

# HRP Associates, Inc.

*Creating the Right Solutions Together*

November 18, 2011

Mr. David Sordi, P.E., C.E.M.  
Senior Manager  
Environmental Engineering  
One Centennial Avenue  
Piscataway, NJ 08854

RE: SEPTEMBER 2011 SEMI-ANNUAL GROUNDWATER QUALITY MONITORING REPORT & PROPOSED CHANGES TO GROUNDWATER MONITORING PROGRAM, FORMER TORRINGTON COMPANY FACILITY, 263 MYRTLE STREET (FORMERLY 37 BOOTH STREET), NEW BRITAIN, CT (HRP #ING0077.GW)

Dear Mr. Sordi:

Attached is the September 2011 Semi-Annual Groundwater Quality Monitoring Report for the property referenced above. This is the second monitoring event since the sampling frequency was reduced from quarterly to semi-annual.

A request to use alternative volatilization criteria was submitted to the Connecticut Department of Energy and Environmental Protection (CT DEEP) in August 2011. In a letter dated September 28, 2011, the CT DEEP provided written approval to utilize the 2003 proposed Industrial/Commercial Volatilization Criteria (I/C VC) as the comparison criteria for all interior site monitoring wells, and the 2003 proposed Residential VC (Res VC) comparison criteria for all wells located proximal to the downgradient property boundary. Groundwater results from the site are also compared to the Surface Water Protection Criteria (SWPC) and a calculated Alternative SWPC where appropriate.

When comparing the groundwater analytical results to the 2003 proposed I/C VC, SWPC, and/or the Alternative SWPC (ASWPC) as appropriate, compliance with the CT DEEP Remediation Standard Regulations (RSR) has been achieved at all site monitoring wells representing the groundwater plumes, except well pair MW-4a/MW-4b.

Monitoring well MW-4a, located immediately adjacent to MW-4b, represents groundwater within the upper 30 feet of the subsurface; the maximum depth to which the volatilization criteria apply to groundwater. MW-4b represents groundwater below a depth of 30 feet from the ground surface and therefore, the volatilization criteria do not apply to this well. Though the past four sampling events have demonstrated compliance for all VOCs in MW-4a, these events were not conducted over consecutive quarters. Therefore, three additional events conducted on a quarterly basis are necessary to meet the requirements of the RSR and complete compliance monitoring for this plume.

On behalf of Ingersoll Rand, HRP proposes to discontinue the groundwater monitoring program at all well locations except monitoring well MW-4a. Groundwater monitoring will continue for three additional sampling events at monitoring well MW-4a, provided satisfactory results continue to be obtained. At such time, RSR compliance will have been achieved in all site monitoring wells with at least four quarterly monitoring events and at least two semi-annual monitoring events indicating concentrations of site constituents of concern are below applicable RSR or calculated comparison criteria.

## CONNECTICUT

Corporate Headquarters  
197 Scott Swamp Road  
Farmington, CT 06032  
800-246-9021  
860-674-9570  
FAX 860-674-9624

999 Oronoque Lane  
Second Floor  
Stratford, CT 06614  
203-380-1395  
FAX 203-380-1438

## FLORIDA

2435 U.S. Highway 19  
Suite 550  
Holiday, FL 34691  
727-942-2115  
FAX 727-942-2113

## MASSACHUSETTS

241 Boston Post Rd West  
First Floor  
Marlborough, MA 01752  
508-630-0300  
FAX 508-786-1901

## NEW YORK

1 Fairchild Square  
Suite 110  
Clifton Park, NY 12065  
888-823-6427  
518-877-7101  
FAX 518-877-8561

## SOUTH CAROLINA

1327 Miller Road  
Suite D  
Greenville, SC 29607  
800-752-3922  
864-289-0311  
FAX 864-281-9846

## TEXAS

5601 Bridge Street  
Suite 300  
Fort Worth, TX 76112  
817-492-7092  
FAX 817-492-7001

[www.hrpassociates.com](http://www.hrpassociates.com)

It is HRP's opinion that the LNAPL observed in monitoring well MW-6 has been removed to the maximum extent practicable, given that:

- The areal distribution of the LNAPL has been reduced by approximately 92%;
- The estimated "actual" LNAPL thickness remaining in the formation has been reduced from approximately 0.6 feet to less than approximately 0.02 feet;
- The extent of the LNAPL is not expanding;
- Groundwater emanating from RA-6 is compliant with RSR criteria;
- The concentrations of TPH detected in confirmation soil samples represent less than 16% pore space saturation, the minimum published range for the pore space saturation necessary for LNAPL situated below the water table to be mobile.

HRP is requesting that the CT DEEP approve the discontinuation of LNAPL gauging following demonstration of groundwater compliance at the monitoring wells located proximal to the property boundary.

The bi-monthly LNAPL gauging events in monitoring well MW-6 will continue until compliance monitoring is completed at MW-4a.

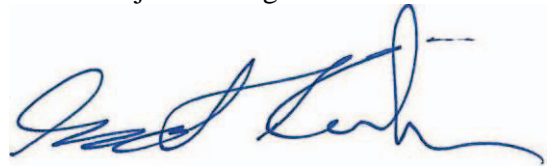
Additional details regarding the proposed changes and recommendations are included within the attached report. If you have any questions or require any additional information, please do not hesitate to contact us at our Farmington, Connecticut office at (860) 674-9570.

Sincerely,

HRP ASSOCIATES, INC.



Stefanie A. Kreipovich  
Senior Project Geologist



Scot Kuhn, LEP  
Senior Project Manager

Attachments

cc: Claire Foster, CT DEEP

**SEPTEMBER 2011 SEMI-ANNUAL  
GROUNDWATER QUALITY MONITORING REPORT &  
PROPOSED CHANGES TO GROUNDWATER MONITORING PROGRAM**

**FORMER TORRINGTON COMPANY  
263 MYRTLE STREET  
(FORMERLY 37 BOOTH STREET)  
NEW BRITAIN, CONNECTICUT**

**HRP # ING0077.GW**

November 18, 2011

Prepared for:

Ingersoll Rand  
One Centennial Drive  
Piscataway, NJ 08855

Prepared by:

HRP Associates, Inc.  
Environmental/Civil Engineering & Hydrogeology  
197 Scott Swamp Road  
Farmington, CT 06032



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Stefanie A. Kreipovich  
Senior Project Geologist



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Scot Kuhn, LEP  
Senior Project Manager

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## 1.0 INTRODUCTION

This report presents the findings of the groundwater quality monitoring event conducted on September 13, 2011 by HRP Associates, Inc. (HRP), at the former Torrington Company Fafnir Bearing Facility located at 263 Myrtle Street (formerly 37 Booth Street), New Britain, Connecticut (site). Refer to Figure 1 for the topographical location of the site.

### 1.1 Current Site Status

Ownership of the site was transferred from Ingersoll Rand to the City of New Britain under Connecticut's "Transfer Act" (CGS 22a-134) in 1995 and from the City to Cakemaker LLC in 2007. Due to historic releases, the Connecticut Department of Energy and Environmental Protection (CT DEEP) has retained oversight of the investigation and remediation of the property, to achieve compliance with the Remediation Standard Regulations (RSR), pursuant to the Transfer Act filing.

The site was redeveloped in 2007 with a two-story commercial building, which is primarily used for the creation of ice cream cakes by Celebration Foods. Contaminated soils remaining in-place were encountered during the redevelopment activities. These soils were previously left beneath clean cover material as allowed by the RSR with CT DEEP approval (refer to Section 1.2). During construction activities, contaminated materials were managed in accordance with the Soil Management Plan approved by the CT DEEP in May 2007. All impacted soils encountered during site redevelopment were retained and reused on site except for less than 5 yards of hydraulic oil impacted soils, which were removed from the site for disposal in June 2007. The contaminated soil management activities were documented in the Soil Closure Report submitted to the CT DEEP on April 7, 2010.

In January/February 2008, eleven (11) groundwater monitoring wells were installed at the site to replace wells previously abandoned for site redevelopment. Documentation pertaining to well abandonment and installation of the new wells has been provided to the CT DEEP.

The site owner is currently in the process of preparing for a potential sale of the property in the near future.

#### 1.1.1 Environmental Land Use Restriction (ELUR)

An Environmental Land Use Restriction (ELUR) is proposed for the property. The terms of the ELUR will:

- Restrict current and future use of the site to commercial and/or industrial
- Limit new construction on-site over areas of impacted groundwater
- Ensure that the building will remain in place and prevent disturbances to the soils which exceed the I/C DEC numeric criteria in localized areas of the property.

The draft ELUR is currently under review by the CT DEEP.

## **1.2 Historical Groundwater Monitoring and Remedial Actions**

HRP conducted soil remediation (soil excavation and off-site disposal) at the site in 1998/99, concurrent with demolition of the former Torrington Company Fafnir Bearing buildings. Petroleum, arsenic, volatile organic compounds (VOCs), lead, and polychlorinated biphenyl's (PCBs) were all detected in soil at concentrations that exceeded RSR criteria. These soils were remediated to the Industrial/Commercial Direct Exposure Criteria (I/C DEC) in accordance with the RSR. Soils meeting the Pollutant Mobility Criteria (GB PMC), but exceeding the I/C DEC were left in place at least 4 feet below grade. The Remedial Action Report (RAR), issued after completion of this work, was approved by the CT DEEP in March 2001. The RAR proposed a post-remediation groundwater monitoring plan for the site that consisted of groundwater monitoring on a quarterly schedule.

Quarterly groundwater monitoring was conducted at the site from 2001 to August 2002. The monitoring frequency was subsequently reduced to semi-annual due to the persistence of contaminants in groundwater and the presence of light non-aqueous phase liquid (LNAPL) in certain monitoring wells. This adjustment to the Groundwater Monitoring Plan was outlined in a letter to the CT DEEP dated September 5, 2002. The monitoring plan was also revised in 2005/2006. The revised sampling program provided for sampling fewer wells for ETPH and temporarily discontinuing sampling wells for arsenic (except for RMW-29), cadmium and lead. All post-remediation groundwater monitoring reports have been submitted to the CT DEEP.

The historical release to soil at RA-5 (Figure 1) located in the vicinity of former monitoring well RMW-8R has resulted in a plume of halogenated VOCs (HVOCs) in groundwater, in the central/eastern section of the site and beneath the newly constructed site building. HVOCs detected in the plume above RSR Criteria included 1,1,1-trichloroethane, 1,1-dichloroethylene, tetrachloroethylene, trichloroethylene, and vinyl chloride. These contaminants were predominately detected in former monitoring wells RMW-8R, RMW-10, RMW-11, RMW-23 and RMW-24.

Short-term groundwater remediation pilot tests which consisted of high vacuum groundwater and soil vapor extraction were conducted at RMW-8R in February 2006 and February 2007. The extraction was intended to reduce HVOC concentrations in the plume. However, these events had no substantial affect on HVOC concentrations and, therefore, groundwater extraction was not pursued further as a remedial option.

Since 2001, contaminant concentrations have generally decreased, however, select VOCs have persisted in groundwater above RSR Criteria, and LNAPL was present (RMW-10) during the gauging event completed before well abandonment (May 2007). Therefore, a revised post-remediation monitoring plan was submitted to and approved by the CT DEEP in February 2008.

## **1.3 Sub-Slab Depressurization System**

Since the current commercial building was installed over a large portion of the HVOC plume, a sub-slab depressurization (SSD) system was installed beneath the building at the time of its construction as a precautionary vapor intrusion mitigation measure. Seven soil gas points installed beneath the floor of the building were sampled on a quarterly basis between August 2008 and May 2009. The analytical results were compared to the proposed

and current Industrial/Commercial Soil Volatilization Criteria (I/C VC) in accordance with the CT DEEP approved Vapor Intrusion Mitigation Plan (VIMP).

The May 2009 sampling event was the fourth and final soil gas sampling event proposed in the VIMP. The results of the soil gas sampling were generally consistent over the four quarters and concentrations of VOCs remained below both the current 1996 promulgated numeric comparison criteria of the RSR and the 2003 proposed revisions, where established. No further soil gas sampling is planned, and completion of the SSD system has been determined to be unnecessary.

## **2.0 POST-REMEDIATION GROUNDWATER MONITORING PROGRAM**

### **2.1 Historical Groundwater Monitoring Program**

In January/February 2008, monitoring wells MW-1, MW-2a, MW-3, MW-4a, MW-5, MW-6, MW-7, and MW-8a were installed to various depths as overburden/shallow bedrock wells. Monitoring wells MW-2b, MW-4b and MW-8b were installed solely in the bedrock aquifer. These wells and existing monitoring wells RMW-3, RMW-15, RMW-17 and RMW-19 (Figure 2), were designed to meet specific goals for both compliance and post-remediation groundwater monitoring at the former Fafnir Bearing Plant.

