

**PHASE II ENVIRONMENTAL SITE ASSESSMENT
MASON DAM
TAX MAP 23, LOTS 9A & 12
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 Mason Dam property identified as Lots 9A & 12 on the City of Belfast Assessor's Tax Map 23 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 is identified by the City of Belfast Assessor's Office as Lots 9A and 12 on Tax Map 23 and consists of an approximate 2.8-acre, irregular-shaped parcel of land (Lot 9A), located along the southwestern corner of the intersection of Swan Lake Avenue (Route 141) and Staples Road (discontinued) and an approximate 0.03-acre, triangular-shaped parcel of land (Lot 12), located on the western side of Swan Lake Avenue, across from the Mason Dam. The Site is currently improved with one building (the "Turbine House"), which contains two turbines and generators that were formerly utilized for hydroelectric power generation and a water penstock. The Site is also improved with a crushed gravel driveway/parking area, a dug-channel tail race, and a snowmobile/ATV trail and wooden bridge. Remaining portions of the Site consist of undeveloped wooded land and/or overgrown vegetated land. The Site is currently serviced with electricity and municipal water is available to the Site.

The Site was originally developed circa 1895 as the Upper Mill of the Sherman & Company Leather Board Factory. Mason Dam was constructed at that time and utilized for hydroelectric power generation for the factory, until a majority of former Site buildings were destroyed by a fire in 1944. The Site was then utilized solely for hydroelectric power generation until 2009, and has remained vacant to the present date. The Site is proposed to be redeveloped for continued commercial hydroelectric power generation use.

A Phase I ESA, dated July 10, 2012, was completed by Ransom, which identified *Recognized Environmental Conditions (RECs)* associated with the former industrial uses of the Site, including operation as a leather board factory and hydroelectric power generation facility. These *RECs* have the potential to have impacted soil and/or groundwater 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, discussed herein.

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 continued commercial hydroelectric power generation use. 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. Wipe samples for polychlorinated biphenyl (PCB) analysis were also collected from hydraulic oil-stained areas inside the Turbine House. Furthermore, a Hazardous Materials Inventory (HMI) of suspect hazardous building materials including asbestos, lead-based paint, universal wastes, and other potentially hazardous building materials at the Turbine House and water penstock was also conducted concurrently with our Phase II investigation.

Based on the results of our Phase II ESA program, no evidence of gross soil contamination was observed at the Site, associated with former leather board factory industrial use or hydroelectric power generation at the Site. Ransom 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. However, surficial soils at the Site were identified to contain urban fill, including ash and bricks. The presence of these urban fill materials are likely associated with former industrial uses, historic fires, and/or anthropogenic coal combustion by-product disposal at the Site.

Laboratory analysis of the surficial soil sample containing urban fill materials indicate that these soils contain elevated concentrations of arsenic and lead (metals) and low-level concentrations of semi-volatile petroleum hydrocarbons and target polycyclic aromatic hydrocarbons (PAHs). The concentrations of arsenic and lead detected in urban fill-impacted surficial soils exceed their applicable 2013 MEDEP Remedial Action Guidelines (RAGs) for the “Outdoor Worker” exposure scenario. Cadmium and chromium were also detected at low concentrations in soil samples collected throughout the Site. However, except for lead, the concentrations of these metals in the surficial and/or subsurface soil samples appear to be consistent with naturally occurring area-wide background concentrations identified during investigations conducted at other sites along the Goose River, concurrent with this investigation. Therefore, the presence of arsenic, cadmium, and chromium in Site soils are not likely the result of unknown and/or unreported OHM releases, associated with former/historical Site operations as a leather board factory or hydroelectric power generation, and are not likely to represent an exposure risk, if the property continues to be commercially used for hydroelectric power generation purposes.

Based on the elevated concentrations of lead detected in surficial and subsurface soil samples throughout the Site, it is inferred that surficial soils at the location of the former leather board factory represents a potential “hot spot” of lead-impacted soils at the Site. Based on the detected concentration of lead, these soils would likely need to be properly managed during future Site redevelopment activities. Furthermore, supplemental laboratory analysis of the lead-impacted soil samples for Toxicity Characteristic Leaching Procedure (TCLP) indicates that the detected lead in these soils is leachable.

Low level concentrations of volatile petroleum constituents were identified in groundwater adjacent to the Mason Dam, which are likely associated with *de minimis* gasoline spills from automobile parking and/or recreational uses at the Site [i.e., snowmobiles, all terrain vehicles (ATVs), etc.]. The presence of these *de minimis* volatile petroleum constituents does not appear to be associated with former industrial uses or prior hydroelectric power generation at the Site.

The HMI identified asbestos-containing material (ACM) coating/covering the water penstock and potential PCB-containing fluorescent light ballasts, and mercury-containing fluorescent light tubes inside the Turbine House that will need to be properly removed and/or addressed during future Site redevelopment. PCBs were not detected above laboratory detection limits or their respective regulatory guidelines in the wipe samples collected from areas of hydraulic oil-stained building surfaces inside the Turbine House.

Based on the findings and information obtained during this Phase II ESA, Ransom concludes that additional environmental investigation are not warranted at this time and recommends the following with respect to the existing environmental conditions at the Site and the proposed Site redevelopment:

1. The results of this Phase II ESA completed for the Site, including the HMI, should be submitted to the MEDEP Voluntary Response Action Program (VRAP). The MEDEP VRAP is a voluntary program that offers technical review of environmentally-impacted sites and ultimately provides state liability protections for interested parties, including a “No Action Assurance” (NAA) letter and a “Certificate of Completion” letter (i.e. no further action required), provided that proper and appropriate environmental cleanup or remedial actions are completed, as approved by the MEDEP.

As a condition of approval, the NAA letter should require a deed restriction and/or institutional controls in the form of a Declaration of Environmental Covenant (DEC) in order to potentially restrict/prohibit extraction of groundwater at the Site and excavation of impacted soils remaining at the Site following additional cleanup actions, if necessary, without proper MEDEP notification/approvals and implementation of a Soil Management Plan and Health and Safety Plan. The NAA should also require that additional environmental cleanup and abatement of the identified hazardous building materials be conducted prior to or during future Site renovation and/or redevelopment activities. A deed restriction may also be required to limit the future use of the Site to commercial and/or industrial uses.

2. The risk of human exposure to elevated concentrations of metals (specifically lead) identified in surficial soils at concentrations exceeding their respective MEDEP RAGs and background concentrations should be mitigated. As such, Ransom recommends the completion of an Analysis of Brownfields Cleanup Alternatives (ABCA) and Conceptual Remedial Action Plan (RAP) or Focused Feasibility Study (FFS) to evaluate and select the most appropriate cleanup or remedial action(s) for the Site. Soil mitigation measures to prevent exposure to identified contamination and potential migration of contaminants may include, but are not limited to, metal stabilization technology to prevent potential leaching of metals into the subsurface and/or engineering controls consisting of the placement of a low-permeable or impermeable soil cover system or other barrier system (e.g., pavement, concrete, building foundations) to prevent direct dermal contact with the identified contaminated soils and/or limited excavation to remove and properly dispose of the identified soils. Additional contaminant delineation or confirmatory sampling may also be necessary, prior to or during implementation of the selected remedial action.
3. Prior to renovation and/or demolition of the Turbine House or water penstock, identified hazardous building materials should be properly removed and/or addressed according to the recommendations provided in our HMI report, which was prepared concurrently with this Phase II ESA. The ABCA/RAP or FFS should also address alternatives for mitigating exposure risks to the hazardous building materials identified at the Site during the completion of the HMI.

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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 Mason Dam property identified as Lots 9A and 12 on the City of Belfast Assessor's Tax Map 23 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. 23), 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 industrial uses of the Site, including operation as a leather board factory and hydroelectric power generation facility. These *RECs* have the potential to have impacted soil and/or groundwater 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 redeveloped for continued hydroelectric power generation use.

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 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 is identified by the City of Belfast Assessor's Office as Lots 9A and 12 on Tax Map 23 and consists of an approximate 2.8-acre, irregular-shaped parcel of land (Lot 9A) located along at the southwestern corner of the intersection of Swan Lake Avenue (Route 141) and Staples Road (discontinued) and an approximate 0.03-acre, triangular-shaped parcel of land (Lot 12) located on the western side of Swan Lake Avenue across from the Mason Dam. Refer to Figures 1 and 2, Site Location Map and Site Plan, for the layout of the Site and adjoining properties.

Based on available information, the Site was originally developed circa 1895 as the Upper Mill of the Sherman & Company Leather board Factory. Mason Dam was constructed at that time and utilized for hydroelectric power generation for the factory until a majority of former Site buildings were destroyed by a fire that occurred at the Site in 1944. The Site was then utilized solely for hydroelectric power generation until 2009 and has remained vacant to the present date.

The Site is currently improved with one building (the "Turbine House"), which contains two turbines and generators that were formerly utilized for hydroelectric power generation and a water penstock. The Site is also improved with a crushed gravel driveway/parking area, a dug-channel tail race, and a snowmobile/ATV trail and wooden bridge. Remaining portions of the Site consist of undeveloped wooded land and/or overgrown vegetated land. The Site is currently serviced with electricity and municipal water is available to the Site.

During our Phase I ESA reconnaissance, Ransom observed two 5-gallon containers of hydraulic oil and approximately ten miscellaneous-sized containers (i.e., less than 5-gallons) of insecticide, soaps, and caulk stored on the floors and shelves in the Turbine House. No staining and/or leakage, indicative of a release of OHM, was observed in connection with these containers during our reconnaissance; however, oil staining was observed at various locations in the Turbine House, which is likely associated with oil-containing machines in the building.

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 one *Recognized Environmental Condition (REC)* listed in the report was appropriate and inclusive based on the data presented, as stated: Former industrial uses of the Site, including operation as a leather board factory and hydroelectric power generation facility, have the potential to have impacted soil and/or groundwater conditions at the Site.

Based on the findings of our Phase I ESA, it was Ransom's opinion that additional investigation was warranted to address the above-stated *REC*, document current Site conditions in relation to current regulatory cleanup guidelines, and evaluate the suitability of the Site property for redevelopment. In addition to those items and findings discussed above, certain potentially hazardous building materials were identified in connection with the Turbine House that will require abatement or disposal as a special waste if they are disturbed during building renovation/demolition. These materials include suspect asbestos-containing materials, lead-based paint, polychlorinated biphenyls (PCBs), and/or mercury-containing fluorescent lamps. Ransom recommended that a Hazardous Materials Inventory (HMI) also be conducted in conjunction with the Phase II ESA.

2.3 AREAS OF CONCERN

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

AOC 1–Site Property on South Side of Goose River (Former Industrial & Hydroelectric Power Generation Use of Site)

AOC 1 encompasses the portion of the Site located on the south side of the Goose River. Former industrial uses of the Site, including operation as a leather board factory and hydroelectric power generation facility, may 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 and hydroelectric operations at the Site.

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), 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 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–Turbine House (Oil-Stained Building Surfaces)

AOC 2 encompasses the Turbine House. The objective for investigating AOC 2 was to assess areas of oil-stained interior building surfaces (e.g., stained floors and walls associated with oil-containing machines in the building). Due to the approximate age of these former machines in relation to Site development (circa 1895), it is possible that PCBs may have been added to the oils that were utilized by these machines.

Specific COC analytical parameters include PCBs, which would likely be detected in building wipe samples collected from interior oil-stained walls and floors. PCBs may also be present in various caulking compounds associated with the Turbine House. Potential exposure routes associated with the COCs in this AOC include direct contact with impacted building components and ingestion of contaminated dust, particularly during construction activity at the Site.

Hazardous Building Materials

Hazardous building materials, such as asbestos, lead paint, and universal wastes also represent potential health risks to future site occupants if the Turbine House and/or the water penstock is to be renovated or demolished. In order to address these concerns, a HMI was conducted in conjunction with the Phase II ESA activities, as further discussed below.

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. Wipe samples for PCB analysis were also collected from hydraulic oil-stained areas inside the Turbine House. Soil boring, monitoring well, and wipe sample locations are shown on Figure 2.

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 3 to 9 feet bgs.

Deviations from the SSQAPP, included the addition of soil borings B104 through B111 to further evaluate the extent of urban fill soils containing elevated lead concentrations. These soil borings were advanced by Ransom personnel utilizing hand tools (i.e., shovel and pick axe) on May 30, 2013.

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.

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.

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. 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 laboratory analysis. Soil samples were submitted for chemical analysis for a combination of parameters based on the nature of the suspected contaminant source as outlined in the AOCs described in Section 2.3, which included the following:

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.

A duplicate soil sample (SB10X) was collected from soil boring B101 and submitted for laboratory analysis for quality assurance/quality control (QA/QC) protocols as outlined in the SSQAPP.

Minor deviations from the SSQAPP included submittal of surficial soil samples collected from borings B101, B102, B104, B106, B108, B109, B110, and B111 and a subsurface soil sample collected from boring B103 for laboratory analysis of lead (metal) by U.S. EPA Method Series 6000/7000. Samples collected from borings B105 and B107 were not submitted for laboratory analysis, based on field screening results (refer to Table 1). As discussed in Section 4.4, significantly elevated concentrations of lead were detected in the surficial soil samples collected from borings B103, B104, and B110; therefore, soil samples from B103 and B110 were also submitted for leachable lead analysis by the Toxicity Characteristic Leaching Procedure (TCLP).

Temporary Groundwater Monitoring Well Installation

On January 21, 2013, one soil boring (B101) was completed as a temporary groundwater monitoring well (MW101). During advancement of this soil boring, groundwater was encountered at an approximate depth of 4 feet bgs. 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.

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 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. The groundwater sample was submitted 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. 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 QA/QC protocols as outlined in the SSQAPP.

Interior Wipe Sampling and Analytical Testing

During our Site reconnaissance, hydroelectric power generating equipment, including but not limited to turbines, generators, and switchboards were observed in the Turbine House. Due to the approximate age of this equipment in relation to Site development (circa 1895), it is possible that PCBs may have been added to the oils that were utilized by this equipment. Ransom observed oil staining at various locations in the Turbine House, which are likely associated with oil-containing machines in the building.

Based on this information, Ransom collected two wipe samples (WS101 and WS102) for laboratory analysis of PCBs from hydraulic oil-stained surface locations inside the Turbine House. A duplicate soil sample (WP10X) was collected from the wipe sample area of WP102 and submitted for laboratory analysis for QA/QC protocols as outlined in the SSQAPP.

3.1 BACKGROUND SAMPLES

In order to compare site-specific soil concentrations of metals and EPH with background soil conditions in the vicinity of the Site, two surficial soil samples (zero to two feet bgs) were collected from the northern side of the Goose River at the Site, which is presumed to be unaffected by the Site operations. The background soil samples (designated as BK-1 and BK-2) were 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 locations are shown on Figure 2.

The background soil samples were 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. Field screening results for concentrations of metals detected in background samples BK-1 and BK-2 are summarized in Table 1.

Although two background soil samples were collected, only one sample (BK-1) was submitted for laboratory analysis since the samples appeared to be similar in composition. 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 summarized in Table 2.

3.2 AOC 1—FORMER INDUSTRIAL & HYDROELECTRIC POWER GENERATION USE OF SITE

AOC 1 encompasses the portion of the Site located on the south side of the Goose River since former industrial uses of the Site, including operation as a leather board factory and hydroelectric power generation facility, may have impacted soil and/or groundwater conditions in this area. Contaminant sources and exposure pathways associated with AOC 1 are described in Section 2.3. In order to characterize current soil and groundwater conditions, three soil borings (B101 through B103) were advanced at the Site utilizing GeoProbe® direct-push technology and one of these soil borings (B101) was subsequently converted to a temporary groundwater monitoring well (MW101). Deviations from the SSAQPP, included the advancement of eight soil borings (B104 through B111) at the Site utilizing hand tools (i.e., shovel and pick axe) to further characterize the extent of urban fill soils containing elevated concentrations of lead.

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 6 feet bgs) collected from boring B101 for laboratory analysis of VOCs, VPH and EPH fractions, target PAHs, PCBs, and metals (arsenic, cadmium, chromium, and lead).

The groundwater sample collected from temporary monitoring well MW101 was also submitted for laboratory analysis of VOCs, VPH and EPH fractions, target PAHs, and dissolved metals (arsenic, cadmium, chromium, and lead).

Deviations from the SSAQPP included submittal of surficial soil samples (0-2 feet bgs) collected from borings B101, B102, B104, B106, B108, B109, B110, and B111 and a subsurface soil sample (4-8 feet bgs) collected from boring B103 for laboratory analysis of lead (metal), as discussed in Section 4.4 of this report. Additionally, surficial soil samples collected from borings B103 and B110 were also submitted for TCLP-leachable lead analysis.

3.3 AOC 2–TURBINE HOUSE (OIL-STAINED BUILDING SURFACES)

AOC 2 encompasses the Turbine House. The objective for investigating AOC 2 was to assess whether areas of oil-stained interior building surfaces contain PCBs. Wipe sample (WS101) was collected from an area of hydraulic oil-stained wooden floor inside the building beneath the wall-mounted service station transformer. WS102 was collected from an area of hydraulic oil-stained concrete wall inside the building beneath a wall-mounted hydraulic oil reservoir tank.

3.4 HAZARDOUS BUILDING MATERIALS

As previously discussed, it is possible that ACM, LBP, PCB-containing light ballasts, and mercury-containing fluorescent lamps are present in the Turbine House and/or water penstock. Universal wastes, such as mercury-containing switches and fluorescent light bulbs, as well as, potential PCB-containing light ballasts were also observed in the Turbine House. In an effort to evaluate the potential for these hazardous building materials with respect to the identified COCs, Ransom conducted a HMI concurrent with our Phase II ESA investigation. Results of the HMI are summarized in Section 4.0 and are detailed in the full HMI report provided as Appendix C.

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. Indoor wipe sample analytical results are summarized in Table 5. Copies of the laboratory chemical analysis data reports are provided as Appendix B.

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 Sites Contaminated with Hazardous Substances;
- Remediation Guidelines for Petroleum Contaminated Sites in Maine;
- Maine Center for Disease Control (CDC) Maximum Exposure Guidelines (MEGs) for Drinking Water;
- USEPA Region 9 Regional Screening Levels (RSLs) for Soil; and
- Toxic Substances Control Act (TSCA) Standard for PCBs 40 CFR 761.61.

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 Sites Contaminated with Hazardous Substances*", dated May 10, 2013; and MEDEP's "*Remediation Guidelines for Petroleum Contaminated Sites in Maine*," dated November 20, 2009 (Petroleum Remediation Guidelines).

Since the Site is currently utilized and proposed to remain to be utilized for hydroelectric power generation, 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) exists 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 available to the Site and vicinity, Ransom utilized MEDEP BRWM's "*Petroleum Remediation Guidelines*" which includes the Maine Department of Human Services, MEGs to compare analytical results of groundwater samples collected at the Site in order 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.

Oil-Stained Building Surfaces

The analytical results of indoor wipe samples for PCB analysis were compared to their Toxic Substances Control Act (TSCA) Standard for High Occupancy Areas and Non-Porous Surfaces.

4.1 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 dark brown to brown sand and silt with varying amounts of gravel to depths ranging from 0 to 4 feet bgs. Shallow soils in some areas also contained urban fill constituents (i.e., bricks) and were underlain by native glacial/fluvial soils consisted of brown silt and fine sand with varying amounts of weathered rock to depths ranging from 2 to 9 feet bgs. Probe refusal (presumed bedrock) was encountered at depths ranging from 3 to 9 feet bgs. Groundwater was encountered at an approximate depth of 4 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.

4.2 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 2. 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 2, 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 2, arsenic, chromium, and lead were detected in the surficial (zero to two feet bgs) background soil sample (BK-1) at concentrations of 5.9, 33, and 29 milligrams per kilogram (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.

4.3 AREA-WIDE BACKGROUND DATA

Area-wide background data was collected during this investigation 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 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 DATA

Soil Sample Analytical Results

Volatile Organic Compounds

As shown in Table 3, VOCs were not detected in the subsurface soil sample collected from boring B101 or the surficial soil sample collected from boring B103 at concentrations above their respective laboratory detection limits.

Volatile Petroleum Hydrocarbons

As shown in Table 3, VPH fractions were not detected in the subsurface soil sample collected from boring B101 or the surficial soil sample collected from boring B103 at concentrations above their respective laboratory detection limits.

Extractable Petroleum Hydrocarbons

As shown in Table 3, one EPH fraction (C₁₉–C₃₆ aliphatics) was detected in the surficial soil sample collected from boring B103 at a concentration of 17.5 mg/kg, which did not exceed its MEDEP RAG for “Outdoor Commercial Worker” exposure scenario. No other EPH fractions were detected in the surficial soil sample collected from boring B103 at concentrations above their respective laboratory detection limits.

Additionally, EPH fractions were not detected in the subsurface soil sample collected from boring B101 at concentrations above their respective laboratory detection limits.

Target Polycyclic Aromatic Hydrocarbons

As shown in Table 3, two target PAHs (fluoranthene and pyrene) were detected in the surficial soil sample collected from boring B103 at estimated concentrations of 0.234 and 0.217 mg/kg, respectively. The concentrations of these target PAHs did not exceed their respective MEDEP RAGs for “Outdoor Commercial Worker” exposure scenarios. No other target PAHs were detected in the surficial soil sample collected from boring B103 at concentrations above their respective laboratory detection limits.

Additionally, target PAHs were not detected in the subsurface soil sample collected from boring B101 at concentrations above their respective laboratory detection limits.

Metals

Arsenic

As shown in Table 3, arsenic was detected at a concentration of 20 mg/kg in the surficial soil sample collected from boring B103. Although this arsenic concentration exceeds its site-specific background concentration (5.9 mg/kg) and its applicable MEDEP RAG for “Outdoor Commercial Worker” exposure scenario (4.2 mg/kg), it is consistent with area-wide background concentrations detected during this investigation at other properties along the Goose River.

Arsenic was also detected in the subsurface soil sample collected from boring B101 at a concentration of 18 mg/kg, which does not exceed its applicable MEDEP RAG for “Excavation/Construction Worker” exposure scenario.

Chromium

Chromium was detected in the subsurface soil sample collected from boring B101 and the surficial soil sample collected from boring B103 at concentrations of 111 and 54 mg/kg, respectively. These chromium concentrations did not exceed their MEDEP RAGs for “Outdoor Commercial Worker” or “Excavation/Construction Worker” exposure scenarios and are consistent with area-wide background concentrations of this metal.

Cadmium

Cadmium was detected in the surficial soil sample collected from boring B103 at an estimated concentration of 0.52 mg/kg, which did not exceed its MEDEP RAG for “Outdoor Commercial Worker” exposure scenarios and is consistent with area-wide background concentrations of this metal. Cadmium was not detected in the subsurface soil sample collected from boring B101 at a concentration above its laboratory detection limit.

Lead

Lead was detected in the surficial and/or subsurface soil samples collected from B101, B102, B103, B106, B108, B109, and B111 at concentrations ranging from 9.2 to 415 mg/kg, which did not exceed the site-specific background concentrations or applicable MEDEP RAGs for “Outdoor Worker” or “Excavation/Construction Worker” exposure scenarios.

Lead was detected in the surficial soil samples collected from borings B103, B104, and B110 at concentrations ranging from 2,520 to 45,200 mg/kg. These lead concentrations exceeded the site-specific background concentrations and applicable MEDEP RAG for the “Outdoor Worker” exposure scenario. The elevated concentration of lead detected in these samples are significantly elevated in comparison to background concentrations and are likely associated with former leather board factory industrial operations or demolition debris from historic structural fires at the Site. Based on these results, it is inferred that surficial soils within the footprint of the former leatherboard factory represents a “hot spot” of lead-impacted soils at the Site.

Leachable Lead

As shown in Table 3, lead was detected in surficial soil samples collected from borings B103, B104, and B110 at concentrations of 2,520, 5,300, and 45,200 mg/kg respectively, which were significantly elevated in comparison to the lead concentrations detected in other soil samples collected at the Site and similar properties along the Goose River. Based on this information, soil samples from B103 and B110 (essentially the samples with lowest and highest concentration of total lead detected above 1,000 mg/kg at the Site) were also submitted for leachable lead analysis by the Toxicity Characteristic Leaching Procedure (TCLP) in order to determine if surficial soils containing elevated lead concentrations are leachable; and therefore, require off-site disposal as “hazardous waste” per MEDEP’s Solid Waste regulations during future Site redevelopment.

Based on the laboratory results (Appendix B), TCLP lead was detected at a concentration of 0.23 milligrams per liter (mg/l) in the surficial soil sample collected from boring B103, which is below the MEDEP’s hazardous waste concentration of 5 mg/l; and therefore, surficial soils in the vicinity of boring B103 are considered “non-leachable” for total lead. However, TCLP lead was detected at a concentration of 699 mg/l in the surficial soil sample collected from boring B110, which exceeds MEDEP’s hazardous waste concentration of 5 mg/l; and therefore, surficial soils in the vicinity of boring B110 are considered “leachable” for total lead.

Polychlorinated Biphenyls (PCBs)

As shown in Table 3, PCBs were not detected in the soil samples collected from borings B101 and B103 at concentrations above their respective laboratory detection limits.

Groundwater Sample Analytical Results

Volatile Organic Compounds

As shown in Table 4, three petroleum-related VOCs; toluene, 1,2,4-trimethylbenzene, and total xylenes were detected in the groundwater sample collected from monitoring well MW101 at estimated concentrations of 0.5 to 1.1 micrograms per liter (µg/l). The concentrations of these petroleum-related VOCs 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, one VPH fraction (C₉–C₁₀ aromatics) was detected in the groundwater sample collected from monitoring well MW101 at an estimated concentration of 7 µg/l, which did not exceed its respective MEG for drinking water or MEDEP’s State-wide Groundwater and Drinking Water Petroleum Remediation Guideline. No other VPH fractions were 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 metals (specifically arsenic, cadmium, chromium, and lead) were not detected in the groundwater sample collected from MW101 at concentrations above their respective laboratory detection limits.

Wipe Sample Analytical Results

Polychlorinated Biphenyls (PCBs)

As shown in Table 5, PCBs were not detected in the surficial wipe samples collected inside the Turbine House at concentrations above their respective laboratory detection limits.

4.5 HAZARDOUS BUILDING MATERIALS

Ransom conducted a HMI concurrent with our Phase II ESA investigation, which included interior and exterior inspections of the Turbine House. The HMI identified asbestos-containing material (ACM) coating on the water penstock and potential PCB-containing fluorescent light ballasts, and mercury-containing fluorescent light tubes inside the Turbine House that will need to be properly removed and/or addressed during future Site redevelopment. Results of the HMI are detailed in the full HMI report, provided as Appendix C.

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 6.

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:

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

One duplicate soil sample and one duplicate groundwater sample were collected for laboratory analysis. The duplicate soil sample (SB10X) was collected from subsurface soil sample SB101 (4 to 6 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). Additionally, a duplicate wipe sample (WP10X) was collected at the location of wipe sample WS102 and submitted for laboratory analysis of PCBs. A summary of duplicate sample analytical results and calculated RPDs is presented in the attached Table 6.

Subsurface Soil Sample (SB101-S3-012113)

- VOCs, VPH and EPH fractions, target PAHs, and PCBs were not detected in the subsurface soil sample collected from boring B101 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 B101 and its duplicate soil sample (SB10X-S3-012113) at concentrations greater than five times their PQL for the compounds. The RPDs for each of these metals were below their 35 percent guideline; therefore, the precision of these sample results are acceptable.

Groundwater Sample (MW101)

- VOCs, VPH and EPH fractions, target PAHs, and dissolved metals 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.

Wipe Sample (WP102)

- PCBs were not detected in the WP102 wipe sample or its duplicate wipe sample (WP10X) above their respective laboratory reporting limits; therefore, no RPD was applicable.

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 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 or wipe 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 associated with former leather board factory industrial use or hydroelectric power generation at the Site. Ransom 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. However, surficial soils at the Site were identified to contain urban fill, including bricks. The presence of these urban fill materials are likely associated with former industrial uses and historic fires at the Site.

Laboratory analysis of the surficial soil sample containing urban fill materials indicate that these soils contain elevated concentrations of arsenic and lead (metals) and low-level concentrations of semi-volatile petroleum hydrocarbons and target PAHs. The concentrations of arsenic and lead detected in urban fill-impacted surficial soils exceed their applicable 2013 MEDEP RAGs for the “Outdoor Worker” exposure scenario. Cadmium and chromium were also detected at low concentrations in soil samples collected throughout the Site. However, except for lead, the concentrations of these metals in the surficial and/or subsurface soil samples appear to be consistent with naturally occurring area-wide background concentrations identified during investigations conducted at other sites along the Goose River, concurrent with this investigation. Therefore, the presence of arsenic, cadmium, and chromium in Site soils are not likely the result of unknown and/or unreported OHM releases, associated with former/historical Site operations as a leather board factory or hydroelectric power generation, and are not likely to represent an exposure risk, if the property continues to be commercially used for hydroelectric power generation purposes.

Based on the elevated concentrations of lead detected in surficial and subsurface soil samples throughout the Site, it is inferred that surficial soils at the location of the former leather board factory represents a potential “hot spot” of lead-impacted soils at the Site. Based on the detected concentration of lead, these soils would likely need to be properly managed during future Site redevelopment activities. Furthermore, supplemental laboratory analysis of the lead-impacted soil samples for TCLP indicates that the detected lead in these soils is leachable.

Low level concentrations of volatile petroleum constituents were identified in groundwater adjacent to the Mason Dam, which are likely associated with *de minimis* gasoline spills from automobile parking and/or recreational uses at the Site [i.e., snowmobiles, all terrain vehicles (ATVs), etc.]. The presence of these *de minimis* volatile petroleum constituents does not appear to be associated with former industrial uses or prior hydroelectric power generation at the Site.

The HMI identified ACM coating/covering the water penstock and potential PCB-containing fluorescent light ballasts, and mercury-containing fluorescent light tubes inside the Turbine House that will need to be properly removed and/or addressed during future Site redevelopment. PCBs were not detected above laboratory detection limits or their respective regulatory guidelines in the wipe samples collected from areas of hydraulic oil-stained building surfaces inside the Turbine House.

7.0 RECOMMENDATIONS

Based on the information obtained during this Phase II Investigation, Ransom recommends the following with respect to the proposed Site redevelopment:

1. The results of this Phase II ESA completed for the Site, including the HMI, should be submitted to the MEDEP Voluntary Response Action Program (VRAP). The MEDEP VRAP is a voluntary program that offers technical review of environmentally-impacted sites and ultimately provides state liability protections for interested parties, including a “No Action Assurance” (NAA) letter and a “Certificate of Completion” letter (i.e. no further action required), provided that proper and appropriate environmental cleanup or remedial actions are completed, as approved by the MEDEP.

As a condition of approval, the NAA letter should require a deed restriction and/or institutional controls in the form of a Declaration of Environmental Covenant (DEC) in order to potentially restrict/prohibit extraction of groundwater at the Site and excavation of impacted soils remaining at the Site following additional cleanup actions, if necessary, without proper MEDEP notification/approvals and implementation of a Soil Management Plan and Health and Safety Plan. The NAA should also require that additional environmental cleanup and abatement of the identified hazardous building materials be conducted prior to or during future Site renovation and/or redevelopment activities. A deed restriction may also be required to limit the future use of the Site to commercial and/or industrial uses.

2. The risk of human exposure to elevated concentrations of metals (specifically lead) identified in surficial soils at concentrations exceeding their respective MEDEP RAGs and background concentrations should be mitigated. As such, Ransom recommends the completion of an Analysis of Brownfields Cleanup Alternatives (ABCA) and Conceptual Remedial Action Plan (RAP) or Focused Feasibility Study (FFS) to evaluate and select the most appropriate cleanup or remedial action(s) for the Site. Soil mitigation measures to prevent exposure to identified contamination and potential migration of contaminants may include, but are not limited to, metal stabilization technology to prevent potential leaching of metals into the subsurface and/or engineering controls consisting of the placement of a low-permeable or impermeable soil cover system or other barrier system (e.g., pavement, concrete, building foundations) to prevent direct dermal contact with the identified contaminated soils and/or limited excavation to remove and properly dispose of the identified soils. Additional contaminant delineation or confirmatory sampling may also be necessary, prior to or during implementation of the selected remedial action.
3. Prior to renovation and/or demolition of the Turbine House or water penstock, identified hazardous building materials should be properly removed and/or addressed according to the recommendations provided in our HMI report, which was prepared concurrently with this Phase II ESA. The ABCA/RAP or FFS should also address alternatives for mitigating exposure risks to the hazardous building materials identified at the Site during the completion of the HMI.

8.0 REFERENCES

1. MEDEP; December 1, 2009; Remediation Guidelines for Petroleum Contaminated Sites in Maine.
2. MEDEP; May 10, 2013; Maine Remedial Action Guidelines (RAGs) for Soil Contaminated with Hazardous Substances.
3. Maine Center for Disease Control (MCDC); September 30, 2011; Maximum Exposure Guidelines (MEGs) for Drinking Water.
4. Ransom Consulting Inc.; July 10, 2012; Phase I Environmental Site Assessment, Mason Dam, Belfast, Maine.
5. Ransom Consulting Inc.; December 19, 2012; Site-Specific Quality Assurance Project Plan Addendum No. 23, Phase II Environmental Site Assessment, Mason Dam, Belfast, Maine.
6. 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, P.E.
Senior Project Manager/Belfast Brownfields Program Manager

TABLE 1: SOIL SAMPLE FIELD SCREENING RESULTS: METALS

Phase II Environmental Site Assessment

Mason Dam

Belfast, Maine

Boring ID	Sample Depth (ft.)	Arsenic	Cadmium	Chromium	Lead
		mg/kg			
BK-1	0-2	ND	ND	ND	17
BK-2	0-2	ND	ND	ND	19
B101	0-2	ND	ND	ND	102
	2-4	ND	ND	ND	184
	4-6	ND	ND	ND	20
B102	0-2	ND	ND	ND	39
B103	4-8	17	ND	ND	15
	8-9	ND	ND	226	ND
B104	0-2	366	ND	48	4,922
B105	0-2	14	ND	42	ND
B106	0-2	12	ND	72	62
B107	0-2	ND	ND	59	121
B108	0-2	13	ND	49	12
B109	0-2	115	ND	60	369
B110	0-2	2,458	ND	ND	28,324
B111	0-2	ND	ND	61	61

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: BACKGROUND SOIL SAMPLE ANALYTICAL DATA
Goose River Hydroelectric Properties
Phase II Environmental Site Assessments
Belfast, Maine

Sample Location	Whittings Axe Factory	Mason Dam	CMP Dam	Mill Dam	Mill Dam	MEDEP Remedial Action Guidelines for Sites Contaminated with Hazardous Substances (May 10, 2013)								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	Undeveloped Background	Rural Developed Background	Urban Developed Background	Urban Fill Background	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	NE	NE	NE	NE	Various	Various	Various	Various
Target Polycyclic Aromatic Hydrocarbons (PAHs)																	
Acenaphthene	ND	ND	ND	ND	NA	7,500	10,000	10,000	9,800	NE	0.10	0.20	3.50	970	1,600	2,000	110
Acenaphthylene	ND	ND	ND	ND	NA	7,500	10,000	10,000	10,000	NE	0.32	0.39	1.40	1,000	1,700	2,200	130
Anthracene	ND	ND	ND	ND	NA	10,000	10,000	10,000	3,800	NE	0.29	0.4	6.7	4,300	7,200	7,800	430
Benzo(g,h,i) perylene	ND	ND	ND	ND	NA	3,700	6,200	10,000	10,000	NE	0.57	0.79	16	NE	NE	NE	NE
Benzo[a]pyrene	ND	ND	ND	ND	NA	0.26	0.44	3.5	43	NE	1.5	1.7	5.2	0.026	0.044	0.35	4.3
Benzo[a]anthracene	ND	ND	ND	ND	NA	2.6	4.4	35	430	NE	0.86	1.6	27	0.26	0.44	3.5	43
Benzo[b]fluoranthene	ND	ND	ND	0.226 J	NA	2.6	4.4	35	430	NE	1.3	2	6.8	0.26	0.44	3.5	43
Benzo[k]fluoranthene	ND	ND	ND	ND	NA	26	44	350	4300	NE	0.69	0.76	12	2.6	4.4	35	430
Chrysene	ND	ND	ND	ND	NA	260	440	3,500	10,000	NE	1	2.3	6.4	26	44	350	4,300
Dibenz[a,h]anthracene	ND	ND	ND	ND	NA	0.26	0.44	3.5	43	NE	0.32	0.23	4.5	0.026	0.044	0.35	4.3
Fluoranthene	ND	ND	ND	0.318 J	NA	5,000	8,300	10,000	10,000	NE	2	3.2	10	1,000	1,700	7,300	10,000
Fluorene	ND	ND	ND	ND	NA	5,000	8,300	10,000	10,000	NE	0.22	0.29	4.4	830	1,400	2,700	200
Indeno[1,2,3-cd]pyrene	ND	ND	ND	ND	NA	2.6	4.4	35	430	NE	0.4	0.74	3.3	0.26	0.44	3.5	43
2-Methylnaphthalene	ND	ND	ND	ND	NA	500	830	3,600	600	NE	0.16	0.089	0.41	94	160	480	35
Naphthalene	ND	ND	ND	ND	NA	2,500	4,200	10,000	10,000	NE	0.11	0.22	0.82	NE	NE	NE	NE
Phenanthrene	ND	ND	ND	ND	NA	3,700	6,200	10,000	8,900	NE	0.83	1.6	6.1	700	1,200	3,600	470
Pyrene	ND	ND	ND	0.295 J	NA	3,700	6,200	10,000	10,000	NE	2	2.8	9.5	750	1,200	5,500	10,000
Extractable Petroleum Hydrocarbon (EPH) Fractions																	
C9-C18 Aliphatics	ND	ND	ND	ND	NA	2,700	4,400	10,000	10,000	NE	NE	NE	NE	2,600	4,400	10,000	7,300
C19-C36 Aliphatics	ND	ND	ND	26.5	NA	10,000	10,000	10,000	10,000	NE	NE	NE	NE	10,000	10,000	10,000	10,000
C11-C22 Aromatics	ND	ND	ND	30.1	NA	750	1,200	5,500	10,000	NE	NE	NE	NE	730	1,200	4,500	4,700
Volatile Petroleum Hydrocarbon (VPH) Fractions																	
C5-C8 Aliphatics	NA	NA	NA	NA	NA	1,400	2,300	10,000	10,000	NE	NE	NE	NE	1,400	2,300	10,000	10,000
C9-C12 Aliphatics	NA	NA	NA	NA	NA	2,700	4,400	10,000	10,000	NE	NE	NE	NE	2,600	4,400	10,000	9,800
C9-C10 Aromatics	NA	NA	NA	NA	NA	750	1,200	5,500	10,000	NE	NE	NE	NE	740	1,200	5,100	5,500
Metals																	
Arsenic	8.4	5.9	7.3	22	44	1.4	2.3	4.2	42	16	NE	NE	NE	NE	NE	NE	NE
Cadmium	ND	ND	ND	ND	ND	11	18	94	19	0.26	NE	NE	NE	NE	NE	NE	NE
Chromium	31	33	23	22	33	510	850	5,100	2,800	NE	NE	NE	NE	NE	NE	NE	NE
Lead	72	29	20	38	32	340	530	1,100	950	32	NE	NE	NE	170	280	560	950
Polychlorinated Biphenyls (PCBs)																	
All PCBs	NA	NA	NA	NA	NA	2.4 ⁽¹⁾	4.1 ⁽¹⁾	12 ⁽¹⁾	6.5 ⁽¹⁾	NE	NE	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
Mason Dam
Belfast, Maine

Sample Location	B101	B101	B102	B103	B103	B104	B106	B108	B109	B110	B111	MEDEP Remedial Action Guidelines for Sites Contaminated with Hazardous Substances (May 10, 2013)								MEDEP Remediation Guidelines for Petroleum Contaminated Sites in Maine (Dec. 1, 2009)							
Sample Identification	SB101-S1-012113	SB101-S3-012113	SB102-S1-012113	SB103-S1-012113	SB103-S3-012113	SB104-S1-053013	SB106-S1-053013	SB108-S1-053013	SB109-S1-053013	SB110-S1-053013	SB111-S1-053013																
Sample Depth (ft bgs)	0-2	4-6	0-2	0-2	4-8	0-2	0-2	0-2	0-2	0-2	0-2	Residential	Park User	Outdoor Commercial Worker	Excavation/Construction Worker	Undeveloped Background	Rural Developed Background	Urban Developed Background	Urban Fill Background	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	1/21/2013	1/21/2013	1/21/2013	5/30/2013	5/30/2013	5/30/2013	5/30/2013	5/30/2013	5/30/2013																
Volatile Organic Compounds (VOCs)	miligrams per kilogram (mg/kg)																										
All VOCs	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	Various	Various	Various	Various	NE	NE	NE	NE	Various	Various	Various	Various				
Target Polycyclic Aromatic Hydrocarbons (PAHs)	miligrams per kilogram (mg/kg)																										
Fluoranthene	NA	ND	NA	0.234 J	NA	NA	NA	NA	NA	NA	NA	5,000	8,300	10,000	10,000	NE	2	3.2	10	1,000	1,700	7,300	10,000				
Pyrene	NA	ND	NA	0.217 J	NA	NA	NA	NA	NA	NA	NA	3,700	6,200	10,000	10,000	NE	2	2.8	9.5	750	1,200	5,500	10,000				
All other PAHs	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	Various	Various	Various	Various	NE	Various	Various	Various	Various	Various	Various	Various				
Extractable Petroleum Hydrocarbon (EPH) Fractions	miligrams per kilogram (mg/kg)																										
C9-C18 Aliphatics	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	2,700	4,400	10,000	10,000	NE	NE	NE	NE	2,600	4,400	10,000	7,300				
C19-C36 Aliphatics	NA	ND	NA	17.5	NA	NA	NA	NA	NA	NA	NA	10,000	10,000	10,000	10,000	NE	NE	NE	NE	10,000	10,000	10,000	10,000				
C11-C22 Aromatics	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	750	1,200	5,500	10,000	NE	NE	NE	NE	730	1,200	4,500	4,700				
Volatile Petroleum Hydrocarbon (VPH) Fractions	miligrams per kilogram (mg/kg)																										
C5-C8 Aliphatics	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	1,400	2,300	10,000	10,000	NE	NE	NE	NE	1,400	2,300	10,000	10,000				
C9-C12 Aliphatics	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	2,700	4,400	10,000	10,000	NE	NE	NE	NE	2,600	4,400	10,000	9,800				
C9-C10 Aromatics	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	750	1,200	5,500	10,000	NE	NE	NE	NE	740	1,200	5,100	5,500				
Metals	miligrams per kilogram (mg/kg)																										
Arsenic	NA	18	NA	20	NA	NA	NA	NA	NA	NA	NA	1.4	2.3	4.2	42	16	NE	NE	NE	NE	NE	NE	NE				
Cadmium	NA	ND	NA	0.52 J	NA	NA	NA	NA	NA	NA	NA	11	18	94	19	0.26	NE	NE	NE	NE	NE	NE	NE				
Chromium	NA	111	NA	54	NA	NA	NA	NA	NA	NA	NA	510	850	5,100	2,800	NE	NE	NE	NE	NE	NE	NE	NE				
Lead	47	11	66	2,520	4.4	5,300	63	9.2	415	45,200	123	340	530	1,100	950	32	NE	NE	NE	NE	170	280	560	950			
Polychlorinated Biphenyls (PCBs)	miligrams per kilogram (mg/kg)																										
Total PCBs	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	2.4 ⁽¹⁾	4.1 ⁽¹⁾	12 ⁽¹⁾	6.5 ⁽¹⁾	NE	NE	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 4: GROUNDWATER SAMPLE ANALYTICAL RESULTS
Phase II Environmental Site Assessment
Mason Dam
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	0.7 J	600	1,000	600
1,2,4-Trimethylbenzene	0.5 J	NE	NE	NE
Xylenes (total)	1.1	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	7 J	200	NE	200
Metals	micrograms per liter (ug/L)			
Arsenic	ND	10	10	NE
Cadmium	ND	1	5	NE
Chromium	ND	20	100	NE
Lead	ND	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 cleanup guidelines

⁽¹⁾ Standard is for total of all isomers (i.e., total xylenes).

TABLE 5: SUMMARY OF BUILDING MATERIAL-WIPE SAMPLE CHEMICAL ANALYSIS FOR POLYCHLORINATED BIPHENYLS
Phase II Environmental Site Assessment
Mason Dam
Tax Map 23, Lots 9A & 12
Belfast, Maine

Sample Location	Turbine Building Wooden Floor Beneath Transformer	Turbine Building Concrete Wall Beneath Hydraulic Oil Tank	Toxic Substances Control Act (TSCA) Cleanup Standard for High Occupancy Areas
Sample Identification	WP101	WP102	
Sample Date	01/21/13	01/21/13	Non-Porous Surfaces
Polychlorinated Biphenyls (PCBs)	Concentrations in Grams per 100 Square-Centimeters (g/100 cm ²)		
All PCBs	ND	ND	10 g/100 cm ²

NOTES:

1. Samples were collected in January 2013 by Ransom Consulting, Inc., and analyzed by Analytics Environmental Laboratory, LLC., of Portsmouth, New Hampshire.
2. ND= Not Detected above laboratory reporting limit
3. Toxic Substances Control Act (TSCA) Standard for PCBs 40 CFR 761.61
4. Values in **boldface** type indicate concentrations which meet or exceed their respective TSCA Cleanup Standard.

TABLE 6: SUMMARY OF DUPLICATE SAMPLE ANALYTICAL RESULTS

Phase II Environmental Site Assessment

Mason Dam

Belfast, Maine

Sample Location	SB101-S3-012113	SB10X-S3-012113	Relative Percent Difference	MW101	MW10X	Relative Percent Difference	WS102	WS10X	Relative Percent Difference
Sample Depth (ft bgs)	4-6	4-6		4-6	4-6	Surface Wipe	Surface Wipe		
Sample Date	1/21/2013	1/21/2013		1/23/2013	1/23/2013	1/21/2013	1/23/2013		
Volatile Organic Compounds (VOCs)	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in g/100cm2		%
toluene	ND	ND		0.7	ND		NA	NA	
1,2,4-trimethylbenzene	ND	ND		0.5	ND		NA	NA	
xylenes (total)	ND	ND		1	ND		NA	NA	
All other VOCs	ND	ND		ND	ND		NA	NA	
Target PAH Compounds	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in g/100cm2		%
All Target PAH Compounds	ND	ND		ND	ND		NA	NA	
Volatile Petroleum Hydrocarbon (VPH) Fractions	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in g/100cm2		%
C ₃ through C ₈ Aliphatics	ND	ND		ND	ND		NA	NA	
C ₉ through C ₁₂ Aliphatics	ND	ND		ND	ND		NA	NA	
C ₉ through C ₁₀ Aromatics	ND	0.528		7	ND		NA	NA	
Extractable Petroleum Hydrocarbon (EPH) Fractions	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in g/100cm2		%
C ₉ through C ₁₈ Aliphatics	ND	ND		ND	ND		NA	NA	
C ₁₉ through C ₃₆ Aliphatics	ND	ND		ND	ND		NA	NA	
C ₁₁ through C ₂₂ Aromatics	ND	ND		ND	ND		NA	NA	
Metals	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in g/100cm2		%
Arsenic	18	16	12	ND	ND		NA	NA	
Cadmium	ND	ND		ND	ND		NA	NA	
Chromium	111	120	-8	ND	ND		NA	NA	
Lead	11	12	-9	ND	ND		NA	NA	
Polychlorinated Biphenyls (PCBs)	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in g/100cm2		%
All PCBs	ND	ND		NA	NA		ND	ND	

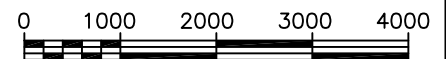
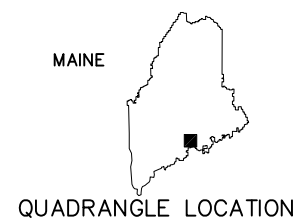
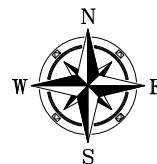


TAKEN FROM U.S.G.S. 7.5x15 MINUTE SERIES TOPOGRAPHIC MAP OF BELFAST, MAINE-1960 (REVISED 1979).

CONTOUR INTERVAL IS 10 FEET

SITE COORDINATES: LATITUDE 44°27'27"
LONGITUDE 69°00'25"

UTM COORDINATES: 49: 22: 437mN
4: 99: 480mE



SCALE in FEET
1: 24,000

RANSOM Consulting, Inc.

