N) see COC
17. Was sufficient amount of sample sent for the tests indicated?	(Y)	N
18. Were all samples submitted within holding time?	(Y)	N
19. Were all containers used within AEL 's expiration date?**	(Y)	N
20. Were VOA samples absent of greater than pea-sized bubbles? (Note:Pea-sized bubbles or smaller are acceptable and are not considered to adversely affect volatiles data.)	(Y)	N*

*If NO, List Sample ID's, Lab #s: _____

When bubbles are present in VOA samples they are labelled from smallest (or no bubbles) to largest. Lab to analyze VOA samples with no bubbles or smallest bubbles first

20. Laboratory labeling verified by (initials): KB Date: 01/24/13

**The expiration date is recommended by Analytics Environmental Laboratory and not the method. Therefore this does not mean that the results are non-compliant.

From: Eriksen Phenix <ephenix@ransomenv.com>
Subject: **RE: Whitings / 4th sample (74727)**
Date: January 24, 2013 12:31:49 PM EST
To: Kate Zaleski <kzaleski@analyticslab.com>, Aaron Martin <amartin@ransomenv.com>

Hi Kate

Please analyze sample SB10X-S3-012113 for PCBs by 8082 with soxhlet. Sorry for the confusion.

Thanks,
-Erik

From: Kate Zaleski [mailto:kzaleski@analyticslab.com]
Sent: Thursday, January 24, 2013 11:56 AM
To: Aaron Martin; Eriksen Phenix
Subject: Whitings / 4th sample (74727)

Hi guys,
The 4th soil sample on COC, do you need PCB or no PCB? Its unclear.

Thanks,
Kate

Kate Zaleski
Project Manager
Analytics Environmental Laboratory, LLC
195 Commerce Way Suite E
Portsmouth, NH 03801
800-929-9906 | 603-436-5111