Historically, the groundwater monitoring program included gauging and sampling the above mentioned monitoring wells to achieve the following goals:

- determine if LNAPL of significance was present and removing any measurable amount;
- monitor the VOC plume in groundwater in all monitoring wells except RMW-3, RMW-17 and RMW-19;
- monitor the arsenic plume in groundwater in monitoring wells MW-1, MW-3, MW-8a and MW-8b;
- monitor groundwater quality at the downgradient property boundary;

Groundwater samples were also historically analyzed for the presence of cadmium and lead, however by the September 2010 sampling event, concentrations of cadmium and lead had remained below numeric comparison criteria for the requisite monitoring period. Therefore, cadmium and lead analysis at all well locations was discontinued.

Filtered samples were historically collected from monitoring wells MW-3, MW-4b, MW-8a and MW-8b to evaluate whether previously detected total arsenic concentrations were representative of dissolved or adsorbed phase. The results of the filtered samples confirmed that the arsenic concentrations are, at least in part, present in the dissolved form and filtered sampling was discontinued following the June 2010 sampling event.

The arsenic analysis was subsequently discontinued in monitoring wells MW-2a, MW-2b, MW-4a, MW-4b, MW-5, MW-7, and RMW-15 based on arsenic concentrations being below the calculated ASWPC for several sampling events.

Due to the fact that groundwater compliance is achieved when and four consecutive quarters, and a minimum of two semi-annual sampling events exhibiting contaminant concentrations below criteria are completed, sampling at RMW-15 was discontinued in August 2011.

### **2.2 Current Groundwater Monitoring Program**

Currently, groundwater samples are collected using low-flow methodology and sampling adheres to the CT DEEP Quality Assurance/Quality Control Reasonable Confidence Protocols (RCP). The groundwater monitoring program currently includes the following tasks;

- Groundwater levels are measured in all monitoring wells to determine the groundwater flow in both the bedrock and the overburden aquifers
- All monitoring wells, except for RMW-3, RMW-17 and RMW-19 are analyzed for VOCs via EPA Method 8260B and ETPH



- Monitoring wells MW-1, MW-3, MW-8a and MW-8b are analyzed for total arsenic
- Monitoring well MW-6 is gauged bi-monthly for LNAPL

### 2.3 Applicable RSR Criteria

The site is located in a GB groundwater area and, due to the fact that an ELUR will be placed on the site limiting its use to industrial/commercial, the applicable RSR criteria for the site are as follows:

- 2003 proposed Industrial/Commercial Volatilization Criteria (I/C VC)
- 2003 proposed Residential Volatilization Criteria (Res VC), (at the downgradient property boundary)
- Surface Water Protection Criteria (SWPC) or Alternative SWPC (ASWPC)

All groundwater monitoring results from this site are compared to both the 2003 proposed I/C VC and groundwater results from monitoring wells proximal to the downgradient property boundary are compared to the 2003 proposed Res VC, approved by the CT DEEP for use at the site on September 28, 2011. Site groundwater analytical results are also compared to the current 1996 promulgated SWPC.

As allowed by the RSR, a self-implementing ASWPC has been calculated for arsenic within the on-site groundwater plume. The ASWPC was calculated using: 1) the lower of the aquatic life and human health criteria of the Water Quality Criteria (WQC), and 2) plume-specific values for plume width, plume thickness, and hydraulic gradient. The size of the plume was recently updated to reflect the geometry of the plume based on the most recent groundwater monitoring events. Average overburden and bedrock hydraulic conductivities were also utilized in the calculations.

The onsite plume eventually discharges to Piper Brook located across Myrtle Street (which is culverted underground in a reinforced concrete pipe), approximately 250 feet south of the site. Therefore the 7Q10 value for Piper Brook was utilized. The 7Q10 value is the lowest measured stream flow for seven consecutive days that would be expected to occur once every 10 years. The CT DEEP provided a 7Q10 value of 2.24 cubic feet per second (cfs) for the junction of Piper Brook and Bass Brook located approximately 2.25 miles downgradient of the site. To be more conservative, a 7Q10 value representing an area closer to the site was calculated by measuring the Piper Brook drainage area in the vicinity of the site versus the total drainage area of Piper Brook as a whole. This 7Q10 (0.896 cfs) was utilized in calculating the ASWPC.

By definition, plume-specific ASWPC supersede the default SWPC. The calculated ASWPC for arsenic has been included, where appropriate, in data tables presented in ensuing sections of this report. The ASWPC calculations for arsenic are included in Appendix A.

### **3.0 SEPTEMBER 2011 GROUNDWATER MONITORING**

The following narrative provides data pertaining to the sampling event conducted on September 13, 2011.

#### **3.1 Groundwater & LNAPL Gauging Data**

The depth to groundwater at the site ranged from 4.83 feet (MW-1) to 26.73 feet (MW-8b) below grade and was generally consistent with seasonally low groundwater levels.

Groundwater flow across the site in the overburden/shallow bedrock and bedrock aquifers was to the south-southeast at average gradients of approximately 0.06 feet per foot (ft/ft) in the overburden and 0.05 ft/ft in bedrock, as shown on Figures 2 and 3.

Based on historic detections of LNAPL and as part of the current groundwater monitoring program, monitoring well MW-6 is gauged for the presence of accumulated LNAPL on a bi-monthly frequency. Former monitoring well RMW-10 was previously located in close proximity of current monitoring well MW-6 and historically contained measurable accumulations of LNAPL at a greater thickness than recently detected (Graph 1). These detections are compared to historical groundwater elevations on Graph 2.

Accumulated LNAPL was detected at a thickness of approximately 0.03 feet within MW-6 this event, which was purged and removed. The LNAPL trends in monitoring well MW-6 compared to fluctuations in groundwater elevation are presented on Graph 3. Approximate recovery volumes on an event to event basis are depicted on Graph 4.

A summary of groundwater elevation and LNAPL measurements is provided on Table 1.

#### **3.2 Sampling Methods**

Monitoring wells MW-1, MW-2a, MW-2b, MW-3, MW-4a, MW-4b, MW-5, MW-7, MW-8a and MW-8b were sampled using low-flow techniques. Groundwater quality parameters, including pH, temperature, dissolved oxygen (DO), oxygen reduction potential (ORP), turbidity, and specific conductivity, were monitored and recorded until each parameter had stabilized. Upon stabilization, the groundwater samples were collected and submitted to Con-Test Analytical Laboratory (Con-Test), a Connecticut-certified laboratory, for analysis of one or more of the following:

- VOCs by EPA Method 8260B
- ETPH by CT DEEP Methodology
- Arsenic by EPA Method 6020A

All groundwater samples were analyzed in accordance with CT DEEP RCP and a trip blank (TB-1) and duplicate sample (MW-3 DUP) were analyzed for QA/QC purposes.

### 3.3 Analytical Results

#### ETPH

ETPH was detected in all ten monitoring wells sampled this quarter at concentrations ranging from 0.018 milligrams per liter (mg/l) in monitoring well MW-4b to 1.1 mg/l in monitoring well MW-2a. These concentrations are consistent with the results of previous sampling events. Currently, there are no established CT DEEP RSR standards for ETPH in groundwater within GB-classified areas.

#### Arsenic

Arsenic was detected in monitoring wells MW-3, MW-8a and MW-8b during the September 2011 sampling event. The concentrations of total arsenic detected in these monitoring wells were relatively consistent with historical events and have been below the ASWPC calculated for the arsenic plume in groundwater for four consecutive quarters and two semi-annual sampling events.

Historical trends of arsenic detections since the initiation of the groundwater monitoring program in 2008 and the comparison to the applicable calculated ASWPC are presented on Graph 5.

#### VOCs

VOCs detected in site monitoring wells included the following:

- Aromatic VOCs (benzene, isopropylbenzene, n-butylbenzene, sec-butylbenzene, tert-butylbenzene and/or n-propylbenzene) in monitoring wells MW-1, MW-2a, MW-2b and MW-3.
- Halogenated VOCs (1,1,1-trichloroethane, 1,1,2-trichlorotrifluoroethane, 1,1-dichloroethane, 1,1-dichloroethylene, chloroethane, chloroform, cis-1,2-dichloroethylene, tetrachloroethylene, trichloroethylene and/or vinyl chloride) and/or freons in all monitoring wells except MW-1.

All VOCs detected in site groundwater were detected at concentrations below the applicable comparison criteria for four consecutive quarters and two semi-annual sampling events with the exception of vinyl chloride.

Vinyl chloride was detected in monitoring wells MW-4b and MW-7 at concentrations of 30 ug/l and 6 ug/l, respectively. The original source of these concentrations is located beneath the north end of the building, adjacent to MW-7. The vinyl chloride plume migrates down-gradient towards monitoring wells MW-4a (installed within 30 feet of surface grade) and MW-4b (installed greater than 30 feet below surface grade). Concentrations of vinyl chloride have declined from 205 ug/l in MW-4a in March 2009 to below detectable concentrations during the past several sampling events. The concentration of vinyl chloride detected at MW-4b continues to attenuate.

Although the concentration of vinyl chloride currently exceeds the Res VC in MW-4b, compliance with the volatilization criteria is demonstrated by the groundwater representing the shallow aquifer in MW-4a. Therefore, compliance will be achieved following acceptable results from three additional sampling events in MW-4a.

Concentration trends of vinyl chloride detections are presented on Graph 6.

### **3.4 QA/QC**

The groundwater samples were collected and handled in accordance with the site-specific monitoring program and HRP's standard operating procedures. The samples were stored on ice and transported under chain-of-custody protocols to Con-Test. The groundwater samples were analyzed and reported in accordance with Connecticut Laboratory Quality Assurance and Quality Control (QA/QC) Guidance - Reasonable Confidence Protocols (RCP), and as such any deviations from the RCP that may affect the usability of the data are documented in the laboratory reports. The laboratory analytical reports included QA/QC certification forms, narratives, analytical results and quality control report, as prescribed by the RCP.

The laboratory analytical report case narratives were also reviewed in accordance with the CT DEEP Data Quality Assessment and Data Usability Evaluation (DQA/DUE). Two VOC compounds (hexachlorobutadiene and trans-1,3-dichloropropene) were identified to be biased either high or low based on calibration or recovery bias; however neither of these were constituents of concern at the site and these biases were found in less than 10% of the total list of compounds. Following a review of the case narratives, laboratory analytical results and the quality control report; the data quality is considered adequate to meet the data quality objectives for the site groundwater monitoring program.

The trip blank was analyzed for only VOCs while the duplicate sample (MW-3 DUP) was analyzed for the same parameters as the original MW-3 sample (VOCs, ETPH and arsenic). Concentrations detected in the duplicate sample were similar to the concentrations detected in the original MW-3 sample. VOCs were not detected above laboratory detection limits in the trip blank.

A summary of the analytical data is provided in Table 2 and the laboratory report is included as Appendix B.

### **3.5 Significant Environmental Hazard (SEH) Evaluation**

The CT DEEP's Significant Environmental Hazard Notification Program (Public Act 98-134, and CGS § 22a-6u) requires concentrations of VOCs greater than 30-times the volatilization criteria appropriate for the land-use within 15 feet beneath a building be reported by the property owner to the CT DEEP. Based on the September 2011 groundwater results, a SEH does not exist at the site.

## 4.0 LNAPL RECOVERY EVALUATION

### 4.1 Background

As previously discussed, soil remediation was historically conducted at several areas on the site, including within the area of current monitoring well MW-6 (remedial areas RA-6 and Building 28). Former hydraulic oil, rust oil, paraffin oil, kerosene and stoddard solvent USTs were historically located within this area and the TPH contamination in this portion of the site is attributed to releases from one or more of these former tanks and/or associated piping. The areal distribution of LNAPL as determined by pre-remedial investigations and samples collected during the course of remediation is depicted on Figure 4.

HRP excavated soils at RA-6 to a depth of approximately 13 feet below the original site grade (approximately 8 to 10 feet below current grade) in 1999. Approximately 6,300 cubic yards (9,500 tons) of impacted soils were removed from the area depicted on Figure 4. Due to the presence of the water table, soils containing concentrations of TPH exceeding the GB PMC and I/C DEC were left in place due to the fact that they were collected from depths greater than 4 feet below grade and were situated below the seasonal high water table. These concentrations ranged from 100 mg/kg to 21,000 mg/kg. The remediation activities were previously documented in a CT DEEP approved Remedial Action Report.