SITE LOCATION MAP

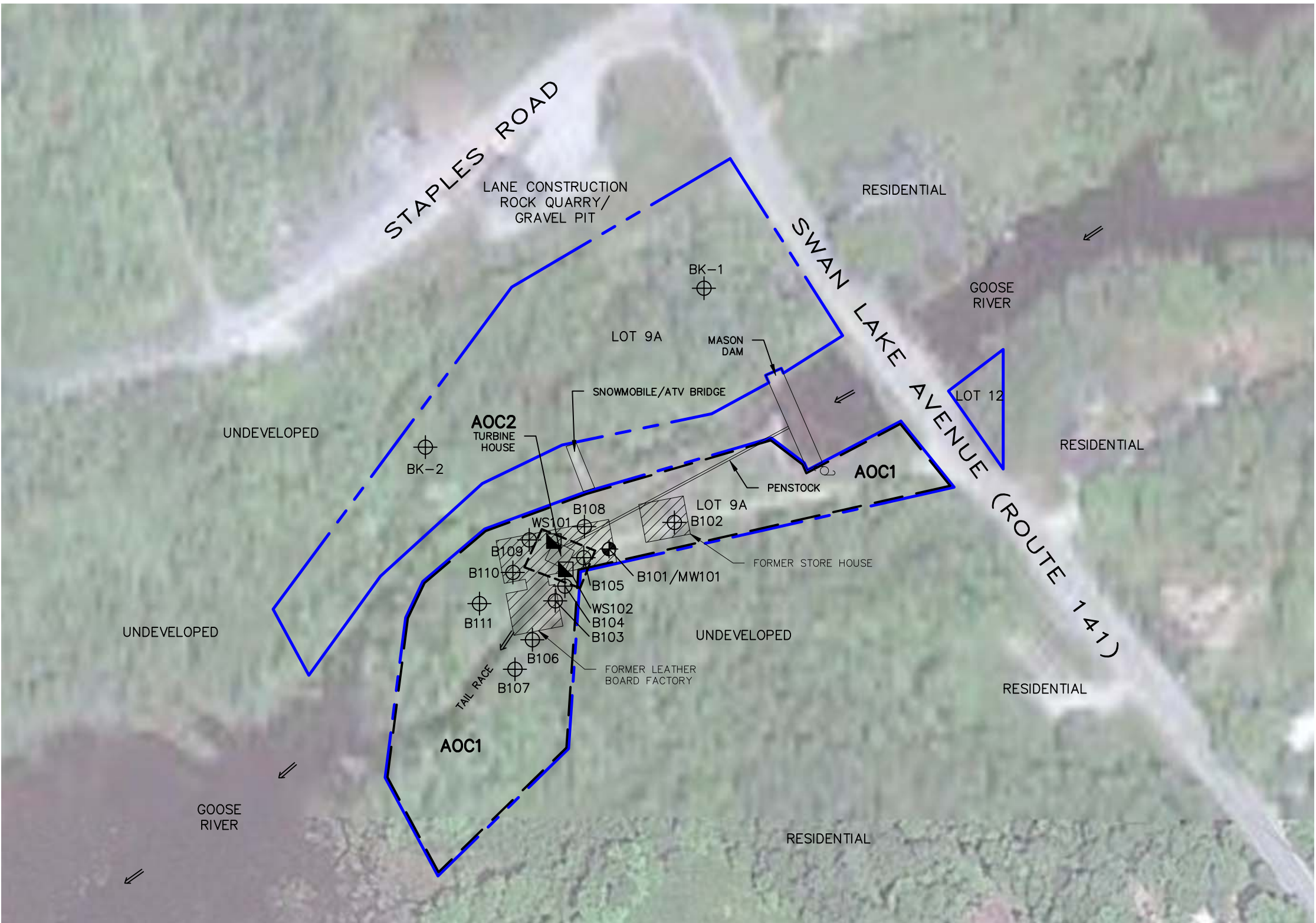
PREPARED FOR:

CITY OF BELFAST
131 CHURCH STREET
BELFAST, MAINE

SITE:

MASON DAM
SWAN LAKE AVENUE
BELFAST, MAINE

DATE: OCTOBER 2013
PROJECT: 111.06134
FIGURE: 1



LEGEND:

B101/MW101 SOIL BORING/MONITORING WELL

B103 SOIL BORING

BK-1 BACKGROUND SOIL BORING

WS101 WIPE SAMPLE

(3) POLE-MOUNTED TRANSFORMER

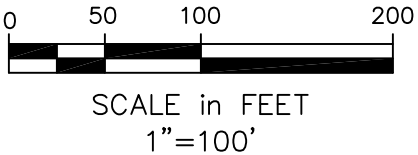
FLOW DIRECTION

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 MAY 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.



		SITE PLAN
PREPARED FOR: CITY OF BELFAST 131 CHURCH STREET BELFAST, MAINE	SITE: MASON DAM SWAN LAKE AVENUE BELFAST, MAINE	
		DATE: OCTOBER 2013 PROJECT: 111.06134 FIGURE: 2

APPENDIX A

Boring Logs

Phase II Environmental Site Assessment

Mason Dam

Tax Map 23, Lot 9A & 12

Belfast, Maine



Consulting
Engineers
and Scientists

BORING AND MONITORING WELL LOG: B101-MW101

Reviewed by: *Erik Phelps*

Total Depth: 6 Feet

Logged By: ARM

Date Reviewed: *2/22/13*

Boring Diameter: 2 Inches

Date Drilled: 1/21/13 to 1/21/13

GW Observed at: 4.3 Feet

Well Stickup: 0.1'

Driller: EPI

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OMV (ppmv)	DEPTH	WELL CONSTRUCTION
	S1(0.0'-2.0') - 24" - Brown to dark brown, fine SAND and SILT, some fine to coarse Gravel, dry, FILL.	S1	-	24/24	<1		
	S2(2.0'-4.0') - 12" - Dark brown, SILT, some fine SAND, moist (Glacial/Fluvial).	S2	-	24/12	<1		
5	S3(4.0'-6.0') - 19" - Dark brown to tan, SILT, some fine Sand, wet (Glacial/Fluvial).	S3	-	24/19	<1	5	
	Refusal at 6' bgs.						
10						10	
15						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 encountered at 4.3' ft. bgs.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed

CLIENT:

City of Belfast

SITE:

Mason Dam
Tax Map 23, Lots 9A-12
Belfast, ME

Project No.: 111.06134

Page: 1



Consulting
Engineers
and Scientists

BORING LOG:**B102**

Reviewed By: *Erik Phelps*
Date Reviewed: *2/22/13*
GW Observed at: NO Feet

Total Depth: 3 Feet
Boring Diameter: 2 Inches
Well Stickup: NA

Logged By: ARM
Date Drilled: 1/21/13 to 1/21/13
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') - 20" - Brown, fine SAND and SILT, some weathered rock, moist, FILL.		S1	-	24/20	<1		
	S2(2.0'-3.0') - No Recovery - weathered rock in shoe. Refusal at 3' bgs.		S2	-	12/0	NA		
5								5
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; NM = Not Measured; NO = Not Observed

CLIENT:

City of Belfast

SITE:

Mason Dam
Tax Map 23, Lots 9A-12
Belfast, ME

Project No.: 111.06134

Page:

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BORING LOG:

B103

Reviewed By: *Eric Pluey*
Date Reviewed: *2/22/13*
GW Observed at: 4 Feet

Total Depth: 9 Feet
Boring Diameter: 2 Inches
Well Stickup: NA

Logged By: ARM
Date Drilled: 1/21/13 to 1/21/13
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') - 13" - Brown, fine SAND and SILT, trace fine to coarse Gravel, contains bricks, moist, FILL.		S1	-	24/13	<1		
	S2(2.0'-4.0') - No Recovery		S2	-	24/0	<1		
5	S3(4.0'-8.0') - 10" - Brown, fine SAND and SILT, some weathered rock, wet (Glacial/Fluvial).		S3	-	48/10	<1		5
10	S4(8.0'-9.0') - 6" - Brown, fine SAND and SILT, some weathered rock, wet (Glacial/Fluvial). Refusal at 9' bgs.		S4	-	12/6	<1		10
15								15

NOTES:

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

CLIENT:

City of Belfast

SITE:

Mason Dam
Tax Map 23, Lots 9A-12
Belfast, ME

Project No.: 111.06134

Page:

1

BORING LOG:

B104

Reviewed By: *Erik Phelan*
Date Reviewed: *7/11/13*
GW Observed at: NO Feet

Total Depth: 2 Feet
Boring Diameter: 6 inches
Well Stickup: NA

Logged By: ARM
Date Drilled: 5/30/13 to 5/30/13
Driller: Ransom

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') - Dark brown to brown, fine to coarse SAND, some Silt and fine to coarse Gravel and cobbles, contains bricks and glass, moist, FILL.		S1			<1		
	Bottom of boring @ 2'bgs.							
5								5
10								10
15								15

NOTES:

- 1) Boring advanced using hand tools
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater not encountered.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed

CLIENT:
City of Belfast

SITE:
Mason Dam
Tax Map 23, Lots 9A-12
Belfast, ME

Project No.: 111.06134

Page:

1

BORING LOG:

B105

Reviewed By: *Erik Phares*
Date Reviewed: *7/11/13*
GW Observed at: NO Feet

Total Depth: 2 Feet
Boring Diameter: 6 Inches
Well Stickup: NA

Logged By: ARM
Date Drilled: 5/30/13 to 5/30/13
Driller: Ransom

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') - Dark brown to brown, fine to coarse SAND, some Silt and fine to coarse Gravel and cobbles, contains bricks and glass, moist, FILL.	S1			1		
	Bottom of boring @ 2'bgs						
5							5
10							10
15							15

NOTES:

- 1) Boring advanced using hand tools
- 2) Groundwater not encountered.
- 3) NA = Not Applicable; NM = Not Measured; NO = Not Observed

CLIENT:
City of Belfast

SITE:
Mason Dam
Tax Map 23, Lots 9A-12
Belfast, ME

Project No.: 111.06134

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BORING LOG:

B106

Reviewed By: *Erik Pherry*
Date Reviewed: *7/11/13*
GW Observed at: NO Feet

Total Depth: 2 Feet
Boring Diameter: 6 inches
Well Stickup: NA

Logged By: ARM
Date Drilled: 5/30/13 to 5/30/13
Driller: Ransom

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVN (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - Gray, fine SAND and SILT, some fine to coarse Gravel and cobbles, moist, Glacial/Fluvial.		S1			4		
	Bottom of boring @ 2' bgs.							
5								5
10								10
15								15

NOTES:

- 1) Boring advanced using hand tools
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater not encountered.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed

CLIENT:
City of Belfast

SITE:
Mason Dam
Tax Map 23, Lots 9A-12
Belfast, ME

Project No.: 111.06134

Page:

1

BORING LOG:

B107

Reviewed By: *Ent Pheng*
Date Reviewed: *7/11/13*
GW Observed at: NO Feet

Total Depth: 2 Feet
Boring Diameter: 6 Inches
Well Stickup: NA

Logged By: ARM
Date Drilled: 5/30/13 to 5/30/13
Driller: Ransom

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') - Gray, fine SAND and SILT, some fine to coarse Gravel and cobbles, moist, Glacial/Fluvial.	XXXX	S1			1		
	Bottom of boring @ 2'bgs.							
5								5
10								10
15								15

NOTES:

- 1) Boring advanced using hand tools
- 2) Groundwater not encountered.
- 3) NA = Not Applicable; NM = Not Measured; NO = Not Observed

CLIENT:
City of Belfast

SITE:
Mason Dam
Tax Map 23, Lots 9A-12
Belfast, ME

Project No.: 111.06134

Page:

BORING LOG:

B108

Reviewed By: *Eric Cherry*
Date Reviewed: *7/11/13*
GW Observed at: NO Feet

Total Depth: 2 Feet
Boring Diameter: 6 Inches
Well Stickup: NA

Logged By: ARM
Date Drilled: 5/30/13 to 5/30/13
Driller: Ransom

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') - Dark brown to brown, fine to coarse SAND, and fine to coarse GRAVEL, some Silt, moist, FILL.		S1			4		
	Bottom of boring @ 2'bgs							
5								5
10								10
15								15

NOTES:

- 1) Boring advanced using hand tools
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater not encountered.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed

CLIENT:
City of Belfast

SITE:
Mason Dam
Tax Map 23, Lots 9A-12
Belfast, ME

Project No.: 111.06134

Page:

1

BORING LOG:

B109

Reviewed By: *Erik Phery*
Date Reviewed: *7/11/13*
GW Observed at: NO Feet

Total Depth: 2 Feet
Boring Diameter: 6 Inches
Well Stickup: NA

Logged By: ARM
Date Drilled: 5/30/13 to 5/30/13
Driller: Ransom

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') - Brown to reddish-brown, fine to coarse SAND, and fine to coarse GRAVEL with cobbles, contains bricks and metal, moist, FILL.		S1			<1		
	Bottom of boring @ 2'bgs.							
5								5
10								10
15								15

NOTES:

- 1) Boring advanced using hand tools
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater not encountered.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed

CLIENT:
City of Belfast

SITE:
Mason Dam
Tax Map 23, Lots 9A-12
Belfast, ME

Project No.: 111.06134

Page:

1

BORING LOG:

B110

Reviewed By: <i>Erik Pherry</i>	Total Depth: 2 Feet	Logged By: ARM
Date Reviewed: 7/11/13	Boring Diameter: 6 Inches	Date Drilled: 5/30/13 to 5/30/13
GW Observed at: NO Feet	Well Stickup: NA	Driller: Ransom

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE S1	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - Brown to reddish-brown, fine to coarse SAND, and fine to coarse GRAVEL with cobbles, contains bricks and metal, moist, FILL.				1		
	Bottom of boring @ 2'bgs.						
5							5
10							10
15							15

NOTES:

- 1) Boring advanced using hand tools
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater not encountered.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed

CLIENT:

City of Belfast

SITE:

Mason Dam
Tax Map 23, Lots 9A-12
Belfast, ME

Project No.: 111.06134

Page:

1

BORING LOG:

B111

Reviewed By: *Eric Renshaw*
Date Reviewed: *7/11/13*
GW Observed at: NO Feet

Total Depth: 2 Feet
Boring Diameter: 6 Inches
Well Stickup: NA

Logged By: ARM
Date Drilled: 5/30/13 to 5/30/13
Driller: Ransom

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') - Dark brown, SILT and fine SAND, some cobbles, moist, ORGANIC.		S1			Δ		
	Bottom of boring @ 2'bgs							
5								5
10								10
15								15

NOTES:

- 1) Boring advanced using hand tools
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater not encountered.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed

CLIENT:
City of Belfast

SITE:
Mason Dam
Tax Map 23, Lots 9A-12
Belfast, ME

Project No.: 111.06134

Page: 1

APPENDIX B

Laboratory Reports

Phase II Environmental Site Assessment

Mason Dam

Tax Map 23, Lot 9A & 12

Belfast, Maine

February 7, 2013

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

**RE: Analytical Results Case Narrative
Mason Dam
Project No: 111.06134.018
Analytics #74729**

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 several samples had only the hydrocarbon ranges were reported.

Extractable Petroleum Hydrocarbons (EPH):

No QC deviations.

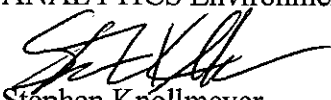
PCBs by EPA 8082A:

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

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

Report Number: 74729

Revision: Rev. 0

Re: Mason Dam (Project No: 111.06134.018)

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.

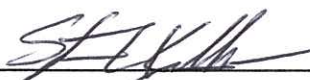
Sample Analysis: The attached pages detail the Client Sample IDs, Lab Sample IDs, and Analyses requested

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 Department 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


2/8/2013

**This report shall not be reproduced, except in full, without the written
consent of Analytics Environmental Laboratory, LLC.**

CLIENT: Ransom Consulting, Inc.

REPORT NUMBER: 74729

REV: Rev. 0

PROJECT: Mason Dam (Project No: 111.06134.018)

<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
74729-1	01/21/13	BK1	MADEP EPH	
	01/21/13	BK1	Metals	
74729-2	01/21/13	SB101-S3-012113	EPA 8082 (PCBs only)	
	01/21/13	SB101-S3-012113	EPA 8260 Volatile Organics	
	01/21/13	SB101-S3-012113	MADEP EPH	
	01/21/13	SB101-S3-012113	Metals	
	01/21/13	SB101-S3-012113	Volatile Petroleum Hydrocarbons	
74729-3	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	
74729-4	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	
74729-5	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	
74729-6	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	
74729-7	01/21/13	WS101	EPA 8082 (PCBs only)	
74729-8	01/21/13	WS102	EPA 8082 (PCBs only)	
74729-9	01/23/13	WS10X	Electronic Data Deliverable	
	01/23/13	WS10X	EPA 8082 (PCBs only)	

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	

VOLATILE DATA SUMMARIES

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

January 29, 2013

SAMPLE DATA

CLIENT SAMPLE ID
Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: SB101-S3-012113

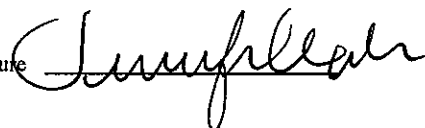
Lab Sample ID: 74729-2
Matrix: Solid
Percent Solid: 61
Dilution Factor: 225
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Analysis Date: 01/25/13

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Result $\mu\text{g/kg}$	COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Result $\mu\text{g/kg}$
Benzene	225	U	1,3-Dichloropropane	225	U
Bromobenzene	225	U	cis-1,3-Dichloropropene	225	U
Bromochloromethane	225	U	trans-1,3-Dichloropropene	225	U
Bromodichloromethane	169	U	2,2-Dichloropropane	225	U
Bromoform	169	U	1,1-Dichloropropene	225	U
Bromomethane	225	U	Ethylbenzene	225	U
n-butylbenzene	225	U	Hexachlorobutadiene	225	U
sec-butylbenzene	225	U	Isopropylbenzene	225	U
tert-butylbenzene	225	U	p-isopropyltoluene	225	U
Carbon Tetrachloride	225	U	Methylene Chloride	1130	U
Chlorobenzene	225	U	Methyl-tert-butyl ether (MTBE)	169	U
Chloroethane	225	U	Naphthalene	225	U
Chloroform	169	U	n-Propylbenzene	225	U
Chloromethane	225	U	Styrene	225	U
2-Chlorotoluene	225	U	1,1,1,2-Tetrachloroethane	225	U
4-Chlorotoluene	225	U	1,1,2,2-Tetrachloroethane	169	U
Dibromochloromethane	169	U	Tetrachloroethene	225	U
1,2-Dibromo-3-chloropropane	225	U	Toluene	225	U
1,2-Dibromoethane	169	U	1,2,3-Trichlorobenzene	225	U
Dibromomethane	225	U	1,2,4-Trichlorobenzene	225	U
1,2-Dichlorobenzene	225	U	1,1,1-Trichloroethane	225	U
1,3-Dichlorobenzene	225	U	1,1,2-Trichloroethane	169	U
1,4-Dichlorobenzene	225	U	Trichloroethene	225	U
Dichlorodifluoromethane	225	U	Trichlorofluoromethane	225	U
1,1-Dichloroethane	225	U	1,2,3-Trichloropropane	225	U
1,2-Dichloroethane	169	U	1,2,4-Trimethylbenzene	225	U
1,1-Dichloroethene	169	U	1,3,5-Trimethylbenzene	225	U
cis-1,2-Dichloroethene	225	U	Vinyl Chloride	225	U
trans-1,2-Dichloroethene	225	U	o-Xylene	225	U
1,2-Dichloropropane	169	U	m,p-Xylene	225	U
Acetone	2250	U	Diethyl ether	225	U
Carbon Disulfide	225	U	2-Hexanone	2250	U
Tetrahydrofuran	1130	U	Methyl isobutyl ketone	2250	U
Methyl ethyl ketone	2250	U	Di-isopropyl ether (DIPE)	225	U
t-Butyl alcohol (TBA)	4500	U	Ethyl t-butyl ether (ETBE)	225	U
t-Amyl methyl ether (TAME)	225	U	1,3,5-Trichlorobenzene	225	U
			1,4-Dioxane	6750	U
Surrogate Standard Recovery					
d4-1,2-Dichloroethane	77 %	d8-Toluene	80 %	Bromofluorobenzene	85 %
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.

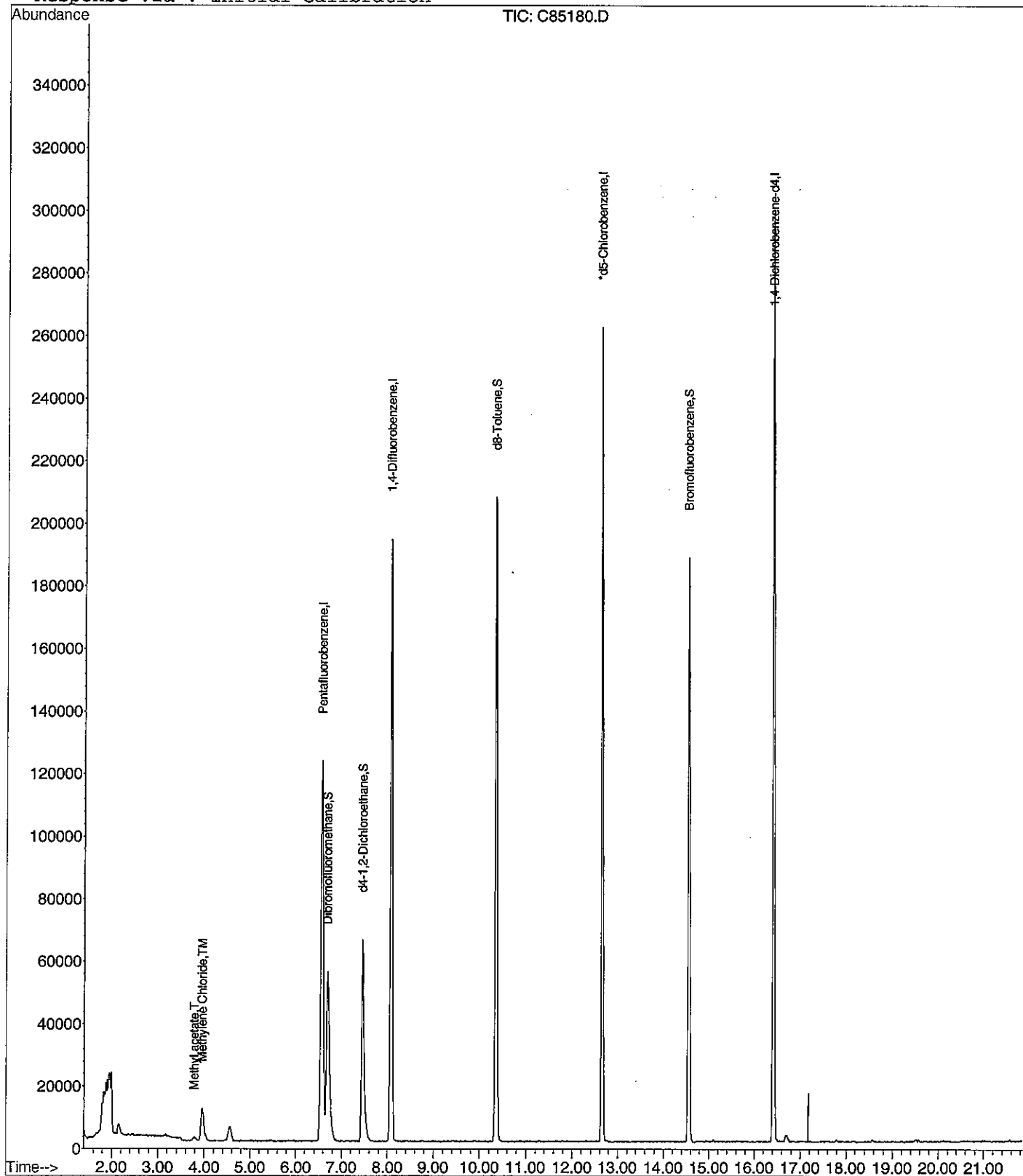
COMMENTS: Results are expressed on a dry weight basis.

Authorized signature



Data File : C:\HPCHEM\1\DATA\DATA\012513-C\C85180.D Vial: 5
Acq On : 25 Jan 2013 8:27 pm Operator: MT
Sample : 74729-2 Inst : Instr_C
Misc : 50,7.29,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\METHODS\METHODS\V801143C.M (RTE Integrator)
Title : 8260 Purgable Organics
Last Update : Fri Jan 25 10:35:45 2013
Response via : Initial Calibration



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

January 29, 2013

SAMPLE DATA

CLIENT SAMPLE ID
Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: SB103-S1-012113

Lab Sample ID: 74729-3
Matrix: Solid
Percent Solid: 84
Dilution Factor: 178
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Analysis Date: 01/25/13

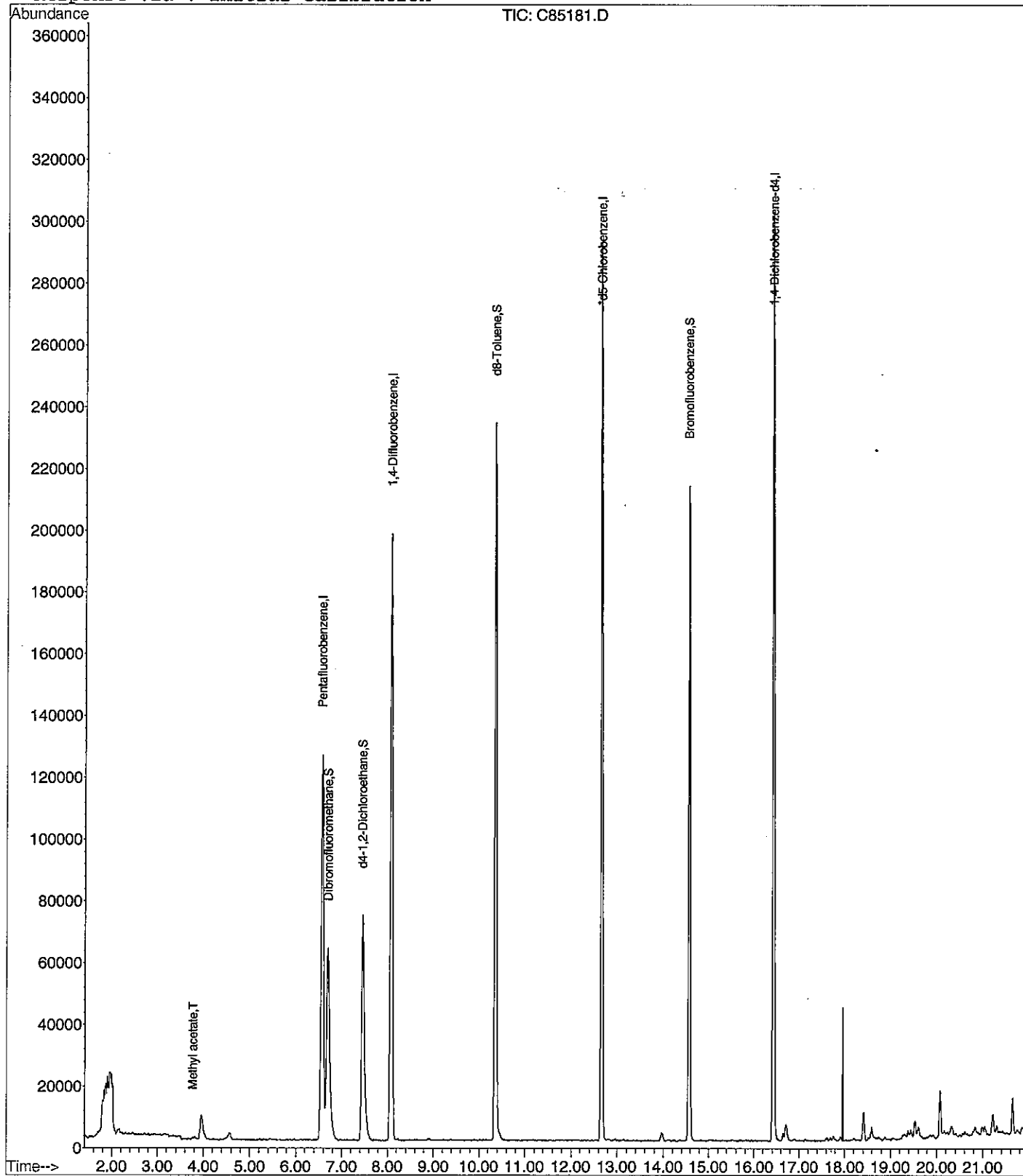
ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	178	U	1,3-Dichloropropane	178	U
Bromobenzene	178	U	cis-1,3-Dichloropropene	178	U
Bromochloromethane	178	U	trans-1,3-Dichloropropene	178	U
Bromodichloromethane	133	U	2,2-Dichloropropane	178	U
Bromoform	133	U	1,1-Dichloropropene	178	U
Bromomethane	178	U	Ethylbenzene	178	U
n-butylbenzene	178	U	Hexachlorobutadiene	178	U
sec-butylbenzene	178	U	Isopropylbenzene	178	U
tert-butylbenzene	178	U	p-isopropyltoluene	178	U
Carbon Tetrachloride	178	U	Methylene Chloride	889	U
Chlorobenzene	178	U	Methyl-tert-butyl ether (MTBE)	133	U
Chloroethane	178	U	Naphthalene	178	U
Chloroform	133	U	n-Propylbenzene	178	U
Chloromethane	178	U	Styrene	178	U
2-Chlorotoluene	178	U	1,1,1,2-Tetrachloroethane	178	U
4-Chlorotoluene	178	U	1,1,2,2-Tetrachloroethane	133	U
Dibromochloromethane	133	U	Tetrachloroethene	178	U
1,2-Dibromo-3-chloropropane	178	U	Toluene	178	U
1,2-Dibromoethane	133	U	1,2,3-Trichlorobenzene	178	U
Dibromomethane	178	U	1,2,4-Trichlorobenzene	178	U
1,2-Dichlorobenzene	178	U	1,1,1-Trichloroethane	178	U
1,3-Dichlorobenzene	178	U	1,1,2-Trichloroethane	133	U
1,4-Dichlorobenzene	178	U	Trichloroethene	178	U
Dichlorodifluoromethane	178	U	Trichlorofluoromethane	178	U
1,1-Dichloroethane	178	U	1,2,3-Trichloropropane	178	U
1,2-Dichloroethane	133	U	1,2,4-Trimethylbenzene	178	U
1,1-Dichloroethene	133	U	1,3,5-Trimethylbenzene	178	U
cis-1,2-Dichloroethene	178	U	Vinyl Chloride	178	U
trans-1,2-Dichloroethene	178	U	o-Xylene	178	U
1,2-Dichloropropane	133	U	m,p-Xylene	178	U
Acetone	1780	U	Diethyl ether	178	U
Carbon Disulfide	178	U	2-Hexanone	1780	U
Tetrahydrofuran	889	U	Methyl isobutyl ketone	1780	U
Methyl ethyl ketone	1780	U	Di-isopropyl ether (DIPE)	178	U
t-Butyl alcohol (TBA)	3560	U	Ethyl t-butyl ether (ETBE)	178	U
t-Amyl methyl ether (TAME)	178	U	1,3,5-Trichlorobenzene	178	U
			1,4-Dioxane	5340	U
Surrogate Standard Recovery					
d4-1,2-Dichloroethane	82 %		d8-Toluene	84 %	
			Bromofluorobenzene	88 %	
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.

Data File : C:\HPCHEM\1\DATA\DATA\012513-C\85181.D Vial: 6
Acq On : 25 Jan 2013 9:04 pm Operator: MT
Sample : 74729=3 Inst : Instr_C
Misc : 50,6.71,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\METHODS\METHODS\V801143C.M (RTE Integrator)
Title : 8260 Purgable Organics
Last Update : Fri Jan 25 10:35:45 2013
Response via : Initial Calibration



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

January 29, 2013

SAMPLE DATA

CLIENT SAMPLE ID
Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: SB10X-S3-012113

Lab Sample ID: 74729-4
Matrix: Solid
Percent Solid: 60
Dilution Factor: 213
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	213	U	1,3-Dichloropropane	213	U
Bromobenzene	213	U	cis-1,3-Dichloropropene	213	U
Bromochloromethane	213	U	trans-1,3-Dichloropropene	213	U
Bromodichloromethane	160	U	2,2-Dichloropropane	213	U
Bromoform	160	U	1,1-Dichloropropene	213	U
Bromomethane	213	U	Ethylbenzene	213	U
n-butylbenzene	213	U	Hexachlorobutadiene	213	U
sec-butylbenzene	213	U	Isopropylbenzene	213	U
tert-butylbenzene	213	U	p-isopropyltoluene	213	U
Carbon Tetrachloride	213	U	Methylene Chloride	1070	U
Chlorobenzene	213	U	Methyl-tert-butyl ether (MTBE)	160	U
Chloroethane	213	U	Naphthalene	213	U
Chloroform	160	U	n-Propylbenzene	213	U
Chloromethane	213	U	Styrene	213	U
2-Chlorotoluene	213	U	1,1,1,2-Tetrachloroethane	213	U
4-Chlorotoluene	213	U	1,1,2,2-Tetrachloroethane	160	U
Dibromochloromethane	160	U	Tetrachloroethene	213	U
1,2-Dibromo-3-chloropropane	213	U	Toluene	213	U
1,2-Dibromoethane	160	U	1,2,3-Trichlorobenzene	213	U
Dibromomethane	213	U	1,2,4-Trichlorobenzene	213	U
1,2-Dichlorobenzene	213	U	1,1,1-Trichloroethane	213	U
1,3-Dichlorobenzene	213	U	1,1,2-Trichloroethane	160	U
1,4-Dichlorobenzene	213	U	Trichloroethene	213	U
Dichlorodifluoromethane	213	U	Trichlorofluoromethane	213	U
1,1-Dichloroethane	213	U	1,2,3-Trichloropropane	213	U
1,2-Dichloroethane	160	U	1,2,4-Trimethylbenzene	213	U
1,1-Dichloroethene	160	U	1,3,5-Trimethylbenzene	213	U
cis-1,2-Dichloroethene	213	U	Vinyl Chloride	213	U
trans-1,2-Dichloroethene	213	U	o-Xylene	213	U
1,2-Dichloropropane	160	U	m,p-Xylene	213	U
Acetone	2130	U	Diethyl ether	213	U
Carbon Disulfide	213	U	2-Hexanone	2130	U
Tetrahydrofuran	1070	U	Methyl isobutyl ketone	2130	U
Methyl ethyl ketone	2130	U	Di-isopropyl ether (DIPE)	213	U
t-Butyl alcohol (TBA)	4270	U	Ethyl t-butyl ether (ETBE)	213	U
t-Amyl methyl ether (TAME)	213	U	1,3,5-Trichlorobenzene	213	U
			1,4-Dioxane	6400	U
Surrogate Standard Recovery					
d4-1,2-Dichloroethane	79 %		d8-Toluene	80 %	
			Bromofluorobenzene	88 %	
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.

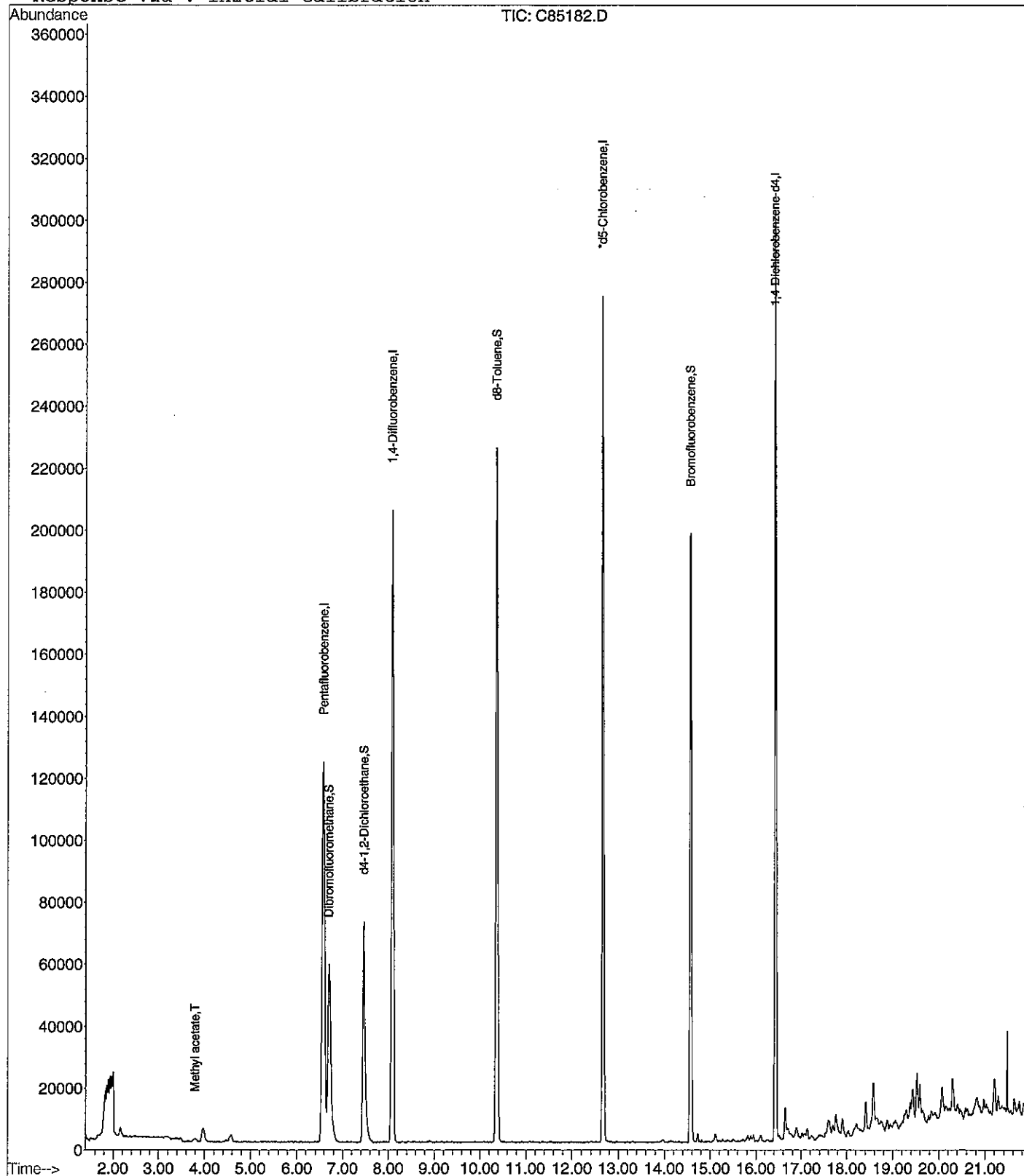
COMMENTS: Results are expressed on a dry weight basis.

Authorized signature



Data File : C:\HPCHEM\1\DATA\DATA\012513-C\C85182.D Vial: 7
Acq On : 25 Jan 2013 9:14 pm Operator: MT
Sample : 74729-4 Inst : Instr_C
Misc : 50,7.76,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



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

January 30, 2013

SAMPLE DATA

CLIENT SAMPLE ID
Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: MW101

Lab Sample ID: 74729-5
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	0.7 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-Trichloropropene	1	U
1,2-Dichloroethane	1	U	1,2,4-Trimethylbenzene	1	0.5 J
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	1.0
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	101 %		d8-Toluene	101 %	
			Bromofluorobenzene	98 %	
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:

Authorized signature

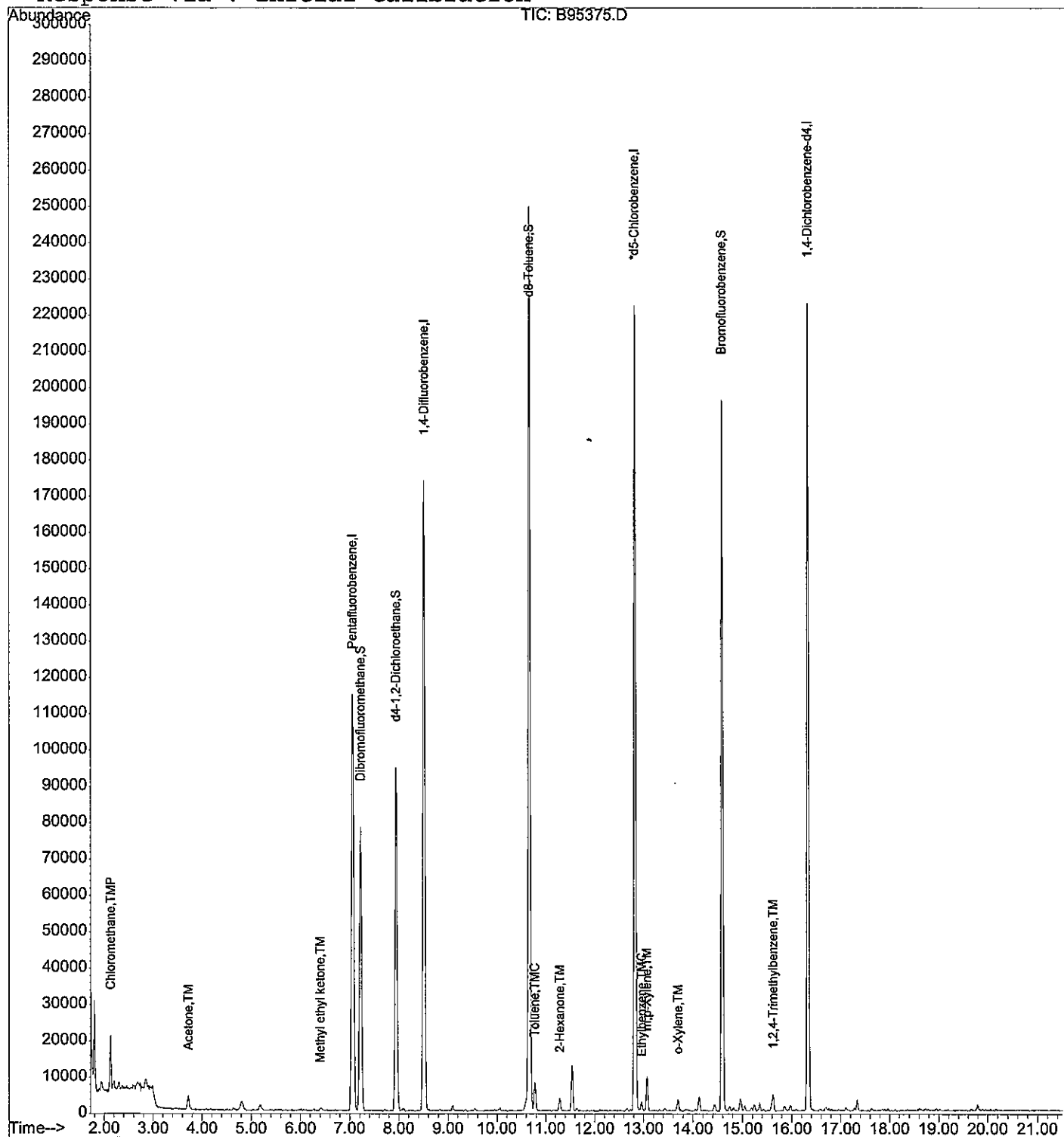
Quantitation Report

Data File : C:\HPCHEM\1\DATA\012913-B\B95375.D
 Acq On : 29 Jan 2013 5:05 pm
 Sample : 74729-5
 Misc : 5000
 MS Integration Params: rteint.p
 Quant Time: Jan 30 8:54 2013

Vial: 16
 Operator: MT
 Inst : Instrumen
 Multiplr: 1.00

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



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

January 30, 2013

SAMPLE DATA

CLIENT SAMPLE ID
Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: MW10X

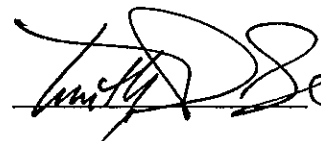
Lab Sample ID: 74729-6
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 01/23/13
Lab Receipt Date: 01/24/13
Analysis Date: 01/29/13

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	100 %	
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:

Authorized signature



VOLATILE QC FORMS

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

January 29, 2013

SAMPLE DATA

CLIENT SAMPLE ID
Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: LAB QC

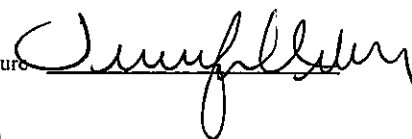
Lab Sample ID: B801253C
Matrix: Solid
Percent Solid: 100
Dilution Factor: 100
Collection Date: N/A
Lab Receipt Date: N/A
Analysis Date: 01/25/13

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.

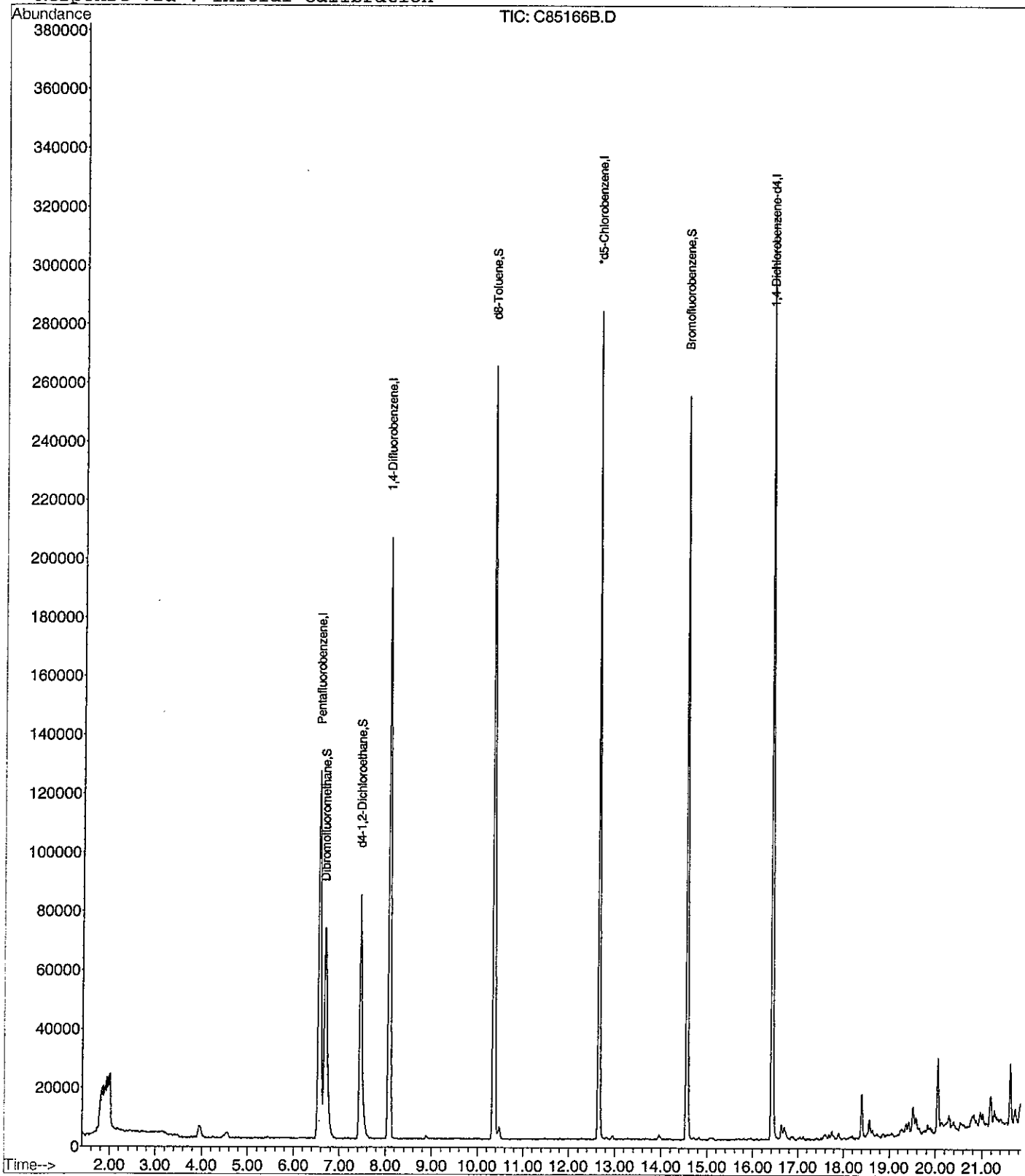
Authorized signature



Quantitation report

Data File : C:\HPCHEM\1\DATA\DATA\012513-C\VC85166B.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\METHODS\METHODS\V801143C.M (RTE Integrator)
 Title : 8260 Purgable Organics
 Last Update : Fri Jan 25 10:35:45 2013
 Response via : Initial Calibration



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

January 30, 2013

SAMPLE DATA

CLIENT SAMPLE ID
Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: LAB QC

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:

Authorized signature

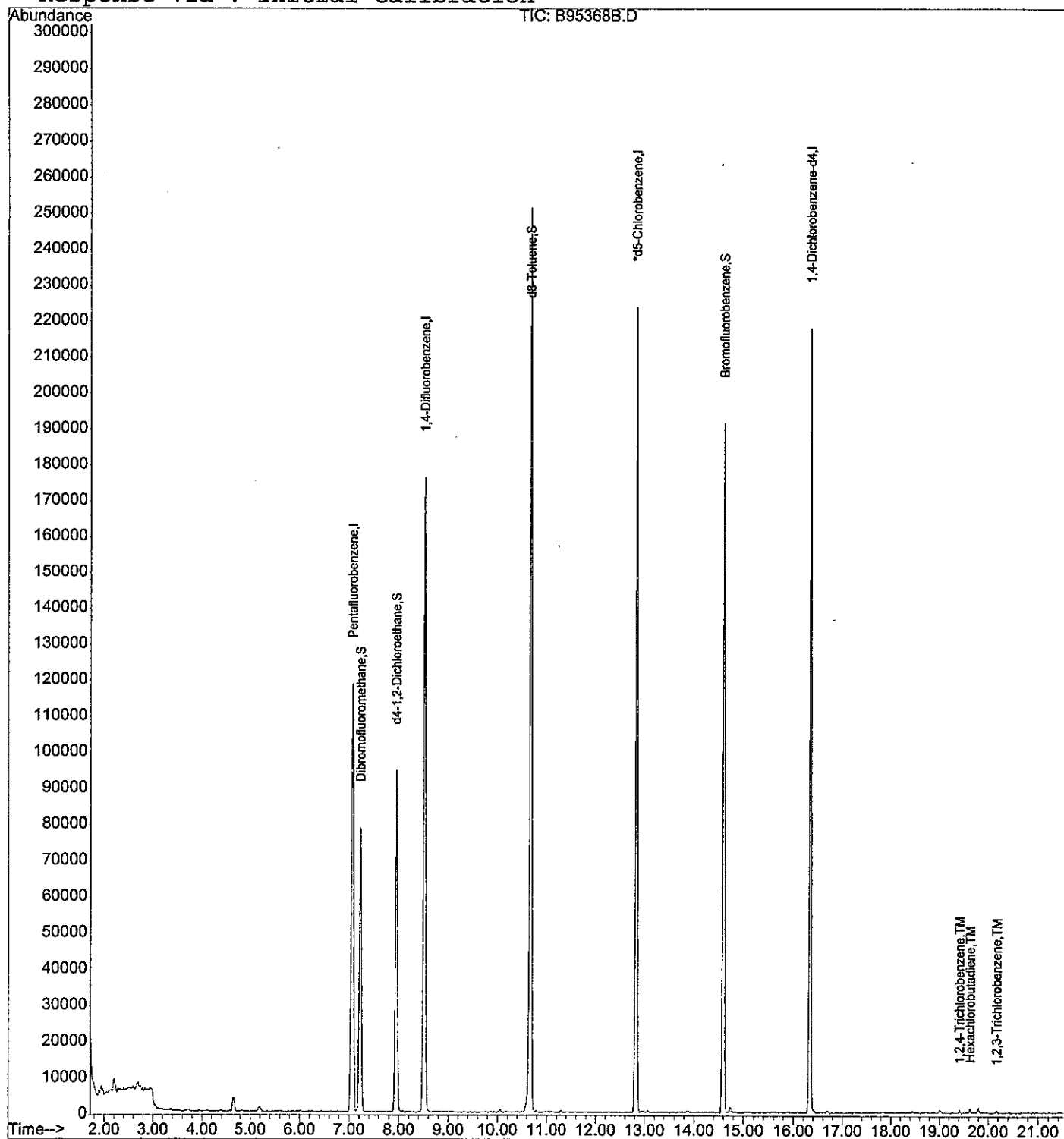
Quantitation Report

Data File : C:\HPCHEM\1\DATA\012913-B\B95368B.D
 Acq On : 29 Jan 2013 1:05 pm
 Sample : B801293B
 Misc : 5000
 MS Integration Params: rteint.p
 Quant Time: Jan 30 8:53 2013

Vial: 9
 Operator: MT
 Inst : Instrumen
 Multiplr: 1.00

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: 74729
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: 74729
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: 74729
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: 74729
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)	% 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: _____

VPH DATA SUMMARIES

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

January 31, 2013

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Client Sample ID: SB101-S3-012113

SAMPLE DATA

Lab Sample ID: 74729-2
Matrix: Solid
Percent Solid: 61
Dilution Factor: 144
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	7220	µg/kg	U
Unadjusted C9-C12 Aliphatics ¹	N/A	7220	µg/kg	U
C5-C8 Aliphatics Hydrocarbons ^{1,2}	N/A	7220	µg/kg	U
C9-C12 Aliphatic Hydrocarbons ^{1,3}	N/A	7220	µg/kg	U
C9-C10 Aromatic Hydrocarbons ¹	N/A	1440	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				104
Surrogate % Recovery (Trifluorotoluene) FID				111
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. Of 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.

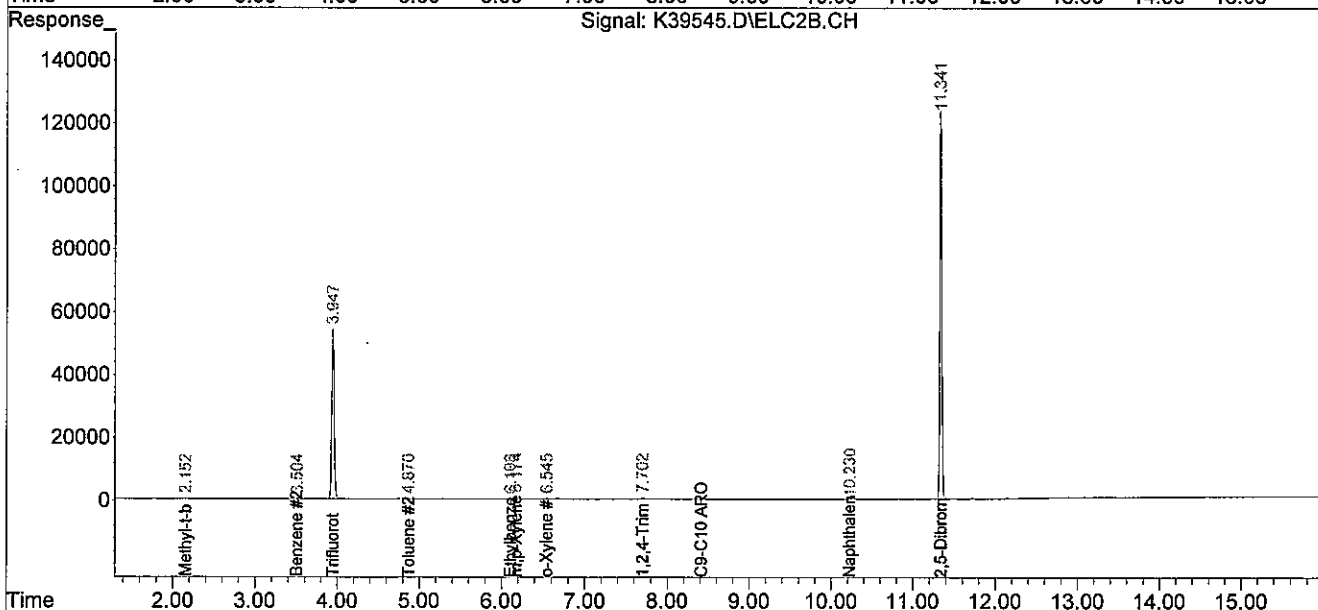
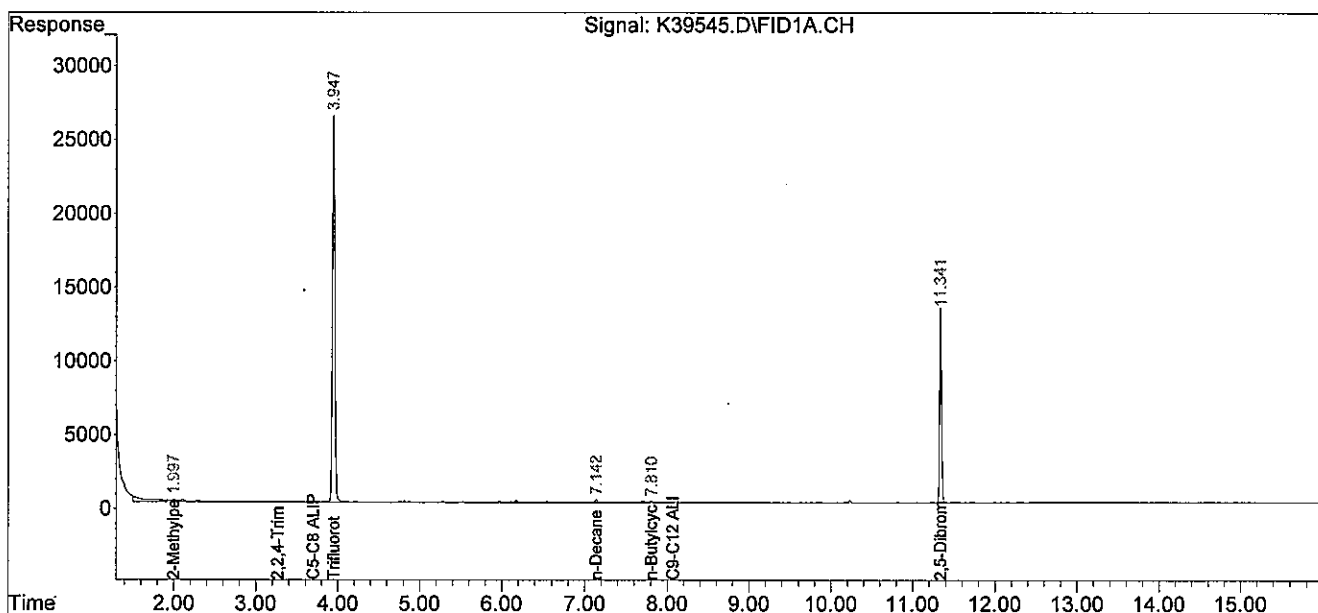
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.
Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\012913-K\
Data File : K39545.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 30 Jan 2013 11:47 pm
Operator : AR/JK
Sample : 74729-2
Misc : 100,7.30,SOIL
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 31 00:28:32 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 :



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

January 30, 2013

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Client Sample ID: SB103-S1-012113

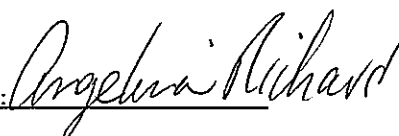
SAMPLE DATA

Lab Sample ID: 74729-3
Matrix: Solid
Percent Solid: 84
Dilution Factor: 93
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	4640	µg/kg	U
Unadjusted C9-C12 Aliphatics ¹	N/A	4640	µg/kg	U
C5-C8 Aliphatics Hydrocarbons ^{1,2}	N/A	4640	µg/kg	U
C9-C12 Aliphatic Hydrocarbons ^{1,3}	N/A	4640	µg/kg	U
C9-C10 Aromatic Hydrocarbons ¹	N/A	928	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				121
Surrogate % Recovery (Trifluorotoluene) FID				125
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. of 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.

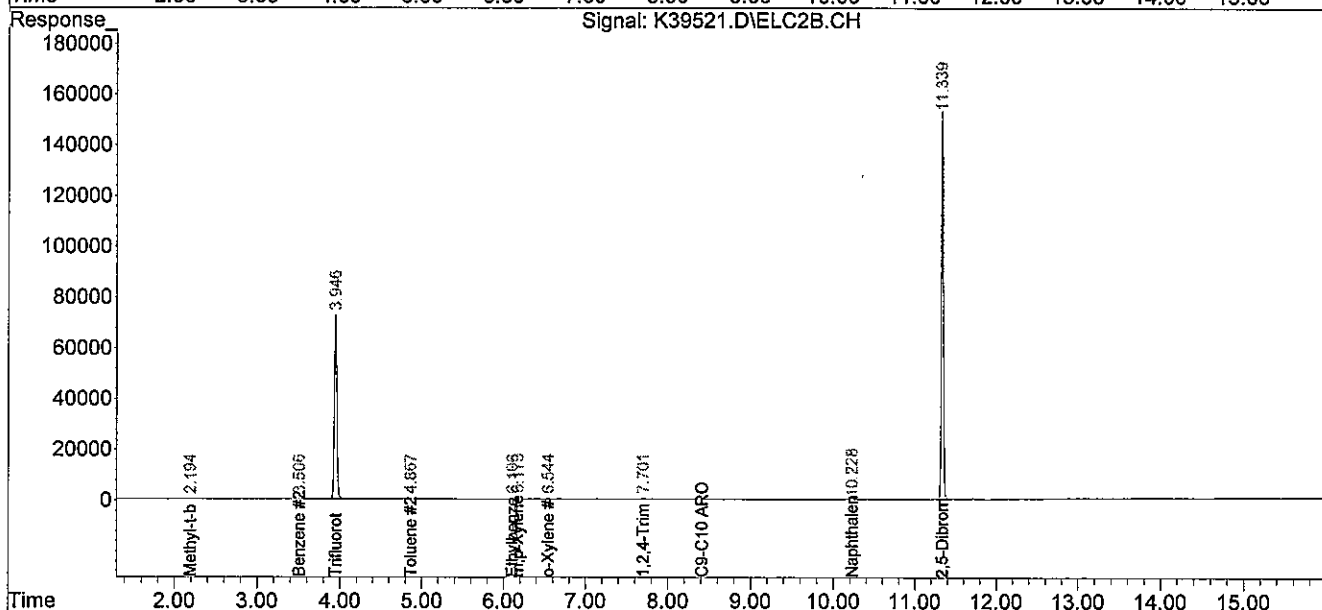
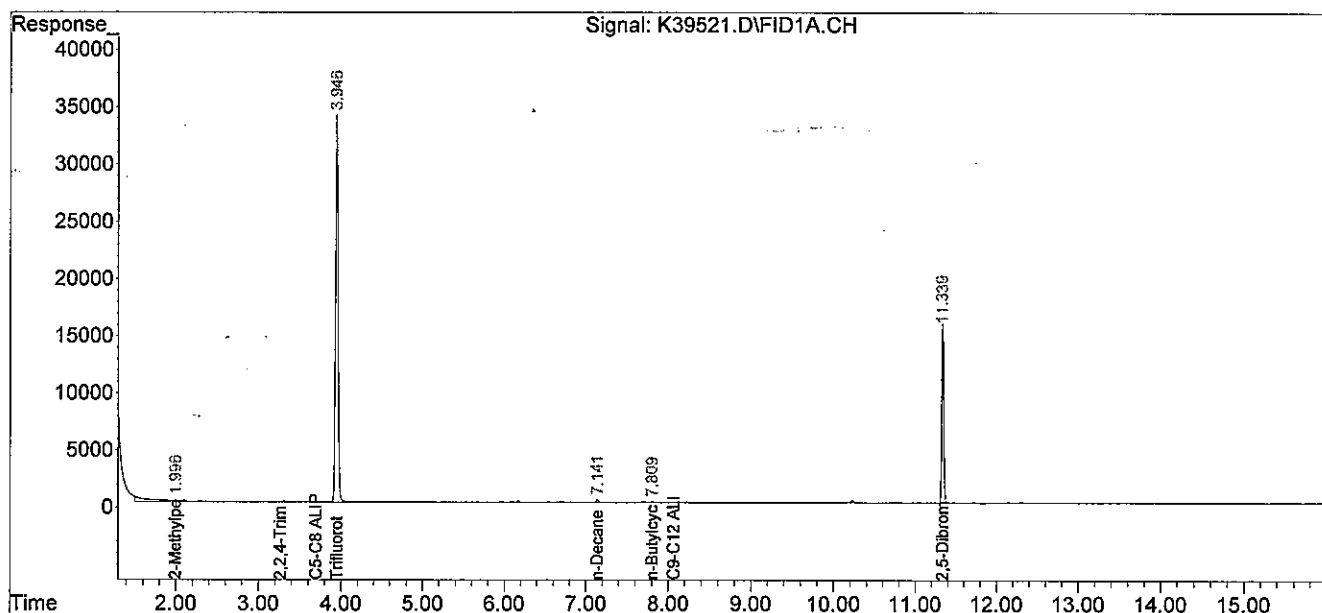
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\012913-K\
Data File : K39521.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 30 Jan 2013 2:23 am
Operator : AR
Sample : 74729-3
Misc : 100,7.18,SOIL
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 30 08:41:24 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 :



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

January 31, 2013

CLIENT SAMPLE ID

Project Name: Mason Dam

Project Number: 111.06134.018

Client Sample ID: SB10X-S3-012113

SAMPLE DATA

Lab Sample ID: 74729-4
Matrix: Solid
Percent Solid: 60
Dilution Factor: 155
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	7760	µg/kg	U
Unadjusted C9-C12 Aliphatics ¹	N/A	7760	µg/kg	U
C5-C8 Aliphatics Hydrocarbons ^{1,2}	N/A	7760	µg/kg	U
C9-C12 Aliphatic Hydrocarbons ^{1,3}	N/A	7760	µg/kg	U
C9-C10 Aromatic Hydrocarbons ¹	N/A	1550	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				116
Surrogate % Recovery (Trifluorotoluene) FID				121
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. Of 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.

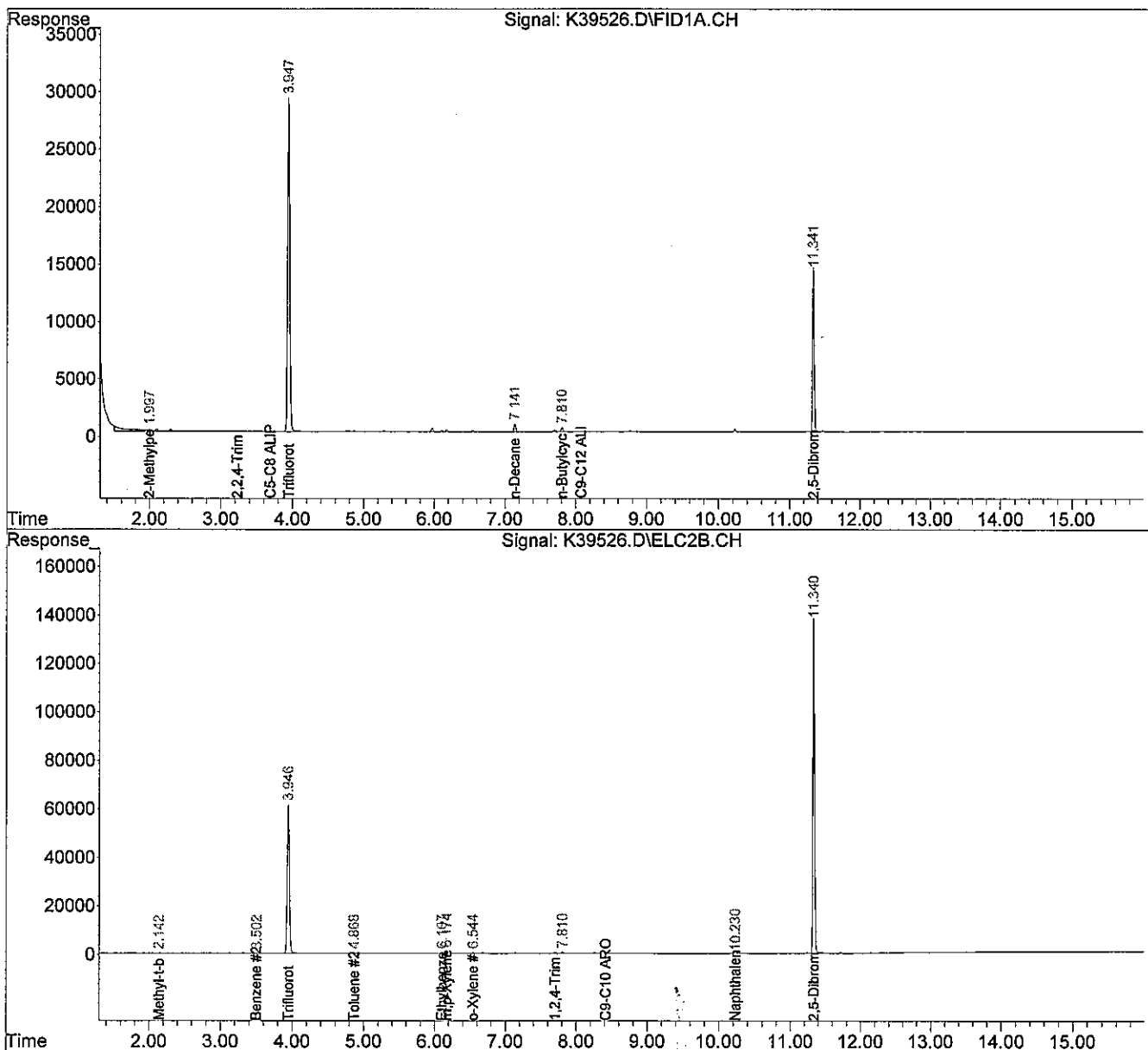
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.
Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\012913-K\
Data File : K39526.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 30 Jan 2013 10:48 am
Operator : AR/JK
Sample : 74729-4
Misc : 100,6.77,SOIL
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 30 11:08:49 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 :



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

January 30, 2013

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Client Sample ID: MW101

SAMPLE DATA

Lab Sample ID: 74729-5
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

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
Benzene	C5-C8	1	µg/L	U
Ethylbenzene	C9-C12	1	µg/L	U
Methyl-tert-butyl ether	C5-C8	1	µg/L	U
Naphthalene	N/A	1	µg/L	U
Toluene	C5-C8	1	µg/L	0.7 J
m- & p-Xylenes	C9-C12	2	µg/L	1.1 J
o-Xylene	C9-C12	1	µg/L	U
C5-C8 Aliphatic 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	7 J
Surrogate % Recovery (Trifluorotoluene) PID				95
Surrogate % Recovery (Trifluorotoluene) FID				96
Surrogate Acceptance Range				70-130%

¹ Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

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. of C9-C10 Aromatic Hydrocarbons.

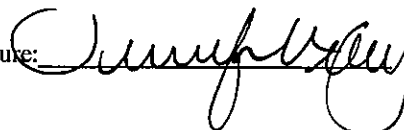
RL = Report Limit

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.

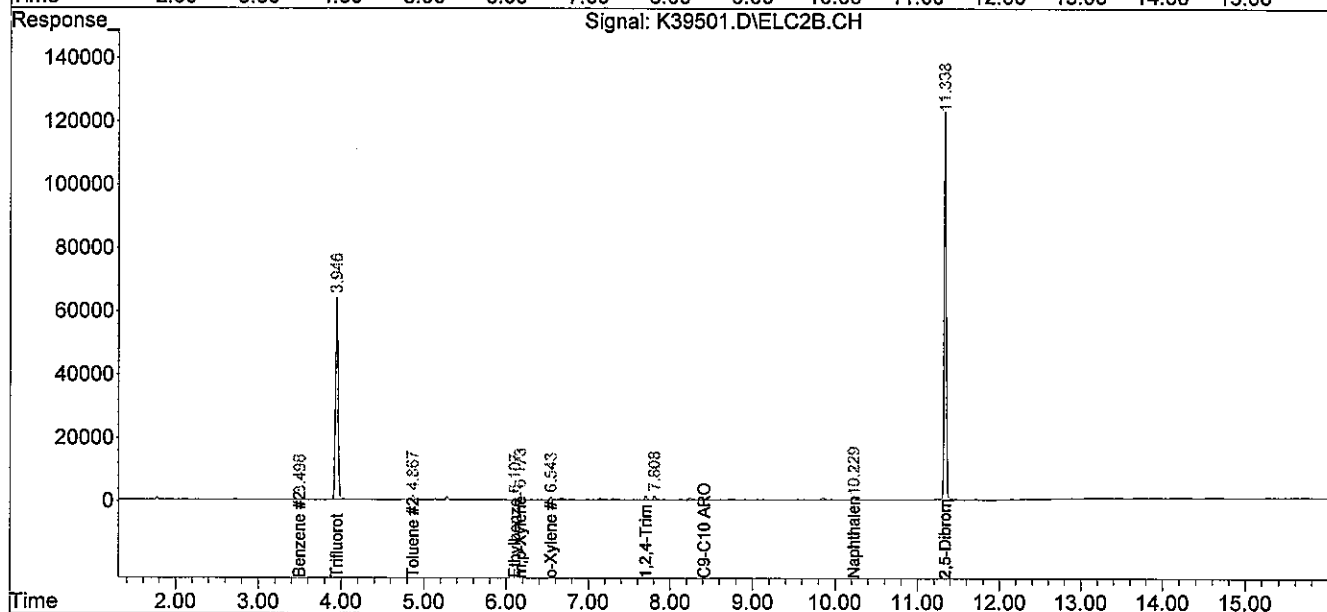
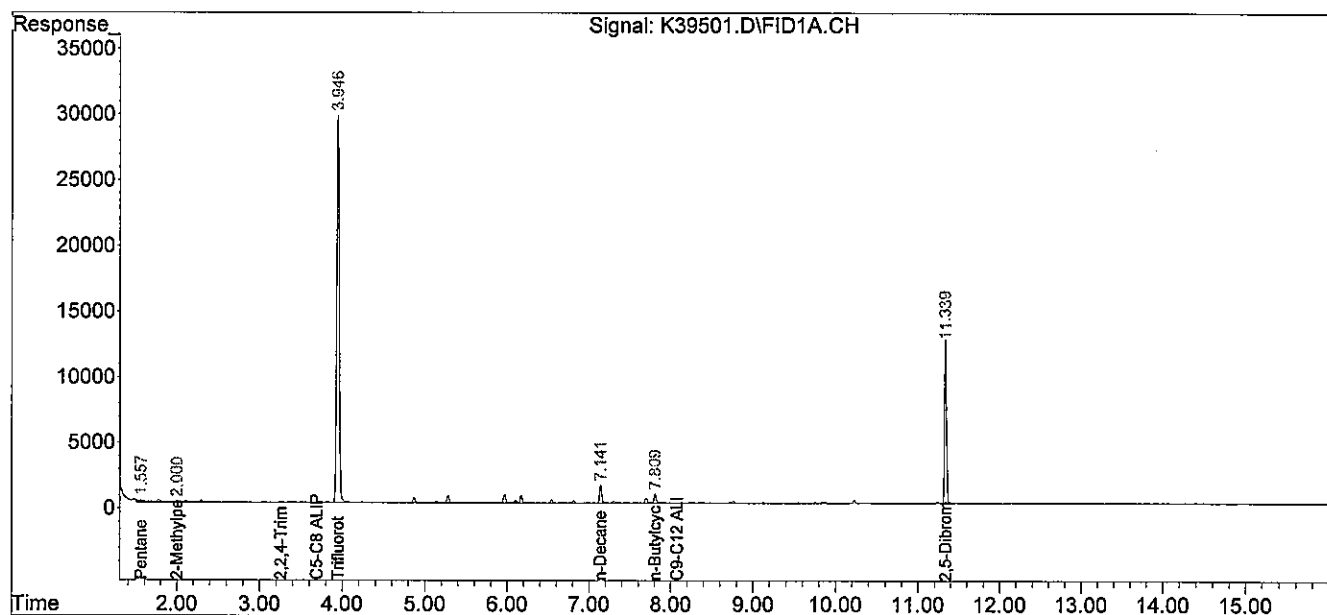
Authorized signature:



Data Path : C:\msdchem\1\DATA\012913-K\
Data File : K39501.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 29 Jan 2013 1:33 pm
Operator : JK
Sample : 74729-5
Misc : 5000
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 30 00:51:08 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 :



Mr. Erik Phenix
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Portland, ME 04101

January 30, 2013

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Client Sample ID: MW10X

SAMPLE DATA

Lab Sample ID: 74729-6
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

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
Benzene	C5-C8	1	µg/L	U
Ethylbenzene	C9-C12	1	µg/L	U
Methyl-tert-butyl ether	C5-C8	1	µg/L	U
Naphthalene	N/A	1	µg/L	U
Toluene	C5-C8	1	µg/L	U
m- & p-Xylenes	C9-C12	2	µg/L	U
o-Xylene	C9-C12	1	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				100
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 range.

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. of C9-C10 Aromatic Hydrocarbons.

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.

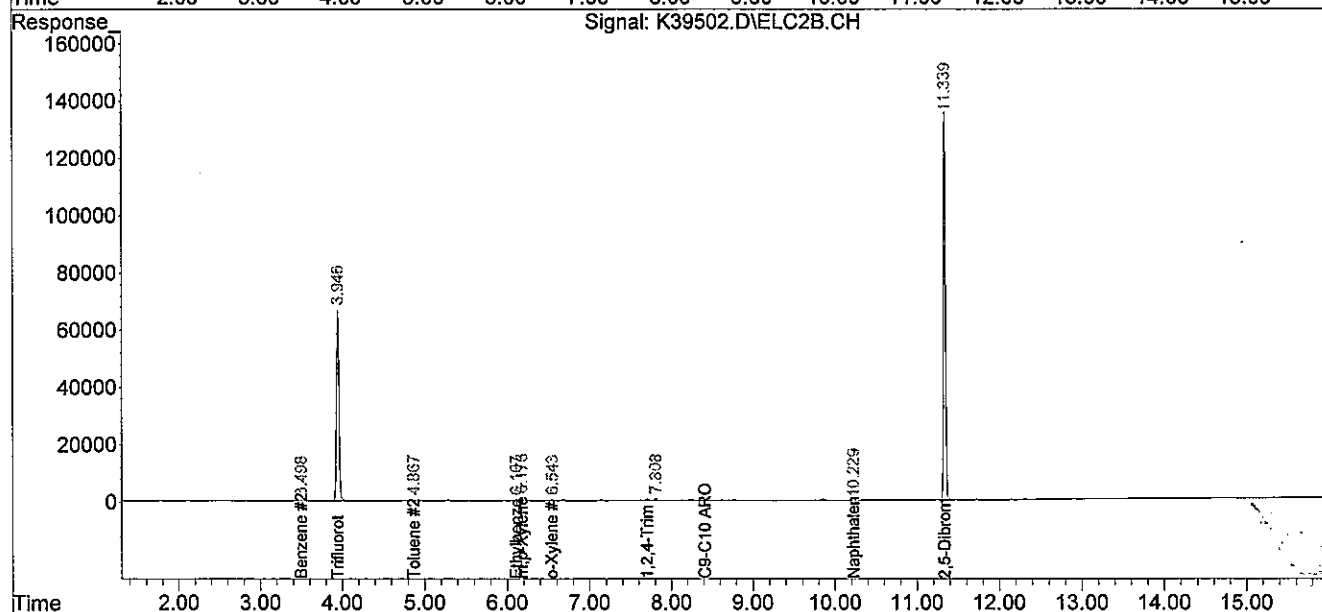
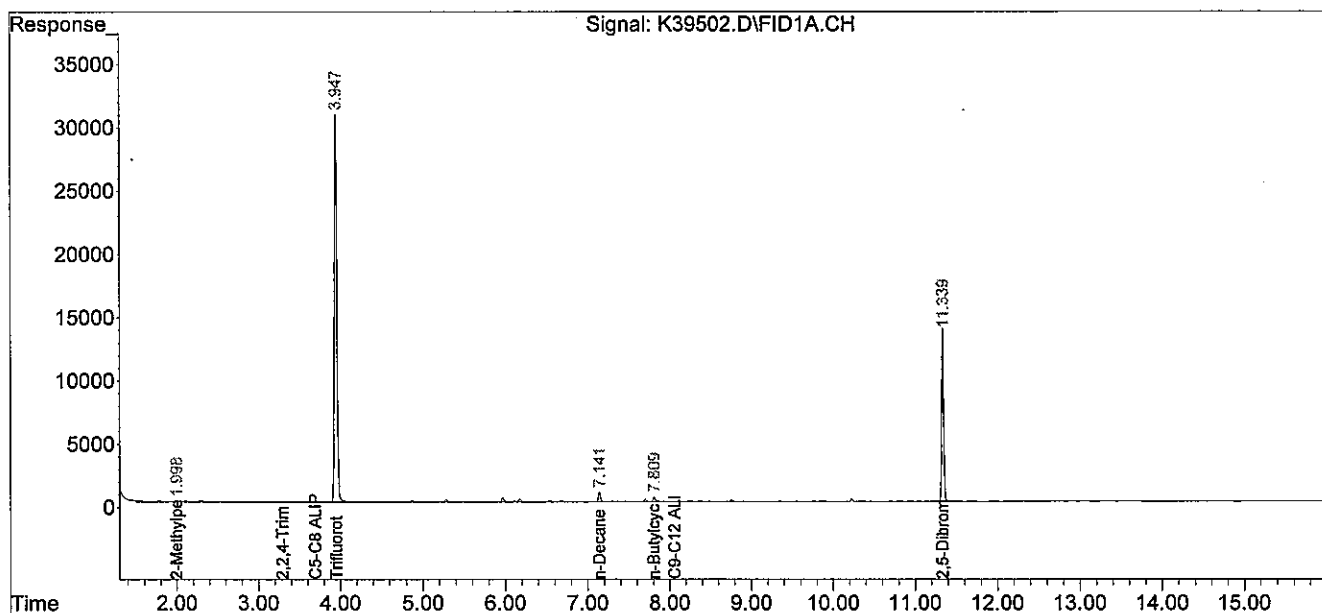
Authorized signature: _____



Data Path : C:\msdchem\1\DATA\012913-K\
Data File : K39502.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 29 Jan 2013 2:00 pm
Operator : JK
Sample : 74729-6
Misc : 5000
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 29 14:54:18 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

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

January 30, 2013

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Client Sample ID: LabQC

SAMPLE DATA

Lab Sample ID: BV012913K
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date:
Lab Receipt Date:
Analysis Date: 01/29/13

VPH ANALYTICAL RESULTS

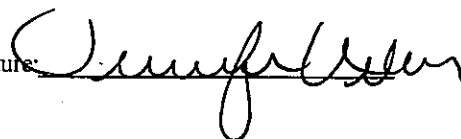
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics ¹	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics ¹	N/A	50	µg/L	U
Benzene	C5-C8	1	µg/L	U
Ethylbenzene	C9-C12	1	µg/L	U
Methyl-tert-butyl ether	C5-C8	1	µg/L	U
Naphthalene	N/A	1	µg/L	U
Toluene	C5-C8	1	µg/L	U
m- & p-Xylenes	C9-C12	2	µg/L	U
o-Xylene	C9-C12	1	µg/L	U
C5-C8 Aliphatic 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				113
Surrogate % Recovery (Trifluorotoluene) FID				116
Surrogate Acceptance Range				70-130%

¹Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
²C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
³C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons.
 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.

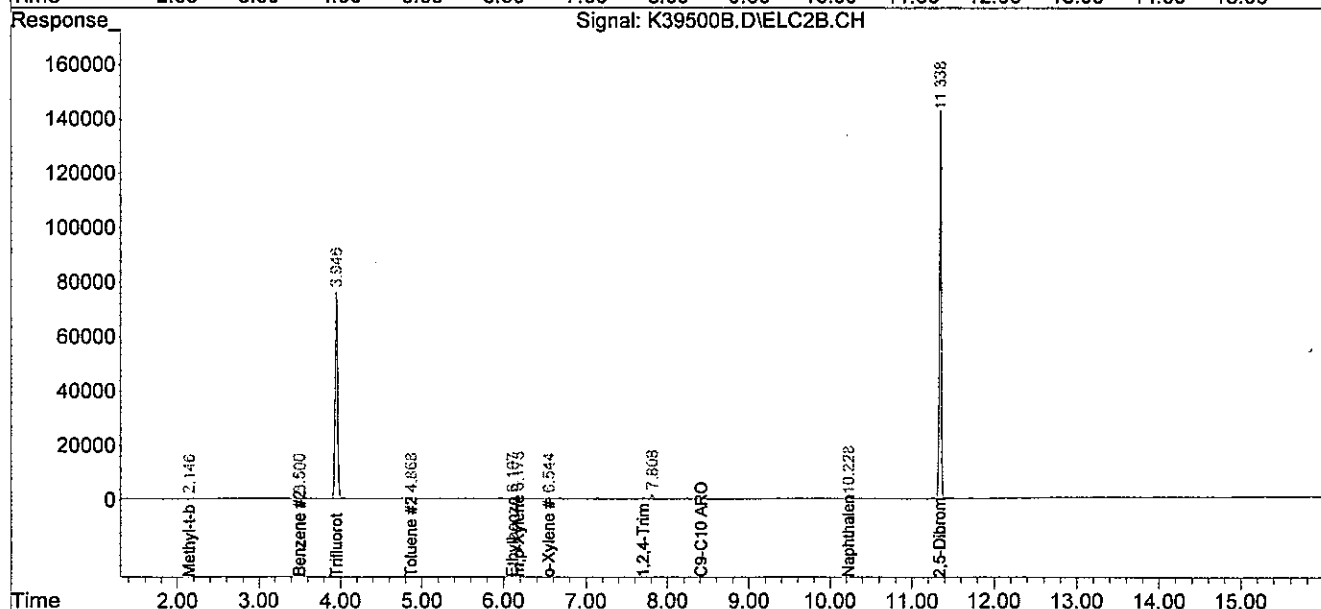
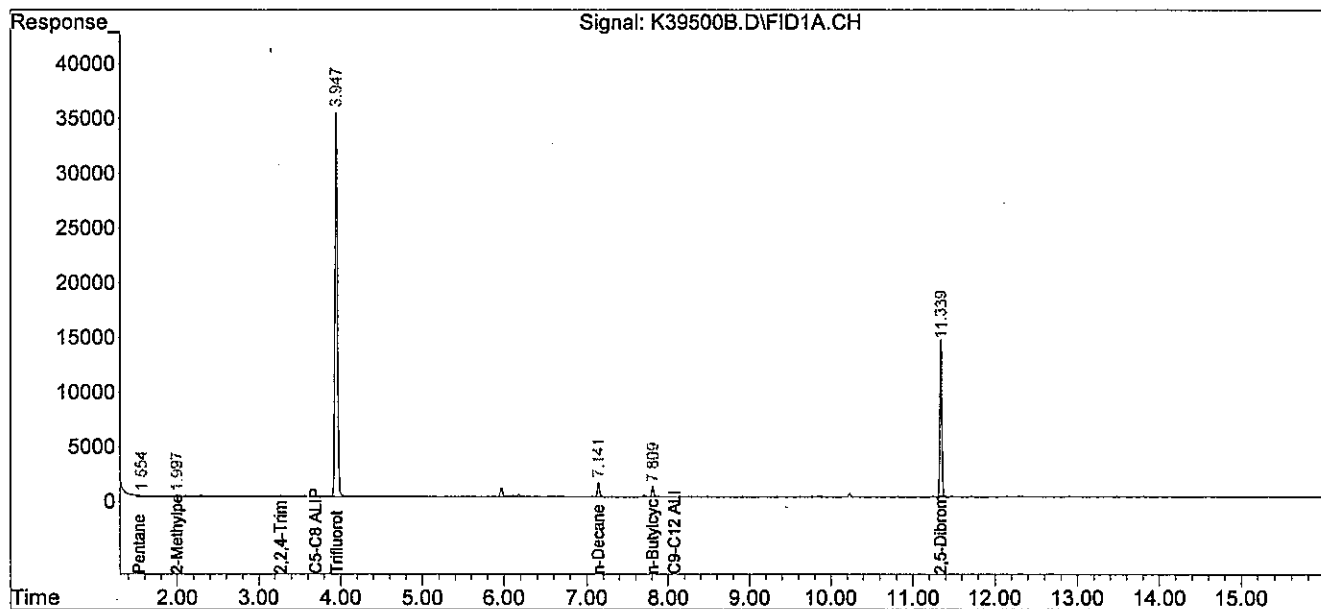
Authorized signature: _____



Data Path : C:\msdchem\1\DATA\012913-K\
Data File : K39500B.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 29 Jan 2013 12:35 pm
Operator : JK
Sample : BV012913K
Misc : 5000
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 29 12:57:31 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 30, 2013

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Client Sample ID: LabQC

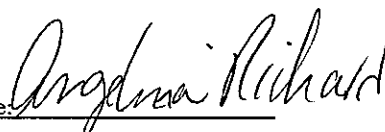
SAMPLE DATA

Lab Sample ID: MBV012913K
Matrix: Soil
Percent Solid: N/A
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 Aliphatic 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. of 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.

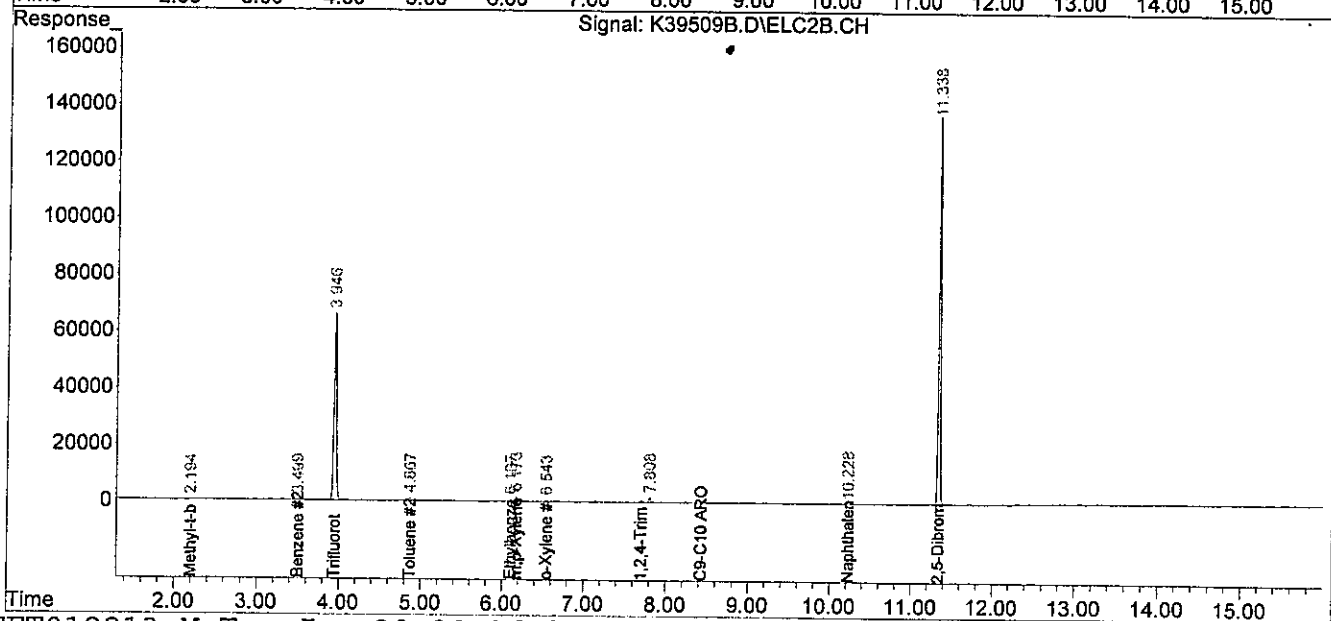
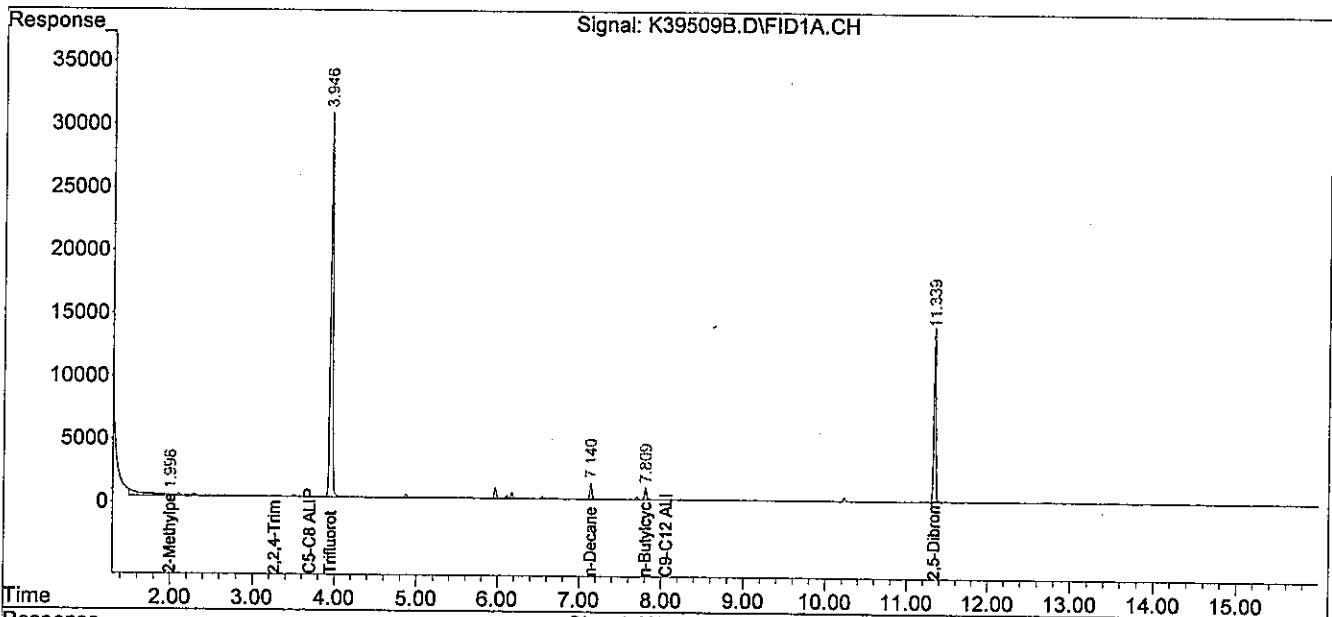
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: 

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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January 31, 2013

CLIENT SAMPLE ID

Project Name: / Mason Dam

Project Number: 111.06134.018

Client Sample ID: LabQC

SAMPLE DATA

Lab Sample ID: MBV012913K RR

Matrix: Soil

Percent Solid: 0

Dilution Factor: 50

Collection Date:

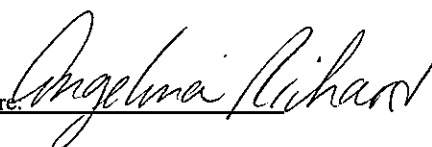
Lab Receipt Date:

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				95
Surrogate % Recovery (Trifluorotoluene) FID				99
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. Of 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.

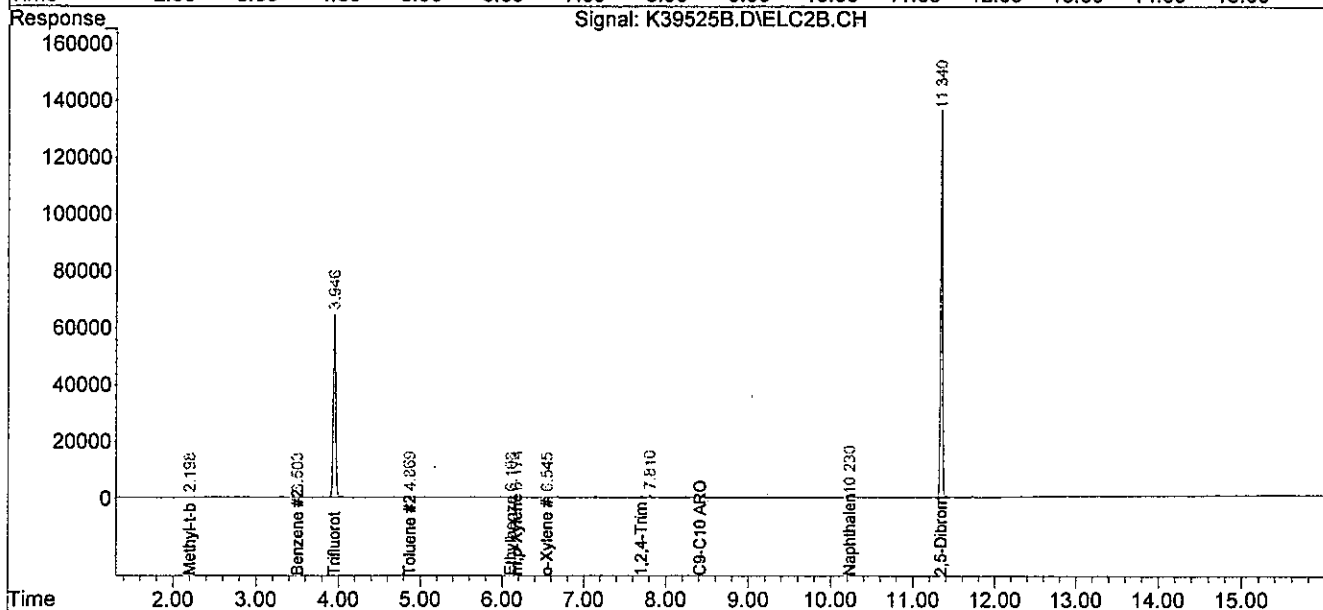
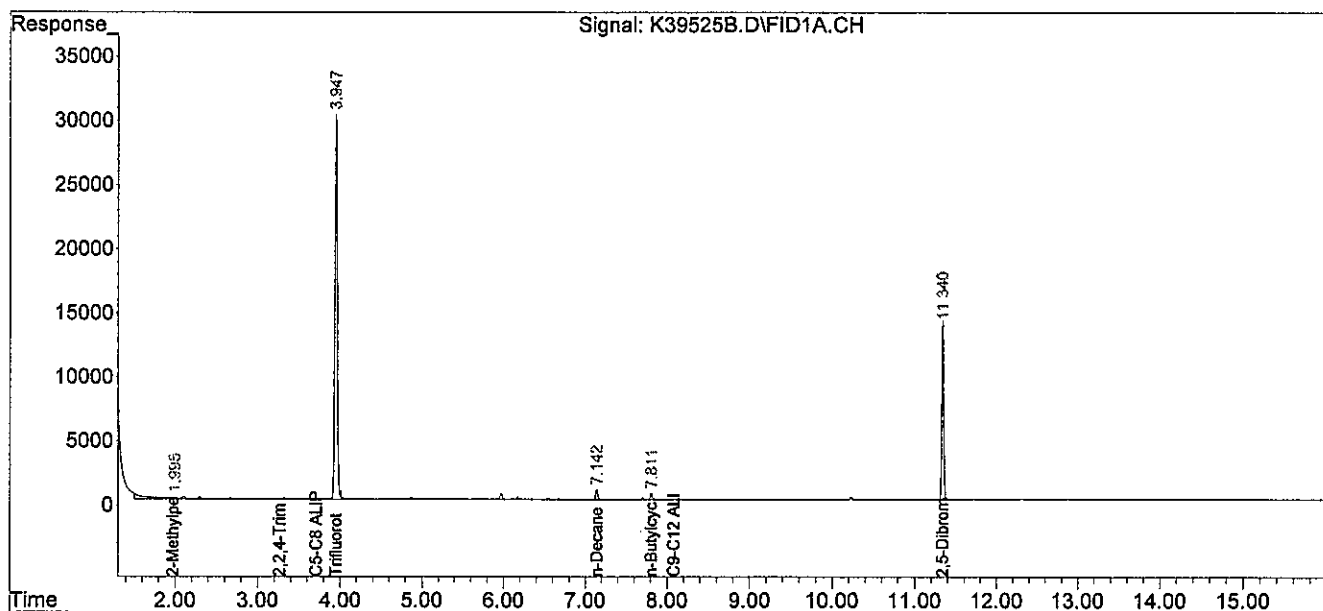
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.
Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\012913-K\
Data File : K39525B.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 30 Jan 2013 10:12 am
Operator : AR/JK
Sample : MBV012913K,RR
Misc : 100,10.00,SOIL
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 30 10:32:51 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 :



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

January 31, 2013

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Client Sample ID: LabQC

SAMPLE DATA

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

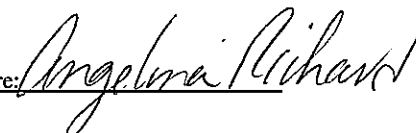
VPH ANALYTICAL RESULTS

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%

¹Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
²C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
³C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. Of 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.