Following soil remediation, four monitoring wells (RMW-10, RMW-11, RMW-12 and RMW-14) were installed within and downgradient of RA-6 (refer to Figure 4 for these well locations), and a groundwater monitoring program was initiated. The purpose of the groundwater monitoring program as it pertains to the LNAPL was to:

- Document decreasing trends in accumulating LNAPL thickness
- Confirm that the extent of the LNAPL is not expanding
- Demonstrate that groundwater emanating from RA-6 is compliant with RSR criteria

The reduction in overall LNAPL distribution and mass by excavation has limited the volume of LNAPL accumulation at RWM-10/MW-6; which were installed proximal to soils containing the most elevated TPH concentrations. LNAPL measuring greater than 1 foot of accumulated thickness (2002) was initially observed in RMW-10 (located within RA-6), but subsequently declined to less than 0.1 feet by 2007. A sheen was periodically observed in the three downgradient wells over this same time period. In order to facilitate redevelopment of the property in 2007, each of these monitoring wells had been properly abandoned, and were later replaced in 2008 with monitoring wells MW-5 and MW-6.

Monitoring wells MW-5 and MW-6 continued to be evaluated for the presence of LNAPL or sheen between 2008 and present. No sheen has been observed in downgradient well MW-5, and the accumulation of LNAPL generally declined to a thickness of approximately 0.03 feet supporting that 1) the excavation of petroleum impacted soils was successful at removing the majority of the contaminant mass and 2) the LNAPL plume is not expanding. The current area of LNAPL, estimated based on current gauging data and post remediation confirmation samples, is depicted on Figure 4. The original area of LNAPL was reduced by excavation from approximately 17,560 square feet to about 1,460 square feet, and maximum TPH concentrations in soil were reduced from over 60,000 mg/kg to 21,000 mg/kg.

The decline in accumulated, or “apparent”, LNAPL thickness at monitoring well RWM-10/MW-6 since 2001 is depicted on Graphs 1 through 3. These graphs also depict estimated “actual” LNAPL thickness in the surrounding formation. In fine grained soils such as those at the site, LNAPL can accumulate in a well to a thickness that is greater than that actually present in the surrounding formation (Testa and Paczkowski 1989). This is due to the thickness of the capillary fringe. The absence of the capillary fringe within a borehole allows LNAPL to flow to the well, accumulating and collecting until a density equilibrium is established. Therefore, the “actual” LNAPL thickness remaining at RA-6 is estimated to be 50% of the “apparent” thickness measured in the well, or approximately 0.015 feet in September 2011. This represents a significant decline in the “actual” average LNAPL thickness from approximately 0.6 feet initially observed in 2001.

#### **4.2 Estimation of Recoverable LNAPL**

In general, petroleum product released to fine grained soils such as those at the site will migrate vertically downward to the capillary fringe, where it will spread and pool, provided sufficient LNAPL is present. The accumulating LNAPL will displace water from the water saturated pore spaces within the capillary fringe until a density equilibrium is established. With sufficient volume, the LNAPL will displace water from the capillary fringe and spread laterally across the water table until the forces driving its migration equal the pressure necessary to displace water from surrounding uncontaminated soil pore spaces.

LNAPL residing in equilibrium with surrounding pore pressures will not be mobile in the formation, but may continue to weep into a monitor well which acts as a large scale pore with significantly less water displacement pressure than surrounding soil-pores (Geosphere, Inc. and CH2M Hill 2006). Therefore, the presence of measurable LNAPL within a well does not necessarily indicate that petroleum product is mobile or recoverable in the surrounding formation; such is the case at the site. When accumulated LNAPL has been observed in monitor well RMW-10/MW-6, it has been manually removed. A total of approximately 1 gallon of LNAPL was removed between 2001 and 2006. Since 2006, a total of less than 0.25 gallons has been recovered as depicted on Graph 4.

To be mobile, a light to medium LNAPL (similar to that observed on-site) must saturate greater than 10 to 15% of the soil pore space volume in the unsaturated zone (Testa and Paczkowski 1989) and at least 15 to 50% of soil pore spaces below the water table (Mercer and Cohen 1990). The percent pore space saturation was calculated for four samples containing the highest total petroleum hydrocarbon concentrations (Appendix C). Each of these samples was collected from below the water table following the completion of excavation. The concentrations of TPH in each of these soil samples represent less than 16% pore space saturation, and therefore support that the remaining LNAPL in the formation is residual phase and not mobile.

## 5.0 CONCLUSIONS

Depth to groundwater was measured in fifteen (15) monitoring wells (MW-1, MW-2a, MW-2b, MW-3, MW-4a, MW-4b, MW-5, MW-6, MW-7, MW-8a, MW-8b, RMW-3, RMW-15, RMW-17 and RMW-19) at the site and abutting property to the east, on September 13, 2011. Of these fifteen monitoring wells, ten (MW-1, MW-2a, MW-2b, MW-3, MW-4a, MW-4b, MW-5, MW-7, MW-8a and MW-8b) were sampled via low-flow techniques for a variety of parameters including VOCs, ETPH, and arsenic.

Groundwater flow across the site in the overburden/shallow bedrock and bedrock aquifers was to the south-southeast during the September 2011 sampling event, which is consistent with previous data.

### Analytical Results

Laboratory analytical results from samples collected during the September 2011 sampling event indicated the following:

- ETPH was detected in all of the monitoring wells sampled at concentrations that were consistent with historical detections. There are currently no established RSR comparison criteria for ETPH in GB areas.
- VOCs were not detected above applicable criteria in any of the monitoring wells sampled this event. Vinyl chloride was detected in MW-4b at a concentration exceeding the volatilization numeric comparison criteria, however, due to its depth, the volatilization criteria do not apply to the depth below surface grade that this well represents. Compliance with the volatilization criteria will be demonstrated at shallower well MW-4a. Concentrations of VOCs detected in all site monitoring wells (except MW-4a) have been below the applicable RSR criteria for four consecutive quarters and two semi-annual sampling events.
- Total arsenic was detected in monitoring wells MW-3, MW-8a and MW-8b at concentrations that were below the calculated ASWPC. Overall, the arsenic concentrations have remained below comparison criteria for the requisite four consecutive quarters and two semi-annual sampling events.

With the exception of vinyl chloride at MW-4a, RSR compliance has been demonstrated for all compounds in all site monitoring wells by four quarterly monitoring events, followed by two semi-annual sampling events. Three additional quarterly sampling events for VOCs with acceptable results are required to demonstrate compliance at monitor well MW-4a.

### LNAPL

LNAPL at remedial area RA-6 has been removed to the maximum extent practicable based on the following:

- The areal distribution of the LNAPL has been reduced by approximately 92%;
- The estimated "actual" LNAPL thickness remaining in the formation has been reduced from approximately 0.6 feet to less than approximately 0.02 feet;
- The extent of the LNAPL is not expanding;
- Groundwater emanating from RA-6 is compliant with RSR criteria;

- The concentrations of TPH detected in confirmation soil samples represent less than 16% pore space saturation, the minimum published range for the pore space saturation necessary for LNAPL situated below the water table to be mobile.



## 6.0 RECOMMENDATIONS

On behalf of IR, HRP respectfully requests that the groundwater monitoring program be reduced to only sampling monitoring well MW-4a for VOCs in 2012 until four events with results below applicable criteria have been obtained. Following satisfactory results, a request to discontinue the groundwater monitoring program will be submitted to the CT DEEP.

This request is made based on the fact that all site monitoring wells (except MW-4a) have achieved compliance with the proposed 2003 I/C VC, and the monitoring wells located proximal to the down-gradient property boundary have achieved compliance with the proposed 2003 Res VC, the CT DEEP approved criteria for the site, as demonstrated in Table 2. In accordance with the approved groundwater monitoring program, quarterly compliance monitoring was conducted at the site monitoring wells between March 2008 and December 2010. Subsequently, a year of semi-annual post-remediation groundwater monitoring was conducted in 2011 with events occurring in March and September.

Regarding the minor accumulated LNAPL thickness within MW-6; HRP recommends no further remedial actions aside from the continued bi-monthly gauging of MW-6, until such time as groundwater compliance monitoring is completed for the on-site vinyl chloride plume. This is appropriate for the following reasons:

- Residual LNAPL has been removed to the maximum extent practicable, is localized to a small area of the property, and is not expanding;
- The site and areas downgradient of the site are industrial/commercial, and the residual LNAPL remaining is not impacting area groundwater uses.

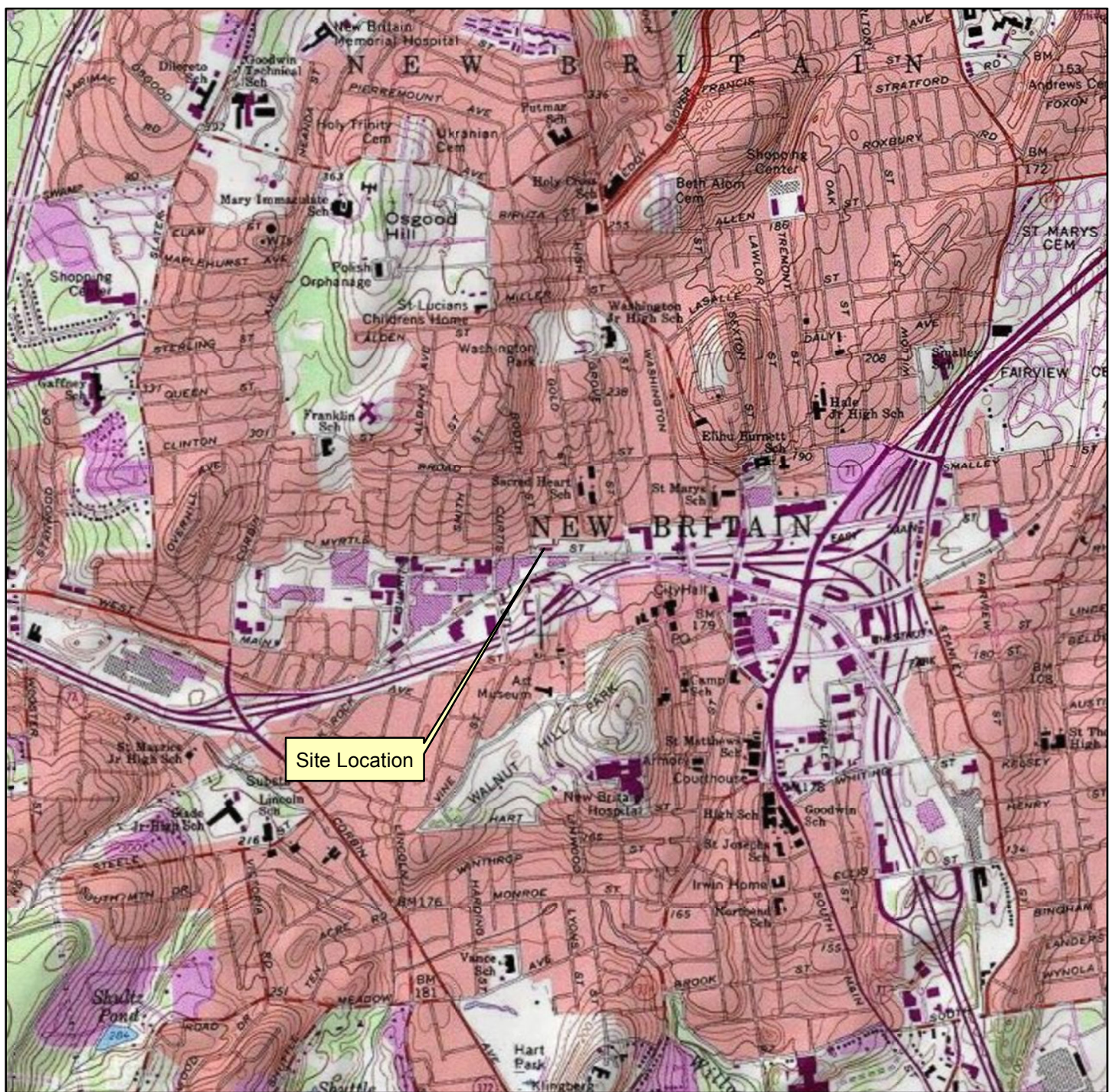
## 7.0 LNAPL REFERENCES

### Published Sources

- Geosphere, Inc. and CH2MHill, 2006. *Maximum Allowable Concentration, Residual Saturation, and Free-Product Mobility*.
- Mercer, J.W., and R.M. Cohen, 1990. A review of immiscible fluids in the subsurface: Properties, models, characterization, and remediation, *Journal of Contaminant Hydrology*, 6:107-163.
- Testa, Stephen M. and Paczkowski, Michael T., 1989. *Volume Determination and Recoverability of Free Hydrocarbon*.