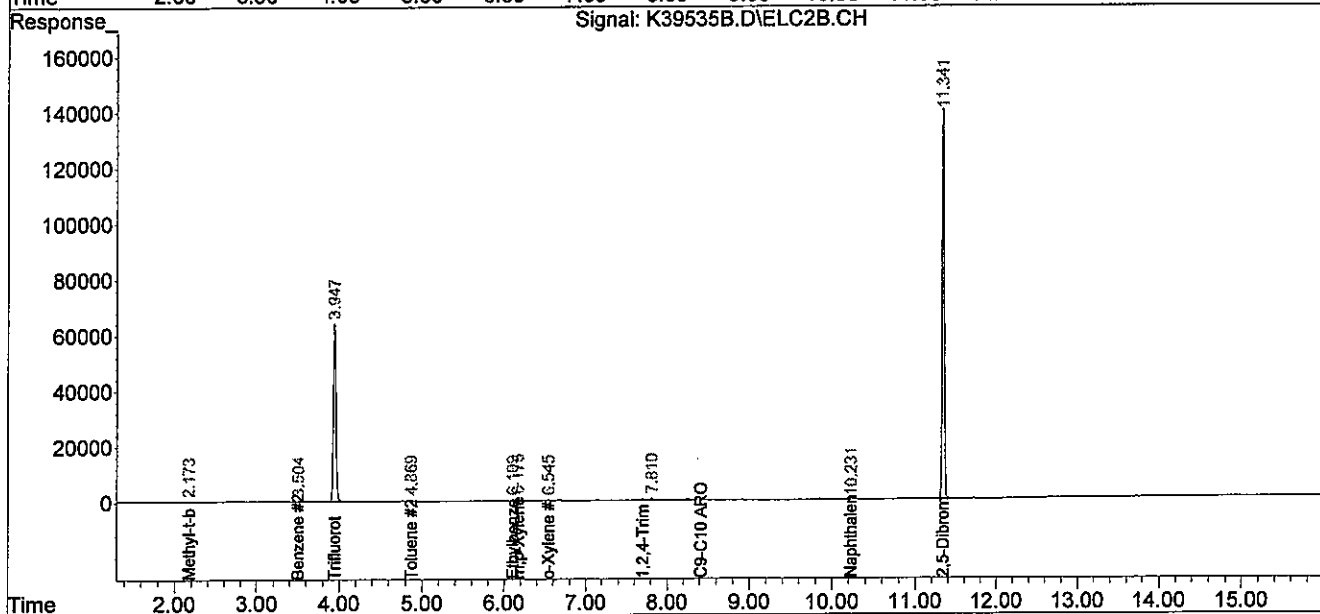
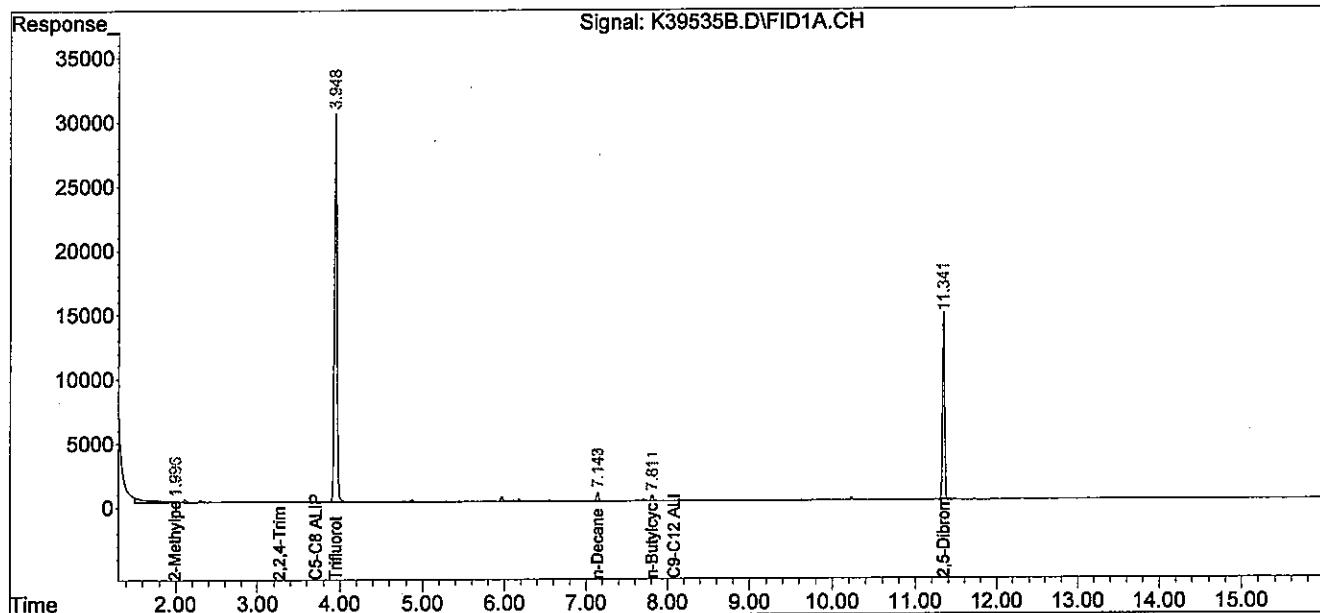
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.
Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: 

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: BV012913K
Spike: LV012913K
Spike duplicate: LV012913K2

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	106	106		108	108		2	
2-Methylpentane	100	70	130	25	0.0	112	112		113	113		1	
2,2,4-Trimethylpentane	100	70	130	25	0.0	102	102		100	100		1	
n-Decane	100	70	130	25	0.0	99	99		104	104		5	
n-Butylcyclohexane	100	70	130	25	0.0	103	103		108	108		4	
Methyl-t-butylether #2	100	70	130	25	0.0	99	99		99	99		0	
Benzene #2	100	70	130	25	0.0	102	102		103	103		1	
Toluene #2	100	70	130	25	0.0	101	101		102	102		1	
Ethylbenzene #2	100	70	130	25	0.0	104	104		105	105		1	
m,p-Xylene #2	200	70	130	25	0.0	207	103		208	104		1	
o-Xylene #2	100	70	130	25	0.0	103	103		104	104		0	
1,2,4-Trimethylbenzene #2	100	70	130	25	0.0	107	107		107	107		0	
Naphthalene #2	100	70	130	25	0.0	96	96		99	99		4	
C5-C8 Aliphatics	300	70	130	25	0.0	319	106		321	107		1	
C9-C12 Aliphatics	200	70	130	25	0.0	202	101		212	106		5	
C9-C10 Aromatics #2	100	70	130	25	0.0	107	107		107	107		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: _____

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 #	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	SPIKE #	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

February 7, 2013

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

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Client Sample ID: BK1

SAMPLE DATA

Lab Sample ID: 74729-1
Matrix: Solid
Percent Solid: 51
Dilution Factor: 2.0
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Extraction Date: 02/01/13
Analysis Date: 02/06/13

EPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE		RL	Units	Result
Unadjusted C11-C22 Aromatics ¹		26100	µg/kg	U
Diesel PAH Analytes	Naphthalene	522	µg/kg	U
	2-Methylnaphthalene	522	µg/kg	U
	Phenanthrene	522	µg/kg	U
	Acenaphthene	522	µg/kg	U
Other Target PAH Analytes	Acenaphthylene	522	µg/kg	U
	Fluorene	522	µg/kg	U
	Anthracene	522	µg/kg	U
	Fluoranthene	522	µg/kg	U
	Pyrene	522	µg/kg	U
	Benzo[a]anthracene	522	µg/kg	U
	Chrysene	522	µg/kg	U
	Benzo[b]fluoranthene	522	µg/kg	U
	Benzo[k]fluoranthene	522	µg/kg	U
	Benzo[a]pyrene	522	µg/kg	U
	Indeno[1,2,3-cd]pyrene	522	µg/kg	U
	Dibenzo[a,h]anthracene	522	µg/kg	U
	Benzo[g,h,i]perylene	522	µg/kg	U
C9-C18 Aliphatic Hydrocarbons ¹		26100	µg/kg	U
C19-C36 Aliphatic Hydrocarbons ¹		26100	µg/kg	U
C11-C22 Aromatic Hydrocarbons ^{1,2}		26100	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)				64
Aromatic Surrogate % Recovery (O-Terphenyl)				78
Sample Surrogate Acceptance Range		--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)				99
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)				97
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				

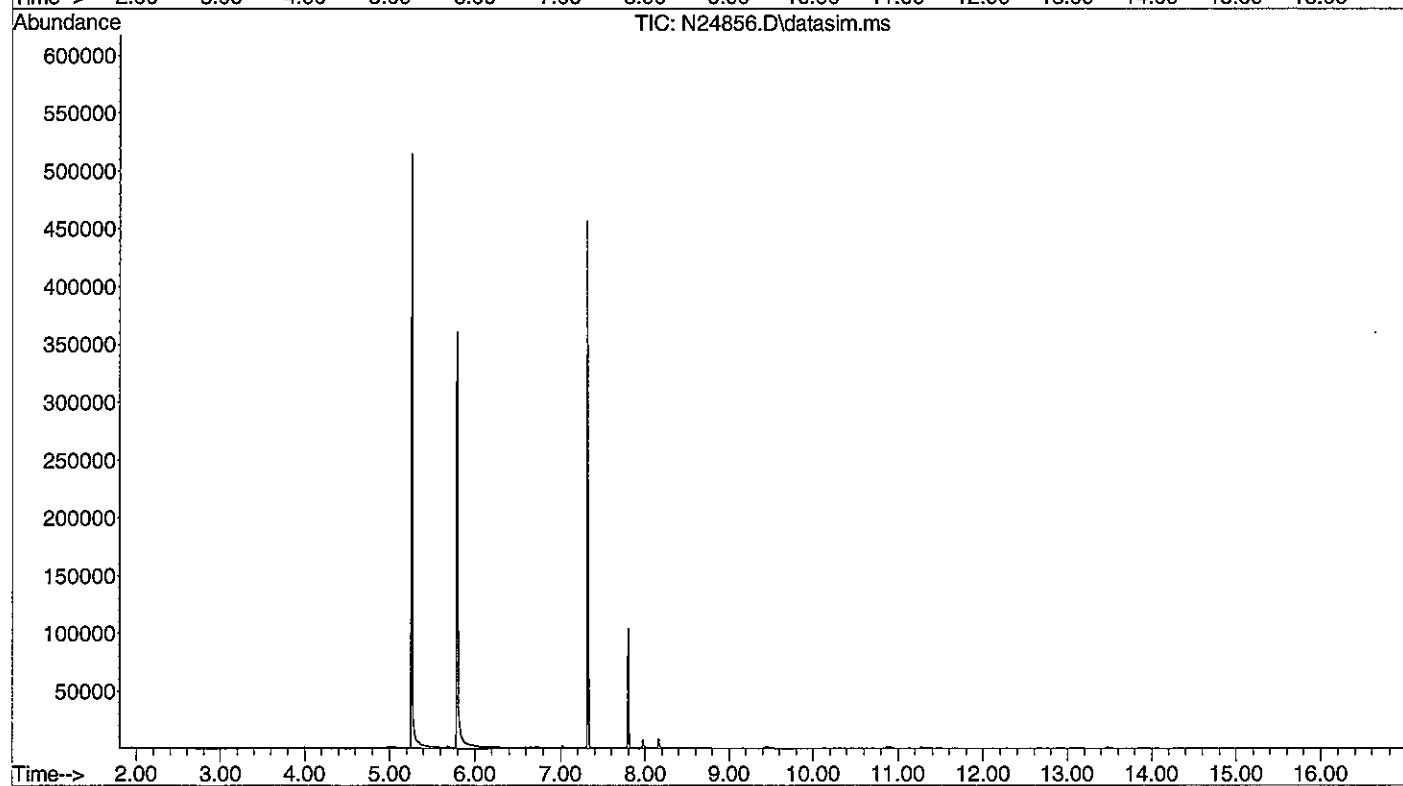
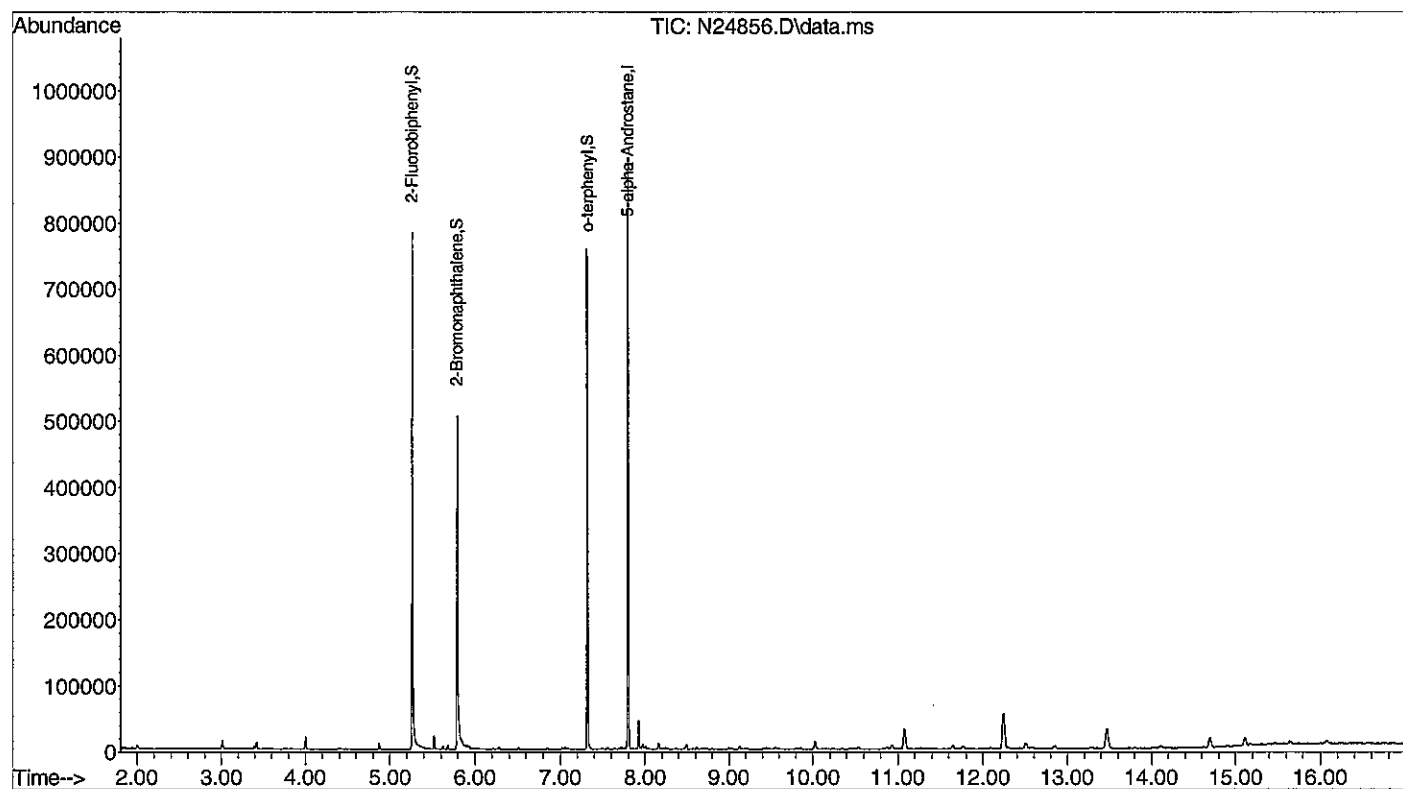
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

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\020613-N\
Data File : N24856.D
Acq On : 6 Feb 2013 8:43 pm
Operator : AR
Sample : 74729-1
Misc : SOIL
ALS Vial : 10 Sample Multiplier: 1

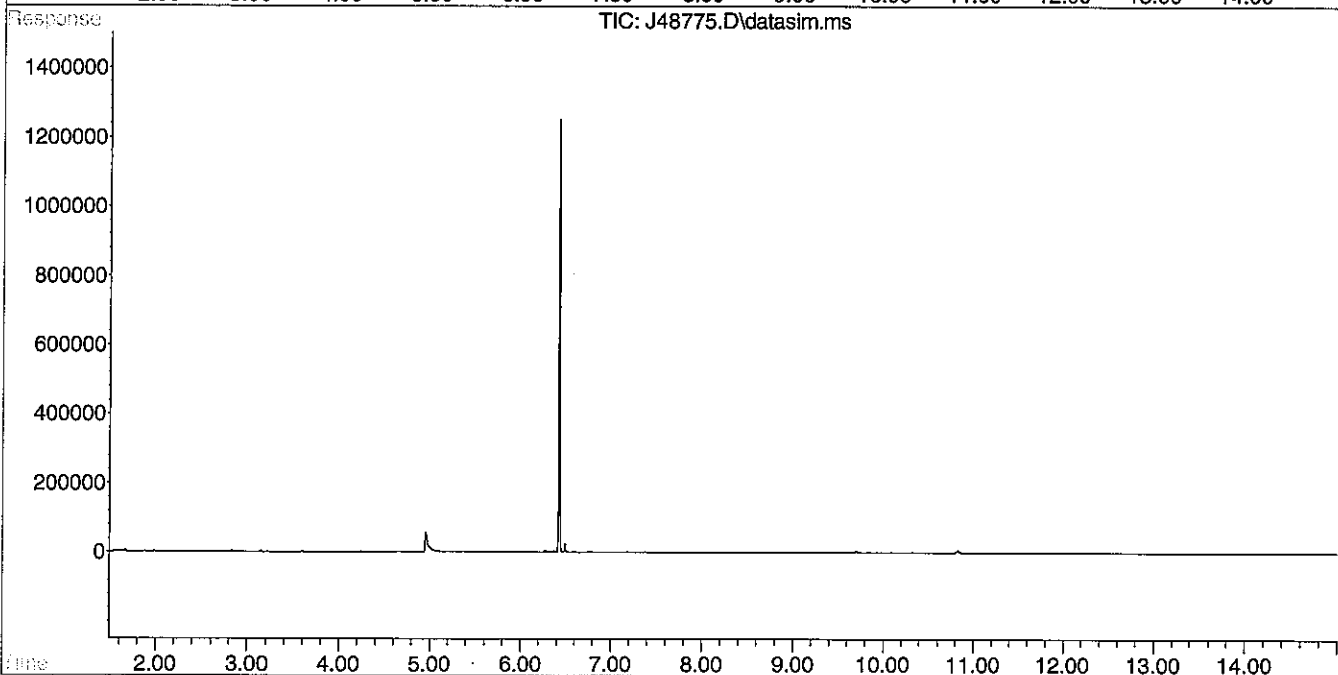
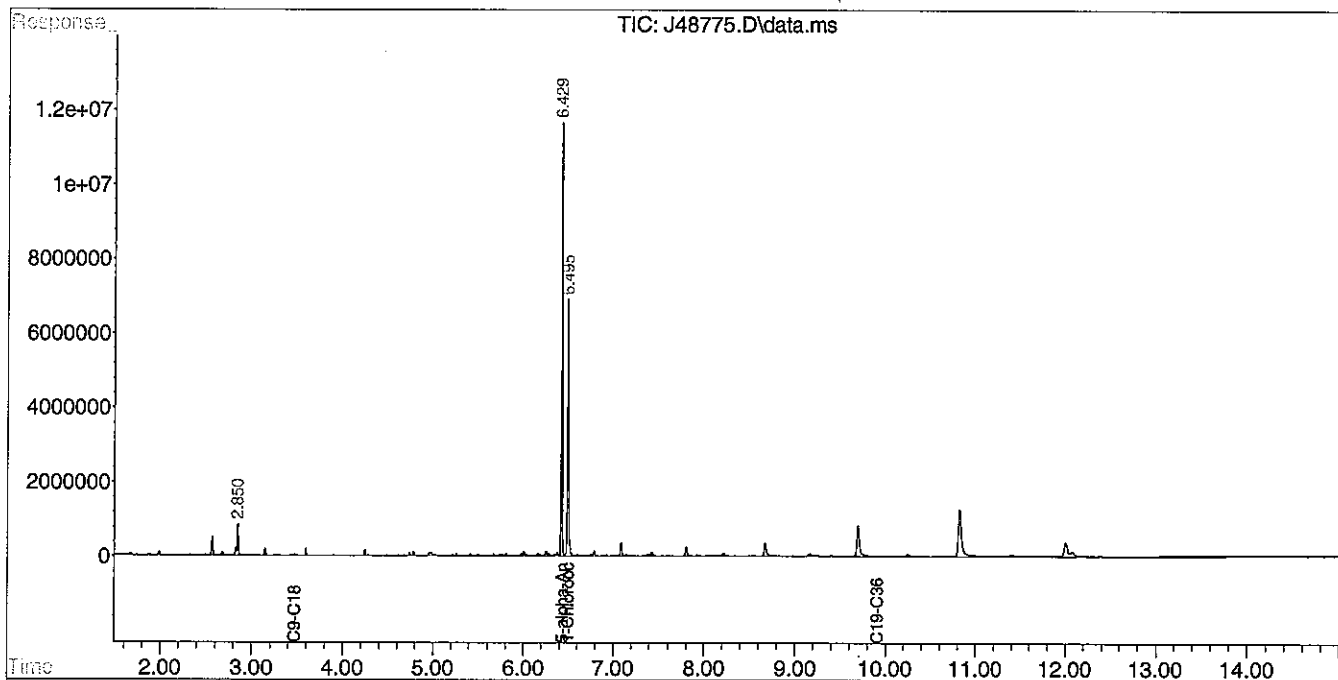
Quant Time: Feb 07 01:28:18 2013
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
Quant Title : EPH MS AROMATICS
QLast Update : Tue Feb 05 18:13:49 2013
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020613-J\
 Data File : J48775.D
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
 Acq On : 6 Feb 2013 7:54 pm
 Operator : MG/AR
 Sample : 74729-1
 Misc : SOIL
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 06 22:37:48 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 :



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

February 7, 2013

CLIENT SAMPLE ID
Project Name: Mason Dam
Project Number: 111.06134.018
Client Sample ID: SB101-S3-012113

SAMPLE DATA
Lab Sample ID: 74729-2
Matrix: Solid
Percent Solid: 61
Dilution Factor: 1.6
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Extraction Date: 02/01/13
Analysis Date: 02/06/13

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics ¹	20700	µg/kg	U
Diesel PAH Analytes	Naphthalene	415	µg/kg
	2-Methylnaphthalene	415	µg/kg
	Phenanthrene	415	µg/kg
	Acenaphthene	415	µg/kg
Other Target PAH Analytes	Acenaphthylene	415	µg/kg
	Fluorene	415	µg/kg
	Anthracene	415	µg/kg
	Fluoranthene	415	µg/kg
	Pyrene	415	µg/kg
	Benzo[a]anthracene	415	µg/kg
	Chrysene	415	µg/kg
	Benzo[b]fluoranthene	415	µg/kg
	Benzo[k]fluoranthene	415	µg/kg
	Benzo[a]pyrene	415	µg/kg
	Indeno[1,2,3-cd]pyrene	415	µg/kg
	Dibenzo[a,h]anthracene	415	µg/kg
	Benzo[g,h,i]perylene	415	µg/kg
C9-C18 Aliphatic Hydrocarbons ¹	20700	µg/kg	U
C19-C36 Aliphatic Hydrocarbons ¹	20700	µg/kg	U
C11-C22 Aromatic Hydrocarbons ^{1,2}	20700	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			65
Aromatic Surrogate % Recovery (O-Terphenyl)			87
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			103
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			106
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			

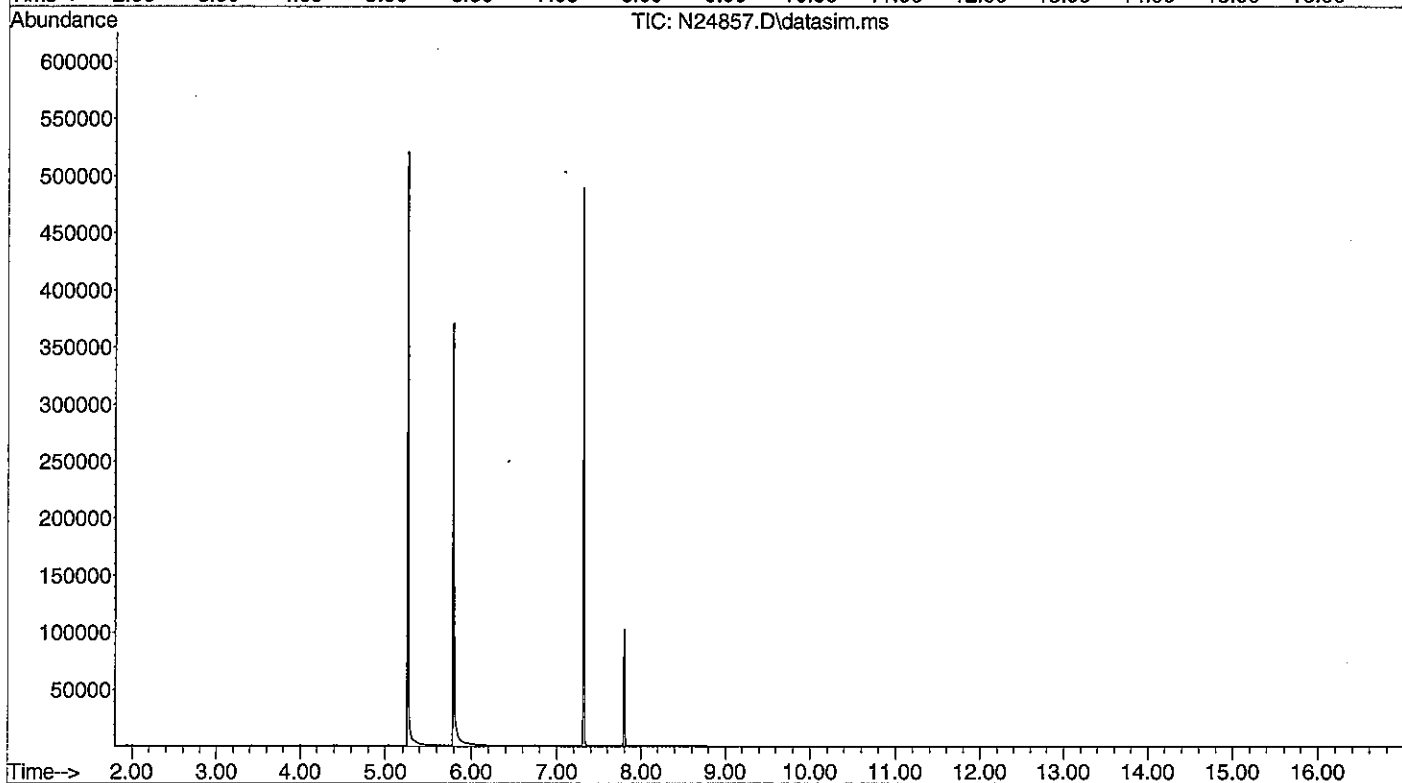
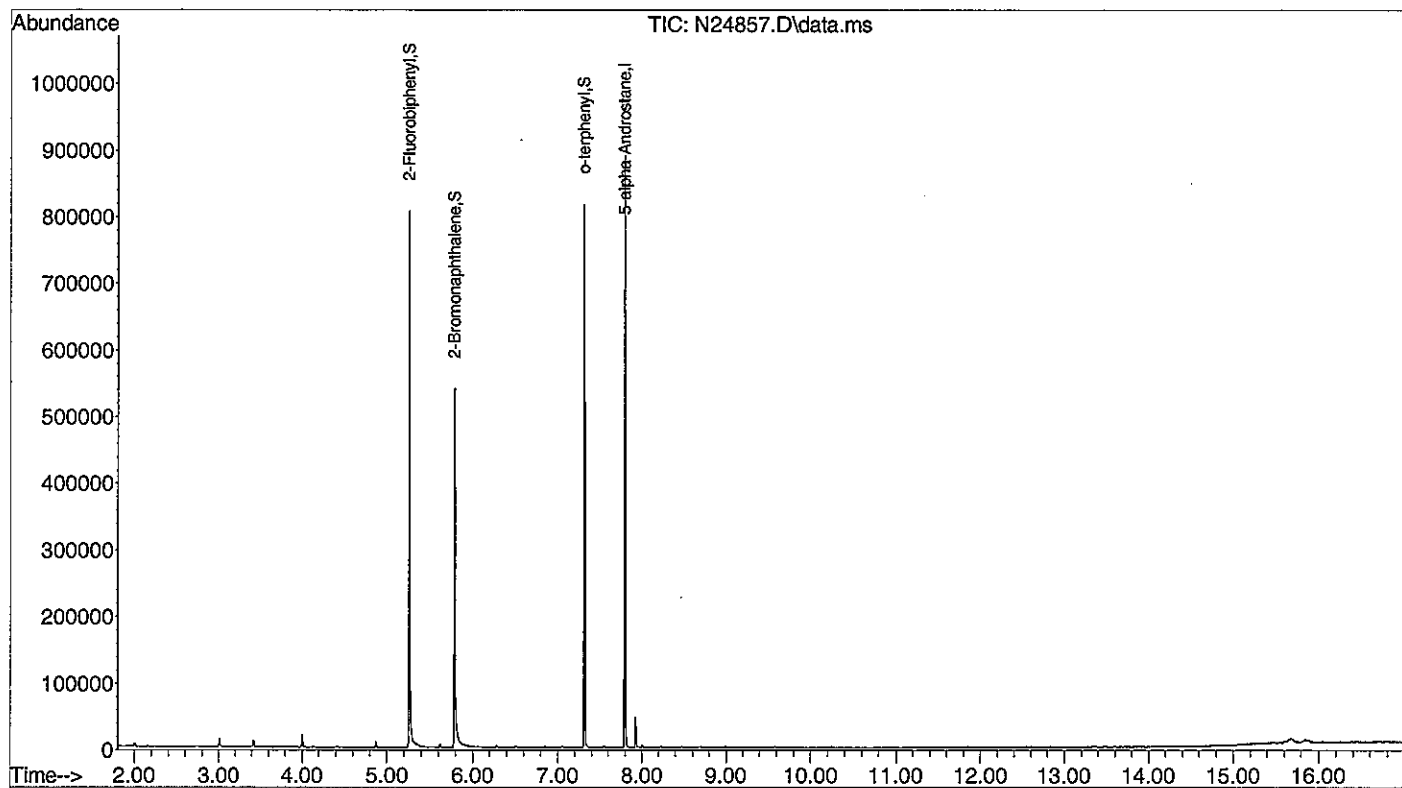
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

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: *Angela Richard*

Data Path : C:\msdchem\1\DATA\020613-N\
Data File : N24857.D
Acq On : 6 Feb 2013 9:03 pm
Operator : AR
Sample : 74729-2
Misc : SOIL
ALS Vial : 11 Sample Multiplier: 1

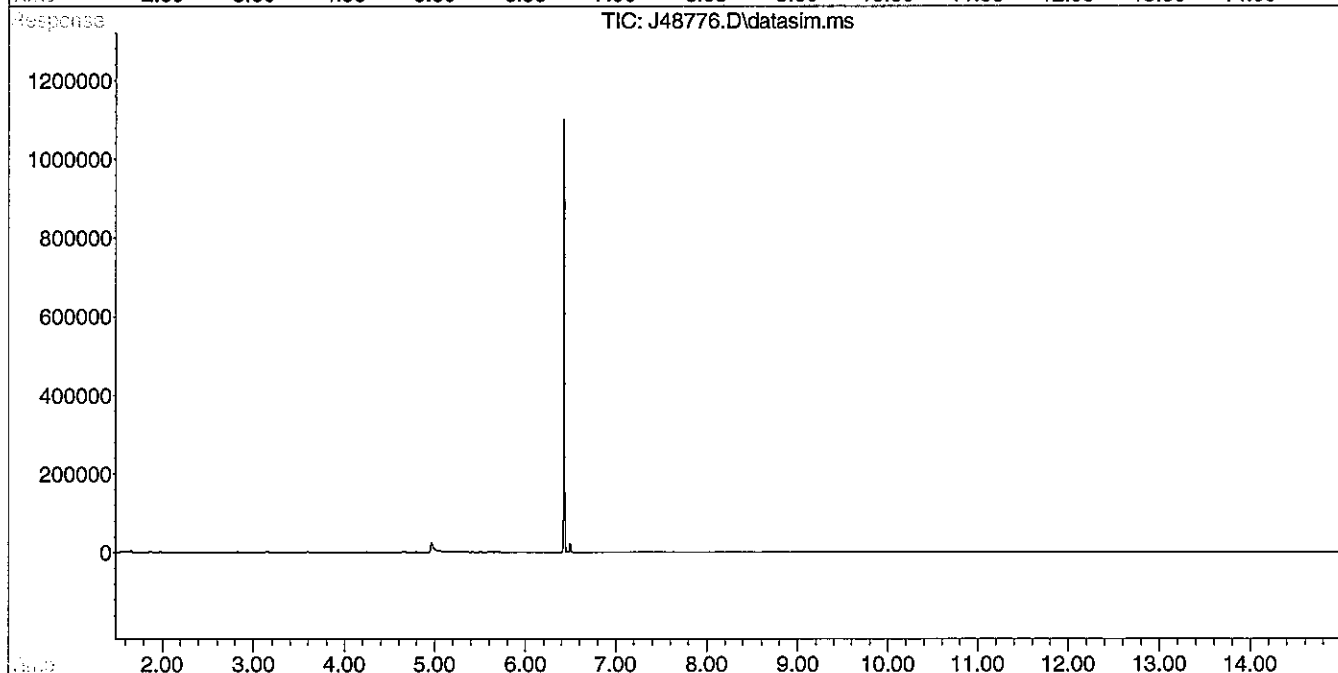
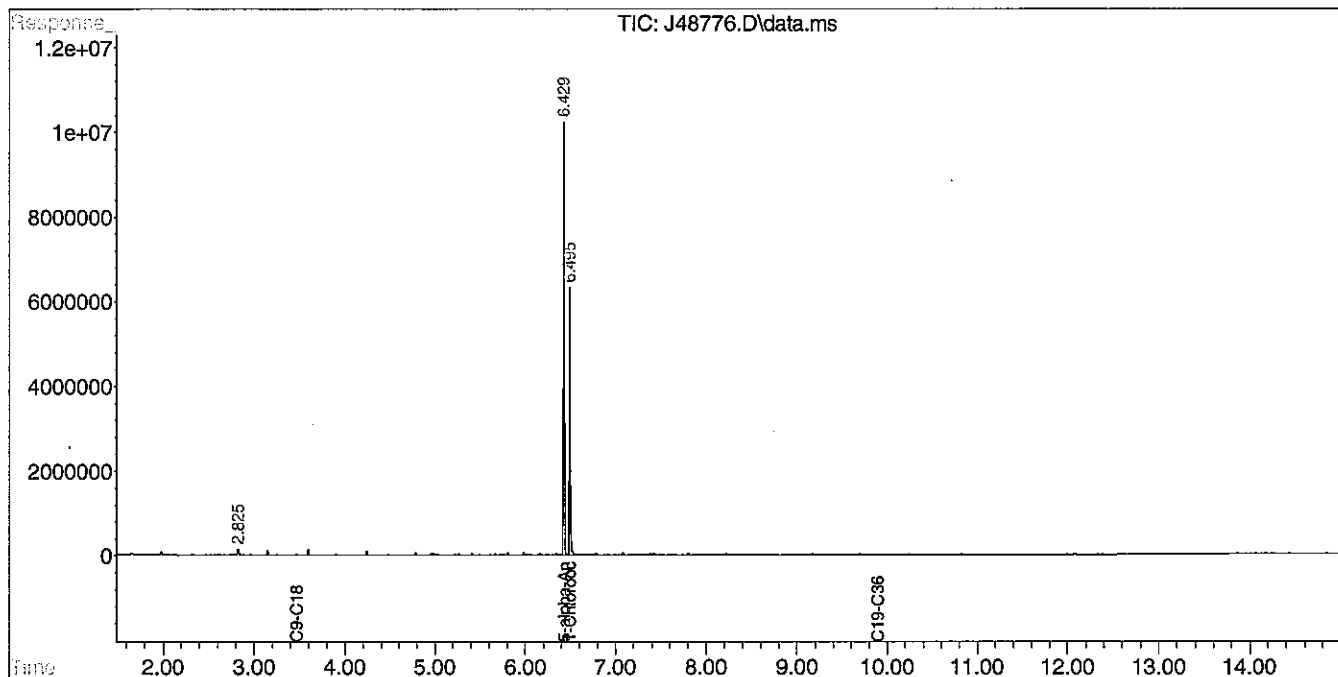
Quant Time: Feb 07 01:28:20 2013
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
Quant Title : EPH MS AROMATICS
QLast Update : Tue Feb 05 18:13:49 2013
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020613-J\
 Data File : J48776.D
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
 Acq On : 6 Feb 2013 8:15 pm
 Operator : MG/AR
 Sample : 74729-2
 Misc : SOIL
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 06 22:37:50 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 :



February 7, 2013

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

SAMPLE DATA

Lab Sample ID: 74729-3
Matrix: Solid
Percent Solid: 84
Dilution Factor: 1.2
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Extraction Date: 02/01/13
Analysis Date: 02/06/13

CLIENT SAMPLE ID
Project Name: Mason Dam
Project Number: 111.06134.018
Client Sample ID: SB103-S1-012113

EPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE		RL	Units	Result
Unadjusted C11-C22 Aromatics ¹		15800	µg/kg	U
Diesel PAH Analytes	Naphthalene	317	µg/kg	U
	2-Methylnaphthalene	317	µg/kg	U
	Phenanthrene	317	µg/kg	U
	Acenaphthene	317	µg/kg	U
Other Target PAH Analytes	Acenaphthylene	317	µg/kg	U
	Fluorene	317	µg/kg	U
	Anthracene	317	µg/kg	U
	Fluoranthene	317	µg/kg	234 J
	Pyrene	317	µg/kg	217 J
	Benzof[a]anthracene	317	µg/kg	U
	Chrysene	317	µg/kg	U
	Benzo[b]fluoranthene	317	µg/kg	U
	Benzo[k]fluoranthene	317	µg/kg	U
	Benzo[a]pyrene	317	µg/kg	U
	Indeno[1,2,3-cd]pyrene	317	µg/kg	U
	Dibenzof[a,h]anthracene	317	µg/kg	U
	Benzo[g,h,i]perylene	317	µg/kg	U
C9-C18 Aliphatic Hydrocarbons ¹		15800	µg/kg	U
C19-C36 Aliphatic Hydrocarbons ¹		15800	µg/kg	17500
C11-C22 Aromatic Hydrocarbons ^{1,2}		15800	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)				67
Aromatic Surrogate % Recovery (O-Terphenyl)				92
Sample Surrogate Acceptance Range		--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)				99
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)				100
Fractionation Surrogate Acceptance Range		--	--	40-140%

¹Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
²C11-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

¹Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

²C11-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

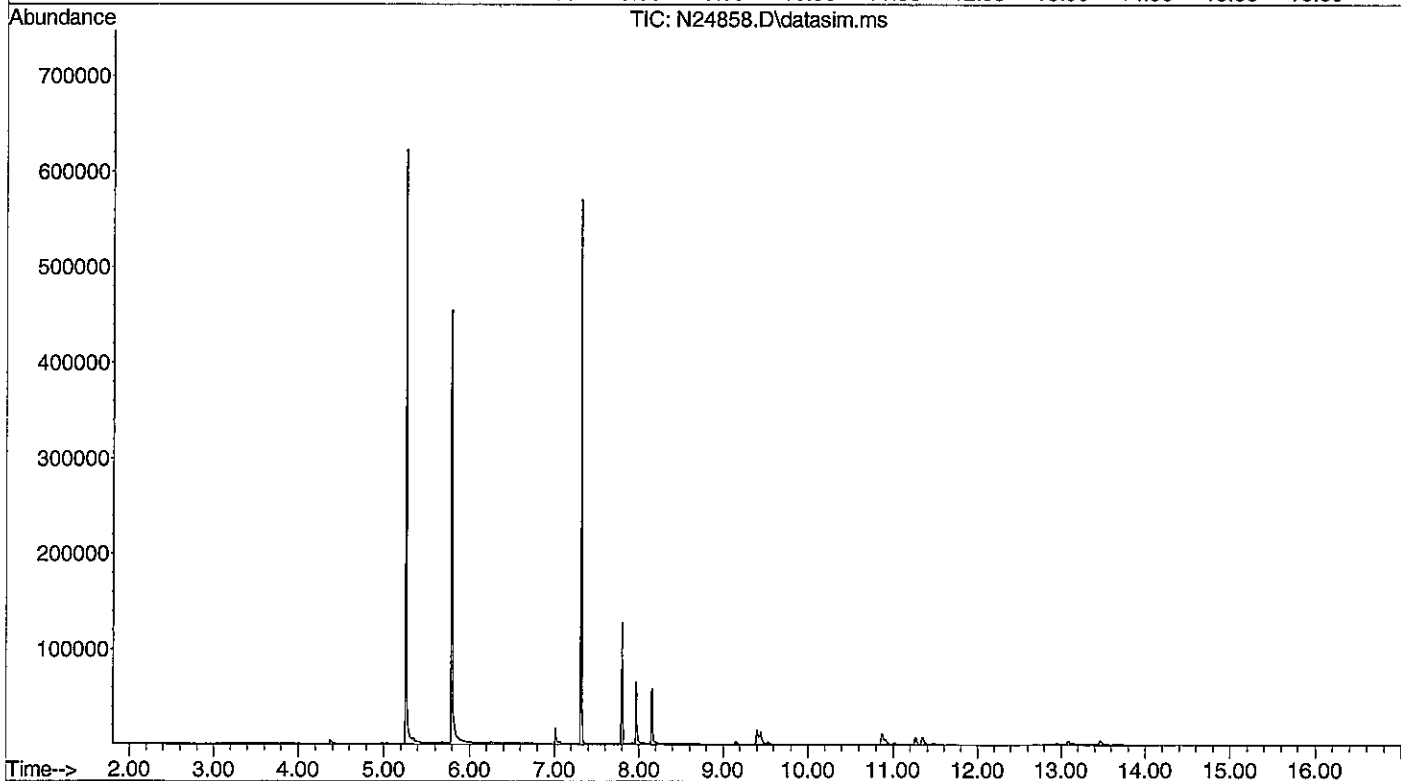
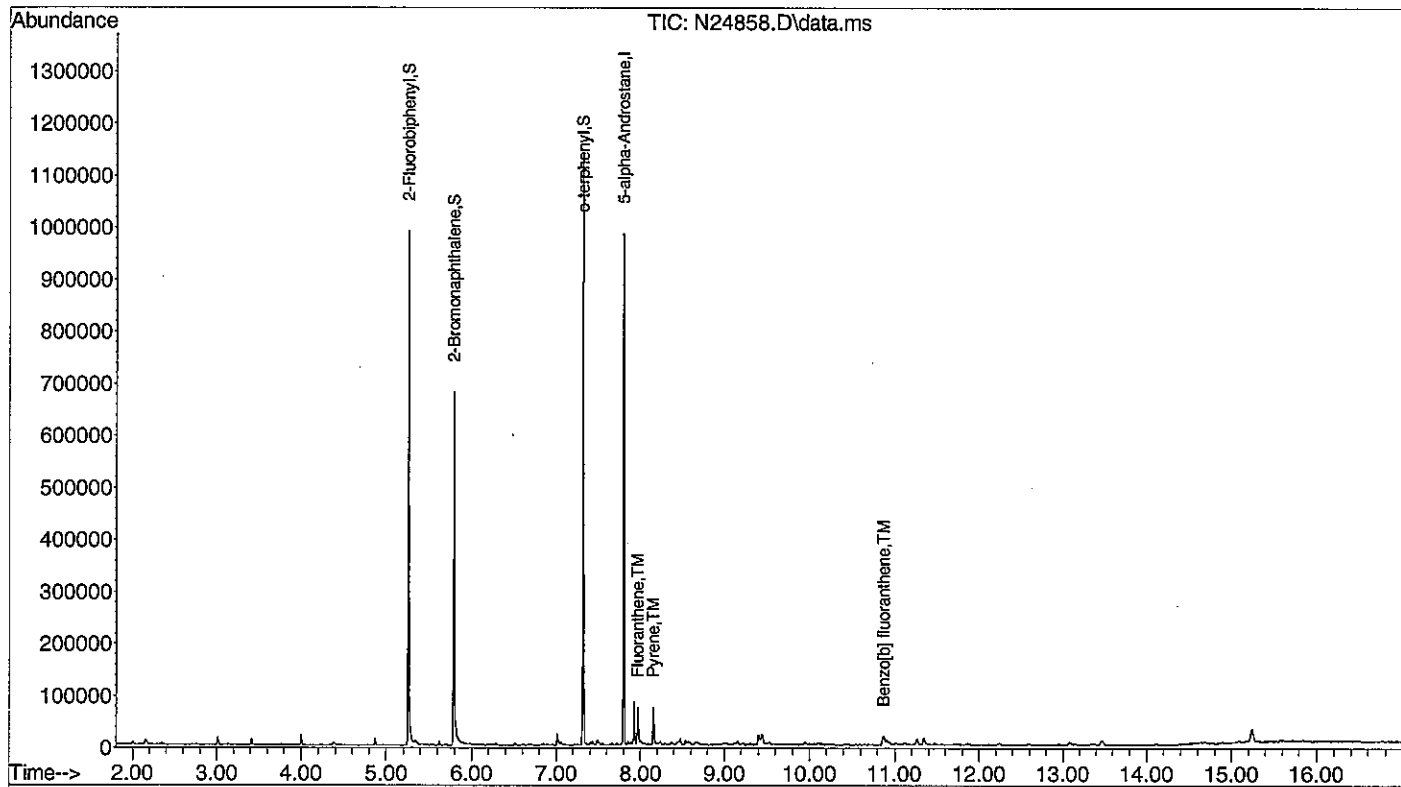
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

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: *Angelina Richard*

Data Path : C:\msdchem\1\DATA\020613-N\
 Data File : N24858.D
 Acq On : 6 Feb 2013 9:24 pm
 Operator : AR
 Sample : 74729-3
 Misc : SOIL
 ALS Vial : 12 Sample Multiplier: 1

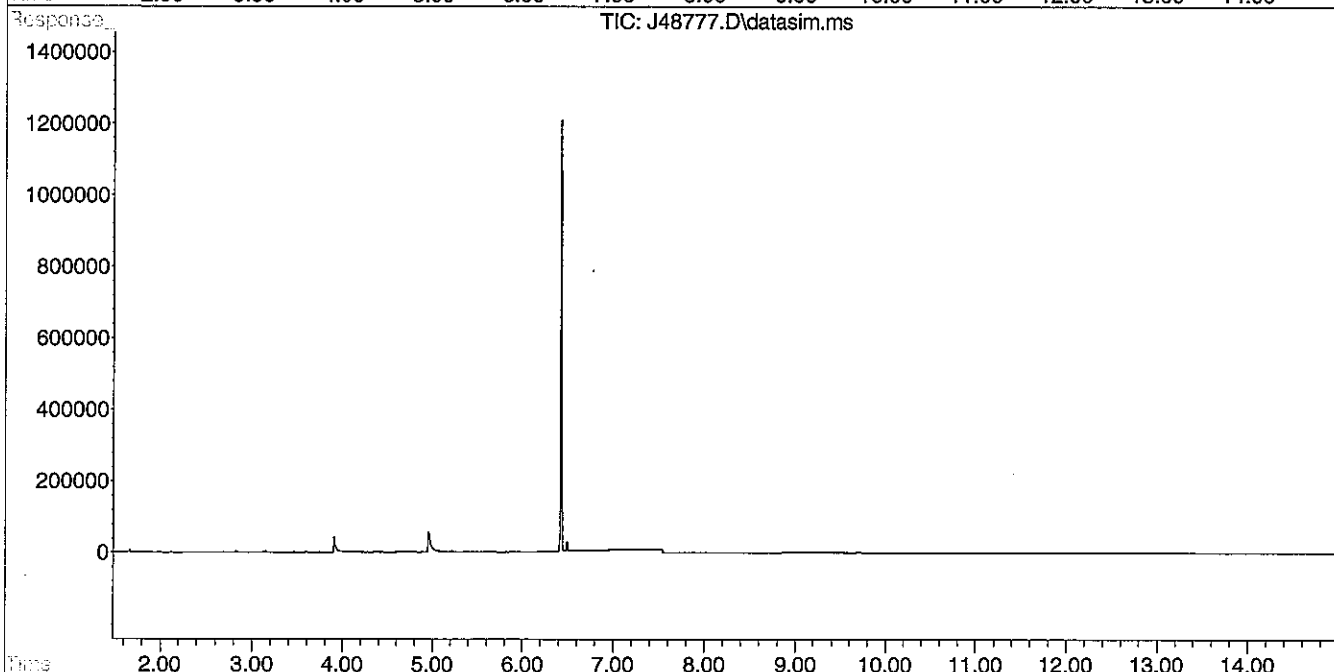
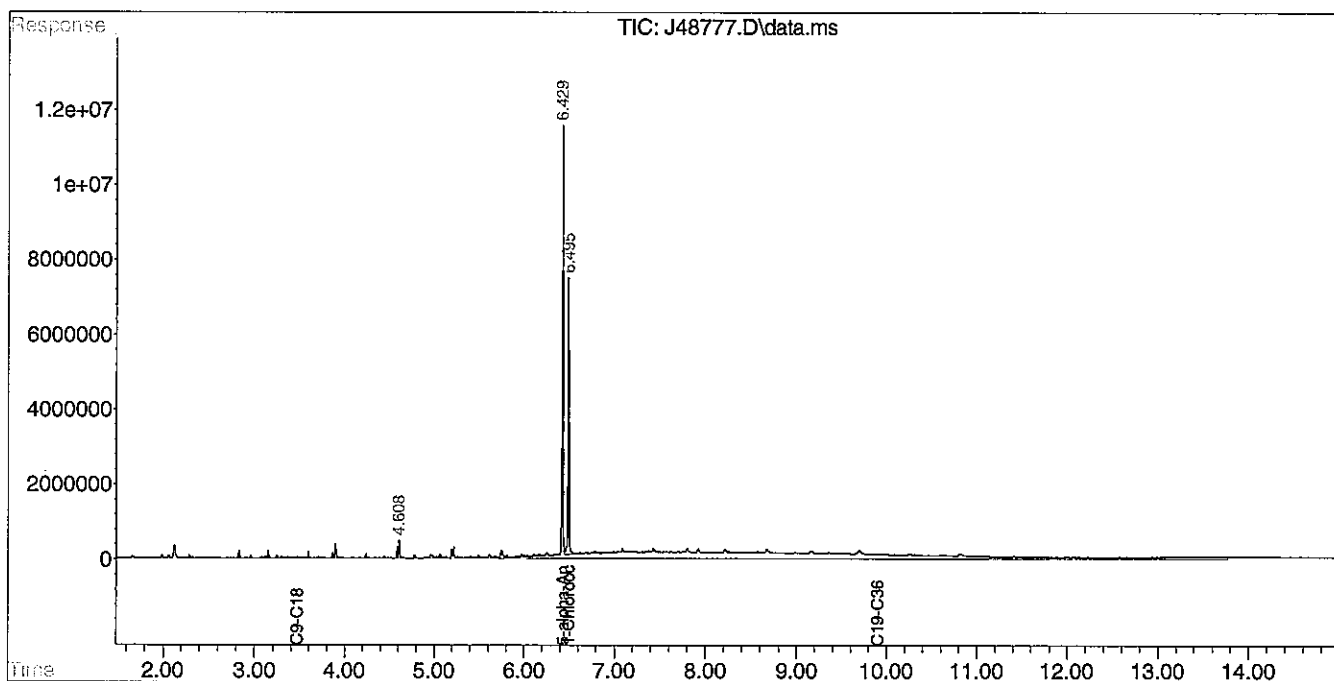
Quant Time: Feb 07 01:28:22 2013
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
 Quant Title : EPH MS AROMATICS
 QLast Update : Tue Feb 05 18:13:49 2013
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020613-J\
 Data File : J48777.D
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
 Acq On : 6 Feb 2013 8:36 pm
 Operator : MG/AR
 Sample : 74729-3
 Misc : SOIL
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 06 22:38:31 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 :



February 7, 2013

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

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Client Sample ID: SB10X-S3-012113

SAMPLE DATA

Lab Sample ID: 74729-4
Matrix: Solid
Percent Solid: 60
Dilution Factor: 1.6
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Extraction Date: 02/01/13
Analysis Date: 02/06/13

EPH ANALYTICAL RESULTS

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE		RL	Units
Unadjusted C11-C22 Aromatics ¹		21800	µg/kg
Diesel PAH Analytes	Naphthalene	436	µg/kg
	2-Methylnaphthalene	436	µg/kg
	Phenanthrene	436	µg/kg
	Acenaphthene	436	µg/kg
Other Target PAH Analytes	Acenaphthylene	436	µg/kg
	Fluorene	436	µg/kg
	Anthracene	436	µg/kg
	Fluoranthene	436	µg/kg
	Pyrene	436	µg/kg
	Benzofl anthracene	436	µg/kg
	Chrysene	436	µg/kg
	Benzo[b]fluoranthene	436	µg/kg
	Benzo[k]fluoranthene	436	µg/kg
	Benzo[a]pyrene	436	µg/kg
	Indeno[1,2,3-cd]pyrene	436	µg/kg
	Dibenzofl anthracene	436	µg/kg
	Benzo[g,h,i]pervlene	436	µg/kg
C9-C18 Aliphatic Hydrocarbons ¹		21800	µg/kg
C19-C36 Aliphatic Hydrocarbons ¹		21800	µg/kg
C11-C22 Aromatic Hydrocarbons ^{1,2}		21800	µg/kg
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			48
Aromatic Surrogate % Recovery (O-Terphenyl)			70
Sample Surrogate Acceptance Range		--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			95
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			99
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

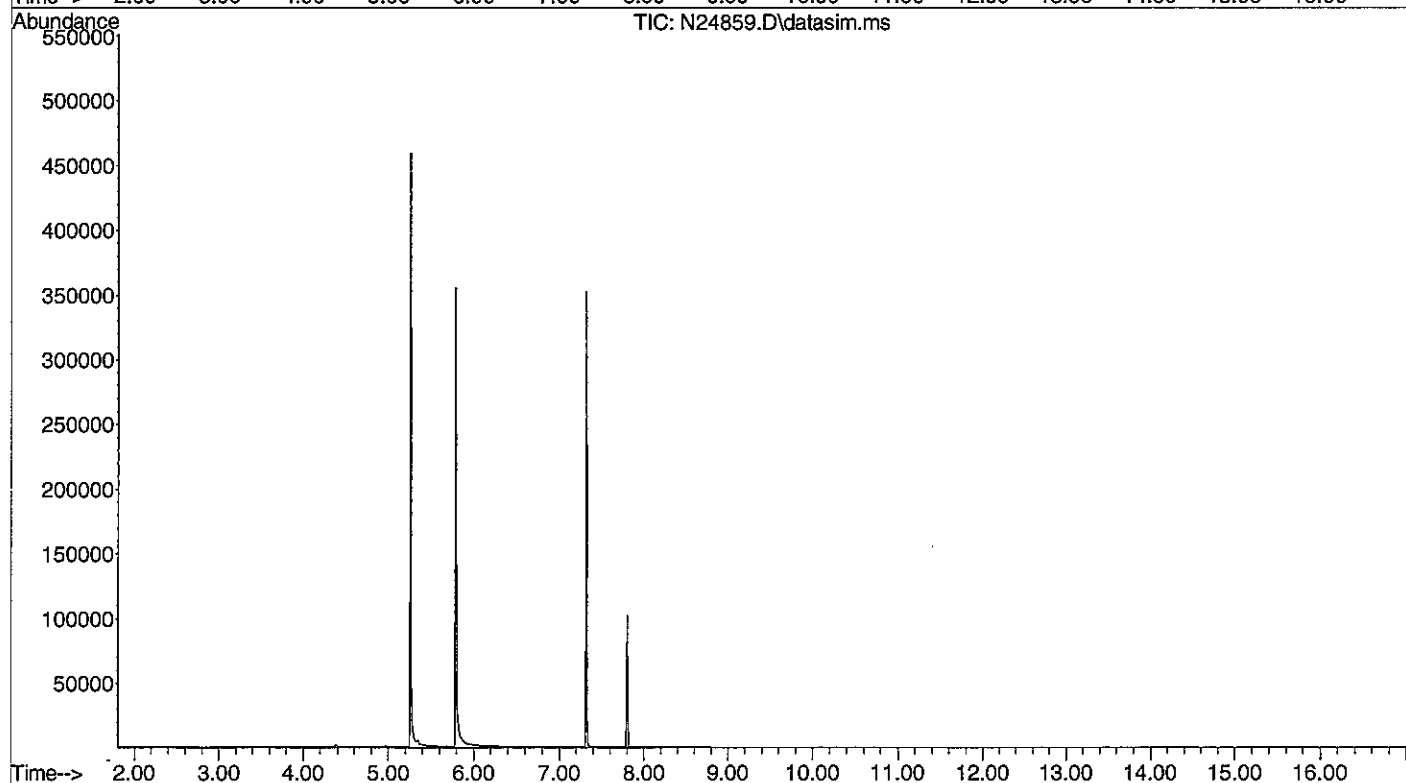
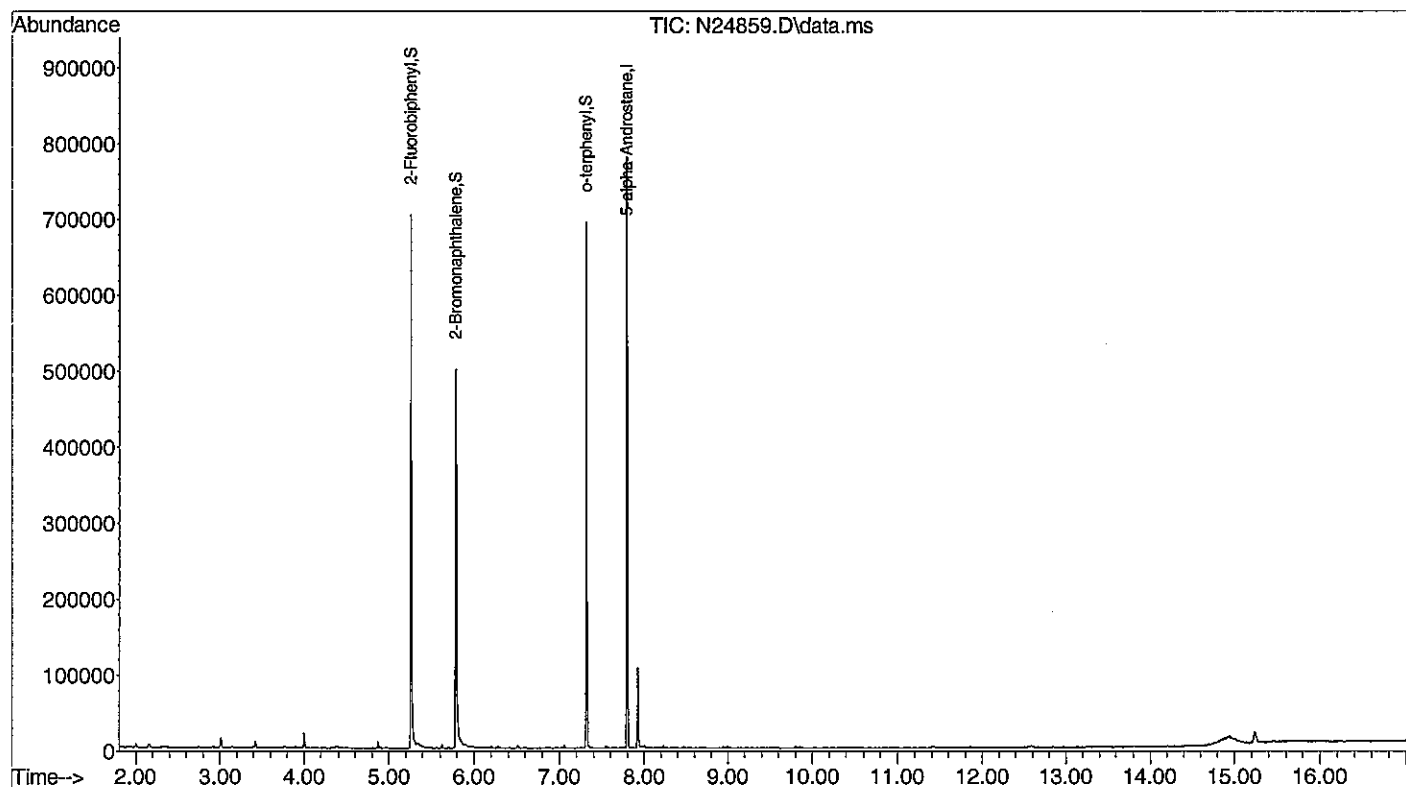
COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.
Results are expressed on a dry weight basis.