## FIGURES





Site Location



1 inch = 2,000 feet

**Figure 1**  
**Site Location**  
**Former Fafnir Bearing**  
**263 Myrtle Street**  
**(formerly 37 Booth Street)**  
**New Britain, Connecticut**  
**HRP # ING0077.GW**  
**Scale 1"=2,000'**

USGS Quadrangle ID 410723-F7  
 Name: New Britain, Connecticut  
 Date Revised: 1982  
 Date Published: 1985

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 Environmental/Civil Engineering & Hydrogeology  
 Creating the Right Solutions Together  
 Offices in CT, SC, NY, FL, MA, TX and IN  
 197 Scott Swamp Road  
 Farmington, Connecticut 06032  
 Ph: (860) 674-9570 Fax: (860) 674-9624  
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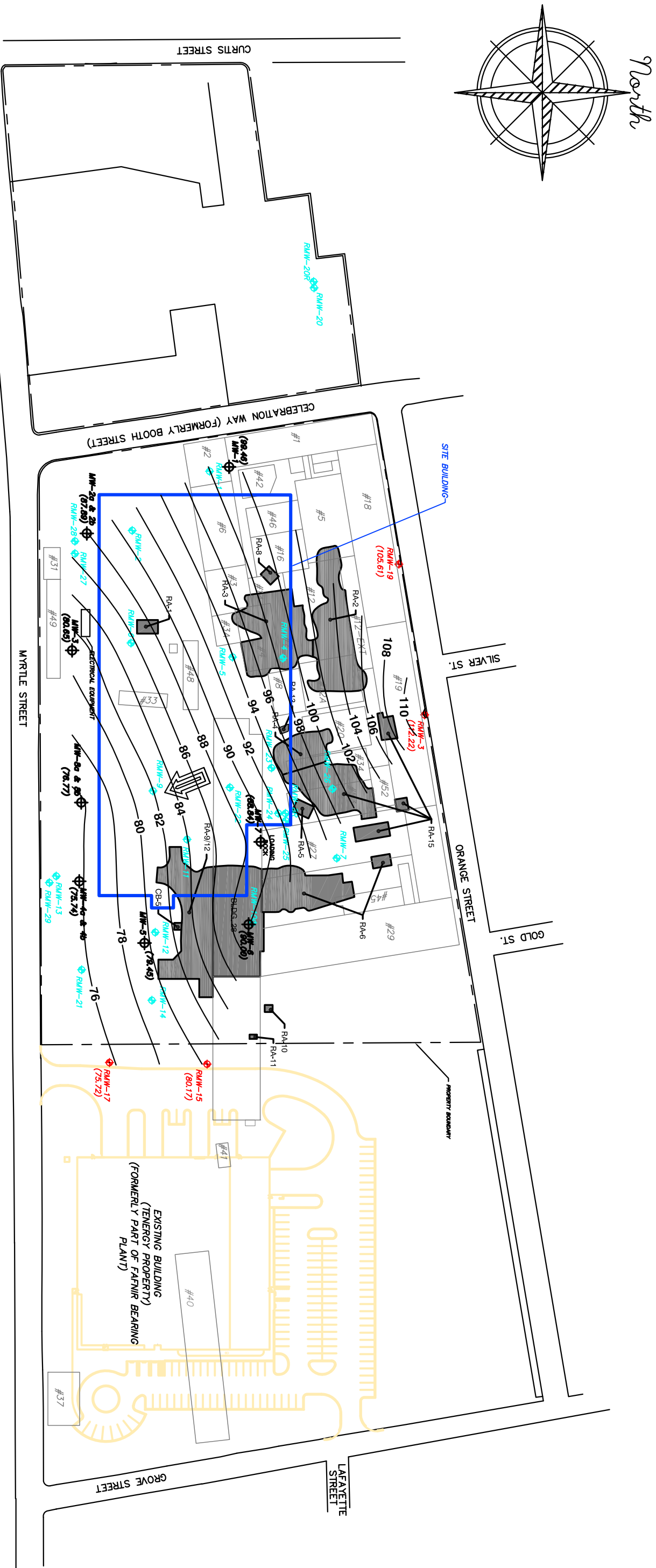



FIGURE 2  
SITE PLAN WITH OVERBURDEN  
GROUNDWATER CONTOURS  
(SEPTEMBER 2011)  
FORMER FAFNIR BEARING  
NEW BRITAIN, CONNECTICUT  
HRP# ING0077.GW  
SCALE: 1" = 130'

—108— —GROUNDWATER CONTOUR

 —INFERRED DIRECTION OF GROUNDWATER FLOW

—TENENERGY PROPERTY

NOTE: SHADED CONCENTRATIONS INDICATE AN EXCEEDANCE OF THE PROPOSED IC/VIC OR THE ASWPC  
BOLD CONCENTRATIONS INDICATE AN EXCEEDANCE OF THE PROPOSED RES VC OR THE SWPC  
mg/l = MILLIGRAMS PER LITER  
ug/l = MICROGRAMS PER LITER

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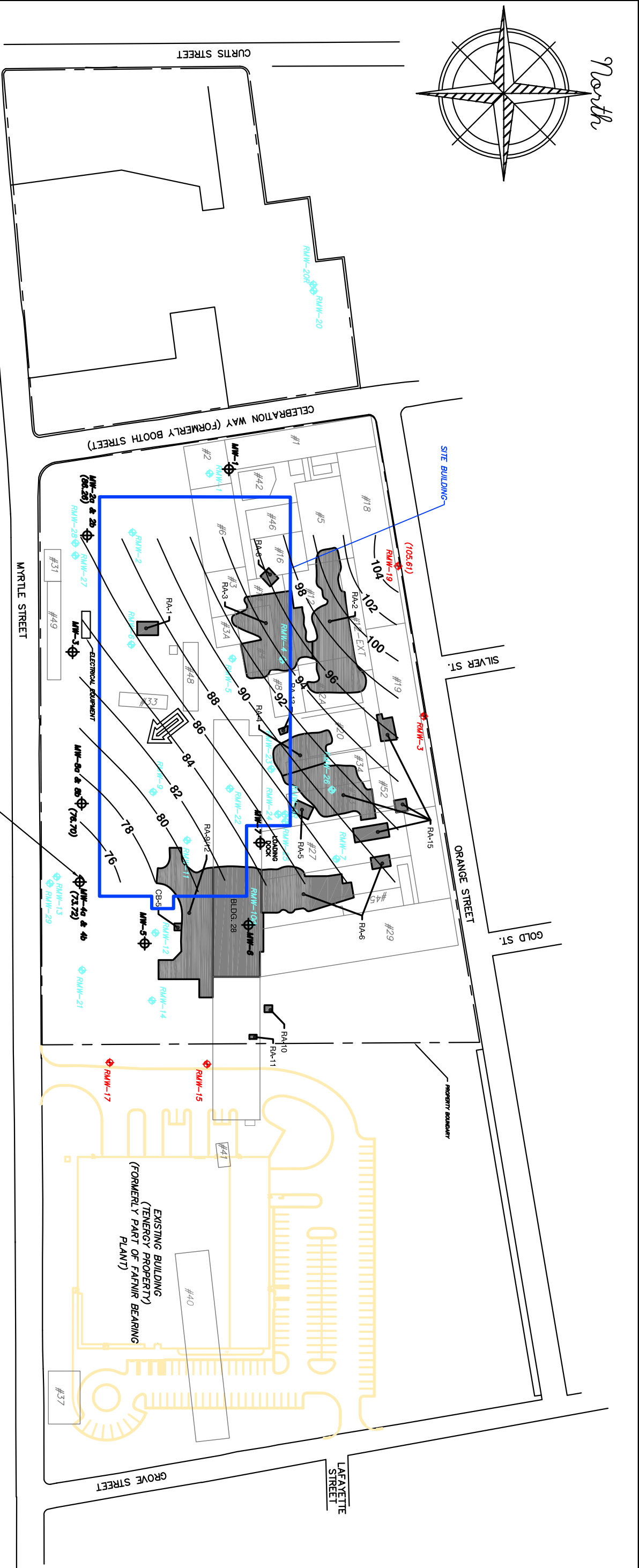


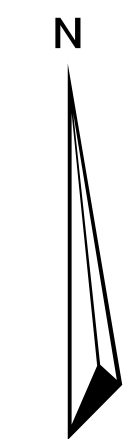
FIGURE 3  
SITE PLAN WITH BEDROCK  
GROUNDWATER CONTOURS  
(SEPTEMBER 2011)  
FORMER FAFNIR BEARING  
NEW BRITAIN, CONNECTICUT  
HRP# ING0077.GW  
SCALE: 1" = 130'

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1 inch = 60 feet



### Legend

- Current Wells
- Former Wells (abandoned prior to 2007 redevelopment)
- Historic Wells
- Piper Brook (Culverted)
- Former Underground Storage Tanks
- Current Building
- 263 Myrtle Street
- Neighborhood Parcels
- Approx. Area of Current LNAPL Distribution
- Approx. Area of Original LNAPL Distribution
- Historic Excavation Area

### Site Area & Historical LNAPL Distribution Areas

Former Fafnir Bearing  
New Britain, Connecticut

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Farmington, Connecticut 06032  
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SAK	SK	1" = 60'
BOB	11/15/11	Figure 4
SAK	ING0077.GW	



## TABLES



TABLE 1  
Monitoring Well Elevation and Gauging Data

Former Torrington Company  
Fafnir Bearing Plant  
263 Myrtle Street  
(formerly 37 Booth Street)  
New Britain, CT

Monitoring Well	Well Construction	Casing Elevation (PVC)	Well Screen	Depth to Bedrock	Gauging Date	Depth to Water	Groundwater Elevation	Depth to LNAPL	LNAPL Thickness	Corrected Depth to Water
MW-1	Overburden/Bedrock	104.29	3-15'	12'	3/14/2008	4.72	99.57	-	-	-
					6/23/2008	5.7	99.57	-	-	-
					9/22/2008	5.29	99.00	-	-	-
					12/4/2008	5.09	99.20	-	-	-
					3/25/2009	5.09	99.20	-	-	-
					6/29/2009	5.92	98.37	-	-	-
					9/4/2009	5.57	98.72	-	-	-
					12/29/2009	5.05	99.24	-	-	-
					3/9/2010	4.94	99.35	-	-	-
					6/11/2010	5.70	98.59	-	-	-
					9/1/2010	6.24	98.05	-	-	-
					12/7/2010	5.89	98.40	-	-	-
					3/8/2011	4.48	99.81	-	-	-
MW-2a	Overburden/Bedrock	102.44	11.5-26.5'	24'	9/13/2011	4.83	99.46	-	-	-
					3/14/2008	14.53	87.91	-	-	-
					6/23/2008	16.12	86.32	-	-	-
					9/22/2008	16.05	86.39	-	-	-
					12/4/2008	15.33	87.11	-	-	-
					3/25/2009	15.27	87.17	-	-	-
					6/29/2009	14.74	87.70	-	-	-
					9/4/2009	15.54	86.90	-	-	-
					12/29/2009	14.49	87.95	-	-	-
					3/9/2010	14.81	87.63	-	-	-
					6/11/2010	16.28	86.16	-	-	-
					9/1/2010	16.48	85.96	-	-	-
					12/7/2010	15.82	86.62	-	-	-
MW-2b	Bedrock	102.30	30-40'	24'	3/8/2011	13.99	88.45	-	-	-
					9/13/2011	14.46	87.98	-	-	-
					3/14/2008	16.55	85.75	-	-	-
					6/23/2008	17.86	84.44	-	-	-
					9/22/2008	17.56	84.74	-	-	-
					12/4/2008	16.94	85.36	-	-	-
					3/25/2009	16.82	85.48	-	-	-
					6/29/2009	16.37	85.93	-	-	-
					9/4/2009	17.06	85.24	-	-	-
					12/29/2009	16.21	86.09	-	-	-
					3/9/2010	16.48	85.82	-	-	-
					6/11/2010	17.57	84.73	-	-	-
					9/1/2010	17.80	84.50	-	-	-
MW-3	Overburden/Bedrock	103.98	20.5-40.5'	35.5'	12/7/2010	17.24	85.06	-	-	-
					3/8/2011	15.41	86.89	-	-	-
					9/13/2011	16.05	86.25	-	-	-
					3/14/2008	23.06	80.92	-	-	-
					6/23/2008	25.14	78.84	-	-	-
					9/22/2008	24.05	79.93	-	-	-
					12/4/2008	23.86	80.12	-	-	-
					3/25/2009	25.11	78.87	-	-	-
					6/29/2009	24.77	79.21	-	-	-
					9/4/2009	25.11	78.87	-	-	-
					12/29/2009	24.52	79.46	-	-	-
					3/9/2010	24.78	79.20	-	-	-
					6/11/2010	23.69	80.29	-	-	-
MW-4a	Overburden/Bedrock	100.55	15-35'	30-35'	9/1/2010	25.17	78.81	-	-	-
					12/7/2010	25.06	78.92	-	-	-
					3/8/2011	23.69	80.29	-	-	-
					9/13/2011	23.33	80.65	-	-	-
					3/14/2008	23.45	77.10	-	-	-
					6/23/2008	25.16	75.39	-	-	-
					9/22/2008	25.11	75.44	-	-	-
					12/4/2008	24.79	75.76	-	-	-
					3/25/2009	25.02	75.53	-	-	-
					6/29/2009	24.43	76.12	-	-	-
					9/4/2009	24.80	75.75	-	-	-
					12/29/2009	25.99	74.56	-	-	-
					3/9/2010	26.51	74.04	-	-	-
MW-4b	Bedrock	100.405	41-51'	30-35'	6/11/2010	27.09	73.46	-	-	-
					9/1/2010	26.91	73.64	-	-	-
					12/7/2010	26.37	74.18	-	-	-
					3/8/2011	23.69	76.86	-	-	-
					9/13/2011	24.81	75.74	-	-	-
					3/14/2008	24.59	75.82	-	-	-
					6/23/2008	24.59	75.82	-	-	-
					9/22/2008	25.76	74.65	-	-	-
					12/4/2008	25.64	74.77	-	-	-
					3/25/2009	25.53	74.88	-	-	-
					6/29/2009	25.75	74.66	-	-	-
					9/4/2009	25.63	74.78	-	-	-
					12/29/2009	26.97	73.44	-	-	-
					3/9/2010	27.42	72.99	-	-	-

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MW-5	Overburden/Bedrock	97.72	6.5-26.5'	20.5'	3/14/2008	17.21	80.51	-	-	-
					6/23/2008	20.02	77.70	-	-	-
					9/22/2008	20.17	77.55	-	-	-
					12/4/2008	19.79	77.93	-	-	-
					3/25/2009	19.74	77.98	-	-	-
					6/29/2009	19.25	78.47	-	-	-
					9/4/2009	19.79	77.93	-	-	-
					12/29/2009	18.78	78.94	-	-	-
					3/9/2010	19.32	78.40	-	-	-
					6/11/2010	19.78	77.94	-	-	-
					9/1/2010	19.81	77.91	-	-	-
					12/7/2010	19.98	77.74	-	-	-
					3/8/2011	17.45	80.27	-	-	-
MW-6	Overburden/Bedrock	99.46	3-22'	20'	9/13/2011	18.27	79.45	-	-	-
					3/14/2008	9.48	89.98	9.41	0.07	9.42
					6/23/2008	10.18	89.28	-	-	-
					9/22/2008	10.37	89.09	10.10	0.27	10.14
					10/31/2008	10.17	89.29	10.15	0.02	10.15
					12/4/2008	10.07	89.39	10.05	0.02	10.05
					2/23/2009	10.11	89.35	10.02	0.09	10.03
					3/25/2009	10.12	89.34	10.08	0.04	10.09
					6/29/2009	9.91	89.55	Sheen	<0.01	9.91
					8/10/2009	9.91	89.55	9.94	0.03	9.88
					9/4/2009	9.75	89.71	9.73	0.02	9.73
					11/12/2009	10.02	89.44	9.98	0.04	9.99
					12/29/2009	9.64	89.82	-	-	-
					3/9/2010	9.70	89.76	9.67	0.03	9.67
					6/11/2010	10.05	89.41	9.97	0.08	9.98
					8/3/2010	10.02	89.44	9.98	0.04	9.99
					9/1/2010	9.94	89.52	9.91	0.03	9.91
					11/5/2010	9.82	89.64	9.79	0.03	9.79
					12/7/2010	9.91	89.55	9.88	0.03	9.88
					2/16/2011	9.62	89.84	9.58	0.04	9.59
					3/8/2011	9.08	90.38	9.05	0.03	9.05
					5/5/2011	9.66	89.80	9.61	0.05	9.62
					7/7/2011	10.01	89.45	9.91	0.10	9.93
MW-7	Overburden/Bedrock	100.42	5-20'	15'	8/15/2011	10.14	89.32	10.06	0.08	10.07
					9/13/2011	9.46	90.00	9.43	0.03	9.46
					3/14/2008	11.91	88.51	-	-	-
					6/23/2008	14.11	86.31	-	-	-
					9/22/2008	14.06	86.36	-	-	-
					12/4/2008	13.72	86.70	-	-	-
					3/25/2009	13.83	86.59	-	-	-
					6/29/2009	13.21	87.21	-	-	-
					9/4/2009	13.61	86.81	-	-	-
					12/29/2009	12.66	87.76	-	-	-
					3/9/2010	12.99	87.43	-	-	-
					6/11/2010	13.75	86.67	-	-	-
					9/1/2010	13.64	86.78	-	-	-
MW-8a	Overburden/Bedrock	103.27	17.5-37.5'	35'	12/7/2010	13.45	86.97	-	-	-
					3/8/2011	11.60	88.82	-	-	-
					9/13/2011	11.58	88.84	-	-	-
					3/14/2008	26.30	76.97	-	-	-
					6/23/2008	27.68	75.59	-	-	-
					9/22/2008	27.71	75.56	-	-	-
					12/4/2008	27.38	75.89	-	-	-
					3/25/2009	27.51	75.76	-	-	-
					6/29/2009	27.11	76.16	-	-	-
					9/4/2009	27.47	75.80	-	-	-
					12/29/2009	26.91	76.36	-	-	-
					3/9/2010	27.28	75.99	-	-	-
					6/11/2010	27.65	75.62	-	-	-
MW-8b	Bedrock	103.425	41-51'	35'	9/1/2010	27.60	75.67	-	-	-
					12/7/2010	27.30	75.97	-	-	-
					3/8/2011	26.02	77.25	-	-	-
					9/13/2011	26.50	76.77	-	-	-
					3/14/2008	26.47	76.96	-	-	-
					6/23/2008	27.86	75.57	-	-	-
					9/22/2008	27.87	75.56	-	-	-
					12/4/2008	27.56	75.87	-	-	-
					3/25/2009	27.70	75.73	-	-	-
					6/29/2009	27.31	76.12	-	-	-
					9/4/2009	27.67	75.76	-	-	-
					12/29/2009	27.10	76.33	-	-	-
					3/9/2010	27.37	76.06	-	-	-
					6/11/2010	27.85	75.58	-	-	-
					9/1/2010	27.82	75.61	-	-	-
					12/7/2010	27.51	75.92	-	-	-
					3/8/2011	26.25	77.18	-	-	-
					9/13/2011	26.73	76.70	-	-	-

TABLE 1  
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RMW-3	Overburden/Bedrock	121.07	4-19'	16'	3/14/2008	10.14	110.93	-	-	-
					6/23/2008	NM	NM	-	-	-
					9/22/2008	12.26	108.81	-	-	-
					12/4/2008	11.66	109.41	-	-	-
					3/25/2009	16.12	104.95	-	-	-
					6/29/2009	11.46	109.61	-	-	-
					9/4/2009	9.39	111.68	-	-	-
					12/29/2009	9.21	111.86	-	-	-
					3/9/2010	8.80	112.27	-	-	-
					6/11/2010	9.49	111.58	-	-	-
					9/1/2010	9.30	111.77	-	-	-
					12/7/2010	9.16	111.91	-	-	-
					3/8/2011	7.87	113.20	-	-	-
*RMW-15	Overburden/Bedrock	87.42	5-25'	8'	9/13/2011	8.85	112.22	-	-	-
					3/14/2008	5.01	82.41	-	-	-
					6/23/2008	11.30	76.12	-	-	-
					9/22/2008	10.91	76.51	-	-	-
					12/4/2008	8.08	79.34	-	-	-
					3/25/2009	10.82	76.60	-	-	-
					6/29/2009	7.89	79.53	-	-	-
					9/4/2009	10.70	76.72	-	-	-
					12/29/2009	5.60	81.82	-	-	-
					3/9/2010	8.44	78.98	-	-	-
					6/11/2010	10.48	76.94	-	-	-
					9/1/2010	10.97	76.45	-	-	-
					12/7/2010	8.71	78.71	-	-	-
*RMW-17	Overburden/Bedrock	87.82	5-25'	9'	3/8/2011	4.25	83.17	-	-	-
					9/13/2011	7.25	80.17	-	-	-
					3/14/2008	11.73	76.09	-	-	-
					6/23/2008	NM	NM	-	-	-
					9/22/2008	14.26	73.56	-	-	-
					12/4/2008	13.82	74.00	-	-	-
					3/25/2009	14.22	73.60	-	-	-
					6/29/2009	13.48	74.34	-	-	-
					9/4/2009	14.13	73.69	-	-	-
					12/29/2009	11.97	75.85	-	-	-
					3/9/2010	13.45	74.37	-	-	-
					6/11/2010	14.09	73.73	-	-	-
					9/1/2010	14.17	73.65	-	-	-
RMW-19	Bedrock	121.24	11-26'	12'	12/7/2010	13.67	74.15	-	-	-
					3/8/2011	8.47	79.35	-	-	-
					9/13/2011	12.10	75.72	-	-	-
					4/25/2002	16.50	104.74	-	-	-
					8/1/2002	17.84	103.40	-	-	-
					7/22/2003	16.49	104.75	-	-	-
					3/14/2008	15.73	105.51	-	-	-
					6/23/2008	NM	NM	-	-	-
					9/22/2008	15.51	105.73	-	-	-
					12/4/2008	16.00	105.24	-	-	-
					3/25/2009	11.54	109.70	-	-	-
					6/29/2009	15.99	105.25	-	-	-
					9/4/2009	17.03	104.21	-	-	-
					12/29/2009	15.62	105.62	-	-	-
					3/9/2010	15.17	106.07	-	-	-
					6/11/2010	18.13	103.11	-	-	-
					9/1/2010	20.61	100.63	-	-	-
					12/7/2010	16.72	104.52	-	-	-
					3/8/2011	13.42	107.82	-	-	-
					9/13/2011	15.63	105.61	-	-	-

**Notes:**  
All measurements are in feet  
MW-1 through MW-8 were installed in January/February 2008  
RMW wells were installed prior to 2007/2008 site redevelopment  
LNAPL = Light Non-Aqueous Phase Liquid  
NM = Not measured  
\* = Off-Site Well on Tenergy Property  
PVC = Polyvinyl Chloride  
Corrected Depth to Water calculated:  
CDTW = DTW - APT(specific gravity)  
- APT = Apparent LNAPL thickness  
- Specific gravity estimated to be 0.85







TABLE 2  
Groundwater Analytical Results

Former Torrington Company  
Fafnir Bearing Plant  
263 Myrtle Street  
(formerly 37 Booth Street)  
New Britain, CT