SIGNATURE

Angela Richard

Data Path : C:\msdchem\1\DATA\020613-N\
Data File : N24859.D
Acq On : 6 Feb 2013 9:44 pm
Operator : AR
Sample : 74729-4
Misc : SOIL
ALS Vial : 13 Sample Multiplier: 1

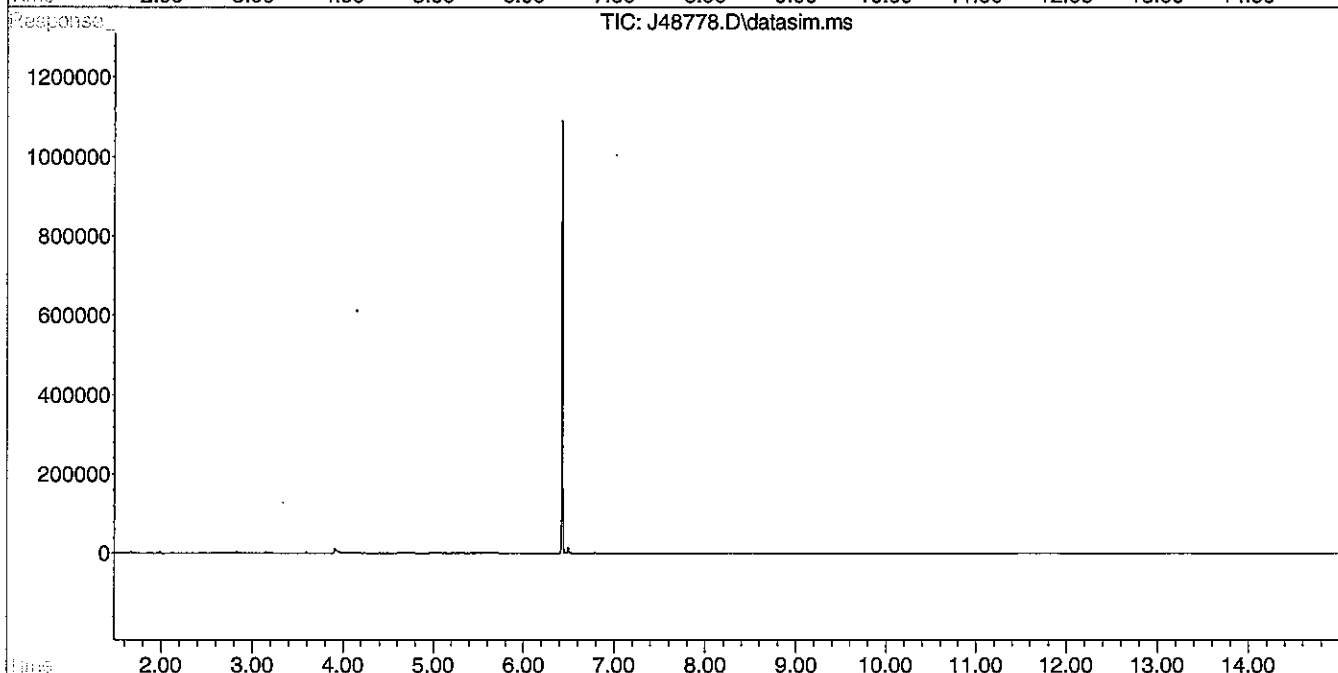
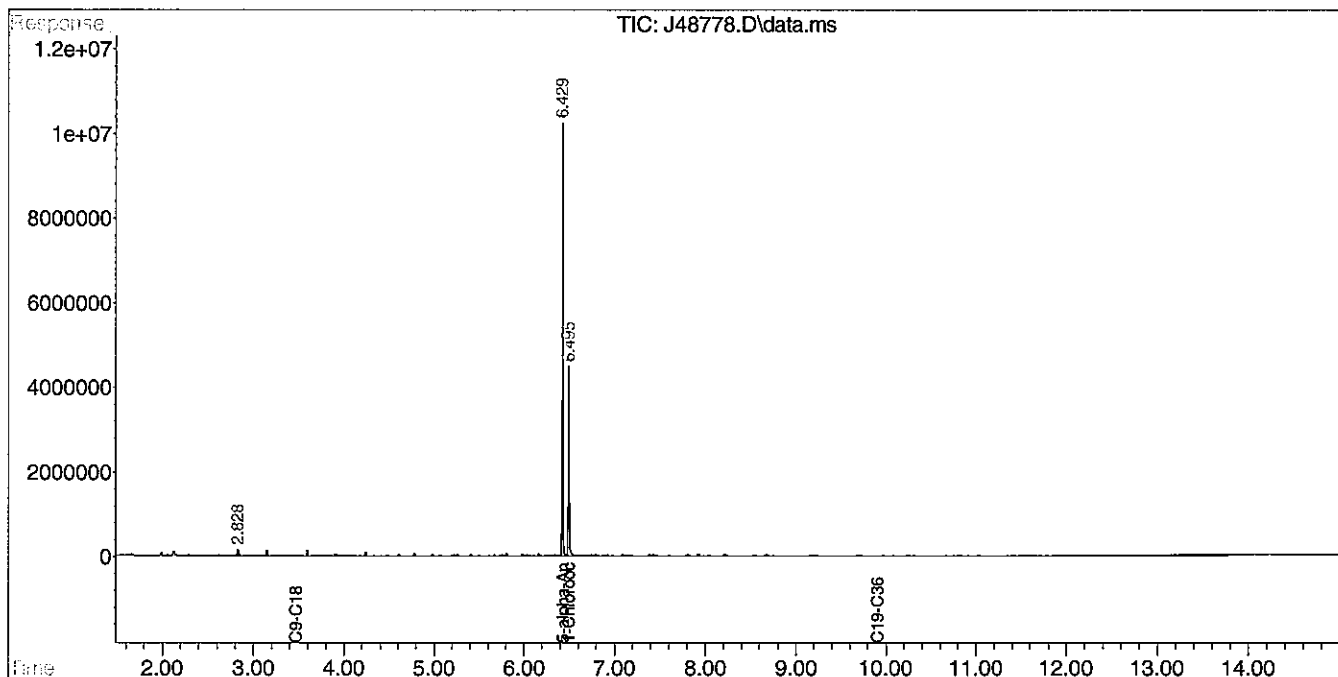
Quant Time: Feb 07 01:28:24 2013
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
Quant Title : EPH MS AROMATICS
QLast Update : Tue Feb 05 18:13:49 2013
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020613-J\
Data File : J48778.D
Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
Acq On : 6 Feb 2013 8:57 pm
Operator : MG/AR
Sample : 74729-4
Misc : SOIL
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 06 22:37:54 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 :



February 7, 2013

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

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Client Sample ID: MW101

SAMPLE DATA

Lab Sample ID: 74729-5
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)			44
Aromatic Surrogate % Recovery (O-Terphenyl)			86
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			81
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			87
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.

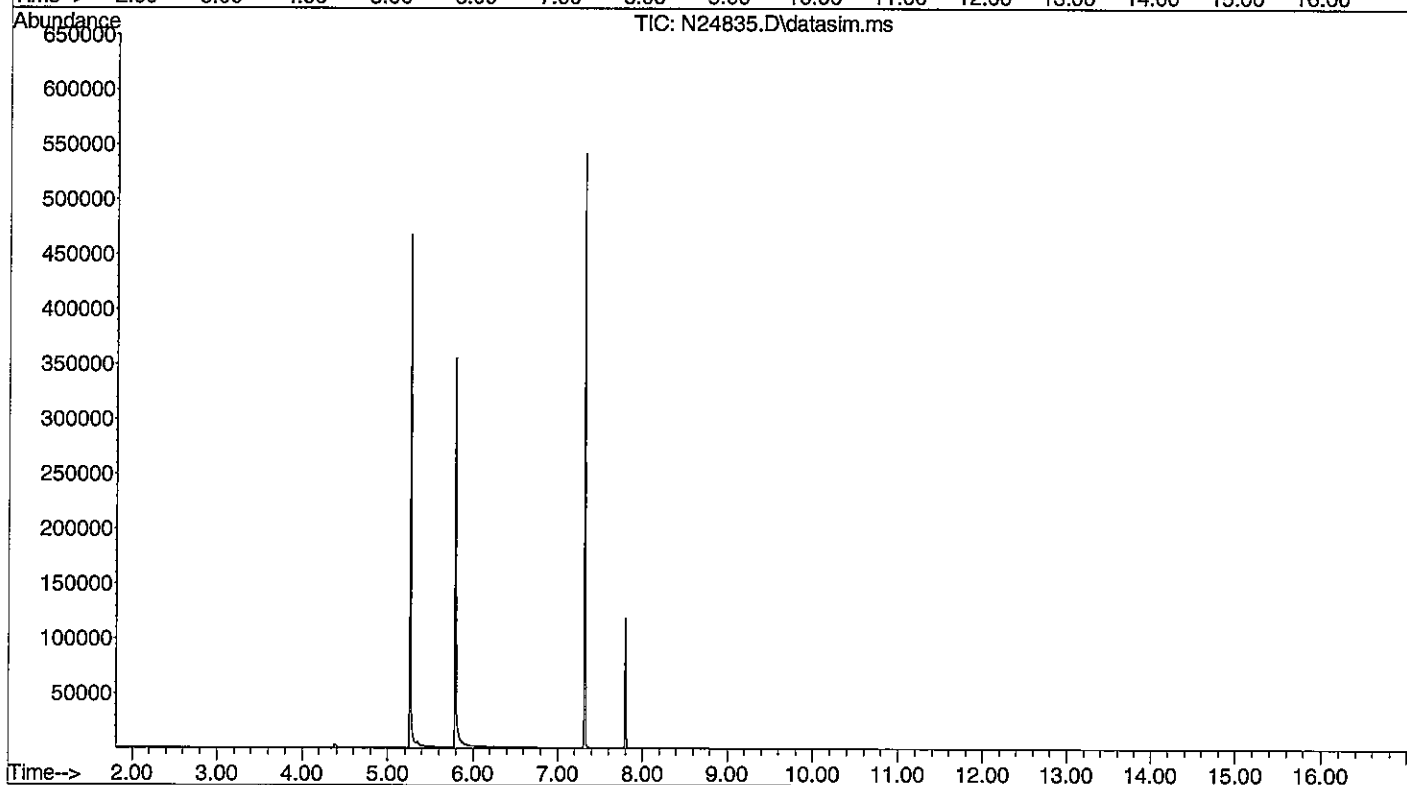
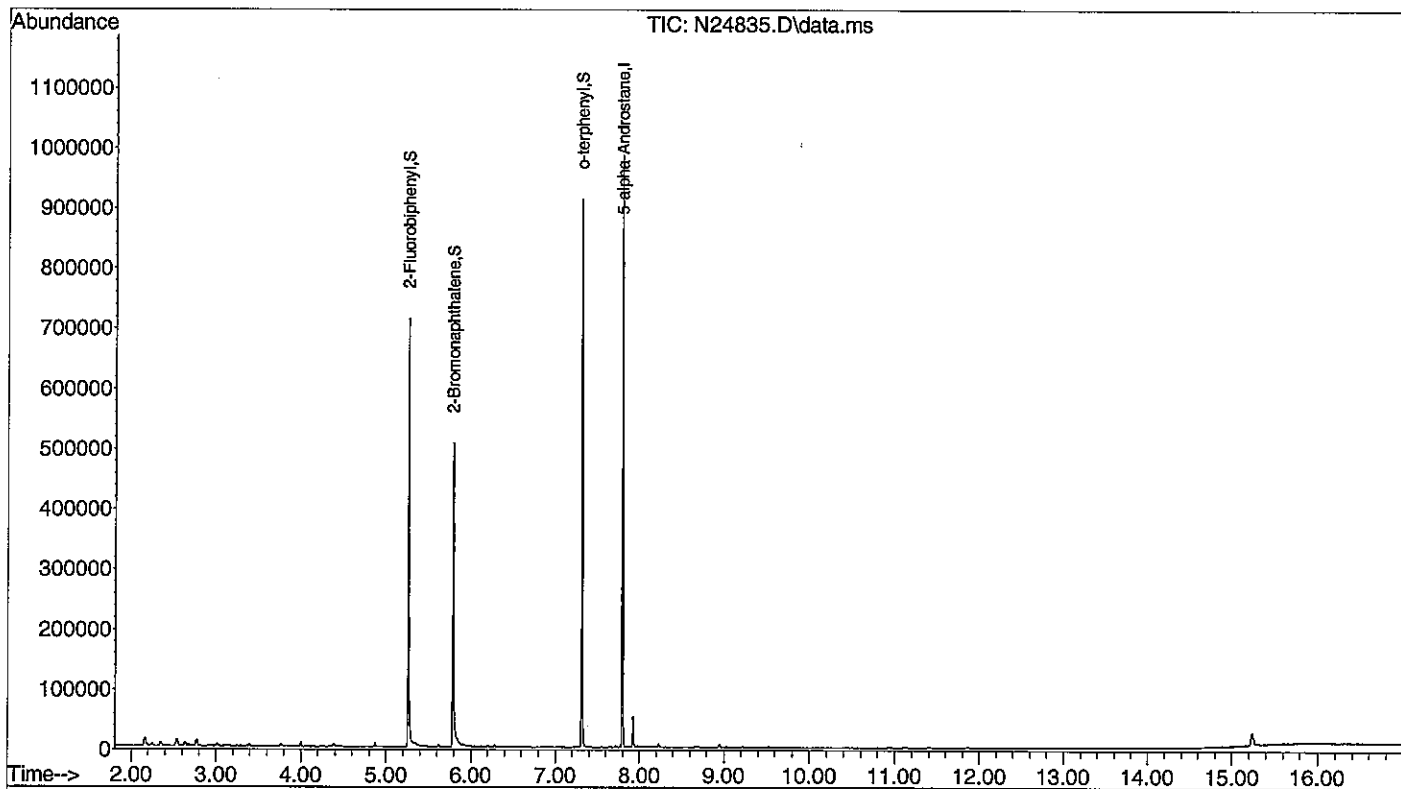
COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

SIGNATURE: _____

[Signature]

Data Path : C:\msdchem\1\DATA\020513-N\
Data File : N24835.D
Acq On : 6 Feb 2013 8:13 am
Operator : AR
Sample : 74729-5
Misc : ARO
ALS Vial : 36 Sample Multiplier: 1

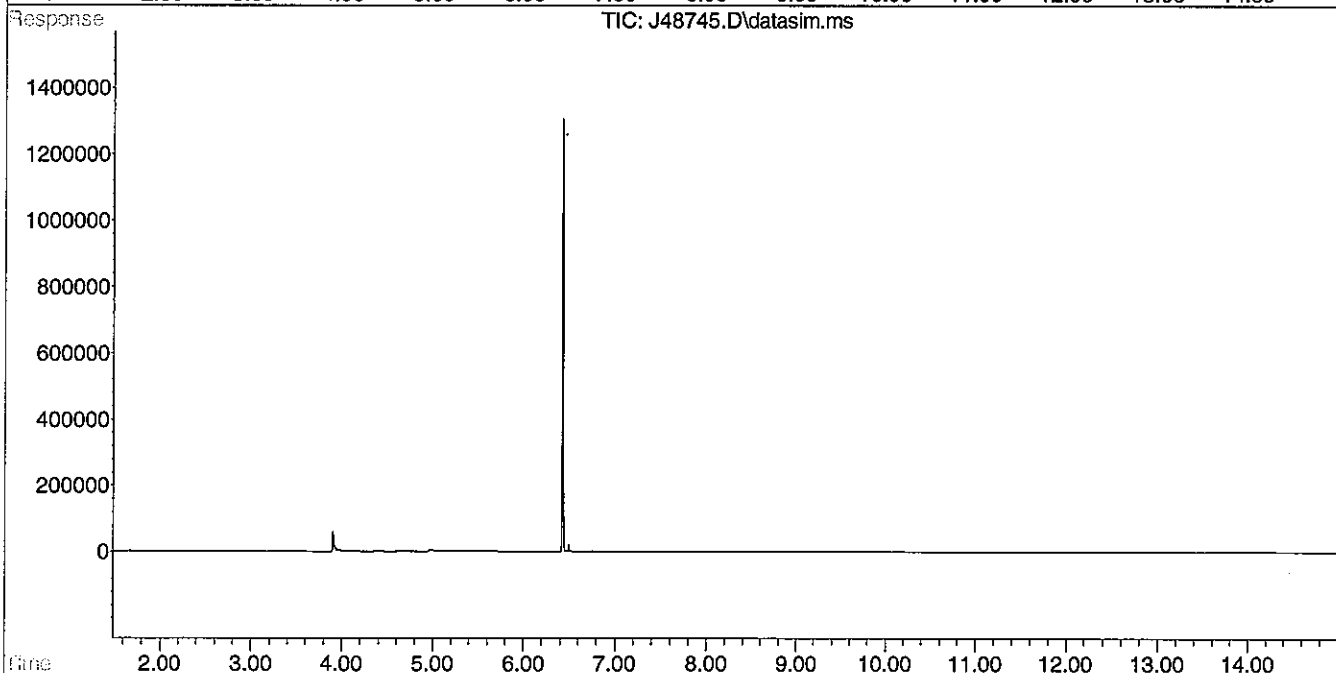
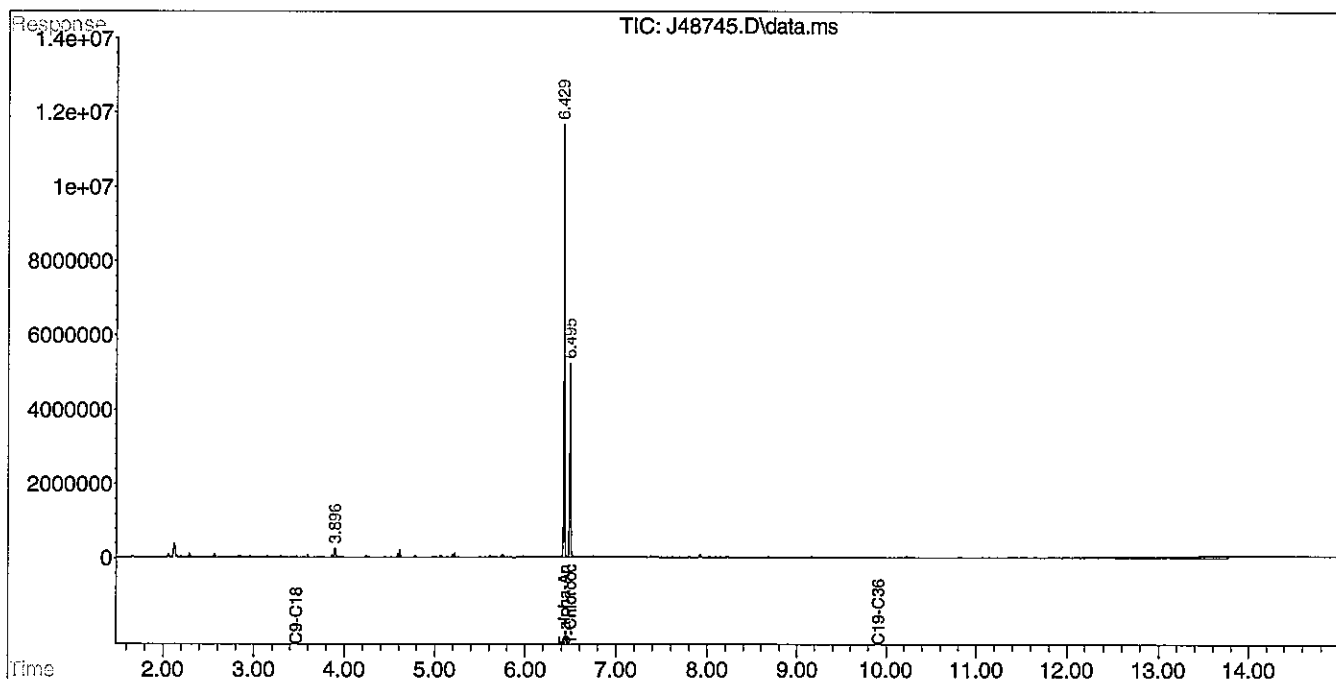
Quant Time: Feb 06 08:28:55 2013
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
Quant Title : EPH MS AROMATICS
QLast Update : Tue Feb 05 18:13:49 2013
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\
 Data File : J48745.D
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
 Acq On : 6 Feb 2013 6:33 am
 Operator : MG/AR
 Sample : 74279-5 *74279-5*
 Misc : ALI
 ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 06 08:46:26 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 :



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

February 7, 2013

CLIENT SAMPLE ID
Project Name: Mason Dam
Project Number: 111.06134.018
Client Sample ID: MW10X

SAMPLE DATA
Lab Sample ID: 74729-6
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)			51
Aromatic Surrogate % Recovery (O-Terphenyl)			90
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			85
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			87
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			

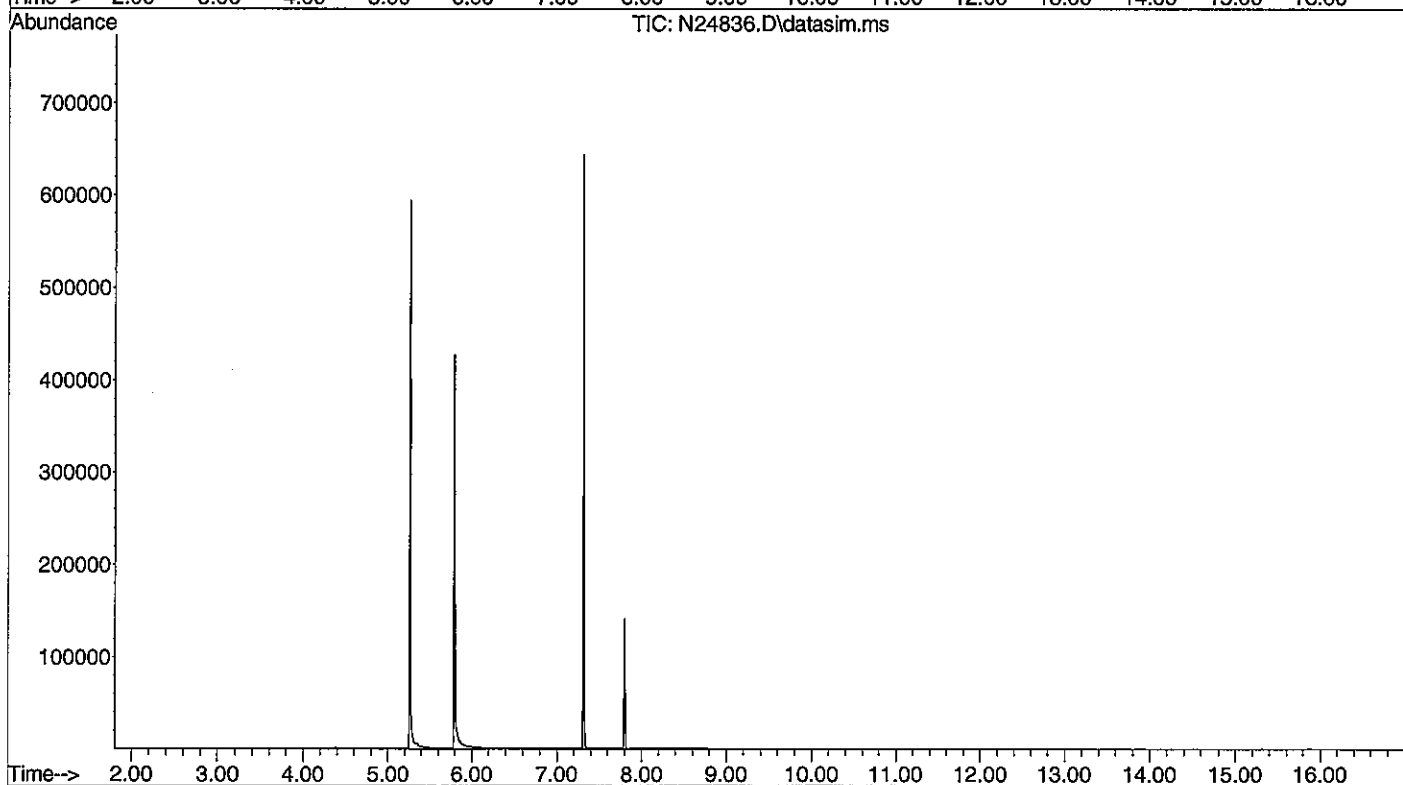
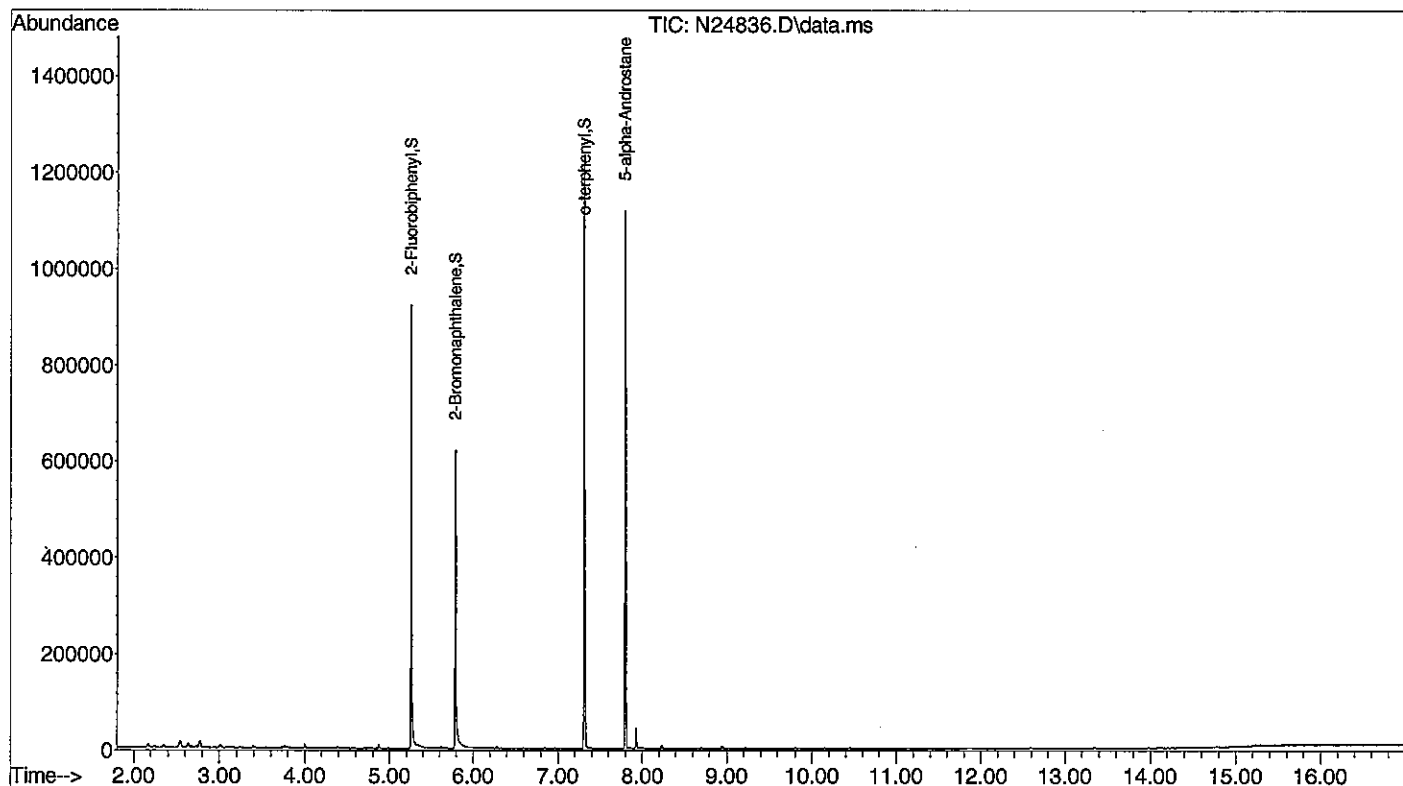
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3510C.

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 : N24836.D
 Acq On : 6 Feb 2013 8:33 am
 Operator : AR
 Sample : 74729-6
 Misc : ARO
 ALS Vial : 37 Sample Multiplier: 1

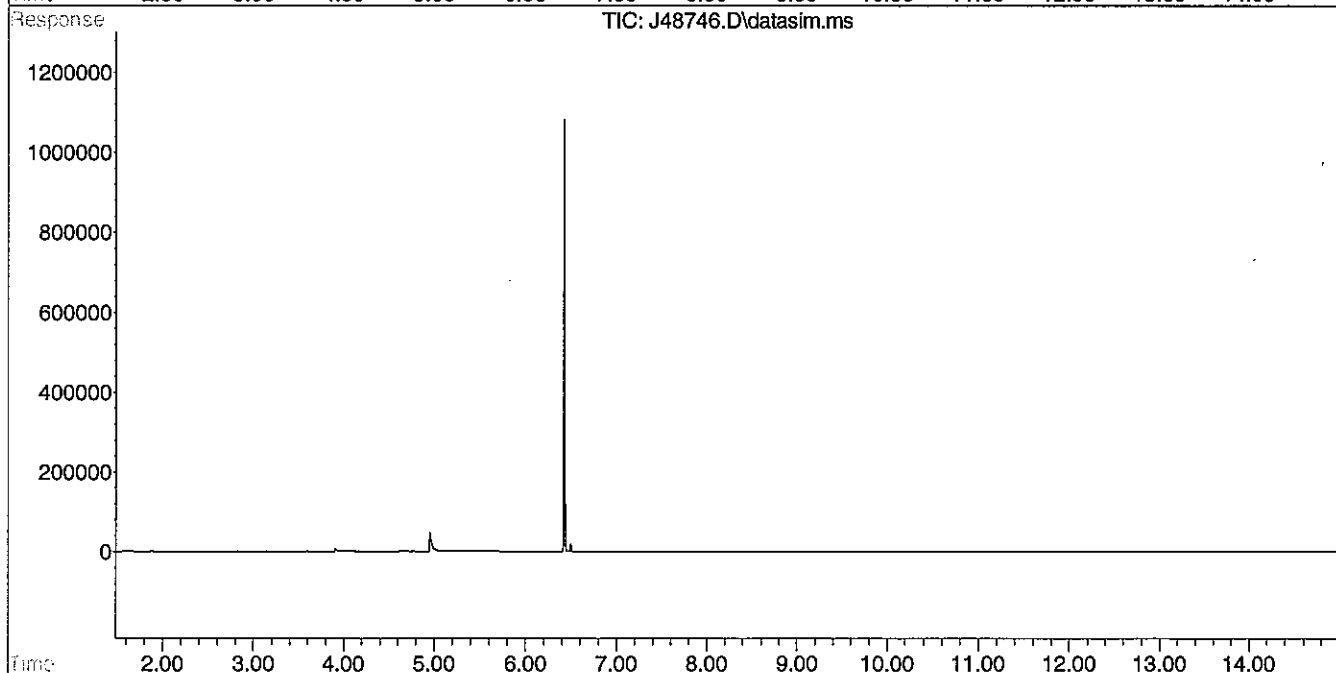
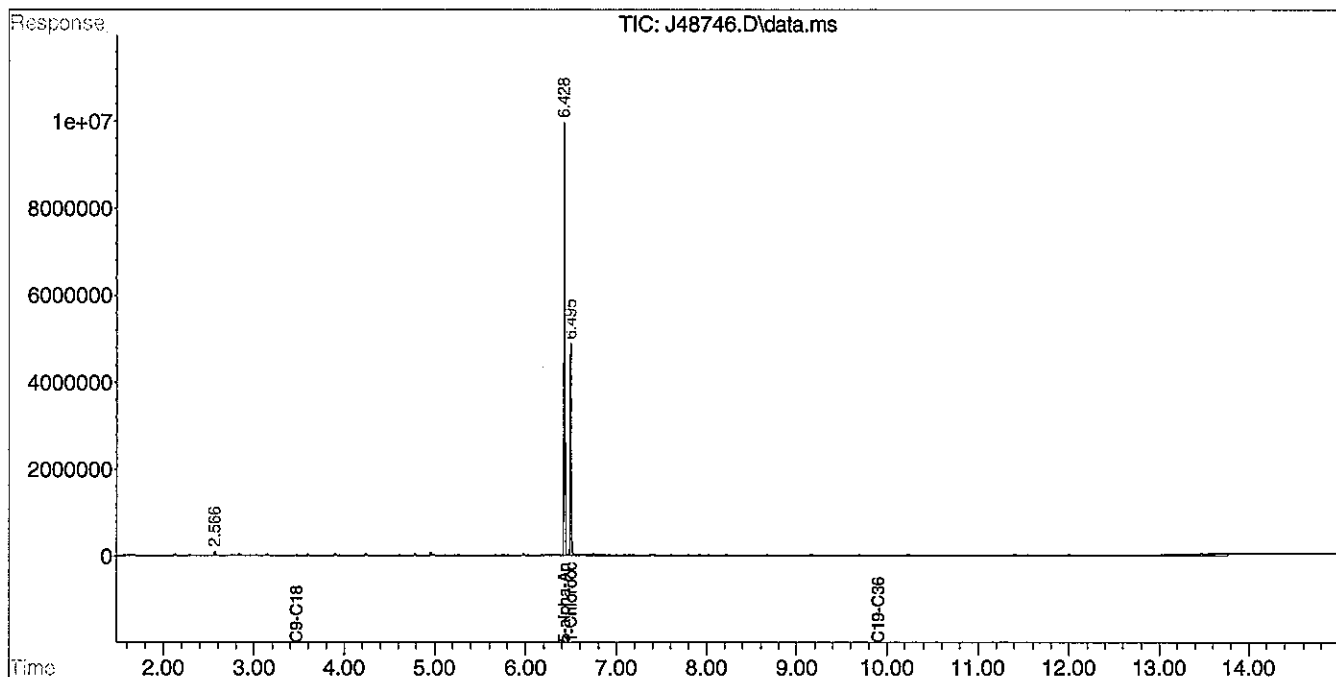
Quant Time: Feb 06 10:17:50 2013
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
 Quant Title : EPH MS AROMATICS
 QLast Update : Tue Feb 05 18:13:49 2013
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\
 Data File : J48746.D
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
 Acq On : 6 Feb 2013 6:54 am
 Operator : MG/AR
 Sample : 74729-6
 Misc : ALI
 ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 06 08:46:33 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

February 7, 2013

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

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Client Sample ID: LabQC

SAMPLE DATA

Lab Sample ID: B020113EASE
Matrix: Solid
Percent Solid: 100
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 02/01/13
Analysis Date: 02/06/13

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
	2-Methylnaphthalene	267	µg/kg
	Phenanthrene	267	µg/kg
	Acenaphthene	267	µg/kg
Other Target PAH Analytes	Acenaphthylene	267	µg/kg
	Fluorene	267	µg/kg
	Anthracene	267	µg/kg
	Fluoranthene	267	µg/kg
	Pyrene	267	µg/kg
	Benzo[a]anthracene	267	µg/kg
	Chrysene	267	µg/kg
	Benzo[b]fluoranthene	267	µg/kg
	Benzo[k]fluoranthene	267	µg/kg
	Benzo[a]pyrene	267	µg/kg
	Indeno[1,2,3-cd]pyrene	267	µg/kg
	Dibenzo[a,h]anthracene	267	µg/kg
	Benzo[g,h,i]perylene	267	µg/kg
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)			70
Aromatic Surrogate % Recovery (O-Terphenyl)			102
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			100
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			101
Fractionation Surrogate Acceptance Range	--	--	40-140%

¹Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

²C11-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

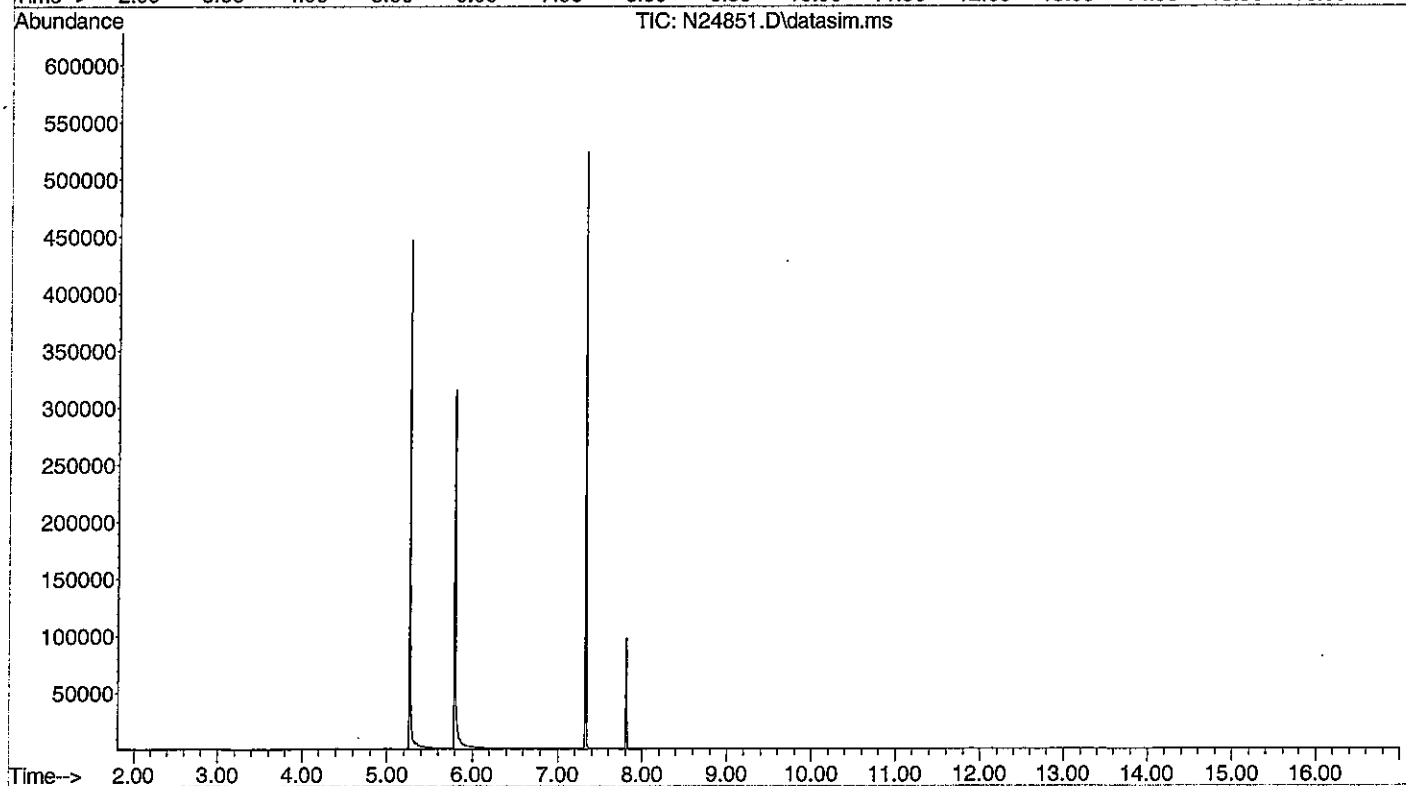
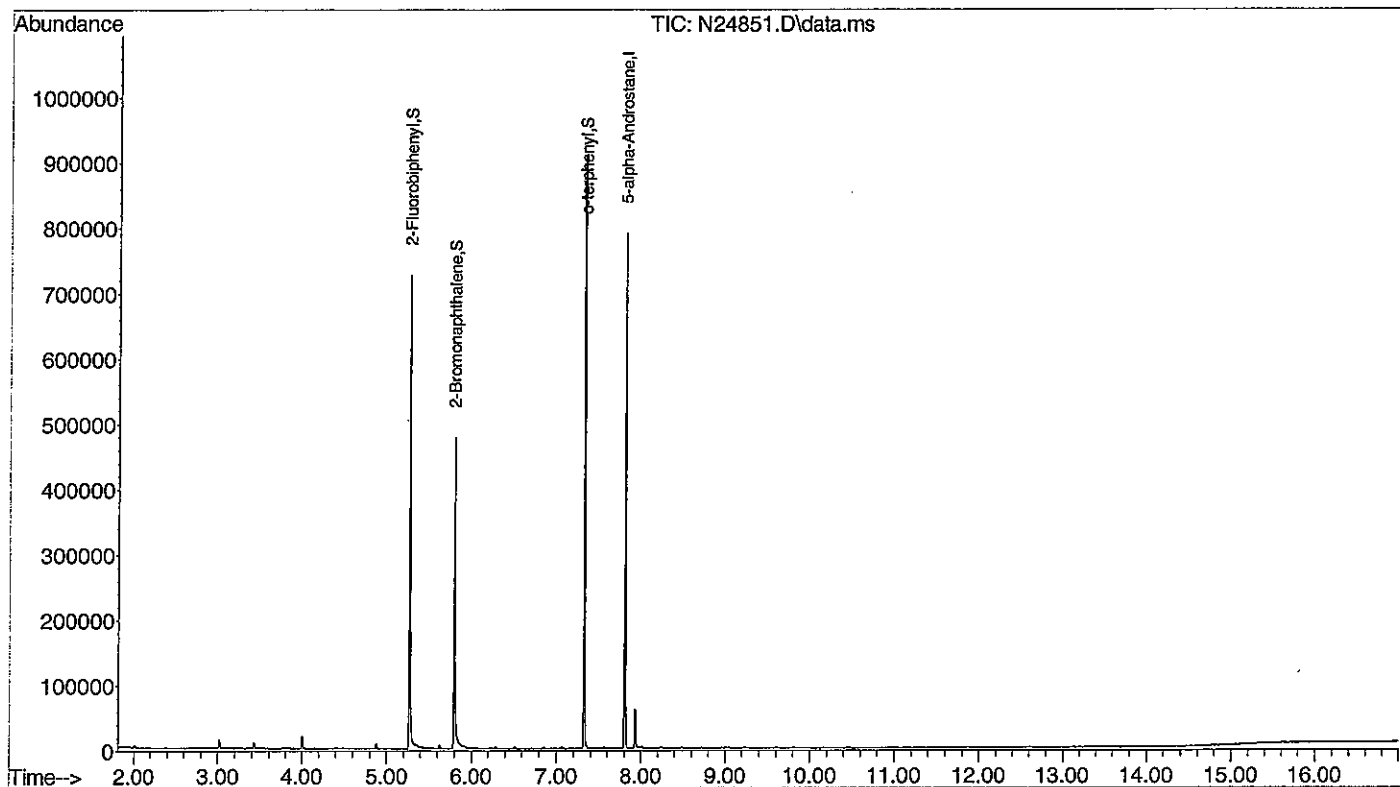
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

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\020613-N\
 Data File : N24851.D
 Acq On : 6 Feb 2013 7:00 pm
 Operator : AR
 Sample : B020113EASE
 Misc : SOIL
 ALS Vial : 5 Sample Multiplier: 1

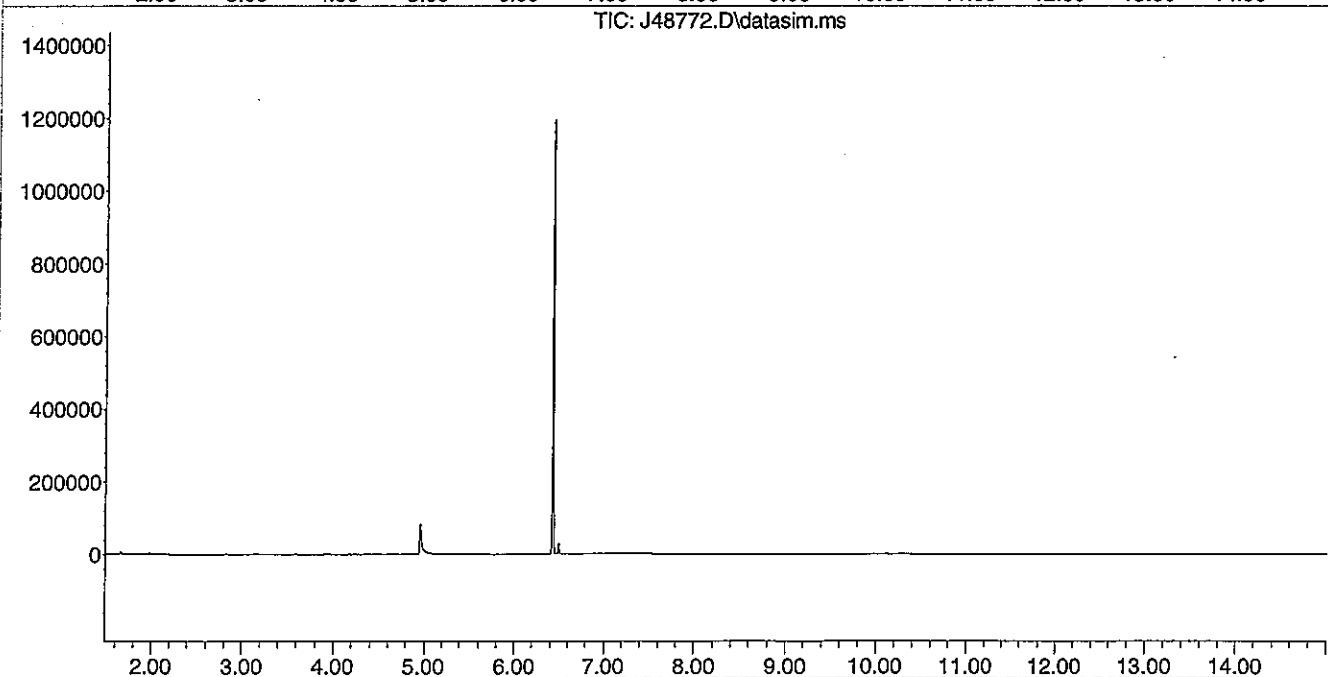
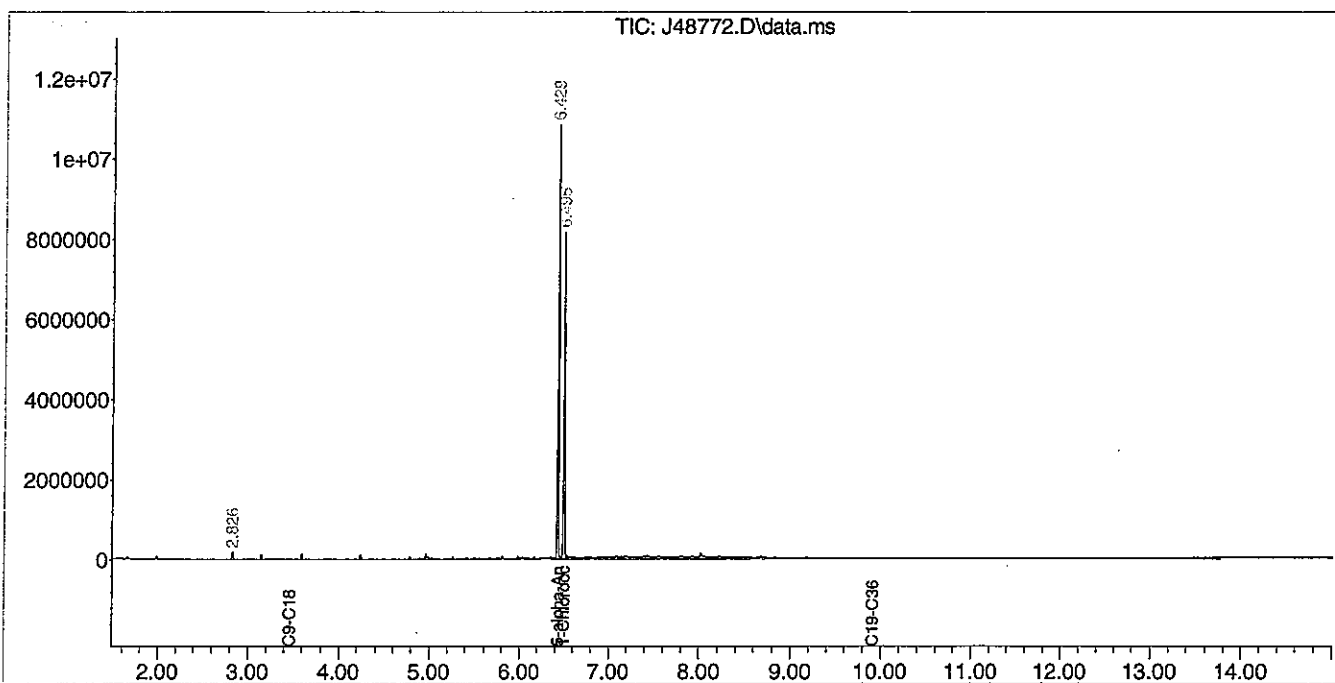
Quant Time: Feb 07 01:28:07 2013
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
 Quant Title : EPH MS AROMATICS
 QLast Update : Tue Feb 05 18:13:49 2013
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020613-J\
Data File : J48772.D
Signal(s) : Signal #1: data.ms Signal #2: datasim.ms
Acq On : 6 Feb 2013 6:52 pm
Operator : MG/AR
Sample : B020113EASE
Misc : SOIL
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 06 22:37:46 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 :



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

February 7, 2013

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
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.