Sample ID	Sample Date	Metals				VOCs																				Other
		Arsenic	Dissolved Arsenic (10 micron filter/0.45 micron filter)	Lead	Cadmium	1,1,1-Trichloroethane	1,1,2-Trichlorotrifluoroethane (freon 113)	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane	Benzene	Chloroethane	Chloroform	cis-1,2-Dichloroethylene	Dichlorodifluoromethane (Freon 12)	Isopropylbenzene	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butylbenzene	tert-Butylbenzene	Tetrachloroethylene	Trichloroethylene	Trichlorofluoromethane (Freon 11)	Vinyl chloride	ETPH
Units		mg/l	mg/l	mg/l	mg/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	mg/l
SWPC		0.004	0.004	0.013	0.006	62000	NE	NE	96	96	710	NE	14100	NE	NE	NE	NE	NE	NE	NE	NE	88	2340	NE	15750	NE
ASWPC		0.014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003 Proposed I/C VC		NE	NE	NE	NE	16000	NE	41000	920	68	310	29000	62	11000	NE	6800	NE	21000	NE	20000	NE	810	67	4200	52	NE
2003 Proposed Res VC		NE	NE	NE	NE	6500	NE	3000	190	6.5	130	12000	26	830	93	2800	NE	1500	NE	1500	NE	340	27	1300	1.6	NE
RMW-15	3/14/2008	ND<0.0040	NA	ND<0.0075	NA	15.5	1.6	3.3	ND<1	ND<1	ND<1	ND<2	1.5	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	1.4	ND<1	ND<0.1
	6/23/2008	ND<0.0040	NA	ND<0.0075	NA	11	ND<1	4.2	ND<1	ND<1	ND<1	ND<2	2.6	1.4	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<0.1
	9/22/2008	ND<0.0040	NA	ND<0.0075	NA	8.8	ND<1	3	ND<1	ND<1	ND<1	ND<2	4	2	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<0.1
	12/4/2008	ND<0.0040	NA	ND<0.0075	NA	5.8	ND<1	5.6	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<0.1
	3/25/2009	ND<0.0010	NA	ND<0.0025	NA	10	0.7	4.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2	1.9	ND<0.5	ND<1	ND<5	ND<1	ND<0.5	ND<0.5	ND<0.5	0.8	ND<0.5	ND<0.5	ND<0.5	0.127
	6/30/2009	ND<0.0020	NA	ND<0.0050	NA	11	ND<0.5	6.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2	ND<0.5	ND<0.5	ND<7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	0.22
	9/4/2009	ND<0.0020	NA	ND<0.0050	NA	14	ND<0.5	4.9	0.7	ND<0.5	ND<0.5	2.3	ND<0.5	2.8	ND<0.5	ND<0.5	ND<3	ND<1	ND<1	ND<1	ND<1	1.2	ND<1	ND<2	ND<2	ND<0.075
	12/29/2009	ND<0.0020	NA	ND<0.0050	NA	7.2	ND<0.5	3.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.89	1.4	ND<0.5	ND<0.5	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	0.17
	3/10/2010	ND<0.0020	NA	ND<0.0050	NA	13	ND<0.5	8	0.61	ND<0.5	ND<0.5	ND<0.5	1.2	2.4	ND<0.5	ND<0.5	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	ND<0.075
	6/11/2010	ND<0.0020	NA	ND<0.0050	NA	14	0.61	4.7	0.64	ND<0.5	ND<0.5	ND<0.5	2.3	2.5	ND<0.5	ND<0.5	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<2	ND<2	0.076
	9/1/2010	ND<0.0020	NA	NA	NA	14	0.58	3.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5	3.5	ND<0.5	ND<0.5	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<2	ND<1	0.086
	12/7/2010	NA	NA	NA	NA	8.4	ND<0.5	5.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.4	1.8	ND<0.5	ND<0.5	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<2	ND<1	0.15
3/8/2011	NA	NA	NA	NA	5.2	ND<0.5	2.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.71	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<2	ND<1	0.34	

Notes:

Shaded and **bold** cells indicate an exceedance of the 2003 proposed I/C VC and/or the ASWPC (where applicable)

**Bold** cells indicate an exceedance of the current 2003 proposed Res VC and/or the SWPC

RSR compliance was achieved at RMW-15, and sampling was discontinued after the 03/2011 event.

SWPC = Surface Water Protection Criteria

ASWPC = Alternative Surface Water Protection Criteria

I/C VC = Industrial/Commercial Volatilization Criteria

ug/l = micrograms per liter

mg/l = milligrams per liter

VOCs = volatile organic compounds

ETPH = extractable total petroleum hydrocarbons

NA = not analyzed

NE = criteria not established

ND<# = not detected above given laboratory detection limit

NS = not sampled

\* Due to the high concentration of vinyl chloride during the June 2008 sampling event, monitoring well MW-4A was resampled for VOCs only on 7/18/2008

Trans-1,2-Dichloroethylene was detected in MW-4a at a concentration of 0.6 ug/l during the March 2009 sampling event

1,4-Dichlorobenzene was detected in MW-4A at a concentration of 30 ug/l during the June 2009 sampling event.

1,2,4-Trimethylbenze was detected in MW-2B at a concentration of 0.73 ug/l during the September 2009 sampling event.

Bromodichloromethane was detected in MW-4B at a concentration of 18 ug/l during the September 2009 sampling event.

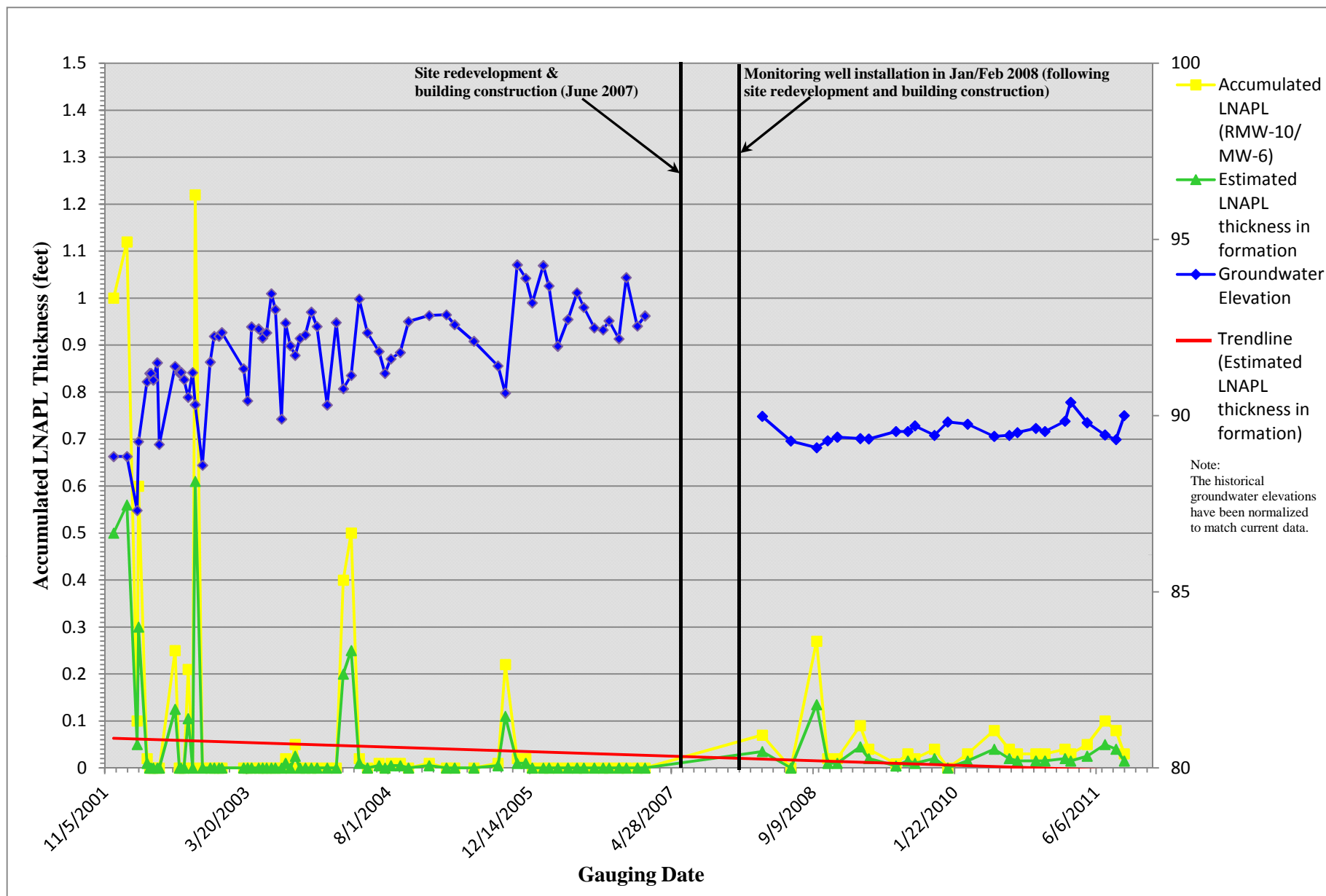
Acetone was detected in MW-7Dup at a concentration of 5.2 ug/l during the March 2011 sampling event.

## GRAPHS



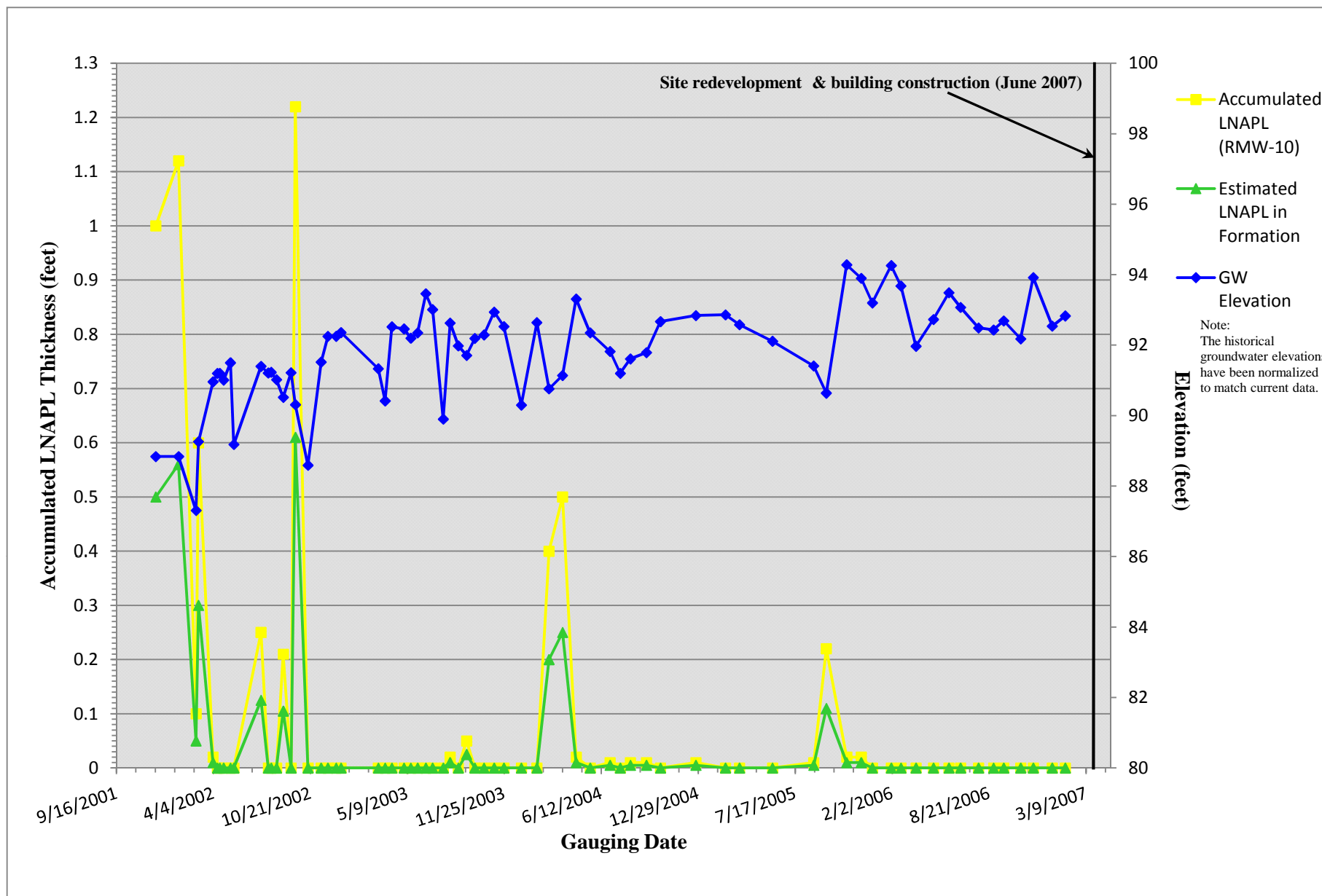
**GRAPH 1**  
**LNAPL ACCUMULATION (RMW-10/MW-6)**

Former Fafnir Bearing Company  
 263 Myrtle Street (formerly 37 Booth Street)  
 New Britain, Connecticut