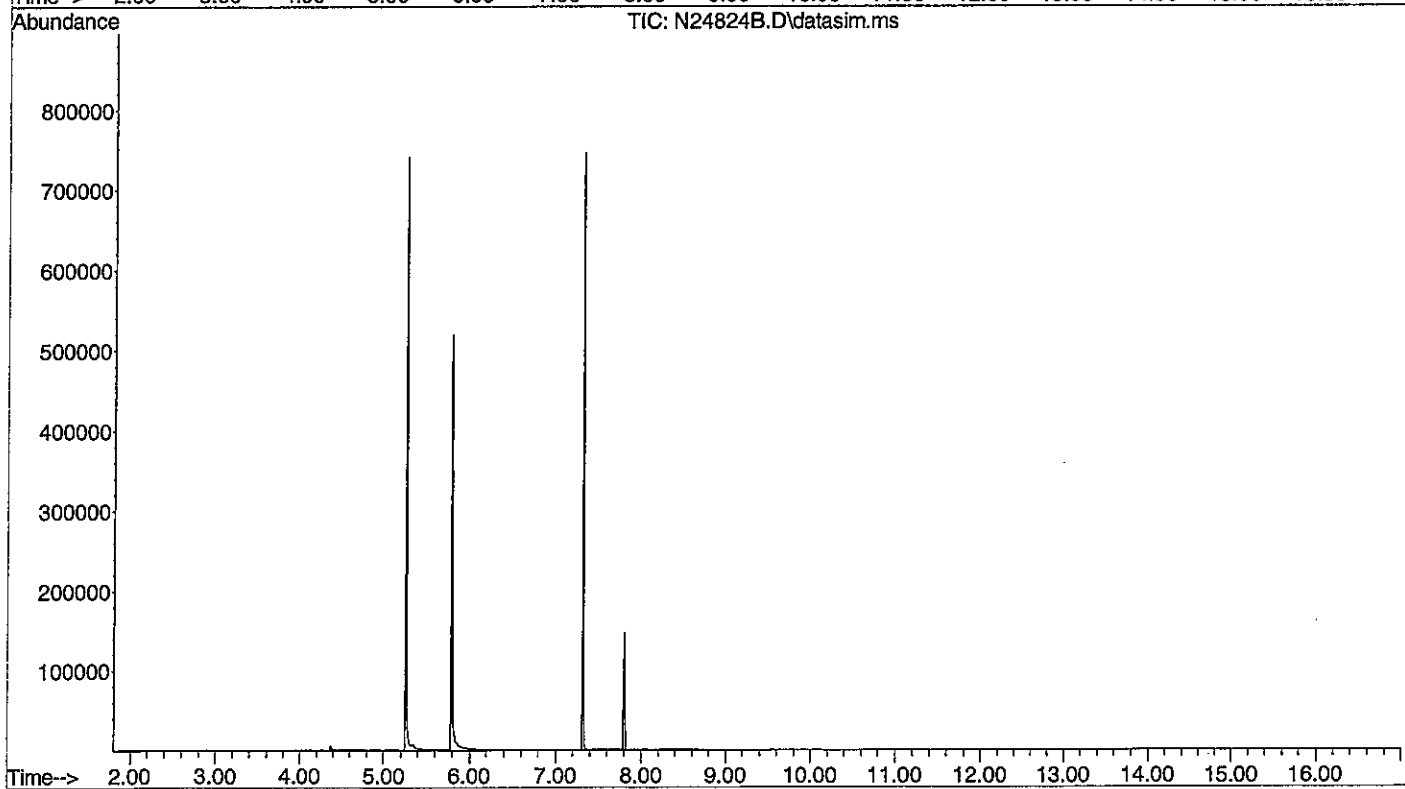
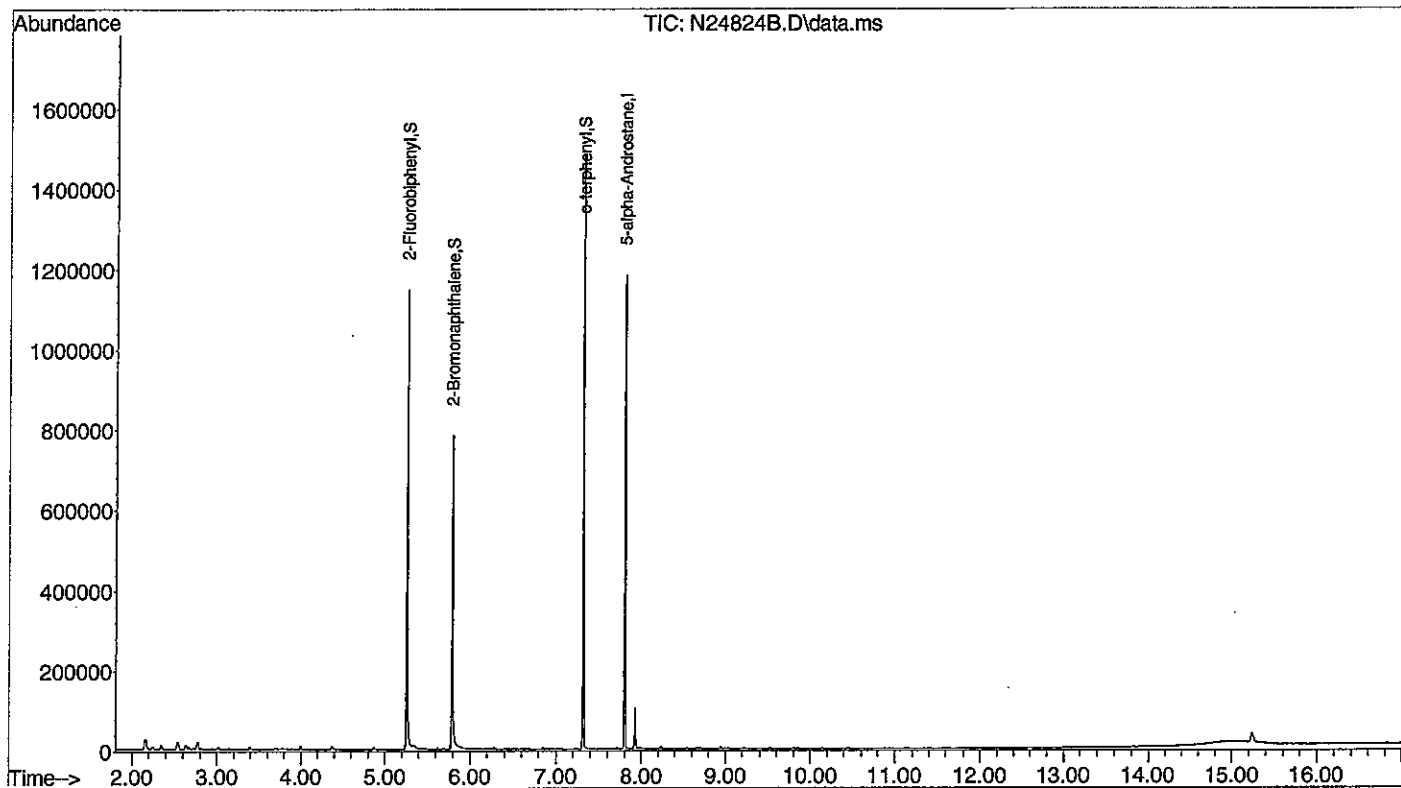
COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

SIGNATURE: _____

M. Shultz

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

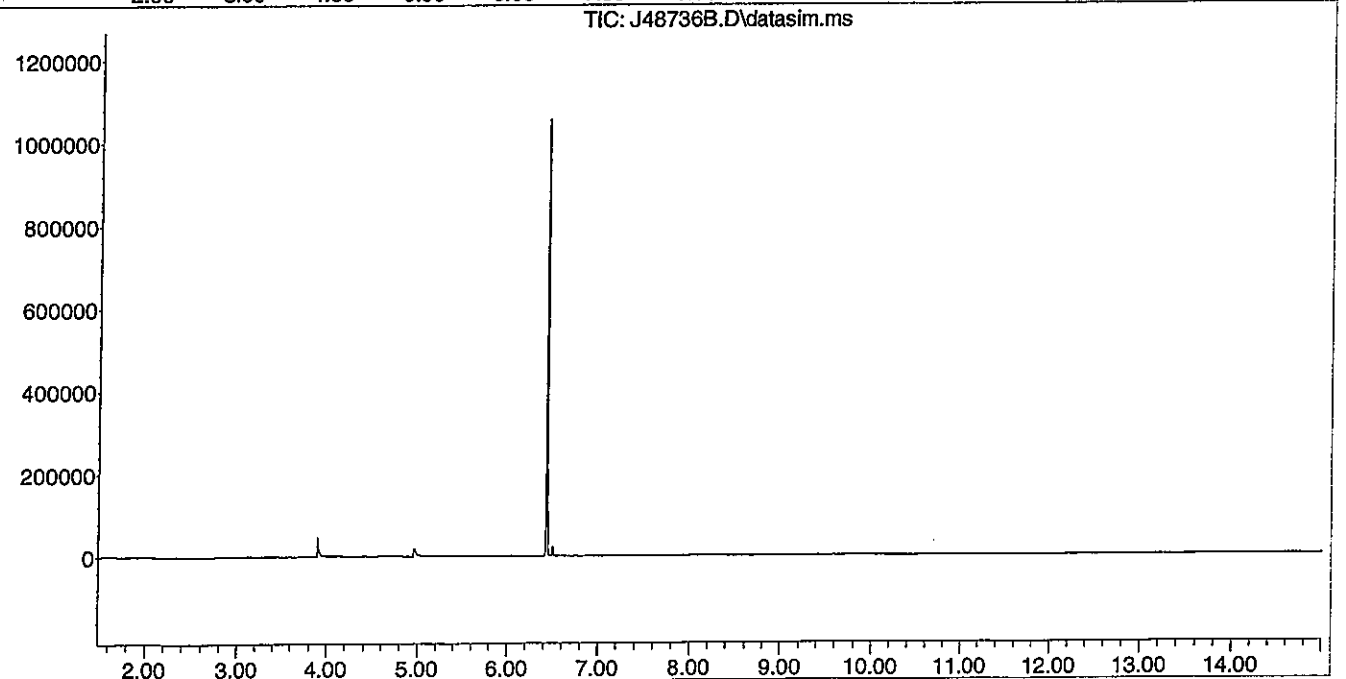
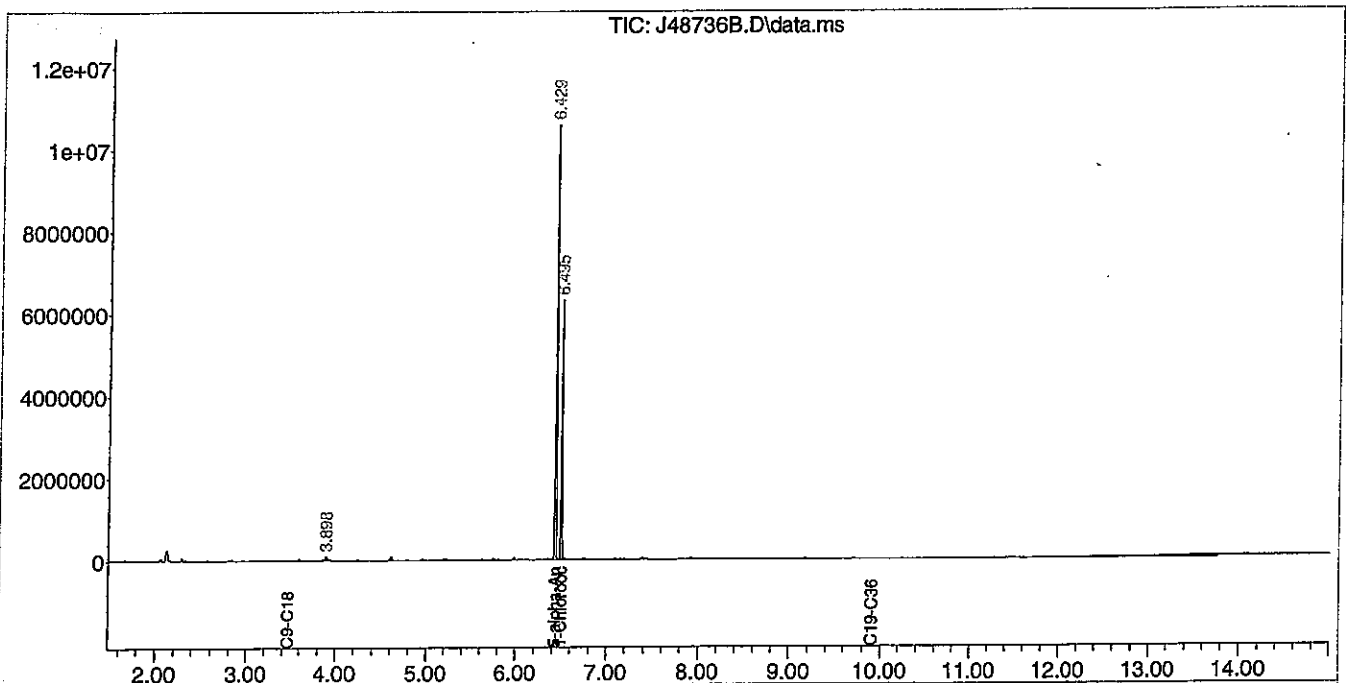
Quant Time: Feb 06 08:28:33 2013
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M
Quant Title : EPH MS AROMATICS
QLast Update : Tue Feb 05 18:13:49 2013
Response via : Initial Calibration



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 #2 Phase:
 Signal #1 Info : Signal #2 Info :



EPH ALIPHATICS
SOIL 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: B020113EASE
Spike: L020113EASE
Spike duplicate: LD020113EASE

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 #	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	SPIKE #	RPD #
C-9	3333	3333	30	140	25	0	2249	67		2274	68		1
C-10	3333	3333	40	140	25	0	2600	78		2638	79		1
C-12	3333	3333	40	140	25	0	2838	85		2897	87		2
C-14	3333	3333	40	140	25	0	2886	87		2974	89		3
C-16	3333	3333	40	140	25	0	3002	90		3132	94		4
C-18	3333	3333	40	140	25	0	3029	91		3236	97		7
C-19	3333	3333	40	140	25	0	3049	91		3244	97		6
C-20	3333	3333	40	140	25	0	2982	89		3195	96		7
C-22	3333	3333	40	140	25	0	2947	88		3160	95		7
C-24	3333	3333	40	140	25	0	2969	89		3177	95		7
C-26	3333	3333	40	140	25	0	2863	86		3164	95		10
C-28	3333	3333	40	140	25	0	2734	82		3069	92		12
C-30	3333	3333	40	140	25	0	2625	79		2953	89		12
C-36	3333	3333	40	140	25	0	2206	66		2289	69		4
C9-C18 Aliphatics	20000	20000	40	140	25	0	16604	83		17151	86		3
C19-C36 Aliphatics	26667	26667	40	140	25	0	22375	84		24250	91		8

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: B020113EASE
Spike: L020113EASE
Spike duplicate: LD020113EASE

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	2773	83		2699	81		3	
2-Methylnaphthalene	3333	3333	40	140	30	0	2845	85		2781	83		2	
Acenaphthylene	3333	3333	40	140	30	0	2962	89		2909	87		2	
Acenaphthene	3333	3333	40	140	30	0	2927	88		2808	84		4	
Fluorene	3333	3333	40	140	30	0	3125	94		2968	89		5	
Phenanthrene	3333	3333	40	140	30	0	3389	102		3235	97		5	
Anthracene	3333	3333	40	140	30	0	3214	96		3115	93		3	
Fluoranthene	3333	3333	40	140	30	0	3367	101		3238	97		4	
Pyrene	3333	3333	40	140	30	0	3305	99		3185	96		4	
Benzo[a]anthracene	3333	3333	40	140	30	0	3533	106		3337	100		6	
Chrysene	3333	3333	40	140	30	0	3338	100		3269	98		2	
Benzo[b] fluoranthene	3333	3333	40	140	30	0	3449	103		3278	98		5	
Benzo[k] fluoranthene	3333	3333	40	140	30	0	3287	99		3225	97		2	
Benzo[a] pyrene	3333	3333	40	140	30	0	3405	102		3290	99		3	
Indeno [1,2,3-cd] pyrene	3333	3333	40	140	30	0	3493	105		3408	102		2	
Dibenz [a,h] anthracene	3333	3333	40	140	30	0	3404	102		3366	101		1	
Benzo[g,h,i] perylene	3333	3333	40	140	30	0	3381	101		3310	99		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: _____

EPH AROMATIC BREAKTHROUGH REPORT
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: N

SDG:

GC Column: ZB-5ms

Aliphatic LCS: L020113EASE

Column ID: 0.25 mm

Aromatic LCS: L020113EASE

COMPOUND	LOWER	UPPER	ALIPHATIC	AROMATIC	%	#
	LIMIT	LIMIT	RESULT (ug/mL)	RESULT (ug/mL)	BREAKTHROUGH	
Naphthalene	0	5	0.00	20.8	0.0	
2-Methylnaphthalene	0	5	0.00	21.3	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: _____

EPH AROMATIC BREAKTHROUGH REPORT
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: N

SDG:

GC Column: ZB-5ms

Aliphatic LCS: LD020113EASE

Column ID: 0.25 mm

Aromatic LCS: LD020113EASE

COMPOUND	LOWER LIMIT	UPPER LIMIT	ALIPHATIC RESULT (ug/mL)	AROMATIC RESULT (ug/mL)	% BREAKTHROUGH	#
Naphthalene	0	5	0.00	20.2	0.0	
2-Methylnaphthalene	0	5	0.00	20.9	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 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 AROMATIC BREAKTHROUGH REPORT
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: J

SDG:

GC Column: ZB-5ms

Aliphatic LCS: L020413EW

Column ID: 0.25 mm

Aromatic LCS: L020413EW

COMPOUND	LOWER	UPPER	ALIPHATIC	AROMATIC	% BREAKTHROUGH	
	LIMIT	LIMIT	RESULT (ug/mL)	RESULT (ug/mL)		#
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 BREAKTHROUGH REPORT
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: J

SDG:

GC Column: ZB-5ms

Aliphatic LCS: LD020413EW

Column ID: 0.25 mm

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: _____

PCB DATA SUMMARIES

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

February 5, 2013

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: SB101-S3-012113

Lab Sample ID: 74729-2
Matrix: Solid
Percent Solid: 61
Dilution Factor: 1.6
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	53	U
PCB-1221	53	U
PCB-1232	53	U
PCB-1242	53	U
PCB-1248	53	U
PCB-1254	53	U
PCB-1260	53	U
Surrogate Standard Recovery		
2,4,5,6-Tetrachloro-m-xylene	75	%
Decachlorobiphenyl	79	%
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

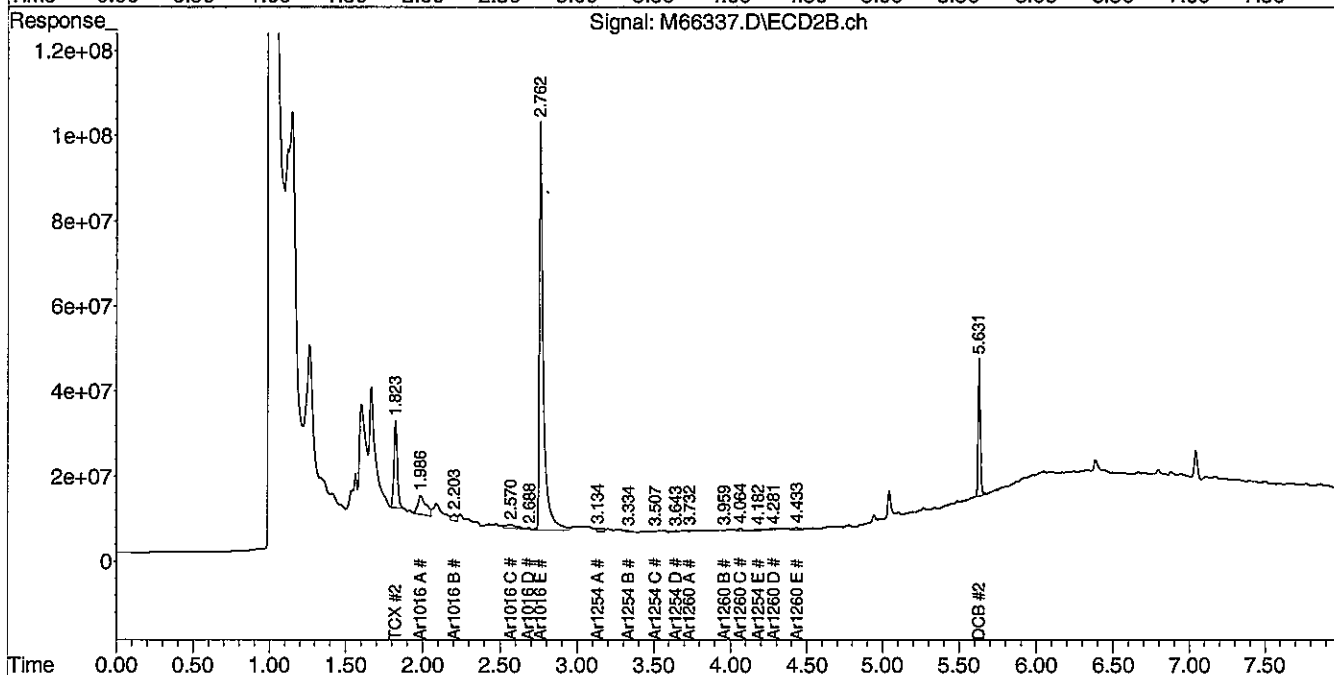
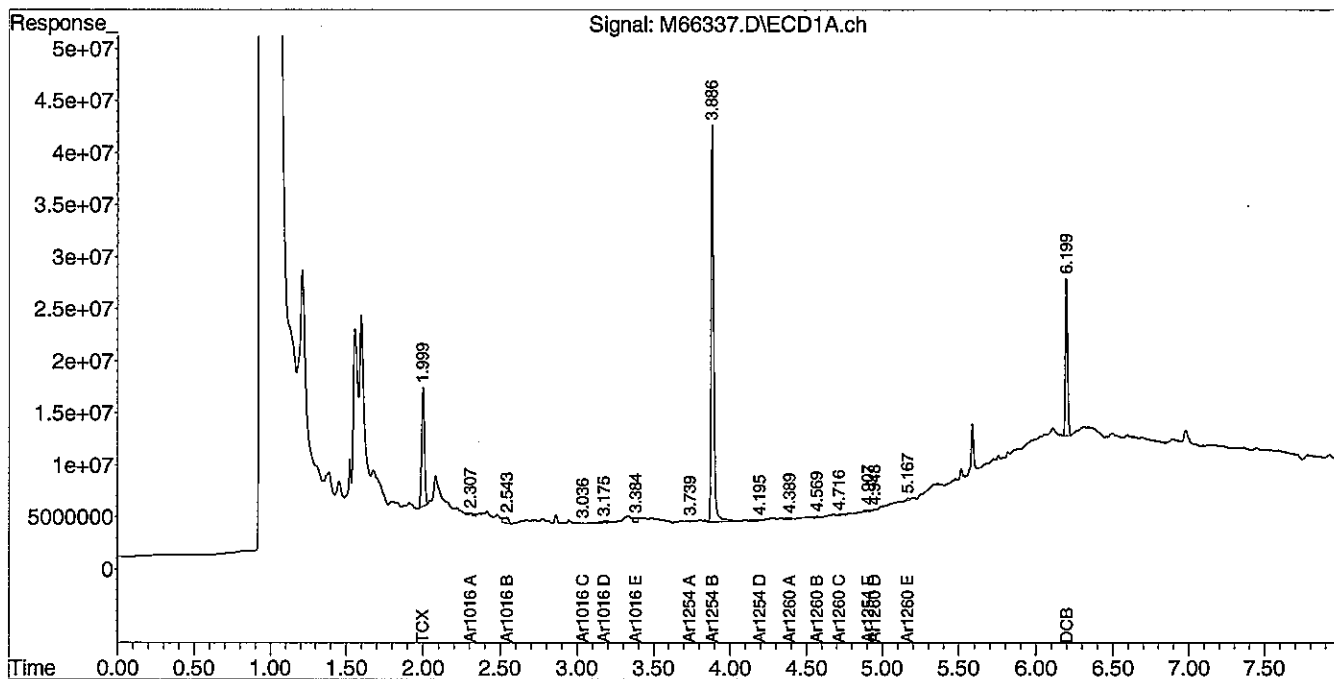
Authorized signature



Data Path : C:\msdchem\1\DATA\013013-M\
Data File : M66337.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 30 Jan 2013 12:29 pm
Operator : JK
Sample : 74729-2,,A/C
Misc : SOIL
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Feb 05 12:15:09 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 0.25 um Signal #2 Info : 30 m x 0.25mm x 0.25 um



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February 5, 2013

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: SB103-S1-012113

Lab Sample ID: 74729-3
Matrix: Solid
Percent Solid: 84
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 $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
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
<u>Surrogate Standard Recovery</u>		
2,4,5,6-Tetrachloro-m-xylene	76	%
Decachlorobiphenyl	69	%
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

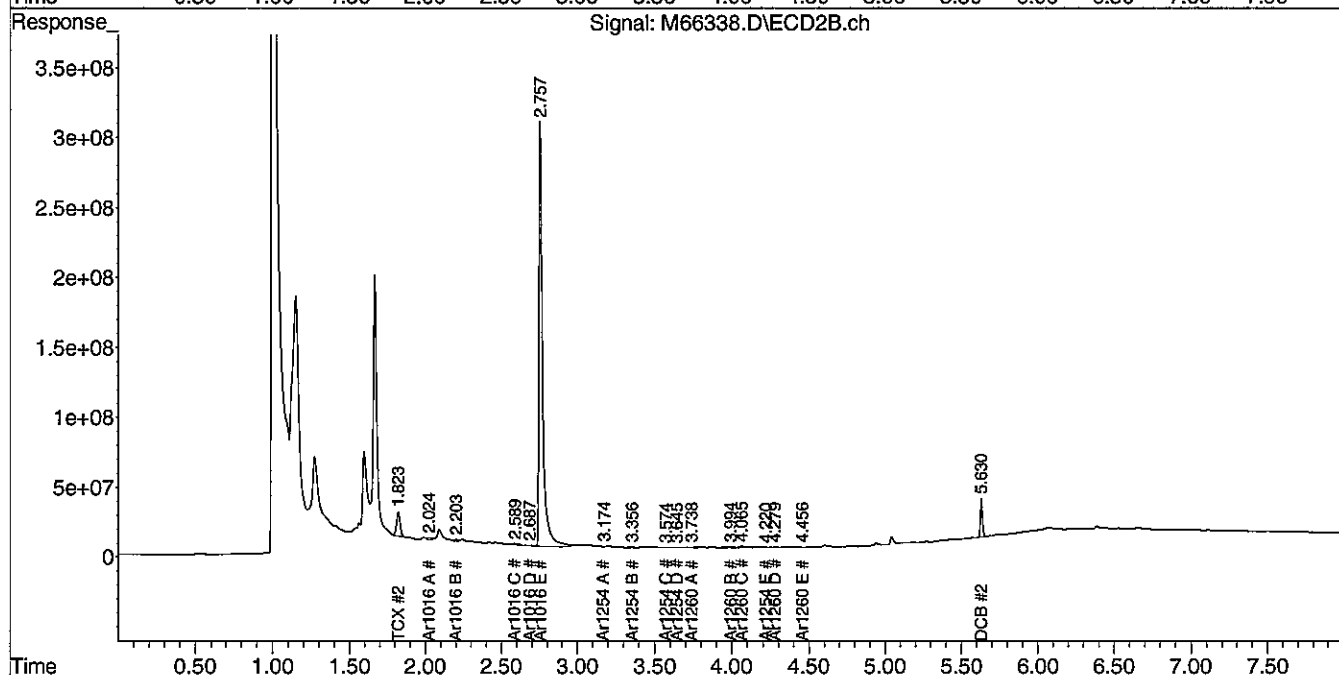
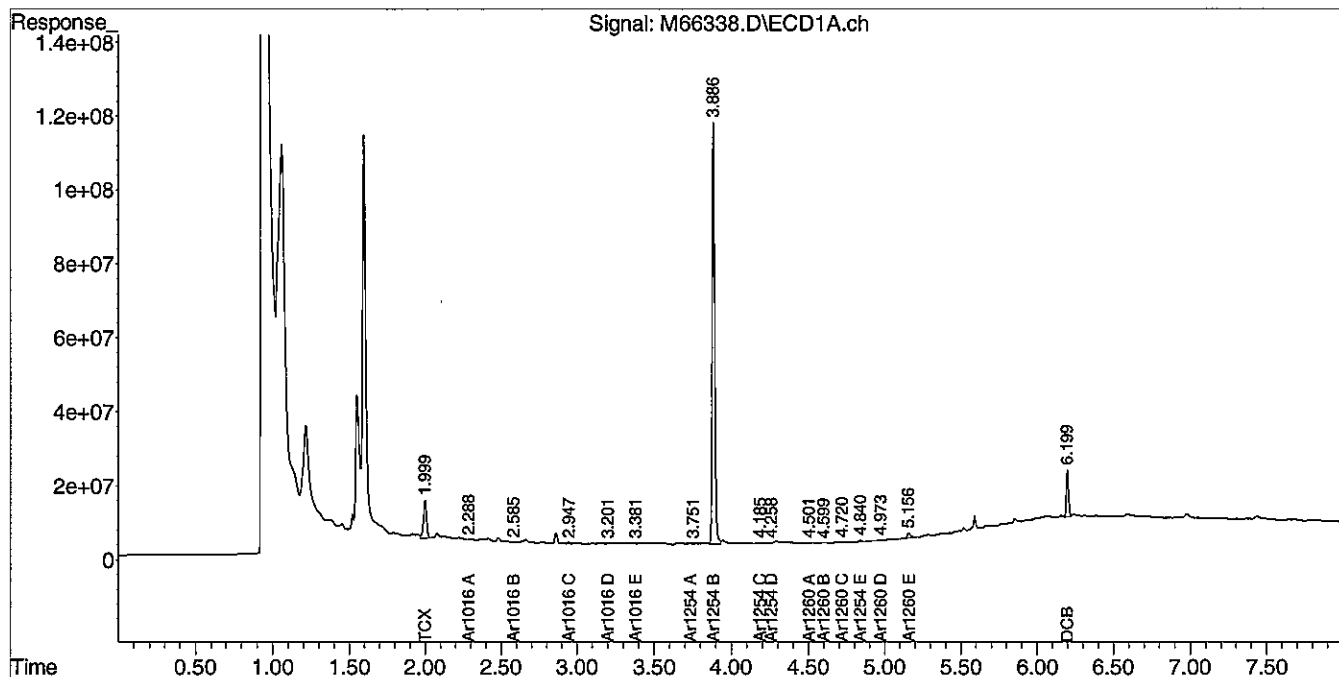
Authorized signature



Data Path : C:\msdchem\1\DATA\013013-M\
 Data File : M66338.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 30 Jan 2013 12:39 pm
 Operator : JK
 Sample : 74729-3,,A/C
 Misc : SOIL
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Feb 05 12:15:11 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 0.25 um Signal #2 Info : 30 m x 0.25mm x 0.25 um



Mr. Erik Phenix
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Portland, ME 04101

February 5, 2013

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: SB10X-S3-012113

Lab Sample ID: 74729-4
Matrix: Solid
Percent Solid: 60
Dilution Factor: 1.6
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 $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	53	U
PCB-1221	53	U
PCB-1232	53	U
PCB-1242	53	U
PCB-1248	53	U
PCB-1254	53	U
PCB-1260	53	U
Surrogate Standard Recovery		
2,4,5,6-Tetrachloro-m-xylene	84	%
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

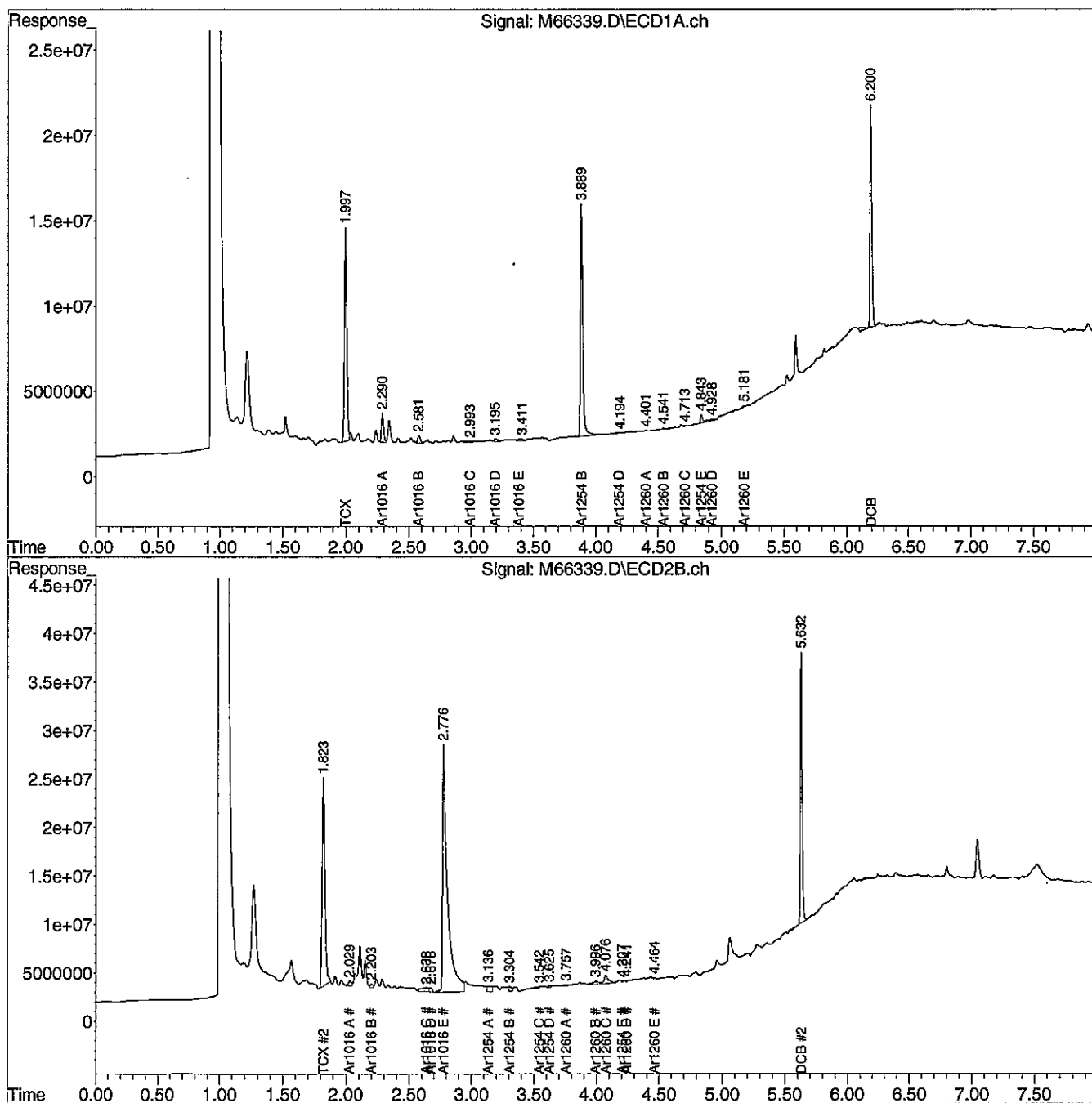
Authorized signature



Data Path : C:\msdchem\1\DATA\013013-M\
Data File : M66339.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 30 Jan 2013 12:49 pm
Operator : JK
Sample : 74729-4,,A/C
Misc : SOIL
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Feb 05 12:15:13 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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January 29, 2013

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: WS101

Lab Sample ID: 74729-7
Matrix: Wipe
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Extraction Date: 01/24/13
Analysis Date: 01/28/13

PCB ANALYTICAL RESULTS

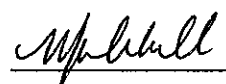
COMPOUND	Quantitation Limit $\mu\text{g/wipe}$	Results $\mu\text{g/wipe}$
PCB-1016	0.5	U
PCB-1221	0.5	U
PCB-1232	0.5	U
PCB-1242	0.5	U
PCB-1248	0.5	U
PCB-1254	0.5	U
PCB-1260	0.5	U
Surrogate Standard Recovery		
2,4,5,6-Tetrachloro-m-xylene	115	%
Decachlorobiphenyl	87	%
U=Undetected J=Estimated E=Exceeds 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:

PCB Report

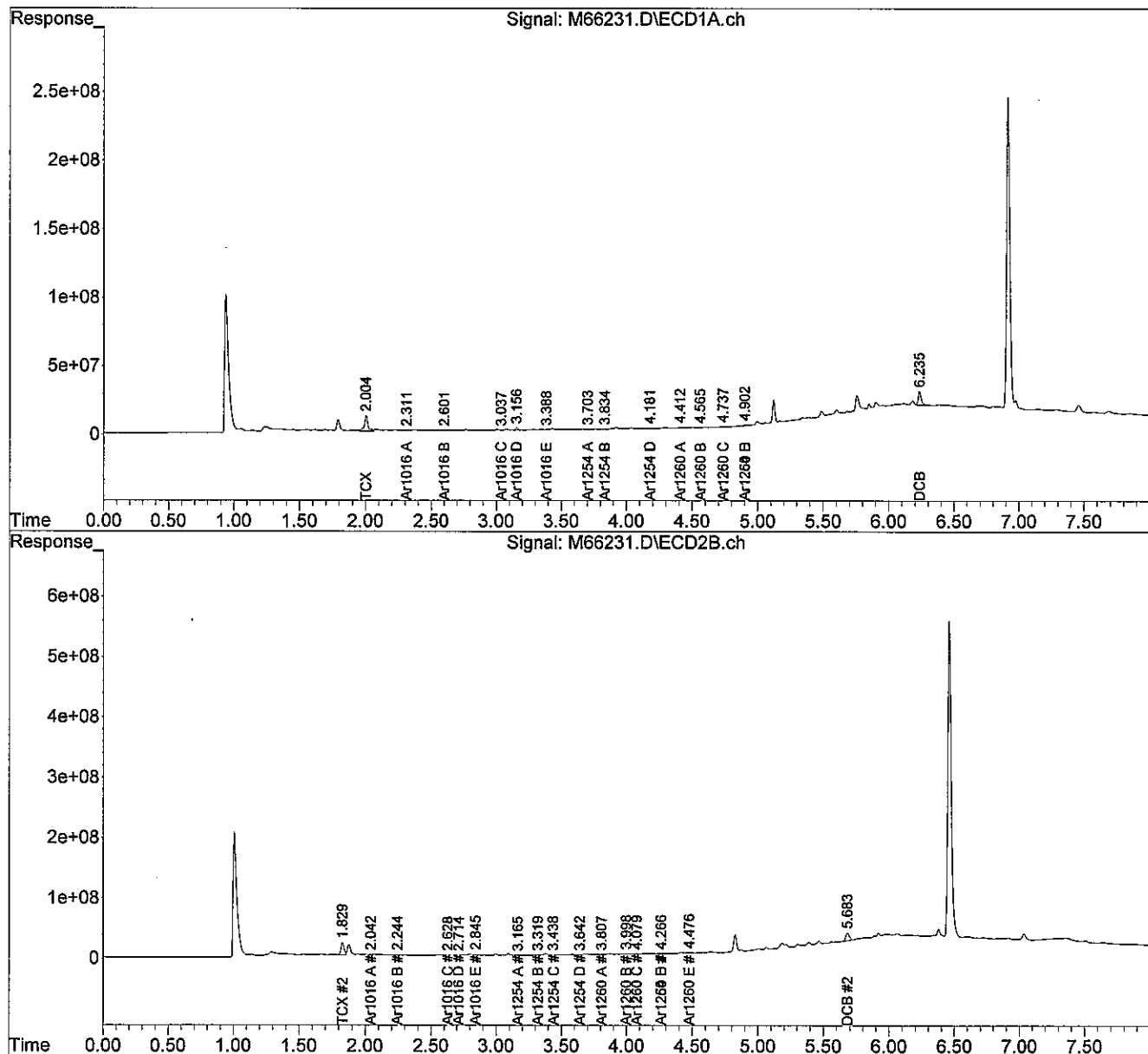
Authorized signature



Data Path : C:\msdchem\1\DATA\012813-M\
Data File : M66231.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Jan 2013 7:03 pm
Operator : JK
Sample : 74729-7,,A/C
Misc : SOIL
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 29 12:25:29 2013
Quant Method : C:\msdchem\1\METHODS\PCB122612.M
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254
QLast Update : Mon Jan 28 16:30:38 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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January 29, 2013

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: WS102

Lab Sample ID: 74729-8
Matrix: Wipe
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date: 01/21/13
Lab Receipt Date: 01/24/13
Extraction Date: 01/24/13
Analysis Date: 01/28/13

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit $\mu\text{g/wipe}$	Results $\mu\text{g/wipe}$
PCB-1016	0.5	U
PCB-1221	0.5	U
PCB-1232	0.5	U
PCB-1242	0.5	U
PCB-1248	0.5	U
PCB-1254	0.5	U
PCB-1260	0.5	U
<u>Surrogate Standard Recovery</u>		
2,4,5,6-Tetrachloro-m-xylene	67	%
Decachlorobiphenyl	56	%
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:

PCB Report

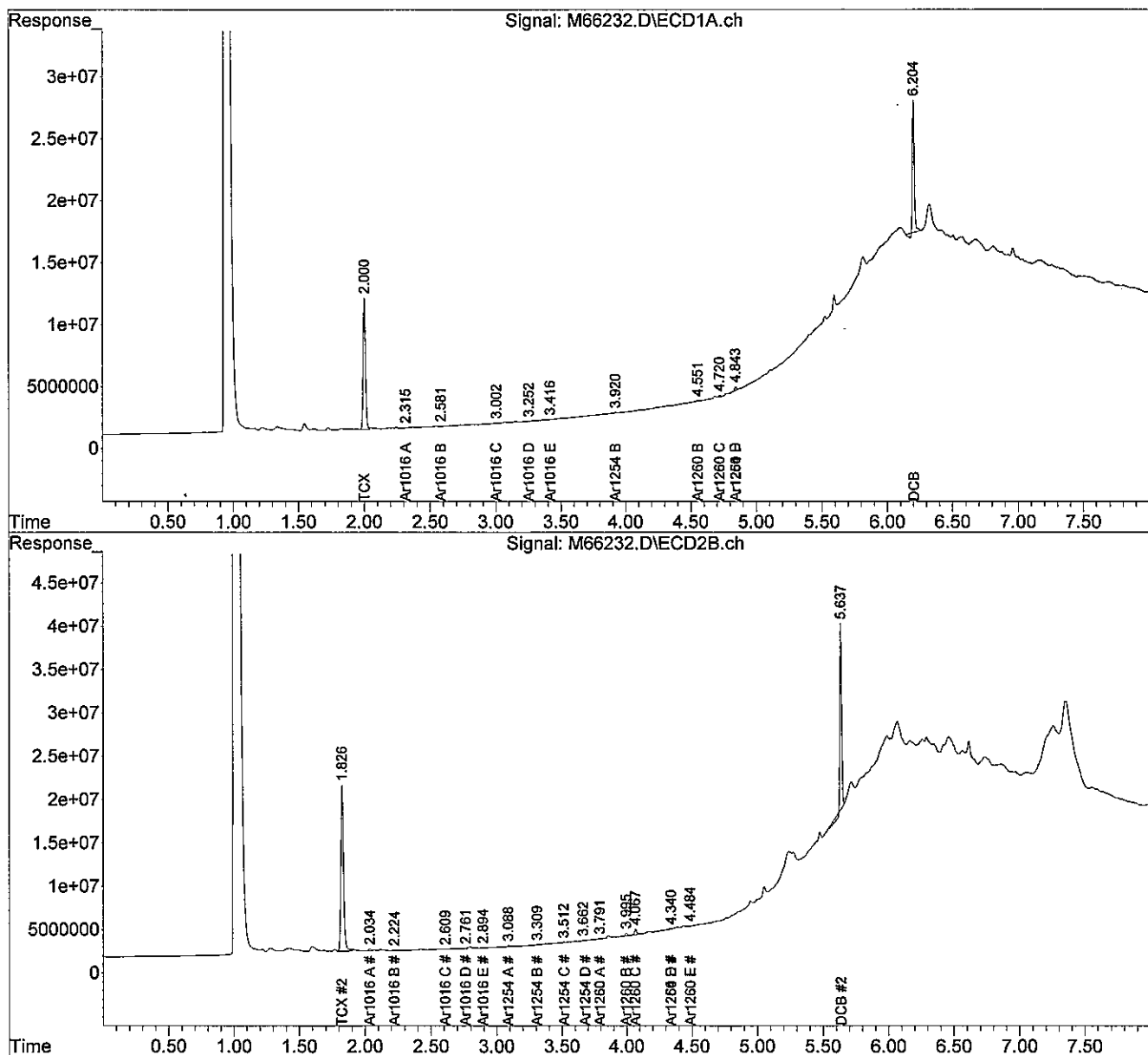
Authorized signature



Data Path : C:\msdchem\1\DATA\012813-M\
Data File : M66232.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Jan 2013 7:13 pm
Operator : JK
Sample : 74729-8,,A/C
Misc : SOIL
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 29 12:25:31 2013
Quant Method : C:\msdchem\1\METHODS\PCB122612.M
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254
QLast Update : Mon Jan 28 16:30:38 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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January 29, 2013

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: WS10X

Lab Sample ID: 74729-9
Matrix: Wipe
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date: 01/23/13
Lab Receipt Date: 01/24/13
Extraction Date: 01/24/13
Analysis Date: 01/28/13