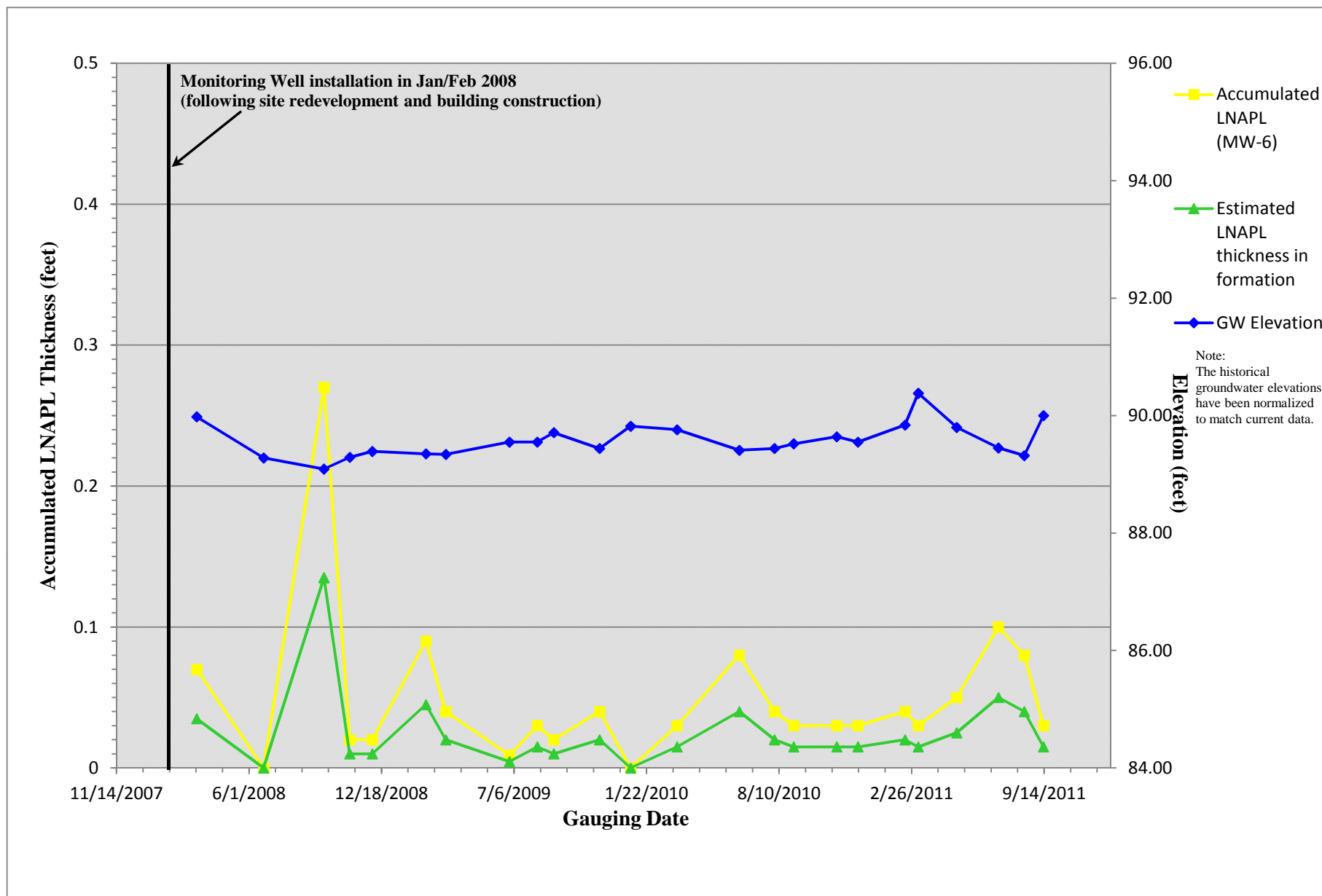
**GRAPH 2**  
**HISTORICAL LNAPL ACCUMULATION VS GROUNDWATER ELEVATION (RMW-10)**

Former Fafnir Bearing Company  
 263 Myrtle Street (formerly 37 Booth Street)  
 New Britain, Connecticut



**GRAPH 3**  
**CURRENT LNAPL ACCUMULATION VS GROUNDWATER ELEVATION (MW-6)**

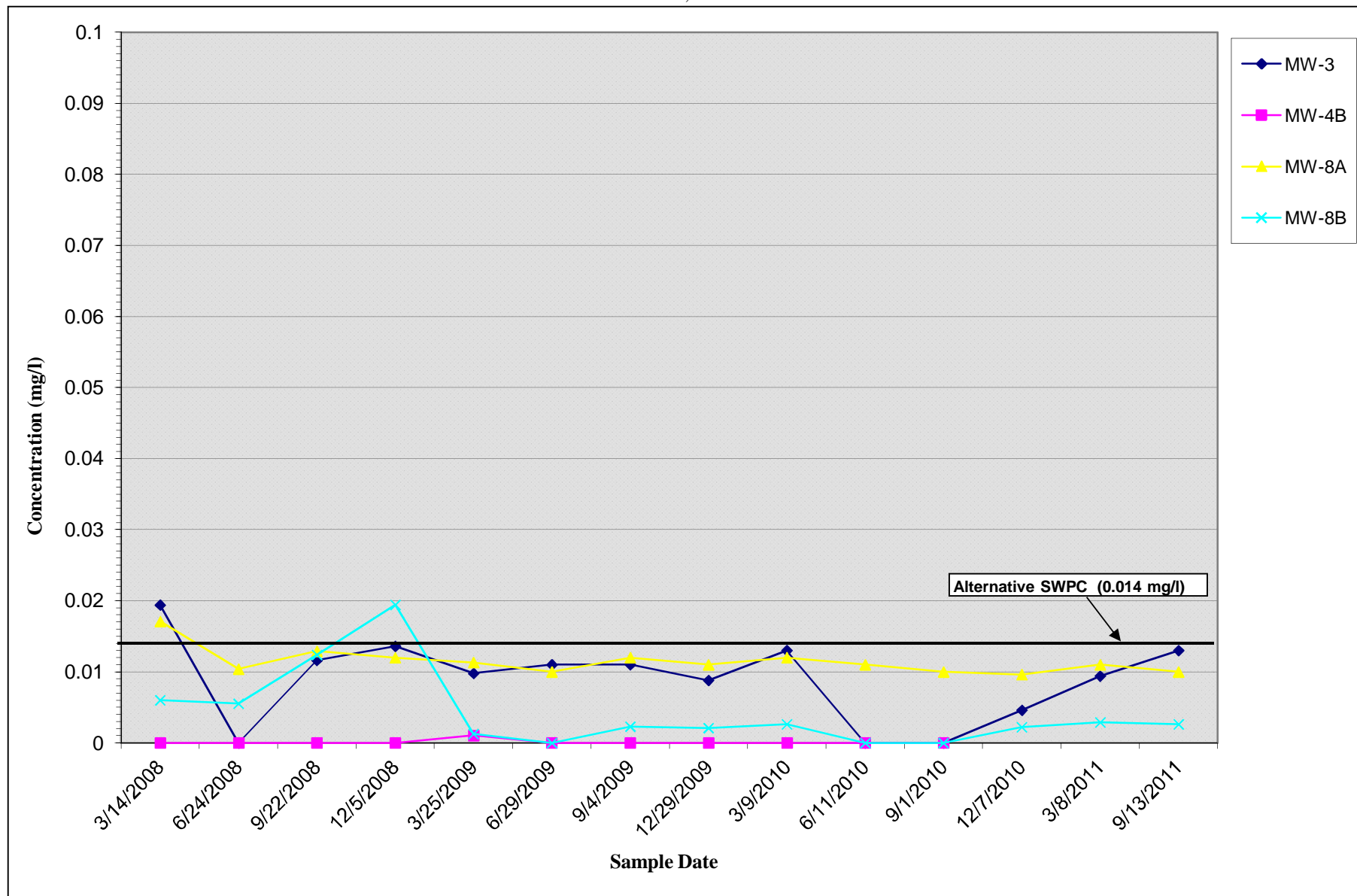
Former Fafnir Bearing Company  
 263 Myrtle Street (formerly 37 Booth Street)  
 New Britain, Connecticut





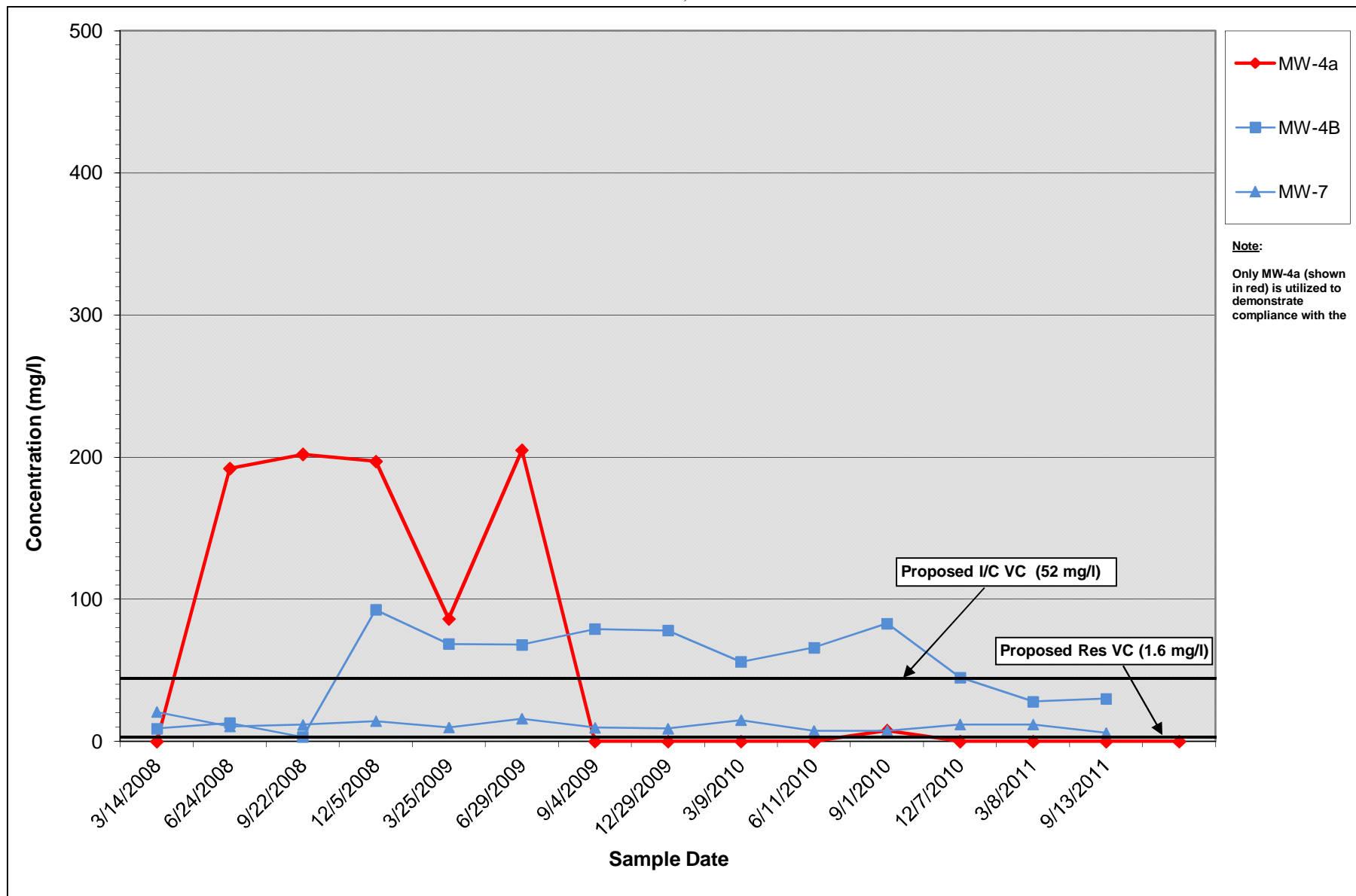
**GRAPH 5**  
**ARSENIC CONCENTRATION TRENDS**

Former Fafnir Bearing Company  
263 Myrtle Street (formerly 37 Booth Street)  
New Britain, Connecticut



# **GRAPH 6** **VINYL CHLORIDE CONCENTRATION TRENDS**

Former Fafnir Bearing Company  
263 Myrtle Street (formerly 37 Booth Street)  
New Britain, Connecticut



**APPENDIX A**  
**ARSENIC ASWPC CALCULATIONS**

# CALCULATED ALTERNATE SURFACE WATER PROTECTION CRITERIA

Former Torrington Company  
263 Myrtle Street  
(Formerly 37 Booth Street)  
New Britain, Connecticut

The RSR allows for the calculation of site-specific, self-implementing ASWPC values. Section 22a-133k-3(b)(3)(A) of the RSR provides the equation for calculating ASWPC as follows:

$$ASWPC = WQC((0.25 \times 7Q10) / Q_{plume})$$

Where:

WQC = the lower of the human health or aquatic life criterion specific to the compound (Water Quality Standard, effective December 2002)

Q<sub>plume</sub> = the average daily discharge of polluted groundwater from the subject groundwater plume.