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit $\mu\text{g/wipe}$	Results $\mu\text{g/wipe}$
PCB-1016	0.5	U
PCB-1221	0.5	U
PCB-1232	0.5	U
PCB-1242	0.5	U
PCB-1248	0.5	U
PCB-1254	0.5	U
PCB-1260	0.5	U
<u>Surrogate Standard Recovery</u>		
2,4,5,6-Tetrachloro-m-xylene	90	%
Decachlorobiphenyl	76	%
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:

PCB Report

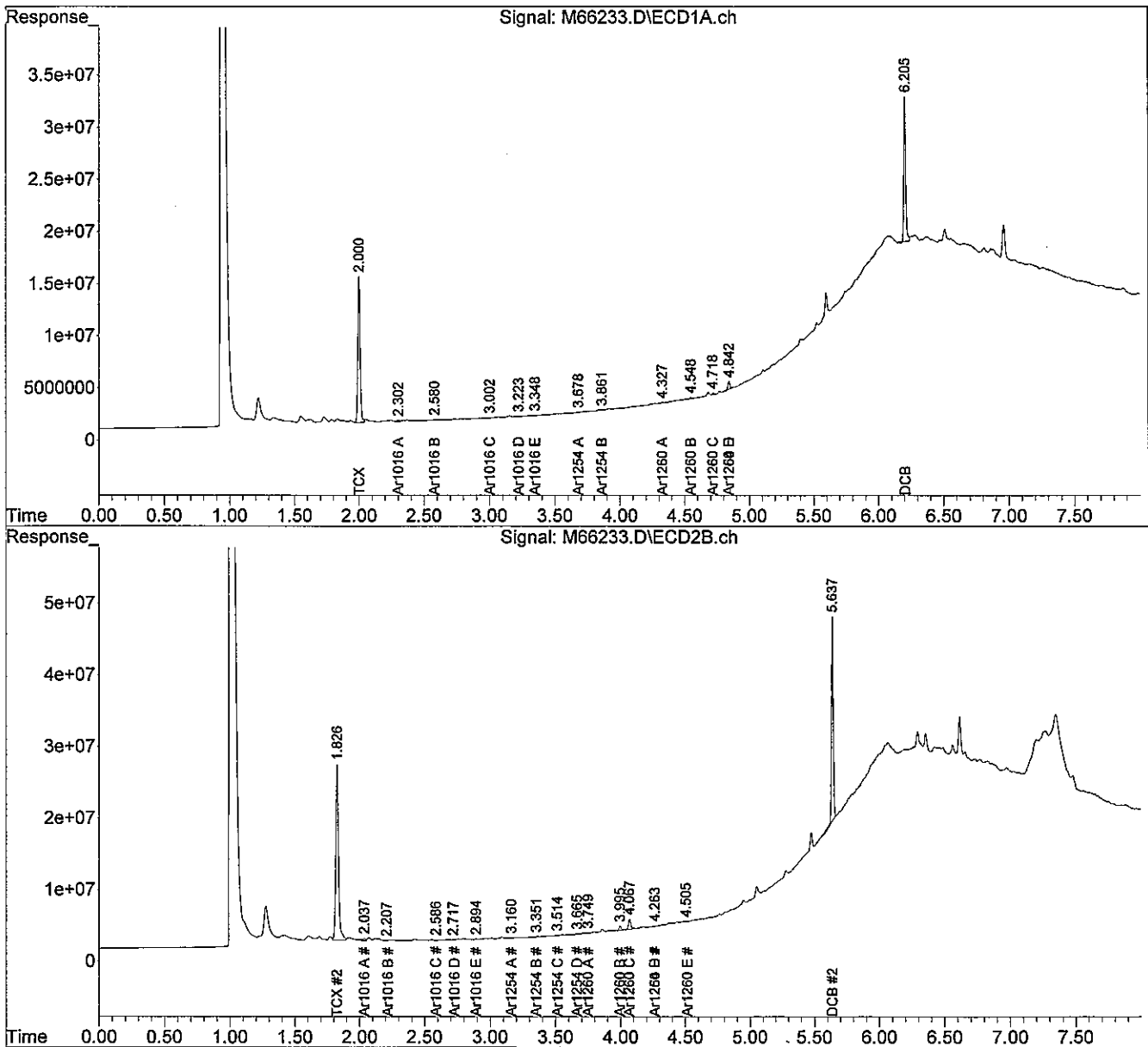
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Data Path : C:\msdchem\1\DATA\012813-M\
Data File : M66233.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Jan 2013 7:24 pm
Operator : JK
Sample : 74729-9,,A/C
Misc : SOIL
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 29 12:25:33 2013
Quant Method : C:\msdchem\1\METHODS\PCB122612.M
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254
QLast Update : Mon Jan 28 16:30:38 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
QC FORMS

Mr. Erik Phenix
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Portland, ME 04101

January 29, 2013

SAMPLE DATA

CLIENT SAMPLE ID
Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: Lab QC

Lab Sample ID: B012413PSOX2
Matrix: Wipe
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date:
Lab Receipt Date:
Extraction Date: 01/24/13
Analysis Date: 01/28/13

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit $\mu\text{g/wipe}$	Results $\mu\text{g/wipe}$
PCB-1016	0.5	U
PCB-1221	0.5	U
PCB-1232	0.5	U
PCB-1242	0.5	U
PCB-1248	0.5	U
PCB-1254	0.5	U
PCB-1260	0.5	U
Surrogate Standard Recovery		
2,4,5,6-Tetrachloro-m-xylene	94	%
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:

PCB Report

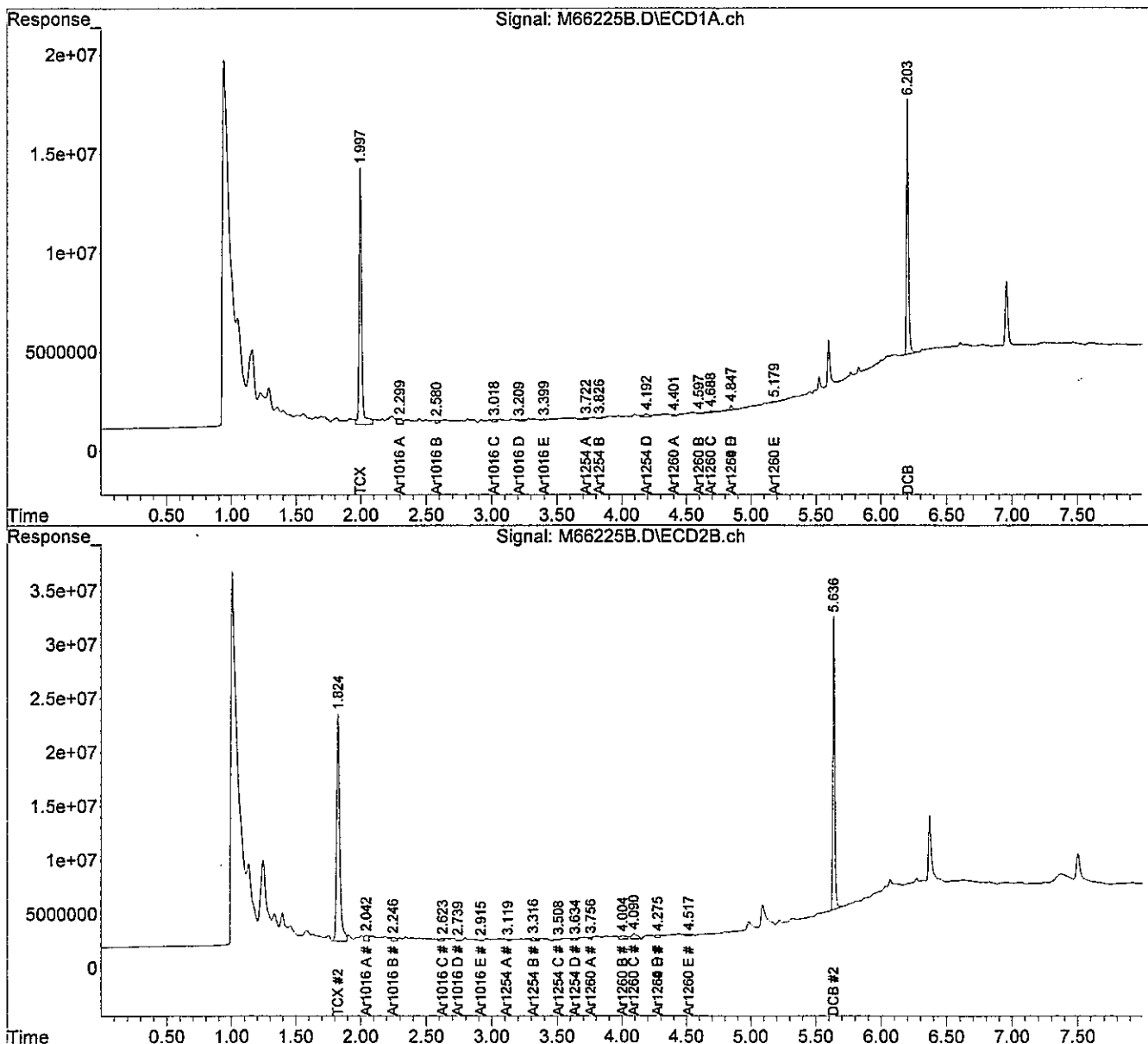
Authorized signature



Data Path : C:\msdchem\1\DATA\012813-M\
Data File : M66225B.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 28 Jan 2013 6:03 pm
Operator : JK
Sample : B012413PSOX2,,A/C
Misc : SOIL
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jan 29 12:25:17 2013
Quant Method : C:\msdchem\1\METHODS\PCB122612.M
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254
QLast Update : Mon Jan 28 16:30:38 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



Mr. Erik Phenix
Ransom Consulting, Inc.
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February 5, 2013

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: Mason Dam
Project Number: 111.06134.018
Field Sample ID: Lab QC

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 $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
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		

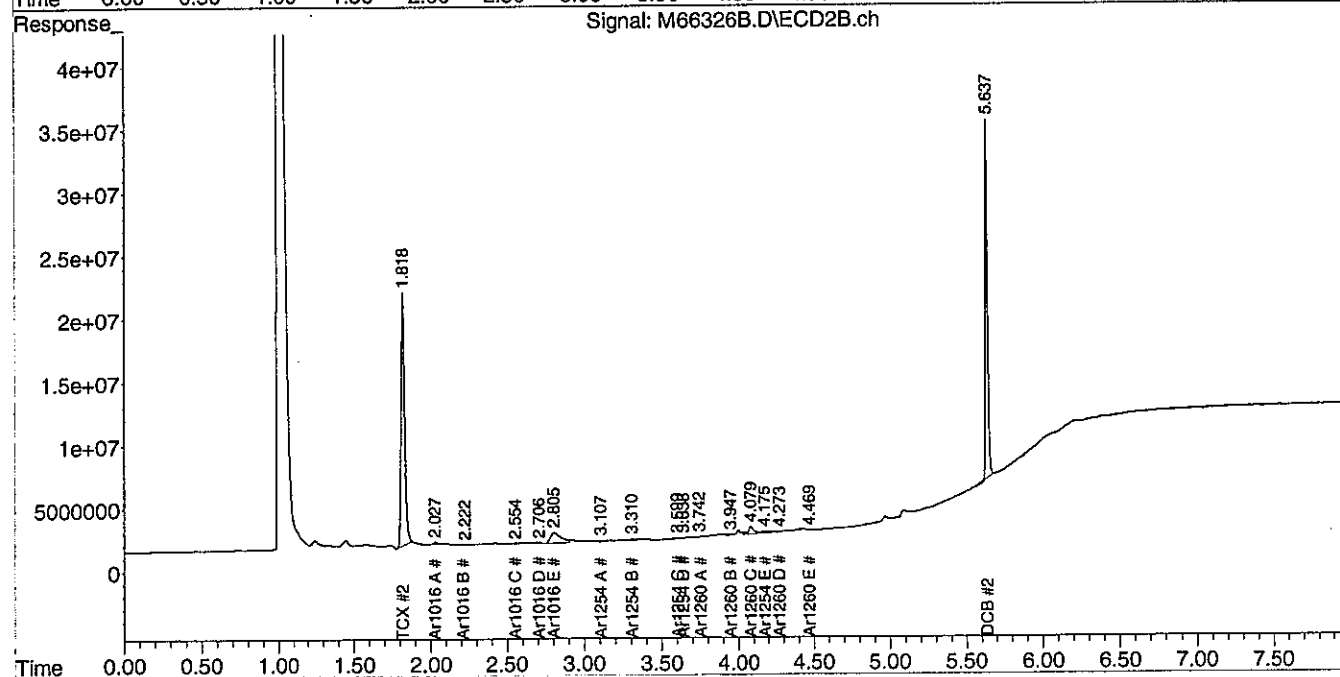
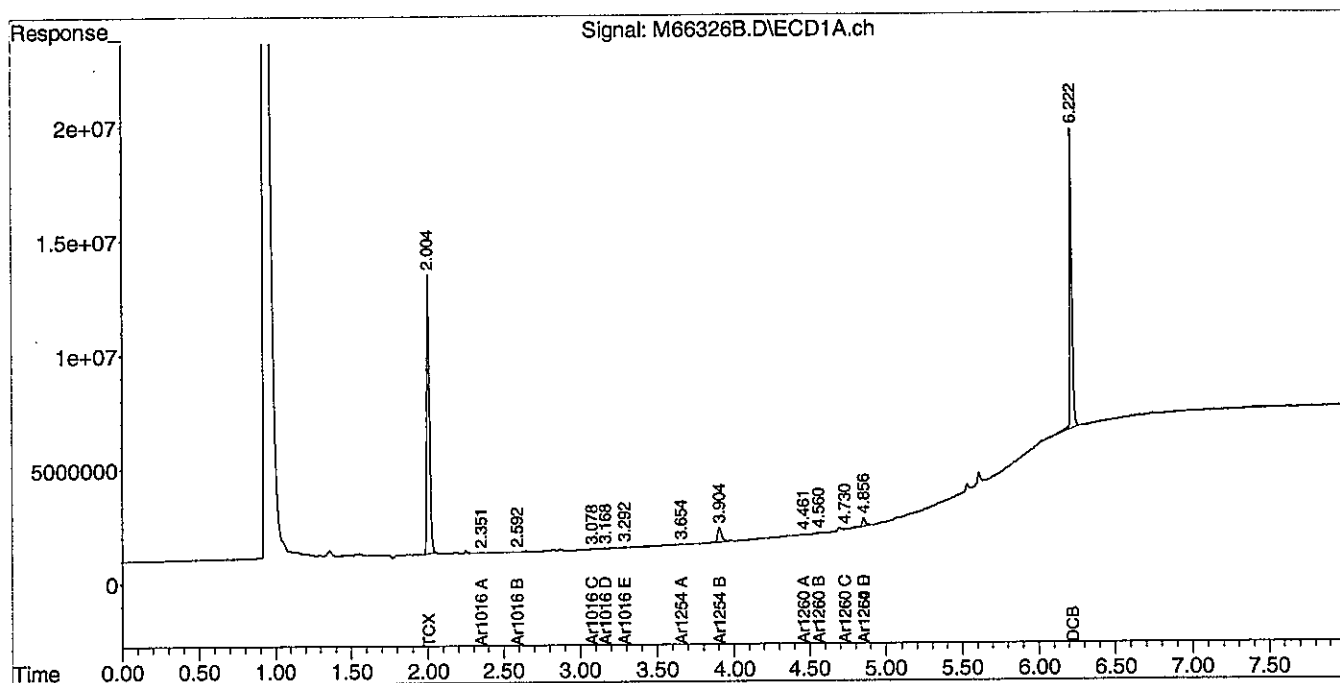
METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A.
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.
Sample cleanup was conducted according to SW-846 Method 3665A.

COMMENTS: Results are expressed on a dry weight basis.

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: 74729

[illegible]

	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 WIPE
LABORATORY CONTROL/LABORATORY CONTROL 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: B012413PSOX2,,A/C

Spike: L012413PSOX2,,A/C

Spike duplicate: LD012413PSOX2,,A/C

COMPOUND	LCS SPIKE ADDED (ug/wipe)	LCSD SPIKE ADDED (ug/wipe)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/wipe)	SPIKE RESULT (ug/wipe)	SPIKE % REC	#	SPIKE DUP RESULT (ug/wipe)	SPIKE DUP % REC	#	RPD	#
PCB 1016	2.0	2.0	65	140	30	0.0	2.0	100		1.9	93		7.6	
PCB 1260	2.0	2.0	60	130	30	0.0	2.1	106		1.6	81		27.4	
PCB 1016 #2	2.0	2.0	65	140	30	0.0	2.3	117		2.0	98		17.4	
PCB 1260 #2	2.0	2.0	60	130	30	0.0	2.4	119		2.1	105		11.7	

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: _____

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	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

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134.018

Sample ID: BK1

Report Date: 01/30/2013

SDG ID: 74729
Lab ID: 74729-1
Date Sampled: 01/21/13
Date Received: 01/24/13
Matrix: Solid
% Solid: 51
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	5.9		mg/Kg	0.84	1.7	01/29/13	01/30/13	TD	1.00
Cadmium (Total)	U		mg/Kg	0.42	0.84	01/29/13	01/30/13	TD	1.00
Chromium (Total)	33		mg/Kg	0.63	1.3	01/29/13	01/30/13	TD	1.00
Lead (Total)	29		mg/Kg	0.21	0.42	01/29/13	01/30/13	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, Revision 3 February 2007.
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134.018

Sample ID: SB101-S3-012113

Report Date: 01/30/2013

SDG ID: 74729
Lab ID: 74729-2
Date Sampled: 01/21/13
Date Received: 01/24/13
Matrix: Solid
% Solid: 61
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	18		mg/Kg	0.72	1.4	01/29/13	01/30/13	TD	1.00
Cadmium (Total)	U		mg/Kg	0.36	0.72	01/29/13	01/30/13	TD	1.00
Chromium (Total)	111		mg/Kg	0.54	1.1	01/29/13	01/30/13	TD	1.00
Lead (Total)	11		mg/Kg	0.18	0.36	01/29/13	01/30/13	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, Revision 3 February 2007.
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134.018

Sample ID: SB103-S1-012113

Report Date: 01/30/2013

SDG ID: 74729
Lab ID: 74729-3
Date Sampled: 01/21/13
Date Received: 01/24/13
Matrix: Solid
% Solid: 84
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	20		mg/Kg	0.57	1.1	01/29/13	01/30/13	TD	1.00
Cadmium (Total)	0.52	J	mg/Kg	0.29	0.57	01/29/13	01/30/13	TD	1.00
Chromium (Total)	54		mg/Kg	0.43	0.86	01/29/13	01/30/13	TD	1.00
Lead (Total)	2520		mg/Kg	0.29	0.57	01/29/13	01/30/13	TD	2.00

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, Revision 3 February 2007.
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134.018

Sample ID: SB10X-S3-012113

Report Date: 01/30/2013

SDG ID: 74729
Lab ID: 74729-4
Date Sampled: 01/21/13
Date Received: 01/24/13
Matrix: Solid
% Solid: 60
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	16		mg/Kg	0.81	1.6	01/29/13	01/30/13	TD	1.00
Cadmium (Total)	U		mg/Kg	0.41	0.81	01/29/13	01/30/13	TD	1.00
Chromium (Total)	120		mg/Kg	0.61	1.2	01/29/13	01/30/13	TD	1.00
Lead (Total)	12		mg/Kg	0.2	0.41	01/29/13	01/30/13	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, Revision 3 February 2007.
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134.018

Sample ID: MW101

Report Date: 01/28/2013

SDG ID: 74729
Lab ID: 74729-5
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)	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, Revision 3 February 2007.
Preparation: SW-846 Method 3005A

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134.018

Sample ID: MW10X

Report Date: 01/28/2013

SDG ID: 74729
Lab ID: 74729-6
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)	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, Revision 3 February 2007.
Preparation: SW-846 Method 3005A

**METALS
QC FORMS**

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134.018

Sample ID: Lab QC

Report Date: 01/28/2013

SDG ID: 74729
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, Revision 3 February 2007.
Preparation: SW-846 Method 3005A

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134.018

Sample ID: Lab QC

Report Date: 01/30/2013

SDG ID: 74729
Lab ID: B012913MS
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	01/29/13	01/30/13	TD	1.00
Cadmium (Total)	U		mg/Kg	0.25	0.5	01/29/13	01/30/13	TD	1.00
Chromium (Total)	U		mg/Kg	0.38	0.75	01/29/13	01/30/13	TD	1.00
Lead (Total)	U		mg/Kg	0.13	0.25	01/29/13	01/30/13	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, Revision 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: 74729
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: 1/30/2013

SDG: 74729
Non-spiked Sample B012913MS
Spike: L012913MS
Spike Duplicate: LD012913MS

Analyte	Spike added	LCS Result	Unit	% Rec	Low Limit	High Limit
Arsenic	71.7	63.6	mg/kg	89%	12	131
Cadmium	44.4	39.8	mg/kg	90%	32.4	64.2
Chromium	39	37.4	mg/kg	96%	25.6	55.4
Lead	46.9	40.2	mg/kg	86%	29.4	64.4

Analyte	Spike added	LCSD Result	Unit	% Rec	Low Limit	High Limit	RPD	RPD Limit
Arsenic	71.7	66.9	mg/kg	93%	12	131	5%	20
Cadmium	44.4	42.0	mg/kg	95%	32.4	64.2	5%	20
Chromium	39	39.9	mg/kg	102%	25.6	55.4	6%	20
Lead	46.9	42.4	mg/kg	90%	29.4	64.4	5%	20

CHAIN OF CUSTODIES

Chain Of Custody Form

Analytics environmental laboratory LLC		195 Commerce Way, Suite E Portsmouth, NH 03801 (603) 436-5111 (603) 430-2151 Fax (800) 929-9906	
Project Name: Mason Dam Project#: 111.06134.018 Company: Ransom Consulting Inc. Report to: E. Phenix Address: 400 Commercial St. Ste. 404 Portland ME 04101 Phone: (207) 772-2891 Quote #: 4977 PO# (if required):		For Analytics Use Only Samples were: 1) Shipped <u>pre-hand-delivered</u> 2) Temperature (°C): <u>1-20</u> 3) Received in good condition: <u>Y</u> or <u>N</u> 4) pH checked by: 5) Labels checked by: <u>Ka301/29/13</u>	
Preservation Code: A = HCL B = 4°C C = Unpres D = MeOH E = HNO3 F = H2SO4 G = Hexane H = Other		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	
Circle and/or Write Required Analysis Followed by Preservation Code Please fill in preservation code here		Matrix No. of Containers pH checked Analytics Sample #	
Field Filtered? Y or N VOC: 8260 524.2 624 SVOC: 8270 625 PAH only SIM PCB: 8082 108 Soxhlet? <u>Y</u> TPH: 8015 (Gas Range) ME4217 TPH: 8015 (Diesel Range) 8100M ME4125 EPH: Full or Ranges only VPH: Full or Ranges only Metals: RCRA8 PPI3 TAL23 Other**		Matrix No. of Containers pH checked Analytics Sample #	
Sample Identification Sample Date Sample Time		Matrix No. of Containers pH checked Analytics Sample #	
WS101 WS102 WS10X		1 1 1 74729-7 -8 -9	
Comments, Additional Analyses, or Special Instructions: ** List requested metals here		Project Requirements: *Fee may apply	
Email Results to: ephenix@ransomenv.com		Report Type: ☐ MCP* ☐ Level II* ☐ Level III* ☐ Level IV* ☐ Standard	
Turnaround Time (TAT) ☐ 1 Day* ☐ 2 Days* ☐ 3 Days* ☐ 4 Days* ☒ Standard (8-10 business days)		State: ☐ NH ☐ MA ☒ ME ☐ CT ☐ RI Other:	
U.S. EPA Brownfields 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.		State Standard: Brownfields (eg. S-1 or GW-1) EDD Required <u>Y</u> or <u>N</u> Type: ME DEP	
Relinquished By: Erik Phenix Relinquished By: Avan Martin Relinquished By: Carla Relinquished By:		Received By: Date: <u>1/24/13</u> Time: <u>950</u> Received By: Date: Time: Received By: Date: Time:	

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 74729
 CLIENT: Ransom
 PROJECT: Hasen Dam

COOLER NUMBER: 98E306E25
 NUMBER OF COOLERS: 3

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 NA
- 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 NA
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: JB

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
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? Y N*

(Note: Pea-sized bubbles or smaller are acceptable and are not considered to adversely affect volatiles data.)

*If NO, List Sample ID's, Lab #s: 1 vial for MW101 (74729-5)

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): 1923 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.

February 15, 2013

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

**RE: Analytical Results Case Narrative
Mason Dam/Mill Dam
Project No: 111.06134.018/.017
Analytics #74824**

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 TCLP Lead using EPA Methods 1311/6010C

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
- 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.

TCLP Lead 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

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

Report Number: 74824

Revision: Rev. 0

Re: Mason Dam/Mill Dam (Project No: 111.06134.018/.017)

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.

<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
74824-1	01/21/13	SB103-S1-012113	TCLP Extraction	
	01/21/13	SB103-S1-012113	TCLP RCRA Metals	
74824-2	01/22/13	SB106-S1-012213	Electronic Data Deliverable	
	01/22/13	SB106-S1-012213	TCLP Extraction	
	01/22/13	SB106-S1-012213	TCLP RCRA Metals	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, Virginia, Maryland, and North Carolina, and is accredited by the Department 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

2/15/2013

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consent of Analytics Environmental Laboratory, LLC.**

METALS DATA SUMMARIES

Client: Ransom Consulting, Inc.
Project name: Mason Dam/Mill Dam
Project NO: 111.06134.018/017

Sample ID: SB103-S1-012113

Report Date: 02/15/2013

SDG ID: 74824
Lab ID: 74824-1
Date Sampled: 01/21/13
Date Received: 01/24/13
Matrix: Aqueous
% Solid: NA
Method: 6010C
Preparation: 3005A

TCLP Metals Results

Analyte	Result	Qual	Regulatory Limits	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (TCLP)	0.23		5	mg/L	0.025	0.05	02/13/13	02/14/13	TD	1.00

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

Comments: TCLP extraction date: 02/12/13

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.
Preparation: SW-846 Method 3005A
TCLP sample extraction was performed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 1311."

METALS
QC FORMS

Client: Ransom Consulting, Inc.
Project name: Mason Dam/Mill Dam
Project NO: 111.06134.018/.017

Sample ID: Lab QC

Report Date: 02/15/2013SDG ID: 74824
Lab ID: B021313MW
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
Lead (Total)	U		mg/L	0.025	0.05	02/13/13	02/14/13	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, Revision 3 February 2007.
Preparation: SW-846 Method 3005A

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

Method: 6010C
Matrix: Aqueous
Date Analyzed: 2/14/2013

SDG: 74824
Non-spiked Sample B021313MS
Spike: L021313MS
Spike Duplicate: LD021313MS

Analyte	Spike added	LCS Result	Unit	% Rec	% Rec Limits
Lead	0.5	0.5223	mg/L	104%	80-120

Analyte	Spike added	LCSD Result	Unit	% Rec	% Rec Limits	RPD	RPD Limit
Lead	0.5	0.5187	mg/L	104%	80-120	1%	20

5A-IN
Metals
Matrix Spike/Duplicate
Percent Recovery

Method: 6010C
Matrix: Aqueous
Date Analyzed: 2/14/2013

SDG: 74824-1
Non-spiked Sample 74824-1
Spike: 74824-1 MS
Spike Duplicate: 74824-1 MSD

Analyte	Sample Result	Spike added	MS Result	MS Qualifier	Unit	% Rec	% Rec Limits
Lead	0.0229	0.5	0.5301		mg/L	101%	80-120

Analyte	Sample Result	Spike added	MSD Result	MSD Qualifier	Unit	% Rec	% Rec Limits	RPD	RPD Limit
Lead	0.0229	0.5	0.5293		mg/L	101%	80-120	0%	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: <u>Mason Dam</u> Project #: <u>111.06134.018</u> Company: <u>Ransom Consulting Inc.</u> Report to: <u>E. Phenix</u> Address: <u>400 Commercial St. Ste. 404</u> <u>Portland, ME 04101</u> Phone: <u>(207) 772-2891</u> Quote #: _____ PO# (if required): <u>4977</u>		Circle and/or Write Required Analysis Followed by Preservation Code Please fill in preservation code here		For Analytics Use Only Samples were: 1) Shipped or hand-delivered: <u>1-20</u> 2) Temperature (°C): _____ 3) Received in good condition: <u>Y</u> or <u>N</u> 4) pH checked by: _____ 5) Labels checked by: <u>KAZ/24/13</u>	
Preservation Key: A = HCL B = 4°C C = Unpres D = MeOH E = HNO3 F = H2SO4 G = Hexane H = Other		Matrix Key: C = Concrete WP = Wipe RW = Wastewater SW = Surface Water E = Extract GW = Groundwater DW = Drinking Water S = Soil / Sludge O = Oil X = Other		Matrix: _____ No. of Containers: _____ pH checked: _____ Analytics Sample #: _____	
Sample Identification Sample Date Sample Time		Metals: RCRA8 P13 TAL23 Other** VPH: Full or Ranges only EPH: Full or Ranges only TPH: 8015 (Diesel Range) 8100M ME4125 TPH: 8015 (Gas Range) ME4217 PCB: 8082 808 Soxhlet? or N Pesticides: 8081 608 SVOC: 8270 625 PAH only SIM VOC: 8260 524.2 624 Field Filtered? Y or N		** List requested metals here	
Comments, Additional Analyses, or Special Instructions: Email Results to: <u>ephenix@ransomenv.com</u>		Project Requirements: *Fee may apply		Report Type: MCP* ☐ Level II* ☒ CTRCP* ☐ Level III* ☐ DOD* ☐ Level IV* ☐ ☐ Standard	
Turnaround Time (TAT) ☐ 1 Day* ☐ 2 Days* ☐ 3 Days* ☐ 4 Days* ☐ 5 Days ☒ Standard (6-10 business days)		State Standard: <u>Brownfields</u> (eg. S-1 or GW-1) EDD Required <u>Y</u> or <u>N</u> Type: <u>MEDEP</u>		State: ☐ NH ☐ MA ☒ ME ☐ CT ☐ RI ☐ Other: _____	
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.		U.S. EPA Brownfields		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.	
Relinquished By Sampler: <u>Erik Phenix</u> Relinquished By: <u>Carla</u> Relinquished By: _____		Date: <u>1/24/13</u> Time: <u>9:50</u> Date: _____ Time: _____ Date: _____ Time: _____		Received By: <u>K. Stander</u> Received By: _____ Received By: _____	

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 74729-5 74824
 CLIENT: Ransom
 PROJECT: Hasen Dam

COOLER NUMBER: 98E306E25
 NUMBER OF COOLERS: 3

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 NA
- 3a. Enter carrier name and airbill number here: _____
4. Were custody seals on the outside of cooler?
 How many & where: _____ Seal Date: _____ Seal Name: N
5. Did the custody seals arrive unbroken and intact upon arrival? Y NA
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
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? Y N*

(Note: Pea-sized bubbles or smaller are acceptable and are not considered to adversely affect volatiles data.)

*If NO, List Sample ID's, Lab #s: 1V1A1 Per MW101 (74729-5)

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: 1/24/13

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

March 27, 2013

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

**RE: Analytical Results Case Narrative
 Mason Dam
 Project No: 111.06134.018
 Analytics #74998 Revision 1**

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 Total Lead using EPA Method 6010C.

Revision 1: This report has been revised to add a narrative.

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
- 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.

Total Lead 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

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

Report Number: 74998

Revision: Rev. 1

Re: Mason Dam (Project No: 111.06134.018)

Enclosed are the results of the analyses on your sample(s). Samples were received on 08 March 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.

<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
74998-1	01/21/13	SB101-S1-012113	Metals	
74998-2	01/21/13	SB102-S1-012113	Metals	
74998-3	01/21/13	SB103-S3-012113	Electronic Data Deliverable	
	01/21/13	SB103-S3-012113	Metals	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, Virginia, Maryland, and North Carolina, and is accredited by the Department 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

3/27/2013

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consent of Analytics Environmental Laboratory, LLC.**

METALS DATA SUMMARIES

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134.018

Sample ID: SB101-S1-012113

Report Date: 03/14/2013

SDG ID: 74998
Lab ID: 74998-1
Date Sampled: 01/21/13
Date Received: 03/08/13
Matrix: Solid
% Solid: 88
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	47		mg/Kg	0.13	0.26	03/12/13	03/13/13	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, Revision 3 February 2007.
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134.018

Sample ID: SB102-S1-012113

Report Date: 03/14/2013

SDG ID: 74998
Lab ID: 74998-2
Date Sampled: 01/21/13
Date Received: 03/08/13
Matrix: Solid
% Solid: 85
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	66		mg/Kg	0.13	0.26	03/12/13	03/13/13	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, Revision 3 February 2007.
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134.018

Sample ID: SB103-S3-012113

Report Date: 03/14/2013

SDG ID: 74998
Lab ID: 74998-3
Date Sampled: 01/21/13
Date Received: 03/08/13
Matrix: Solid
% Solid: 92
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	4.4		mg/Kg	0.14	0.28	03/12/13	03/13/13	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, Revision 3 February 2007.
Preparation: SW-846 3050B

**METALS
QC FORMS**

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

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134.018

Sample ID: Lab QC

Report Date: 03/14/2013

SDG ID: 74998
Lab ID: B031213MW
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
Lead (Total)	U		mg/Kg	0.13	0.25	03/12/13	03/13/13	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, Revision 3 February 2007.
Preparation: SW-846 3050B

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

Method: 6010C
Matrix: Solid
Date Analyzed: 3/13/2013

SDG: 74998
Non-spiked Sample B031213MS
Spike: L031213MS
Spike Duplicate: LD031213MS

Analyte	Spike added	LCS Result	Unit	% Rec	Low Limit	High Limit
Lead	65.9	64.9	mg/kg	98%	44.2	87.6

Analyte	Spike added	LCSD Result	Unit	% Rec	Low Limit	High Limit	RPD	RPD Limit
Lead	65.9	60.9	mg/kg	92%	44.2	87.6	6%	20

5A-IN
Metals
Matrix Spike
Percent Recovery

Method: 6010C
Matrix: Solid
Date Analyzed: 3/13/2013

SDG: 74998
Non-spiked Sample 74998-1
Spike: 74998-1 MS

Analyte	Sample Result	Spike added	MS Result	MS Qualifier	Unit	% Rec	% Rec Limits
Lead	46.65	25	70.27		mg/kg	95%	75-125

6-IN
Metals
Sample/ Duplicate
RPD

Method: 6010C
Matrix: Solid
Date Analyzed: 3/13/2013

SDG:
Sample 74998-1
Duplicate 74998-1 DUP

Analyte	Sample mg/kg	Sample Duplicate mg/kg	% RPD	RPD Limit 20%
Lead	46.65	40.43	14%	

CHAIN OF CUSTODIES

Chain Of Custody Form

analytics environmental laboratory LLC		195 Commerce Way, Suite E Portsmouth, NH 03801 (603) 436-5111 (603) 430-2151 Fax (800) 929-9906	
Project Name: <u>Mason Dam</u> Project#: <u>111.06134.018</u> Company: <u>Ransom Consulting</u> Report to: <u>Erik Phoenix/Peter Sherr</u> Address: <u>400 Commercial St</u> <u>Suite 404, Portland, ME 04101</u> Phone: <u>207-772-2891</u> Quote #: <u>4977</u> PO# (if required): <u>5102</u>		For Analytics Use Only Samples were: 1) Shipped or hand-delivered: <u>5-8°C</u> 2) Temperature (°C): <u>5-8°C</u> 3) Received in good condition: <u>Y</u> or <u>N</u> 4) pH checked by: <u>SLA</u> 5) Labels checked by: <u>2318/13</u>	
Preservation Key: A = HCL B = 4°C C = Unpres D = MeOH E = HNO3 F = H2SO4 G = Hexane H = Other		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	
Circle and/or Write Required Analysis Followed by Preservation Code Please fill in preservation code here		Metals: RCR88 PP13 TAL23 Other** VPH: Full or Ranges only EPH: Full or Ranges only TPH: 8015 (Diesel Range) 8100M ME4125 TPH: 8015 (Gas Range) ME4217 PCB: 8082 608 Soxhlet? Y or N Pesticides: 8081 608 SVOC: 8270 625 PAH only SIM VOC: 8260 524.2 624 Field Filtered? Y or N	
Sample Identification Sample Date Sample Time		Matrix No. of Containers pH checked Analytics Sample #	
SB101-S1-012113 SB102-S1-012113 SB103-S3-012113		5 5 5 1 1 1 74998-1 2 3	
Email Results to: epheix@ransomenv.com peter.sherr@ransomenv.com		Project Requirements: *Fee may apply Report Type: MCP* ☐ Level II* ☒ CTRCP* ☐ Level III* ☐ DOD* ☐ Level IV* ☐ Standard ☐	
Turnaround Time (TAT) ☐ 24 Hours* ☐ 48 Hours* ☒ 72 Hours* ☐ 5 Days* ☐ 10 Days*		State Standard: MEDEP RAGS (eg. S-1 or GW-1) EDD Required: <u>Y</u> N Type: <u>MEDEP</u>	
Comments, Additional Analyses, or Special Instructions: ** List requested metals here MEDEP/USEPA Brownfields Project			
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.			
Relinquished By Sampler: Relinquished By:		Received By: <u>SLA</u> Date: <u>5/8/13</u> Time: <u>16:05</u>	
Relinquished By:		Received By:	
Relinquished By:		Received By:	

ANALYTICS SAMPLE RECEIPT CHECKLIST



AEL LAB#: 74998
 CLIENT: BANSON
 PROJECT: MASON Dam

COOLER NUMBER: 535
 NUMBER OF COOLERS: 1

A: PRELIMINARY EXAMINATION:

1. Cooler received by (initials): DM

DATE COOLER RECEIVED/OPENED: 3/8/13

2. Circle one:

☒ Hand delivered
 (If so, skip 3)

☐ Shipped

3. Did cooler come with a shipping slip?

Y

☒ N

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:

5-8°C

B. Log-In: Date samples were logged in:

3/8/13

By:

DM

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 A

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 A

20. Were VOA samples absent of greater than pea-sized bubbles?

Y

N A

(Note: Pea-sized bubbles or smaller are acceptable and are not considered to adversely affect volatiles data.)

*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):

DM

Date:

3/8/13

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

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

Report Number: 75665

Revision: Rev. 0

Re: Mason Dam (Project No: 111.06134)

Enclosed are the results of the analyses on your sample(s). Samples were received on 31 May 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 Department 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

6/12/2013

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consent of 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: 75665

REV: Rev. 0

PROJECT: Mason Dam (Project No: 111.06134)

<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
75665-1	05/30/13	SB104-S1-053013	Metals	
75665-2	05/30/13	SB106-S1-053013	Metals	
75665-3	05/30/13	SB108-S1-053013	Metals	
75665-4	05/30/13	SB109-S1-053013	Metals	
75665-5	05/30/13	SB110-S1-053013	Metals	
	05/30/13	SB110-S1-053013	TCLP Extraction	
	05/30/13	SB110-S1-053013	TCLP Lead	
75665-6	05/30/13	SB111-S1-053013	Electronic Data Deliverable	
	05/30/13	SB111-S1-053013	Metals	

METALS DATA SUMMARIES

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134

Sample ID: SB104-S1-053013

Report Date: 06/06/2013SDG ID: 75665
Lab ID: 75665-1
Date Sampled: 05/30/13
Date Received: 05/31/13
Matrix: Solid
% Solid: 67
Method: 6010C
Preparation: 3050B**Metals Results**

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	5300*		mg/Kg	0.88	1.8	06/04/13	06/06/13	TD	5.00

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

Comments: * Sample Duplicate for Lead was outside the laboratory acceptance criteria. The LCS/LCSD were in control.

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

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134

Sample ID: SB106-S1-053013

Report Date: 06/06/2013

SDG ID: 75665
Lab ID: 75665-2
Date Sampled: 05/30/13
Date Received: 05/31/13
Matrix: Solid
% Solid: 82
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	63		mg/Kg	0.15	0.3	06/04/13	06/06/13	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, Revision 3 February 2007.
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134

Sample ID: SB108-S1-053013

Report Date: 06/06/2013

SDG ID: 75665
Lab ID: 75665-3
Date Sampled: 05/30/13
Date Received: 05/31/13
Matrix: Solid
% Solid: 92
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	9.2		mg/Kg	0.12	0.24	06/04/13	06/06/13	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, Revision 3 February 2007.
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134

Sample ID: SB109-S1-053013

Report Date: 06/06/2013

SDG ID: 75665
Lab ID: 75665-4
Date Sampled: 05/30/13
Date Received: 05/31/13
Matrix: Solid
% Solid: 54
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	415		mg/Kg	0.21	0.41	06/04/13	06/06/13	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, Revision 3 February 2007.
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134

Sample ID: SB110-S1-053013

Report Date: 06/06/2013

SDG ID: 75665
Lab ID: 75665-5
Date Sampled: 05/30/13
Date Received: 05/31/13
Matrix: Solid
% Solid: 83
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	45200		mg/Kg	12	25	06/04/13	06/06/13	TD	100

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, Revision 3 February 2007.
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134

Sample ID: SB110-S1-053013

Report Date: 06/10/2013

SDG ID: 75665
Lab ID: 75665-5
Date Sampled: 05/30/13
Date Received: 05/31/13
Matrix: Aqueous
% Solid: NA
Method: 6010C
Preparation: 3005A

TCLP Metals Results

Analyte	Result	Qual	Regulatory Limits	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (TCLP)	699		5	mg/L	0.25	0.5	06/07/13	06/10/13	TD	10.0

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

Comments: TCLP extraction date: 06/04/13

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.
Preparation: SW-846 Method 3005A
TCLP sample extraction was performed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 1311."

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134

Sample ID: SB111-S1-053013

Report Date: 06/06/2013

SDG ID: 75665
Lab ID: 75665-6
Date Sampled: 05/30/13
Date Received: 05/31/13
Matrix: Solid
% Solid: 49
Method: 6010C
Preparation: 3050B

Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	123		mg/Kg	0.23	0.47	06/04/13	06/06/13	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, Revision 3 February 2007.
Preparation: SW-846 3050B

METALS QC FORMS

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134

Sample ID: Lab QC

Report Date: 06/12/2013

SDG ID: 75665
Lab ID: B060413MS
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
Lead (Total)	U		mg/Kg	0.18	0.35	06/04/13	06/06/13	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, Revision 3 February 2007.
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.
Project name: Mason Dam
Project NO: 111.06134

Sample ID: Lab QC

Report Date: 06/10/2013

SDG ID: 75665
Lab ID: B060713MW
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
Lead (Total)	U		mg/L	0.003	0.005	06/07/13	06/10/13	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, Revision 3 February 2007.
Preparation: SW-846 Method 3005A

5A-IN
Metals
Matrix Spike
Percent Recovery

Method: 6010C
Matrix: Solid
Date Analyzed: 6/6/2013

SDG: 75665
Non-spiked Sample 75665-1 5X
Spike: 7565-1 MS 5X

Analyte	Sample Result	Spike added	MS Result	MS Qualifier	Unit	% Rec	% Rec Limits
Lead	5304.22	25	5533.74		mg/kg	918% *	75-125

6-IN
Metals
Sample/ Duplicate
RPD

Method: 6010C
Matrix: Solid
Date Analyzed: 6/6/2013

SDG:
Sample 75665-1 5X
Duplicate 75665-1 DUP 5x

Analyte	Sample mg/kg	Sample Duplicate mg/kg	% RPD	RPD Limit 20%
Lead	5304.09	9341.64	55%	*

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

Method: 6010C
Matrix: Solid
Date Analyzed: 6/6/2013

SDG: 75665
Non-spiked Sample B060413MS
Spike: L060413MS
Spike Duplicate: LD060413MS

Analyte	Spike added	LCS Result	Unit	% Rec	Low Limit	High Limit
Lead	136	121.2	mg/kg	89%	114	159

Analyte	Spike added	LCSD Result	Unit	% Rec	Low Limit	High Limit	RPD	RPD Limit
Lead	136	118.9	mg/kg	87%	114	159	2%	20

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

Method: 6010C
Matrix: Aqueous
Date Analyzed: 6/10/2013

SDG: 75665
Non-spiked Sample B060713MW
Spike: L060713MW
Spike Duplicate: LD060713MW

Analyte	Spike added	LCS Result	Unit	% Rec	% Rec Limits
Lead	0.5	0.5160	mg/L	103%	80-120

Analyte	Spike added	LCSD Result	Unit	% Rec	% Rec Limits	RPD	RPD Limit
Lead	0.5	0.5182	mg/L	104%	80-120	0%	20

5A-IN
Metals
Matrix Spike/Duplicate
Percent Recovery

Method: 6010C
Matrix: Aqueous
Date Analyzed: 6/10/2013

SDG: 75665
Non-spiked Sample 75665-5
Spike: 75665-5 MS
Spike Duplicate: 75665-5 MSD

Analyte	Sample Result	Spike added	MS Result	MS Qualifier	Unit	% Rec	% Rec Limits
Lead	66.3200	0.5	63.5300	E	mg/L	-558%	80-120

Analyte	Sample Result	Spike added	MSD Result	MSD Qualifier	Unit	% Rec	% Rec Limits	RPD	RPD Limit
Lead	66.3200	0.5	62.8100	E	mg/L	-702%	80-120	1%	20

CHAIN OF CUSTODIES

Chain Of Custody Form

		195 Commerce Way, Suite E Portsmouth, NH 03801 (603) 436-5111 (603) 430-2151 Fax (800) 929-9906		For Analytics Use Only Samples were: 1) Shipped <u>hand-delivered</u> <u>4.50C</u> 2) Temperature (°C): <u>4.50C</u> 3) Received in good condition: <u>Y</u> or <u>N</u> 4) pH checked by: <u>N/A</u> 5) Labels checked by: <u>MT 5/31/13</u>	
Project Name: <u>Mason Dam</u> Project#: <u>111.06134</u> Company: <u>Ransom Consulting</u> Report to: <u>Erik Phenix / Peter Shaw</u> Address: <u>400 Commercial St., Suite 401</u> <u>Portland, ME 04101</u> Phone: <u>207-772-2891</u> Quote #: <u>5402</u>		Circle and/or Write Required Analysis Followed by Preservation Code Please fill in preservation code here Metals: <u>Lead (Pb)</u> <u>TCRP - Lead (Pb)</u> VPH: Full or Ranges only EPH: Full or Ranges only TPH: 8015 (Gas Range) ME4217 PCB: 8082 608 Soxhlet? Y or N Pesticides: 8081 608 SVOC: 8260 524.2 624 VOC: 8270 625 PAH only SIM Field Filtered? Y or N		Matrix Key: C = Concrete WP = Waste Water SW = Surface Water E = Extract GW = Groundwater DW = Drinking Water S = Soil / Sludge O = Oil X = Other	
Matrix: C = Concrete WP = Waste Water SW = Surface Water E = Extract GW = Groundwater DW = Drinking Water S = Soil / Sludge O = Oil X = Other		Matrix: C = Concrete WP = Waste Water SW = Surface Water E = Extract GW = Groundwater DW = Drinking Water S = Soil / Sludge O = Oil X = Other		No. of Containers pH checked Analytics Sample # <u>1</u> <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u>	
Email Results to: <u>peter.shaw@ransomenv.com</u> <u>erik.phenix@ransomenv.com</u>		Comments, Additional Analyses, or Special Instructions: <u>MEDEP/EPA Brownfields</u>		Project Requirements: *Fee may apply Report Type: ☐ MCP* ☒ Level II* ☐ CTRCP* ☐ Level III* ☐ DOD* ☐ Level IV* ☐ Standard State: ☐ NH ☐ MA ☒ ME ☐ CT ☐ RI State Standard: <u>MEDEP</u> (eg. S-1 or GW-1) EDD Required: <u>Y</u> or <u>N</u> Type: <u>MEDEP</u>	
Turnaround Time (TAT) ☐ 1 Day* ☐ 3 Days* ☐ 5 Days ☒ Standard (8-10 business days)		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.		** List requested metals here	
Sampler Name (Print): <u>Sam Martin</u>		Relinquished By Sampler: <u>Sam Martin</u>		Received By: <u>Secure Storage</u>	
Relinquished By: <u>James Higgins</u>		Relinquished By: <u>James Higgins</u>		Received By: <u>James Higgins</u>	
Relinquished By:		Relinquished By:		Received By:	

ANALYTICS SAMPLE RECEIPT CHECKLIST



AEL LAB#: 75665
 CLIENT: Ransom
 PROJECT: Nason Dam

COOLER NUMBER: 159
 NUMBER OF COOLERS: 1

A: PRELIMINARY EXAMINATION:

1. Cooler received by (initials): X DATE COOLER RECEIVED/OPENED: 5-31-13
2. Circle one: Hand delivered (if so, skip 3) Shipped
3. Did cooler come with a shipping slip? Y NA
- 3a. Enter carrier name and airbill number here: _____
4. Were custody seals on the outside of cooler?
 How many & where: _____ Seal Date: _____ Seal Name: Y NA
5. Did the custody seals arrive unbroken and intact upon arrival? Y NA
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: 4.5°C

B. Log-In: Date samples were logged in:

5-31-13By: X

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
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 NA
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 NA

*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): MTDate: 5/31/13

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

APPENDIX C

Hazardous Materials Inventory Report

Phase II Environmental Site Assessment

Mason Dam

Tax Map 23, Lot 9A & 12

Belfast, Maine



Consulting
Engineers
and Scientists

October 17, 2013

Project 111.06134.018

Mr. Thomas Kittredge
Economic Development Director
City of Belfast
131 Church Street
Belfast, Maine 04915

RE: Hazardous Building Materials Inventory
Mason Dam
Swan Lake Avenue
Belfast, Maine

Dear Thomas:

Ransom Consulting, Inc. (Ransom) has prepared this report presenting the results of the Hazardous Building Materials Inventory (HMI) performed at the Mason Dam property located on Swan Lake Avenue in the City of Belfast, Waldo County, Maine (the "Site") and structure thereon (the Site Building). The work performed by Ransom was authorized by the City of Belfast using the United States Environmental Protection Agency (U.S. EPA) Brownfields funding under the City of Belfast's Brownfields Assessment Grant No. BF-96151001-0. The layout of the Site building with locations of samples testing positive for asbestos are provided on Figure 1. A Photograph Log, documenting our key findings, is included as Attachment A.

EXECUTIVE SUMMARY

During the completion of a Phase I Environmental Site Assessment (ESA) in July 2012 and given the age and construction of the Site building, Ransom identified the potential for asbestos containing materials (ACM), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) to be present in the Site Building. To address these concerns, Ransom completed our HMI on January 21, 2013 to assess for the presence of ACM, LBP, and PCBs, as well as other hazardous and potentially hazardous building components/fixtures.

Based on the results of this survey, Ransom identified that asbestos is present in the mastic on penstock piping/coating.

Ransom understands that the ultimate fate or reuse of the Site Building has not yet been determined, but that renovation and demolition are options under consideration. ACM that would be impacted by demolition or renovation must be removed by trained asbestos abatement professionals, and properly handled and disposed as special wastes, in accordance with local, state, and federal regulations. If the building or penstock piping is to be renovated or maintained, identified ACM in good condition, which would not be impacted by renovation or day-to-day operations, may remain intact under an operations and

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12 Kent Way, Suite 100, Byfield, Massachusetts, Tel (978) 465-1822, Fax (978) 465-2986
112 Corporate Drive, Pease International Tradeport, Portsmouth, New Hampshire 03801, Tel (603) 436-1490
2127 Hamilton Avenue, Hamilton, New Jersey 08619, Tel (609) 584-0090
60 Valley Street, Building F, Suite 106, Providence, Rhode Island 02909, Tel (401) 433-2160

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Mr. Thomas Kittredge
City of Belfast

maintenance (O&M) plan. In addition, certain exemptions in MEDEP asbestos handling and disposal rules may apply, based on the materials and work practices involved, as detailed below.

Painted surfaces in interior and exterior sample locations tested using an X-Ray Fluorescence (XRF) analyzer contained lead at concentrations ranging from below the instrument's lower detection limit of 0.01 milligrams per square centimeter (mg/cm^2), up to $0.04 \text{ mg}/\text{cm}^2$. The U.S. Housing and Urban Development (HUD) Lead-Based Paint Guidelines (provided for comparison purposes only) define lead at concentrations greater than 1.0 milligrams per square centimeter (mg/cm^2) as "Lead-Based Paint". Any renovation or demolition activities that disturb surfaces containing any amount of lead must be conducted in accordance with Occupational Safety and Health Administration (OSHA) Regulation 29 CFR 1926.62 "Lead Exposure in Construction: Interim Final Rule."

No caulking materials were identified during our survey; therefore, no suspect caulk samples were submitted for laboratory analysis for the presence of PCBs.

Other hazardous and potentially hazardous components were also identified at the Site building, including potentially PCB-containing electrical ballasts, mercury-containing fluorescent lights, and presumed lead/acid batteries. These components will require handling and disposal as universal wastes.

BACKGROUND

The Site is currently improved with one building (the "Site building"), referred to herein as the Turbine Building. The Site Building is a one-story poured concrete structure with a concrete roof, covering an approximate footprint of 300 square feet. The building contains two turbines and generators that were formerly utilized for hydroelectric power generation. The Site building was reportedly constructed in 1985, and the facility has stood idle since hydroelectric generation operations ceased, in the mid-1990s.

ASBESTOS-CONTAINING MATERIALS

Ransom completed an asbestos survey at the Site building on January 21, 2013. The asbestos survey was performed by Ransom's U.S. EPA and State of Maine-certified asbestos inspector, Mr. Lucas Hathaway. Copies of Mr. Hathaway's State of Maine Asbestos Inspector certification and most recent U.S. EPA training certificate are provided as Attachment B.

OSHA defines ACM as "any material containing more than one percent asbestos," while the MEDEP defines ACM as "greater than or equal to one percent asbestos." The U.S. EPA and MEDEP are responsible for developing and enforcing regulations necessary to protect the general public from airborne contaminants that are known to be hazardous to human health.

The scope of the ACM inspection included the identification and quantification of accessible suspect building materials on the Site Building interiors and exteriors. Samples were analyzed by Optimum Analytical and Consulting, LLC (Optimum) of Salem, New Hampshire. Optimum is certified to perform bulk sample analysis by the State of Maine and the National Voluntary Laboratory Accreditation Program (NVLAP). Optimum's certificates are also provided as Attachment B.

Mr. Thomas Kittredge
City of Belfast

All suspect ACM sampled were identified as non-friable organically bound (NOB) materials, including one interior glue/adhesive, and one exterior mastics/sealant. Each sample was analyzed using PLM NOB-U.S. EPA 600/R-93/116 with gravimetric preparation method.

Ransom collected 6 bulk samples from 2 distinct suspect ACMs at the Site, as shown in Table 1. The following is a listing and brief description of each material identified as ACM:

Penstock Piping/Coating: This asphalt-based waterproofing sealant was observed applied to the exterior of the penstock piping, which carries water from the Mason dam to the Turbine Building, downstream. The piping is approximately 4 feet in diameter, and approximately 220 long; the mastic was observed applied to the entire length of the penstock.

The MEDEP requires consultants to advise the building owner or owner's agent whenever the asbestos analytical laboratory has reported suspect asbestos-containing materials between one and ten percent asbestos, which the owner or owner's agent may either elect to treat as positive for asbestos, or have the samples re-analyzed, using an alternate method as listed below:

1. PLM U.S. EPA/600/R-93/116 - Point Count (friable ACM);
2. Transmission Electron Microscopy (TEM);
3. U.S. EPA NOB U.S. EPA/600/R-93/116b section 2.5; or
4. TEM Chatfield Method.

Re-analysis of samples testing negative for asbestos is not required. Materials within the reported range of one and ten percent via PLM/gravimetric reduction method included the Penstock Coating at 3.6 % Chrysotile.

The MEDEP does not regulate the removal of certain exempt materials, including exterior caulks and glazing and ***asphalt-based roofing materials and mastics***, provided that these materials are in intact (non-friable) condition, and provided removal work practices will not create an airborne asbestos hazard (i.e. grinding, abrasive blasting, cutting with power tools). However, OSHA worker protection requirements are applicable, as well as MEDEP transport and disposal requirements. If the building is to be renovated or maintained, identified ACM in good condition, which would not be impacted by renovation or day-to-day operations, may remain intact under an O&M plan.

Copies of the bulk asbestos analysis laboratory reports are provided in Attachment C. Figure 1 provides sample locations for materials testing positive for asbestos.

Mr. Thomas Kittredge
City of Belfast

LEAD-BASED PAINT

Concurrent with the ACM survey, Ransom performed an LBP survey using a direct-reading XRF analyzer. The inspection included XRF readings from a variety of interior and exterior painted surfaces, including interior and exterior walls, doors, hand rails, and structural members. As shown in Table 2, XRF readings collected from painted surfaces ranged from below the instrument's lower detection limit of 0.01 mg/cm² (BDL) up to 0.04 mg/cm². No painted surfaces exceeded the HUD threshold concentration for "lead-based paint" of 1.00 mg/cm². The HUD standard is provided for reference and comparison purposes only, and is not a regulatory consideration in this scenario.

OSHA has no regulatory criteria for a minimum threshold level of lead in paint. The OSHA Lead Standard for Construction (29 CFR 1926.62) is applicable if lead has been identified and there is the potential for achieving an exposure above the "action level" of 30 micrograms of airborne lead per cubic meter of air. Workers performing demolition, renovation, cleaning, or otherwise disturbing painted surfaces containing lead should be informed of its presence, location, and proper work practices in these areas.

If concentrations of leachable lead in demolition debris are less than 5 mg/l, materials may be disposed of as general construction debris; otherwise, the material must be managed as a hazardous waste. Based on the concentrations of lead in paint detected on interior and exterior surfaces, it appears that Toxicity Characteristic Leaching Procedure (TCLP) testing for lead is not warranted in this case.

OTHER POTENTIALLY HAZARDOUS MATERIALS AND COMPONENTS

Polychlorinated Biphenyl (PCB) Oils

PCB-containing oil is sometimes found in the dielectric fluid of older electrical transformers, as well as the capacitors associated with older fluorescent light fixture ballasts. Although electrical equipment containing PCBs is now required to be properly labeled indicating the presence of PCBs, this is not always the case, particularly in older fixtures. Ransom inspected light fixture ballasts throughout the Site building for the presence of PCB labeling. Our inventory identified 2 light ballasts inside the Turbine Building. Fluorescent lighting fixtures were not disassembled to access electric ballasts/capacitors.

Since not all of the fixtures at the Site were inspected, Ransom recommends that each ballast that will be impacted by demolition/remodeling activities be individually inspected for the "No PCBs" label, and if not present, the ballast should be disposed/recycled in accordance with U.S. EPA and State of Maine universal waste regulations. Since the cost of disposal is typically significantly less than the cost of laboratory testing Ransom recommends that those ballasts that are not labeled be treated and disposed of as PCB-containing.

Ransom also observed one dry-type electrical transformer, which does not contain dielectric fluid, inside the Turbine Building.

Mr. Thomas Kittredge
City of Belfast

PCBs in Caulk

In recent years it has been determined that PCBs may also be present in caulking materials in buildings constructed between 1950 and 1978, and particularly in schools and other institutional buildings. Buildings constructed prior to 1950 may also include PCB-containing caulk, as a result of renovation projects that may have occurred between 1950 and 1978. PCB-containing caulk is considered *PCB bulk product waste* by U.S. EPA if the concentration of PCBs in the caulk is greater than or equal to 50 parts per million (ppm) [50 milligrams per kilogram (mg/kg)]. Caulk with PCB concentrations ≥ 50 ppm is not authorized for use and must be disposed of as PCB bulk product waste according to U.S. EPA regulations. Additionally, the definition of PCB bulk product waste includes building materials that have been coated or serviced with PCBs. For example, masonry, wood, metals, and other building materials that are purposely coated with PCB-containing caulk are regulated as PCB bulk product waste if the caulk coating the building materials contains PCBs at concentrations ≥ 50 ppm and subsequently the building materials have concentrations ≥ 50 as a result of leaching into the substrate material from the contaminated caulk.

No caulking materials were identified during our survey; therefore no caulk samples were submitted for laboratory analysis for the presence of PCBs.

Mercury-Containing Components

Mercury-containing components such as fluorescent light tubes (FLT's), cathode ray tubes (CRT's), high-intensity discharge (HID) lamps, and thermostat switches are classified as universal waste and are regulated by the U.S. EPA under 40 CFR Parts 260–273. Classifying an item as a universal waste provides flexibility for its proper management and can prevent the item from entering municipal or general construction & demolition (C&D) waste streams. Ransom identified 4 FLT's inside the Turbine Building. Components known or assumed to contain mercury that will be impacted by the proposed demolition should be removed and recycled in accordance with universal waste regulations.

Heavy Metals

Ransom identified 4 automotive/marine batteries inside the Turbine Building, which typically contain heavy metals. Heavy metals-containing batteries should be removed from the Site Building prior to renovation or demolition activities, and recycled in accordance with universal waste regulations.

Please see the attached Table 3 for a summary of other hazardous building materials identified during Ransom's HMI (i.e. PCBs, mercury, heavy metals).

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this HMI, Ransom makes the following conclusions and recommendations:

1. Ransom identified Mastic on the Penstock Piping/Coating as an asbestos-containing building materials at the Site building.
2. Surfaces tested for lead-based paint via XRF contained concentrations of lead ranging from below the instrument's lower reporting limit, up to 0.04 mg/cm². Based on our findings, it is not anticipated that LBP abatement would be required prior to renovation or demolition of the Site building. However, renovation or demolition activities that disturb surfaces that contain any concentration of lead must be conducted in accordance with OSHA regulation 29 CFR 1926.62 "Lead Exposure in Construction: Interim Final Rule."
3. Various other potentially hazardous building components were identified during our survey, including potentially PCB-containing fluorescent light ballasts, presumed mercury-containing fluorescent light tubes, and presumed lead/acid batteries. Disposal of each of these items is subject to hazardous and/or universal waste disposal requirements.
4. No caulking materials were identified during our survey; therefore no caulk samples were submitted for laboratory analysis for the presence of PCBs. It is not anticipated that remediation of PCB caulking would be required as part of renovation or demolition of the Site building.

COST ESTIMATES

Ransom has prepared the following summary of abatement cost estimates, based upon industry standards observed over the past two years. Line-item cost estimates for asbestos and other hazardous building material removal are provided in Table 4.

The cost estimates presented are for informational purposes only and are not intended to be an estimate for these services. Ransom recommends that competitive contractor bids be solicited for proper abatement and/or disposal of the identified hazardous materials.

SUMMARY OF HAZARDOUS MATERIALS REMOVAL AND DISPOSAL COST ESTIMATES

Asbestos Removal/Disposal Estimate ¹	\$14,300
Other Hazardous Materials Removal/Disposal Estimate	\$92
Total:	\$14,392

Notes:

1. Asbestos estimates include consultant's fees and contingencies, which are detailed in Table 4.

Mr. Thomas Kittredge
City of Belfast

LIMITATIONS

This survey is subject to certain limitations which must be considered in interpreting the results. No survey can identify all potentially hazardous materials throughout a facility. The conclusions presented in this report represent the professional judgment of Ransom, based on the data obtained from the work, the site conditions encountered at the time the work was performed, and our experience with similar types of buildings and hazardous building materials present.

The information and conclusions presented in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted engineering and scientific practices, current at the time the work was performed and general industry standard of care. Conclusions presented in this report should not be construed as legal advice. This survey was not a building code inspection or an assessment of proposed renovation or demolition activities. Code-related issues must be addressed prior to work in the buildings.

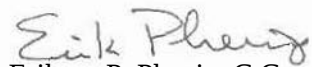
If you have any questions regarding the information in this report please do not hesitate to contact us.

Sincerely,

RANSOM CONSULTING, INC.



Lucas D. Hathaway
Project Scientist/Hazardous Materials Specialist



Eriksen P. Phenix, C.G.
Project Geologist



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

EPP/ LDH/PJS:jsh
Attachments

TABLE 1: SUMMARY OF ASBESTOS TESTING RESULTS
Hazardous Materials Inventory
Mason Dam
Belfast, Maine

Material	Location	Sample Number	Asbestos Quantity and Type ¹	Estimated Quantity ²
Foam Insulation Adhesive	Interior Walls/Ceiling	MAS-01A through MAS-01C	NAD	--
Penstock Coating	Penstock Piping: exterior surface	MAS-02A	3.6% Chrysotile	220 LF
		MAS-02B	5.6% Chrysotile	
		MAS-02C	10.2% Chrysotile	

NOTES:

1. NA/PS = not analyzed/positive stop. Sample sets are analyzed until asbestos is identified in an amount greater than 1 percent. For example, since asbestos was identified in sample MAS-02A at 3.6 percent, samples MAS-02B and MAS-02C were not analyzed. NAD = no asbestos detected.
2. SF = Square Feet; LF = Linear Feet
3. It is presumed that the penstock piping would be abated and removed in its entirety due to contamination by the ACM coating.

TABLE 2: SUMMARY OF LEAD PAINT TESTING RESULTS
Hazardous Materials Inventory
Mason Dam
Belfast, Maine

Reading Number	Color/Substrate/Component	Lead Concentration (milligrams per square centimeter [mg/cm ²])
1	Gray Concrete Ceiling	BDL
2	Gray Wood Door Casing	0.01
3	Gray Steel I-Beam	BDL
4	Silver Wood Door	0.04
5	Silver Wood Door Casing	BDL
6	Silver Metal Hand Rail	BDL

NOTES:

1. Lead concentrations determined using an Innov-X Alpha Series X-Ray Fluorescence Analyzer.
2. BDL = Below instrument detection limit. Not detected above a concentration of 0.01 mg/cm².
3. Readings in boldface type above HUD guidelines for “lead-based paint”, provided for reference only.

TABLE 3: OTHER HAZARDOUS/POTENTIALLY HAZARDOUS MATERIALS
Hazardous Materials Inventory
Mason Dam
Belfast, Maine

Component	Estimated Quantity	Potential Hazard
Fluorescent Light Tubes (includes CFLs)	4	Mercury
Fluorescent Light Fixture Ballasts	2	PCB-containing mineral oil dielectric fluid
Automotive/Marine Batteries	4	Heavy Metals

TABLE 4: HAZARDOUS MATERIALS REMOVAL COST ESTIMATES
Hazardous Materials Inventory
CMP Dam
Belfast, Maine

Table 4-1: Asbestos Removal Cost Estimates¹

Material	Estimated Quantity¹	Unit Cost	Total
Penstock Piping Mastic	220 LF	\$50/LF	\$11,000
<i>Sub-Total of Asbestos Removal Estimates:</i>			\$11,000
Estimated Consultant Fees ² :			\$2,200
Contingency ³			\$1,100
TOTAL ESTIMATED ASBESTOS ABATEMENT COST:			\$14,300

NOTES:

1. LF = Linear Feet SF = Square Feet.
2. A 20% consulting fee is added to cover design services by an asbestos designer and asbestos abatement monitoring. This cost includes final clearance air testing.
3. A 10% contingency is added to cover the cost of unknown conditions which may be encountered during the abatement.

TABLE 4: HAZARDOUS MATERIALS REMOVAL COST ESTIMATES
Hazardous Materials Inventory
Mason Dam
Belfast, Maine

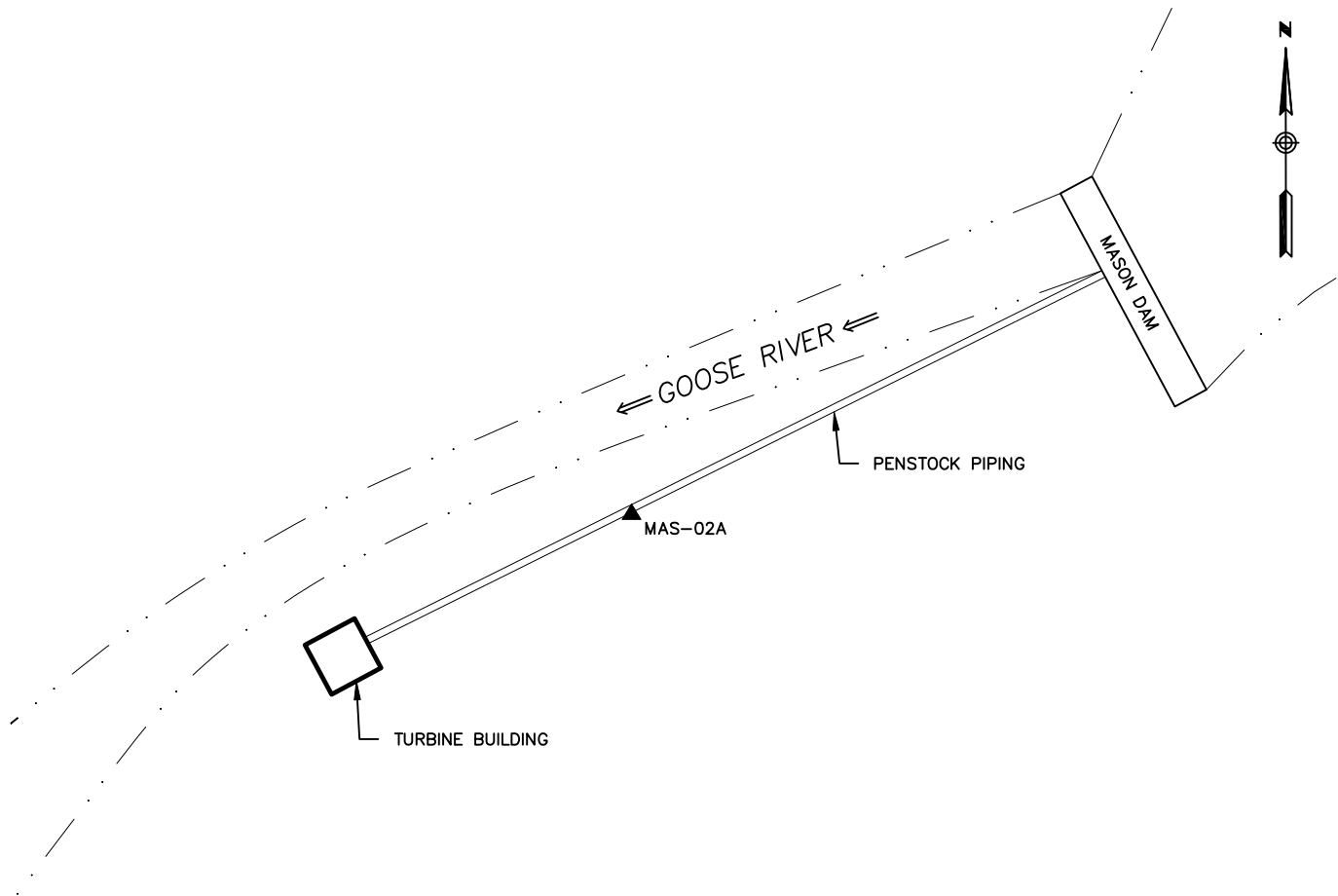
Table 4-2: Other Hazardous Materials Removal Cost Estimates

Component	Estimated Quantity	Unit Cost	Total
Fluorescent fixture ballast	2	\$20 Each	-- ¹
Fluorescent light tubes	4	\$3 Each	\$12
Automotive/marine batteries	4	\$20 Each	\$80
TOTAL ESTIMATED OTHER HAZARDOUS MATERIALS REMOVAL COST:			\$92

NOTES:

1. Ballasts were not inspected during our survey for "No PCBs" labeling; therefore no cost estimate is carried for disposal. Additional costs may be incurred if presumed PCB-containing ballasts are identified during demolition phase.

o:\ME-DWGS\2011\111.06134\Mason Dam\111.06134-018.dwg Feb 22, 2013 - 10:27am

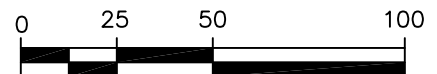


NOTES:

1. SITE PLAN BASED ON MEASUREMENTS AND OBSERVATIONS MADE BY RANSOM CONSULTING, INC. ON JANUARY 21, 2013.
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.

LEGEND:

MAS-02A ▲ SAMPLE TESTING
POSITIVE FOR ASBESTOS



SCALE in FEET
1"=50'

RANSOM

Consulting, Inc.

MASON DAM

PREPARED FOR:

CITY OF BELFAST
131 CHURCH STREET
BELFAST, MAINE

SITE:

MASON DAM
SWAN LAKE AVENUE
BELFAST, MAINE

DATE: FEBRUARY 2013
PROJECT: 111.06134
FIGURE: 1

ATTACHMENT A

Photograph Log

Hazardous Building Materials Inventory
Mason Dam
Swan Lake Avenue
Belfast, Maine

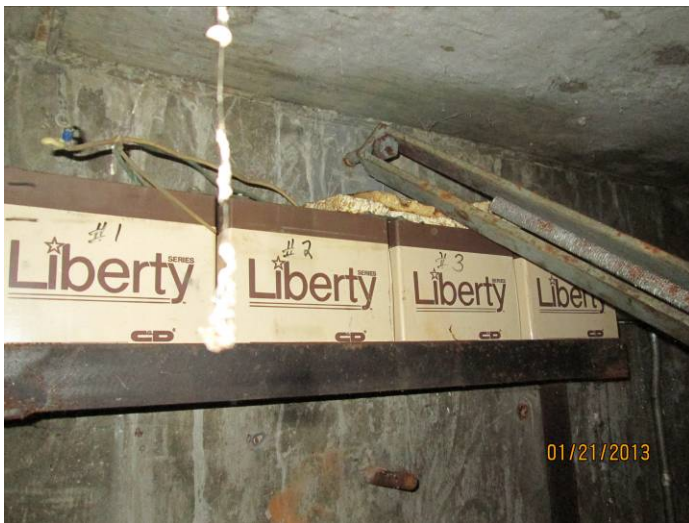
Photograph Log



View of Turbine Building (Site Building). View is to the southwest.



Black mastic/sealant applied to exterior of penstock piping (Samples MAS-02A through MAS-02C)

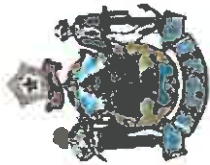


Automotive batteries observed inside Site Building.

ATTACHMENT B

Asbestos Certifications

Hazardous Building Materials Inventory
Mason Dam
Swan Lake Avenue
Belfast, Maine



State of Maine
Department of Environmental Protection

LICENSE

Ransom Consulting, Inc.

Asbestos Consultant
(Inspection only)

License Number: SI-0093

Expiration Date: 10/31/2012



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

November 30, 2011

Attn.: Nicholas Sabatine, Vice President
Ransom Consulting, Inc.
400 Commercial Street, Suite 404
Portland, Maine 04101

Dear Mr. Sabatine:

This letter is in reference to your renewal application for licensure as an **Asbestos Consultant (Inspection only)**.

This office has received and completed the review of your application and finds it to be in accordance with the requirements of Maine Asbestos Management Regulations Chapter 425, effective April 3, 2011.

Your application has been approved and your firm is licensed to provide asbestos consulting service(s) as described on the enclosed certificate.

Your renewal license number remains at **SI-0093** which is in effect for one year and will expire on October 31, 2012. A renewal application should be filed not less than thirty (30) days prior to expiration of this licensure. Thank you for your continued service to the people of the State of Maine.

If you have any questions please call me at (207) 287-7751.

Sincerely,

Sandra J. Moody, Environmental Technician
Division of Solid Waste Management
Bureau of Remediation and Waste Management

Enclosure



This is to certify that

Lucas Hathaway

*has completed the requisite training, and has passed an examination for
reaccreditation as:*

Asbestos Inspector Refresher

pursuant to Title II of the Toxic Substance Control Act, 15 U.S.C. 2646

Course Location

Institute for Environmental Education, Inc.
16 Upton Drive Wilmington, MA 01887

June 20, 2012

Course Dates

12-7004-106-234345

Certificate Number

June 20, 2012

Examination Date

June 20, 2013

Expiration Date

Wentworth

Training Director

16 Upton Drive, Wilmington, MA 01887

Telephone 978.658.5272

www.leetrains.com

INSTITUTE FOR ENVIRONMENTAL EDUCATION

State of Maine

Asbestos Abatement Program

Lucas DB Hathaway

Inspector

Cert No. AI-0558

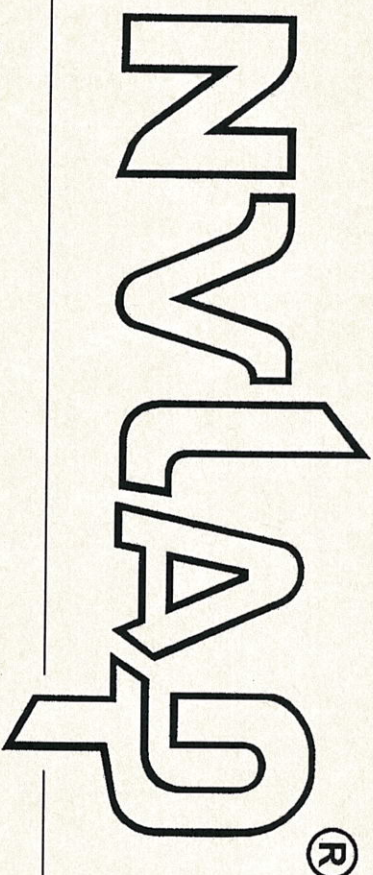
Trn.Exp.Date 06/20/2013

Expiration Date 06/30/2013

This is not a legal form of official identification



United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101433-0

Optimum Analytical & Consulting LLC
Salem, NH

*is accredited by the National Voluntary Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

BULK ASBESTOS FIBER ANALYSIS

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).*

2012-04-01 through 2013-03-31

Effective dates



David T. Alderman
For the National Institute of Standards and Technology



**National Voluntary
Laboratory Accreditation Program**



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Optimum Analytical & Consulting LLC

85 Stiles Road

Salem, NH 03079

Ms. Jamie L. Noel

Phone: 603-706-0263 Fax:

E-Mail: jamie.noel@optimumanalytical.com

URL: <http://www.optimumanalytical.com>

BULK ASBESTOS FIBER ANALYSIS (PLM)

NVLAP LAB CODE 101433-0

NVLAP Code Designation / Description

18/A01

EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples

2012-04-01 through 2013-03-31

Effective dates

David F. Alderman

For the National Institute of Standards and Technology



State of Maine

Department of Environmental Protection



LICENSE

Optimum Analytical & Consulting, LLC

Asbestos Analytical Laboratory
(Bulk)

License Number: LB-0067

Expiration Date: 03/31/2013

ATTACHMENT C

Copies of Laboratory Data

Hazardous Building Materials Inventory
Mason Dam
Swan Lake Avenue
Belfast, Maine



OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

Lucas Hathaway
Ransom Environmental Consultants, Inc
400 Commercial St
Portland ME 04101

Project #: 111.06134
Laboratory Batch #: 1305580
Date Samples Received: 02/04/2013
Date Samples Analyzed: 02/05/2013
Date of Final Report: 03/04/2013

SAMPLE IDENTIFICATION:

Thirty Six (36) Bulk samples from Goose River Hydro Stations - Belfast, ME; submitted by: Lucas Hathaway

These bulk samples were delivered to Optimum Analytical Consulting, LLC for asbestos content determination.

ANALYTICAL METHOD:

Analytical procedures were performed in accordance with the U.S. Environmental Protection Agency (EPA) Recommended Method for the Determination of Asbestos in Bulk Samples by Polarized Light Microscopy and Dispersion Staining (PLM/DS)(EPA-600/M4-82-020, EPA-600/ R-93-116) and the New York Department of Health Environmental Laboratory Approval Program (NYDOH-ELAP 198.1) with the exception of resinously bound materials (please refer to the comments at the end of this report). This report relates only to those samples actually analyzed, and may not be indicative of other similar appearing materials existing at this, or other sites.

Quantification of asbestos content was determined by Calibrated Visual Estimation.

The EPA requires that friable samples with analytical results of 10% or less asbestos, by visual estimation, be treated as asbestos-containing material unless these quantities are verified using the point counting method. The point counting method is a systematic technique for estimating concentration, also using PLM. The point counting method, however, does not increase the analyst's ability to detect fibers. If you would like any of your friable samples with an asbestos content of less than 10% to be point counted, please contact our office. Point counting is not required for those samples in which no asbestos is detected during analysis by PLM.

In any given material, fibers with a small diameter (<0.25mm) may not be detected by the PLM method. Floor tile and other resinously bound material may yield a false negative if the asbestos fibers are too small to be resolved using PLM. Additional analytical methods may be required. Optimum recommends using Transmission Electron Microscopy (TEM) for a more definitive analysis.

New York state regulations require that all friable samples in which asbestos is detected be point counted (using the NYDOH-ELAP stratified point counting method). New York state regulations also require TEM confirmation of NOB (Non Organically Bound) samples found to have No Asbestos Detected by PLM. These regulations apply only to samples taken within the State of New York.

Optimum Analytical and Consulting, LLC will retain all samples for a minimum of three months. Further analysis or return of samples must be requested within this three month period to guarantee their availability.

This report may not be reproduced except in full, without the written approval of Optimum Analytical and Consulting, LLC.

Use of the NVLAP and AIHA Logo in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology or the American Industrial Hygiene Association.

This report is considered preliminary until signed by the Laboratory Director and Supervisor.

If you have any questions regarding this report, please do not hesitate to contact us.

Jamie L. Noel
Laboratory Director

Kristina Scaviola
Laboratory Supervisor

NVLAP Lab ID#: 101433-0



OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

CLIENT: Ransom Environmental Consultants, Inc
ADDRESS: 400 Commercial St
CITY / STATE / ZIP: Portland ME 04101
CONTACT: Lucas Hathaway
DESCRIPTION: PLM Analysis
LOCATION: Goose River Hydro Stations - Belfast, ME

ORDER #: 1305580
PROJECT #: 111.06134
DATE COLLECTED: 01/21/2013
COLLECTED BY: Lucas Hathaway
DATE RECEIVED: 02/04/2013
ANALYSIS DATE: 02/05/2013
REPORT DATE: 03/04/2013
ANALYST: Jamie Noel

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1305580-001 MILL-01A	Mill Dam/Office Building Asphalt Shingle, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	65% 35%
Total % Asbestos:			No Asbestos Detected		Total % Non-Asbestos: 100.0%	
1305580-002 MILL-01B	Mill Dam/Office Building Asphalt Shingle, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	65% 35%
Total % Asbestos:			No Asbestos Detected		Total % Non-Asbestos: 100.0%	
1305580-003 MILL-01C	Mill Dam/Office Building Asphalt Shingle, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	65% 35%
Total % Asbestos:			No Asbestos Detected		Total % Non-Asbestos: 100.0%	
1305580-004 MILL-02A	Mill Dam/Office Building Exterior Window Glaze, Gray	LAYER 1 100%	None Detected		Cellulose Fiber Wollastonite Binder/Filler	1% 5% 94%
Total % Asbestos:			No Asbestos Detected		Total % Non-Asbestos: 100.0%	
1305580-005 MILL-02B	Mill Dam/Office Building Exterior Window Glaze, Gray	LAYER 1 100%	None Detected		Cellulose Fiber Wollastonite Binder/Filler	1% 5% 94%
Total % Asbestos:			No Asbestos Detected		Total % Non-Asbestos: 100.0%	
1305580-006 MILL-02C	Mill Dam/Office Building Exterior Window Glaze, Gray	LAYER 1 100%	None Detected		Cellulose Fiber Wollastonite Binder/Filler	1% 5% 94%
Total % Asbestos:			No Asbestos Detected		Total % Non-Asbestos: 100.0%	
1305580-007 MILL-03A	Mill Dam/Office Building Foundation Mastic, Black	LAYER 1 100%	Chrysotile	8.25%	Cellulose Fiber Binder/Filler	5% 86.75%
Total % Asbestos:				8.3%	Total % Non-Asbestos: 91.8%	
1305580-008 MILL-03B	Mill Dam/Office Building Foundation Mastic, Black Note: Positive Stop	LAYER 1 100%				



OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

CLIENT: Ransom Environmental Consultants, Inc
ADDRESS: 400 Commercial St
CITY / STATE / ZIP: Portland ME 04101
CONTACT: Lucas Hathaway
DESCRIPTION: PLM Analysis
LOCATION: Goose River Hydro Stations - Belfast, ME

ORDER #: 1305580
PROJECT #: 111.06134
DATE COLLECTED: 01/21/2013
COLLECTED BY: Lucas Hathaway
DATE RECEIVED: 02/04/2013
ANALYSIS DATE: 02/05/2013
REPORT DATE: 03/04/2013
ANALYST: Jamie Noel

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1305580-009 MILL-03C	Mill Dam/Office Building Foundation Mastic, Black Note: Positive Stop	LAYER 1 100%				
1305580-010 MILL-04A	Mill Dam Penstock Coating, Black	LAYER 1 100%	Chrysotile	.17%	Cellulose Fiber Binder/Filler	2% 97.83%
Total % Asbestos:				<1%	Total % Non-Asbestos: 99.8%	
1305580-011 MILL-04B	Mill Dam Penstock Coating, Black	LAYER 1 100%	Chrysotile	.25%	Cellulose Fiber Binder/Filler	1% 98.75%
Total % Asbestos:				<1%	Total % Non-Asbestos: 99.8%	
1305580-012 MILL-04C	Mill Dam Penstock Coating, Black	LAYER 1 100%	Chrysotile	.08%	Cellulose Fiber Binder/Filler	1% 98.92%
Total % Asbestos:				<1%	Total % Non-Asbestos: 99.9%	
1305580-013 MILL-05A	Mill Dam/Turbine Building Asphalt Roofing Composite, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	35% 65%
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos: 100.0%	
1305580-014 MILL-05B	Mill Dam/Turbine Building Asphalt Roofing Composite, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	35% 65%
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos: 100.0%	
1305580-015 MILL-05C	Mill Dam/Turbine Building Asphalt Roofing Composite, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	35% 65%
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos: 100.0%	
1305580-016 MILL-06A	Mill Dam/Garage Asphalt Roofing Composite, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	10% 90%
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos: 100.0%	



OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

CLIENT: Ransom Environmental Consultants, Inc
ADDRESS: 400 Commercial St
CITY / STATE / ZIP: Portland ME 04101
CONTACT: Lucas Hathaway
DESCRIPTION: PLM Analysis
LOCATION: Goose River Hydro Stations - Belfast, ME

ORDER #: 1305580
PROJECT #: 111.06134
DATE COLLECTED: 01/21/2013
COLLECTED BY: Lucas Hathaway
DATE RECEIVED: 02/04/2013
ANALYSIS DATE: 02/05/2013
REPORT DATE: 03/04/2013
ANALYST: Jamie Noel

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1305580-017 MILL-06B	Mill Dam/Garage Asphalt Roofing Composite, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	10% 90%
Total % Asbestos:			No Asbestos Detected		Total % Non-Asbestos: 100.0%	
1305580-018 MILL-06C	Mill Dam/Garage Asphalt Roofing Composite, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	10% 90%
Total % Asbestos:			No Asbestos Detected		Total % Non-Asbestos: 100.0%	
1305580-019 MAS-01A	Mason Dam/Turbine Building Foam Insulation Adhesive, Tan	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	1% 99%
Total % Asbestos:			No Asbestos Detected		Total % Non-Asbestos: 100.0%	
1305580-020 MAS-01B	Mason Dam/Turbine Building Foam Insulation Adhesive, Tan	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	1% 99%
Total % Asbestos:			No Asbestos Detected		Total % Non-Asbestos: 100.0%	
1305580-021 MAS-01C	Mason Dam/Turbine Building Foam Insulation Adhesive, Tan	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	1% 99%
Total % Asbestos:			No Asbestos Detected		Total % Non-Asbestos: 100.0%	
1305580-022 MAS-02A	Mason Dam Penstock Coating, Black	LAYER 1 100%	Chrysotile	3.6%	Cellulose Fiber Binder/Filler	5% 91.4%
Total % Asbestos:				3.6%	Total % Non-Asbestos: 96.4%	
1305580-023 MAS-02B	Mason Dam Penstock Coating, Black	LAYER 1 100%	Chrysotile	5.61%	Cellulose Fiber Non-Fibrous Material	1% 93.39%
Total % Asbestos:				5.6%	Total % Non-Asbestos: 94.4%	
1305580-024 MAS-02C	Mason Dam Penstock Coating, Black	LAYER 1 100%	Chrysotile	10.21%	Cellulose Fiber Non-Fibrous Material	1% 88.79%
Total % Asbestos:				10.2%	Total % Non-Asbestos: 89.8%	



OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

CLIENT: Ransom Environmental Consultants, Inc
ADDRESS: 400 Commercial St
CITY / STATE / ZIP: Portland ME 04101
CONTACT: Lucas Hathaway
DESCRIPTION: PLM Analysis
LOCATION: Goose River Hydro Stations - Belfast, ME

ORDER #: 1305580
PROJECT #: 111.06134
DATE COLLECTED: 01/21/2013
COLLECTED BY: Lucas Hathaway
DATE RECEIVED: 02/04/2013
ANALYSIS DATE: 02/05/2013
REPORT DATE: 03/04/2013
ANALYST: Jamie Noel

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1305580-025 CMP-01A	CMP Dam/Turbine Building Roof Mastic, Black	LAYER 1 100%	Chrysotile	5.11%	Cellulose Fiber Binder/Filler	1% 93.89%
Total % Asbestos:				5.1%	Total % Non-Asbestos: 94.9%	
1305580-026 CMP-01B	CMP Dam/Turbine Building Roof Mastic, Black Note: Positive Stop	LAYER 1 100%				
1305580-027 CMP-01C	CMP Dam/Turbine Building Roof Mastic, Black Note: Positive Stop	LAYER 1 100%				
1305580-028 CMP-02A	CMP Dam/Turbine Building Asphalt Rolled Roof, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	15% 85%
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos: 100.0%	
1305580-029 CMP-02B	CMP Dam/Turbine Building Asphalt Rolled Roof, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	15% 85%
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos: 100.0%	
1305580-030 CMP-02C	CMP Dam/Turbine Building Asphalt Rolled Roof, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	15% 85%
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos: 100.0%	
1305580-031 CMP-03A	CMP Dam Penstock Coating, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	10% 90%
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos: 100.0%	
1305580-032 CMP-03B	CMP Dam Penstock Coating, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	10% 90%
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos: 100.0%	



OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

CLIENT: Ransom Environmental Consultants, Inc
ADDRESS: 400 Commercial St
CITY / STATE / ZIP: Portland ME 04101
CONTACT: Lucas Hathaway
DESCRIPTION: PLM Analysis
LOCATION: Goose River Hydro Stations - Belfast, ME

BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

ORDER #: 1305580
PROJECT #: 111.06134
DATE COLLECTED: 01/21/2013
COLLECTED BY: Lucas Hathaway
DATE RECEIVED: 02/04/2013
ANALYSIS DATE: 02/05/2013
REPORT DATE: 03/04/2013
ANALYST: Jamie Noel

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1305580-033 CMP-03C	CMP Dam Penstock Coating, Black	LAYER 1 100%	None Detected	Cellulose Fiber 10% Binder/Filler 90%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%
1305580-034 CMP-04A	CMP Dam/Shed Roofing Composite, Black	LAYER 1 100%	None Detected	Cellulose Fiber 10% Binder/Filler 90%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%
1305580-035 CMP-04B	CMP Dam/Shed Roofing Composite, Black	LAYER 1 100%	None Detected	Cellulose Fiber 10% Binder/Filler 90%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%
1305580-036 CMP-04C	CMP Dam/Shed Roofing Composite, Black	LAYER 1 100%	None Detected	Cellulose Fiber 10% Binder/Filler 90%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%

Approved Signatory:

Approved Signatory:

NVLAP[®]
Lab Code: 101433-0



OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

CLIENT: Ransom Environmental Consultants, Inc
ADDRESS: 400 Commercial St
CITY / STATE / ZIP: Portland ME 04101
CONTACT: Lucas Hathaway
DESCRIPTION: PLM Analysis
LOCATION: Goose River Hydro Stations - Belfast, ME

ORDER #: 1305580
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COLLECTED BY: Lucas Hathaway
DATE RECEIVED: 02/04/2013
ANALYSIS DATE: 02/05/2013
REPORT DATE: 03/04/2013
ANALYST: Jamie Noel

Client Ransom Consulting, Inc. 400 Commercial St Portland ME 04101
Contact Lucas Hathaway
Phone 207-772-2891
Project Goose River Hydro Stations
Location Belfast Maine
Ransom Client MEDEP Brownfields
Ransom Project # 111.06134
Sample Date 1/21/2013
Analysis Bulk PLM/Gravimetric Reduction for asbestos
TAT Results requested by Wednesday morning 2/6.
Report Results to: lucas.hathaway@ransomenv.com;
PO 5008
Notes/Requests Please analyze NOB samples via Gravimetric Reduction, per MEDEP regulat
Stop analysis on positive detection for all.
Please analyze specified samples in composite; please do not analyze addit

Sample ID	Location	Material
MILL-01A	Mill Dam/Office Building	Asphalt Shingle
MILL-01B	Mill Dam/Office Building	Asphalt Shingle
MILL-01C	Mill Dam/Office Building	Asphalt Shingle
MILL-02A	Mill Dam/Office Building	Exterior Window Glaze
MILL-02B	Mill Dam/Office Building	Exterior Window Glaze
MILL-02C	Mill Dam/Office Building	Exterior Window Glaze
MILL-03A	Mill Dam/Office Building	Foundation Mastic
MILL-03B	Mill Dam/Office Building	Foundation Mastic
MILL-03C	Mill Dam/Office Building	Foundation Mastic
MILL-04A	Mill Dam	Penstock Coating
MILL-04B	Mill Dam	Penstock Coating
MILL-04C	Mill Dam	Penstock Coating
MILL-05A	Mill Dam/Turbine Building	Asphalt Roofing Composite
MILL-05B	Mill Dam/Turbine Building	Asphalt Roofing Composite
MILL-05C	Mill Dam/Turbine Building	Asphalt Roofing Composite
MILL-06A	Mill Dam/Garage	Asphalt Roofing Composite
MILL-06B	Mill Dam/Garage	Asphalt Roofing Composite
MILL-06C	Mill Dam/Garage	Asphalt Roofing Composite
MAS-01A	Mason Dam/Turbine Building	Foam Insulation Adhesive
MAS-01B	Mason Dam/Turbine Building	Foam Insulation Adhesive
MAS-01C	Mason Dam/Turbine Building	Foam Insulation Adhesive
MAS-02A	Mason Dam	Penstock Coating
MAS-02B	Mason Dam	Penstock Coating
MAS-02C	Mason Dam	Penstock Coating
CMP-01A	CMP Dam/Turbine Building	Roofing Mastic
CMP-01B	CMP Dam/Turbine Building	Roofing Mastic
CMP-01C	CMP Dam/Turbine Building	Roofing Mastic
CMP-02A	CMP Dam/Turbine Building	Asphalt Rolled Roofing
CMP-02B	CMP Dam/Turbine Building	Asphalt Rolled Roofing
CMP-02C	CMP Dam/Turbine Building	Asphalt Rolled Roofing

5580

8/24/13



OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

CLIENT: Ransom Environmental Consultants, Inc
ADDRESS: 400 Commercial St
CITY / STATE / ZIP: Portland ME 04101
CONTACT: Lucas Hathaway
DESCRIPTION: PLM Analysis
LOCATION: Goose River Hydro Stations - Belfast, ME

BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

ORDER #: 1305580
PROJECT #: 111.06134
DATE COLLECTED: 01/21/2013
COLLECTED BY: Lucas Hathaway
DATE RECEIVED: 02/04/2013
ANALYSIS DATE: 02/05/2013
REPORT DATE: 03/04/2013
ANALYST: Jamie Noel

CMP-03A	CMP Dam	Penstock Coating
CMP-03B	CMP Dam	Penstock Coating
CMP-03C	CMP Dam	Penstock Coating
CMP-04A	CMP Dam/Shed	Roofing Composite
CMP-04B	CMP Dam/Shed	Roofing Composite
CMP-04C	CMP Dam/Shed	Roofing Composite

5580

2/4/13



OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

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Non-Friable Organically Bound Gravimetric Reduction Worksheet														
Batch Number: 1305580		Prep Date: 2/4/13		Prep Analyst: J.N										
Sample ID	Cruiche ID	Cruiche Weight	Sample Weight	Ashed + Sample Weight	Ashed Sample Weight	% Reduction of Sample	Filter Weight	Ashed Sub-Sample Weight	Filtered Sample Weight	Acid Insoluble Inorganic Weight - IGI	% Reduction of IGI	CVE % Asbestos in Ash/100	% Asbestos = CVE %	Asbestos Type
Mill-01A	W	28.073	0.087	26.125	0.052	59.77%	0.015	0.052	0.026	0.011	21.15%	0.00%	0.00%	NAD
Mill-01B	Q	28.355	0.089	26.398	0.043	48.31%	0.016	0.043	0.027	0.011	25.58%	0.00%	0.00%	NAD
Mill-01C	E	25.671	0.142	25.708	0.037	26.08%	0.014	0.037	0.033	0.019	51.35%	0.00%	0.00%	NAD
Mill-02A	M	28.251	0.283	28.488	0.238	84.10%	0.021	0.238	0.051	0.03	12.81%	0.00%	0.00%	NAD
Mill-02B	X	28.217	0.197	28.362	0.145	73.60%	0.018	0.145	0.041	0.023	15.86%	0.00%	0.00%	NAD
Mill-02C	I	28.06	0.206	28.216	0.156	75.73%	0.014	0.156	0.046	0.032	20.51%	0.00%	0.00%	NAD
Mill-03A	J	28.808	0.185	28.818	0.145	73.60%	0.015	0.145	0.045	0.03	30.00%	0.00%	0.00%	NAD
Mill-04A	R	28.86	0.126	28.863	0.003	2.38%	0.015	0.003	0.017	0.002	66.87%	0.75%	0.17%	Chry
Mill-04B	C	24.547	0.143	24.553	0.006	4.42%	0.015	0.006	0.017	0.002	33.33%	0.75%	0.25%	Chry
Mill-04C	F	28.288	0.135	28.294	0.006	4.42%	0.015	0.006	0.017	0.002	33.33%	0.75%	0.25%	Chry
Mill-05A	A	24.279	0.162	24.286	0.007	4.32%	0.016	0.007	0.032	0.001	16.87%	0.50%	0.08%	Chry
Mill-05B	H	28.714	0.107	28.729	0.015	14.02%	0.017	0.015	0.026	0.009	60.00%	0.00%	0.00%	NAD
Mill-05C	N	28.861	0.187	28.891	0.015	5.35%	0.015	0.015	0.041	0.026	260.00%	0.00%	0.00%	NAD
Mill-06A	V	28.247	0.188	28.267	0.02	10.64%	0.015	0.02	0.03	0.015	75.00%	0.00%	0.00%	NAD
Mill-06B	27	24.07	0.131	24.128	0.058	44.27%	0.015	0.058	0.032	0.017	29.31%	0.00%	0.00%	NAD
Mill-06C	20	24.019	0.21	24.13	0.111	52.88%	0.015	0.111	0.044	0.029	26.13%	0.00%	0.00%	NAD
Mill-06C	B	28.962	0.168	28.063	0.101	60.12%	0.015	0.101	0.064	0.049	48.51%	0.00%	0.00%	NAD
mas-01a	42	24.722	0.249	24.9	0.178	71.49%	0.016	0.178	0.088	0.072	40.45%	0.00%	0.00%	NAD
mas-01c	P	28.956	0.164	28.077	0.121	73.78%	0.015	0.121	0.065	0.05	41.32%	0.00%	0.00%	NAD
MAS-02A	D	28.712	0.106	28.729	0.017	16.04%	0.016	0.017	0.023	0.007	41.18%	0.00%	0.00%	NAD
CMP-01a	L	29.021	0.114	29.08	0.059	51.75%	0.014	0.059	0.031	0.017	28.81%	0.00%	0.00%	NAD
CMP-02A	G	29.642	0.127	29.648	0.007	5.51%	0.017	0.007	0.034	0.017	242.86%	0.00%	0.00%	NAD
CMP-02B	17	24.923	0.179	24.978	0.055	30.73%	0.016	0.055	0.038	0.038	69.09%	0.00%	0.00%	NAD
CMP-02C	44	22.859	0.171	22.905	0.046	26.90%	0.015	0.046	0.031	0.016	34.78%	0.00%	0.00%	NAD
CMP-03A	51	24.248	0.447	24.376	0.128	28.64%	0.015	0.128	0.252	0.237	185.16%	0.00%	0.00%	NAD
CMP-03B	40	23.827	0.471	24.192	0.365	77.48%	0.015	0.365	0.247	0.232	63.56%	0.00%	0.00%	NAD
CMP-03C	70	23.998	0.392	24.329	0.331	84.44%	0.015	0.331	0.173	0.158	47.73%	0.00%	0.00%	NAD
CMP-04A	30	24.753	0.108	24.767	0.014	12.98%	0.017	0.014	0.018	0.001	7.14%	0.00%	0.00%	NAD
CMP-04B	59	24.681	0.155	24.684	0.003	1.94%	0.015	0.003	0.016	0.001	33.33%	0.00%	0.00%	NAD
CMP-04C	58	23.581	0.144	23.586	0.005	3.47%	0.016	0.005	0.016	0	0.00%	0.00%	0.00%	NAD