7Q10 = seven day/ten year low flow discharge value for the receiving surface water body.

## CALCULATE PLUME DISCHARGES TO PIPER BROOK (Q<sub>plume</sub>)

Q<sub>plume</sub> in CFD = width (FT) \* thickness (FT) \* K (FT/DAY) \* gradient (FT/FT)

## CALCULATE PLUME-SPECIFIC DILUTION FACTORS (DF)

$$DF = 0.25(7Q10_{EFF}) / (Q_{plume})$$

Plume	width (ft)	thickness (ft)	K (ft/day)	gradient (ft/ft)	Q <sub>plume</sub>	7Q10 (CFD)	Q <sub>plume</sub>	DF
Arsenic	450	20	0.028	0.0608	15.3216	77414.4	15.3216	1,263

Plume	LOWEST CRITERIA <sup>1</sup>	ASWPC (ug/L)	ASWPC (mg/L)
Arsenic	0.011	13.8947368	0.014

## Notes:

<sup>1</sup>Lowest Criteria for Human Health Criteria (Water & Organisms)

ASWPC = Alternative Surface Water Protection Criteria

ug/l = micrograms per liter

mg/l = milligrams per liter



**APPENDIX B**

**LABORATORY ANALYTICAL REPORTS**

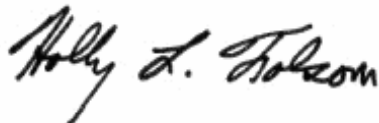
September 22, 2011

Stefanie Kreipovich  
HRP Associates, Inc. (Private)  
197 Scott Swamp Road  
Farmington, CT 06032

Project Location: IR New Britain  
Client Job Number:  
Project Number: ING0077.GW T-2  
Laboratory Work Order Number: 11I0426

Enclosed are results of analyses for samples received by the laboratory on September 14, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Holly L. Folsom". The signature is written in a cursive, flowing style.

Holly L. Folsom  
Project Manager

HRP Associates, Inc. (Private)  
197 Scott Swamp Road  
Farmington, CT 06032  
ATTN: Stefanie Kreipovich

REPORT DATE: 9/22/2011

PURCHASE ORDER NUMBER: S-CT-01131

PROJECT NUMBER: ING0077.GW T-2

# ANALYTICAL SUMMARY

WORK ORDER NUMBER: 1110426

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: IR New Britain

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-1	1110426-01	Ground Water	Monitor Well	CTDEP ETPH SW-846 6020A SW-846 8260C	
MW-2a	1110426-02	Ground Water		CTDEP ETPH SW-846 8260C	
MW-2b	1110426-03	Ground Water		CTDEP ETPH SW-846 8260C	
MW-3	1110426-04	Ground Water		CTDEP ETPH SW-846 6020A SW-846 8260C	
MW-4a	1110426-05	Ground Water		CTDEP ETPH SW-846 8260C	
MW-4b	1110426-06	Ground Water		CTDEP ETPH SW-846 8260C	
MW-5	1110426-07	Ground Water		CTDEP ETPH SW-846 8260C	
MW-7	1110426-08	Ground Water		CTDEP ETPH SW-846 8260C	
MW-8a	1110426-09	Ground Water		CTDEP ETPH SW-846 6020A SW-846 8260C	
MW-8b	1110426-10	Ground Water		CTDEP ETPH SW-846 6020A SW-846 8260C	
MW-3 Dup	1110426-12	Ground Water		CTDEP ETPH SW-846 6020A SW-846 8260C	
TB-1	1110426-13	Trip Blank Water		SW-846 8260C	

## CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 6020, only arsenic was requested and reported.

### SW-846 8260C

#### Qualifications:

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

#### Analyte & Samples(s) Qualified:

##### Hexachlorobutadiene

11I0426-01[MW-1], 11I0426-02[MW-2a], 11I0426-03[MW-2b], 11I0426-04[MW-3], 11I0426-05[MW-4a], 11I0426-06[MW-4b], 11I0426-07[MW-5], 11I0426-08[MW-7], 11I0426-09[MW-8a], 11I0426-10[MW-8b], 11I0426-12[MW-3 Dup], 11I0426-13[TB-1], B037323-BLK1, B037323-BS1

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

#### Analyte & Samples(s) Qualified:

##### trans-1,3-Dichloropropene


B037323-BS1

### SW-846 8260C

All water reporting limits specified on the chain-of-custody were met except for Acrylonitrile, where the most protective criteria are not met since the laboratory cannot achieve the required RCP calibration criteria at these levels, unless otherwise listed in this narrative.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Michael A. Erickson  
Laboratory Director

Project Location: IR New Britain

Sample Description: Monitor Well

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-1

Sampled: 9/13/2011 09:58

Sample ID: 1110426-01

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Acrylonitrile	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Benzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Bromobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Bromoform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
2-Butanone (MEK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
n-Butylbenzene	5.2	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
sec-Butylbenzene	6.6	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
tert-Butylbenzene	1.5	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Carbon Tetrachloride	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Chlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Chloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Chloroform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Chloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
2-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
4-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Dibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,2-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,3-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,4-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Dichlorodifluoromethane (Freon 12)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,1-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,2-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,1-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
cis-1,2-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,2-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Ethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Hexachlorobutadiene	ND	0.50	µg/L	1	V-05	SW-846 8260C	9/15/11	9/15/11 16:24	TJR
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Isopropylbenzene (Cumene)	8.6	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR

Project Location: IR New Britain

Sample Description: Monitor Well

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-1

Sampled: 9/13/2011 09:58

Sample ID: 1110426-01

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
p-Isopropyltoluene (p-Cymene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Methyl tert-Butyl Ether (MTBE)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
4-Methyl-2-pentanone (MIBK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Naphthalene	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
n-Propylbenzene	15	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Styrene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Toluene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,1,2-Trichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,2,3-Trichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Vinyl Chloride	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:24	TJR
Surrogates	% Recovery	Recovery Limits	Flag						
1,2-Dichloroethane-d4	91.0	70-130							
Toluene-d8	101	70-130							
4-Bromofluorobenzene	96.3	70-130							

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: IR New Britain

Sample Description: Monitor Well

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-1

Sampled: 9/13/2011 09:58

Sample ID: 1110426-01

Sample Matrix: Ground Water

#### Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
CT ETPH	1.0	0.075	mg/L	1		CTDEP ETPH	9/19/11	9/20/11 20:38	CJM
Surrogates	% Recovery		Recovery Limits		Flag				
o-Terphenyl	72.2		50-150			9/20/11 20:38			

Project Location: IR New Britain

Sample Description: Monitor Well

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-1

Sampled: 9/13/2011 09:58

Sample ID: 1110426-01

Sample Matrix: Ground Water

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**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	2.0	µg/L	5		SW-846 6020A	9/20/11	9/20/11 15:59	KSH



Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-2a

Sampled: 9/13/2011 11:00

Sample ID: 1110426-02

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Acrylonitrile	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Benzene	0.53	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Bromobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Bromoform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
2-Butanone (MEK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
n-Butylbenzene	7.6	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
sec-Butylbenzene	8.6	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
tert-Butylbenzene	2.6	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Carbon Tetrachloride	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Chlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Chloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Chloroform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Chloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
2-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
4-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Dibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,2-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,3-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,4-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Dichlorodifluoromethane (Freon 12)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,1-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,2-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,1-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
cis-1,2-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,2-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Ethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Hexachlorobutadiene	ND	0.50	µg/L	1	V-05	SW-846 8260C	9/15/11	9/15/11 16:54	TJR
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Isopropylbenzene (Cumene)	18	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-2a

Sampled: 9/13/2011 11:00

Sample ID: 1110426-02

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
p-Isopropyltoluene (p-Cymene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Methyl tert-Butyl Ether (MTBE)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
4-Methyl-2-pentanone (MIBK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Naphthalene	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
n-Propylbenzene	26	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Styrene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Toluene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,1,2-Trichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,2,3-Trichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Vinyl Chloride	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 16:54	TJR
Surrogates	% Recovery	Recovery Limits	Flag						
1,2-Dichloroethane-d4	90.4	70-130							
Toluene-d8	97.2	70-130							
4-Bromofluorobenzene	103	70-130							

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Sampled: 9/13/2011 11:00

Field Sample #: MW-2a

Sample ID: 1110426-02

Sample Matrix: Ground Water

### Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
CT ETPH	1.1	0.075	mg/L	1		CTDEP ETPH	9/19/11	9/20/11 20:56	CJM
Surrogates	% Recovery		Recovery Limits		Flag				
o-Terphenyl	66.5		50-150			9/20/11 20:56			

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-2b

Sampled: 9/13/2011 12:01

Sample ID: 1110426-03

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Acrylonitrile	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Benzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Bromobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Bromoform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
2-Butanone (MEK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
n-Butylbenzene	11	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
sec-Butylbenzene	11	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
tert-Butylbenzene	3.5	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Carbon Tetrachloride	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Chlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Chloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Chloroform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Chloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
2-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
4-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Dibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,2-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,3-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,4-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Dichlorodifluoromethane (Freon 12)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,1-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,2-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,1-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
cis-1,2-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,2-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Ethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Hexachlorobutadiene	ND	0.50	µg/L	1	V-05	SW-846 8260C	9/15/11	9/15/11 17:24	TJR
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Isopropylbenzene (Cumene)	14	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-2b

Sampled: 9/13/2011 12:01

Sample ID: 1110426-03

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
p-Isopropyltoluene (p-Cymene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Methyl tert-Butyl Ether (MTBE)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
4-Methyl-2-pentanone (MIBK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Naphthalene	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
n-Propylbenzene	19	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Styrene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Toluene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,1,2-Trichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,2,3-Trichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Vinyl Chloride	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:24	TJR
Surrogates	% Recovery	Recovery Limits	Flag						
1,2-Dichloroethane-d4	92.2	70-130							
Toluene-d8	100	70-130							
4-Bromofluorobenzene	101	70-130							

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Sampled: 9/13/2011 12:01

Field Sample #: MW-2b

Sample ID: 1110426-03

Sample Matrix: Ground Water

### Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
CT ETPH	0.99	0.075	mg/L	1		CTDEP ETPH	9/19/11	9/20/11 21:13	CJM
Surrogates	% Recovery		Recovery Limits		Flag				
o-Terphenyl	67.0		50-150			9/20/11 21:13			

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-3

Sampled: 9/13/2011 12:38

Sample ID: 1110426-04

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Acrylonitrile	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Benzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Bromobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Bromoform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
2-Butanone (MEK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
tert-Butylbenzene	1.4	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Carbon Tetrachloride	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Chlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Chloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Chloroform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Chloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
2-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
4-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Dibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,2-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,3-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,4-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Dichlorodifluoromethane (Freon 12)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,1-Dichloroethane	1.2	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,2-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,1-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
cis-1,2-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,2-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Ethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Hexachlorobutadiene	ND	0.50	µg/L	1	V-05	SW-846 8260C	9/15/11	9/15/11 17:54	TJR
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Isopropylbenzene (Cumene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-3

Sampled: 9/13/2011 12:38

Sample ID: 1110426-04

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
p-Isopropyltoluene (p-Cymene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Methyl tert-Butyl Ether (MTBE)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
4-Methyl-2-pentanone (MIBK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Naphthalene	7.5	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Styrene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Toluene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,1,2-Trichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,2,3-Trichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Vinyl Chloride	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 17:54	TJR
Surrogates	% Recovery	Recovery Limits	Flag						
1,2-Dichloroethane-d4	92.3	70-130							
Toluene-d8	100	70-130							
4-Bromofluorobenzene	97.7	70-130							



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Sampled: 9/13/2011 12:38

Field Sample #: MW-3

Sample ID: 1110426-04

Sample Matrix: Ground Water

#### Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
CT ETPH	0.63	0.075	mg/L	1		CTDEP ETPH	9/19/11	9/20/11 21:31	CJM
Surrogates	% Recovery		Recovery Limits		Flag				
o-Terphenyl	66.6		50-150			9/20/11 21:31			

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Sampled: 9/13/2011 12:38

Field Sample #: MW-3

Sample ID: 1110426-04

Sample Matrix: Ground Water

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	13	2.0	µg/L	5		SW-846 6020A	9/20/11	9/20/11 16:02	KSH

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-4a

Sampled: 9/13/2011 09:33

Sample ID: 1110426-05

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Acrylonitrile	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Benzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Bromobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Bromoform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
2-Butanone (MEK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Carbon Tetrachloride	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Chlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Chloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Chloroform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Chloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
2-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
4-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Dibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,2-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,3-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,4-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Dichlorodifluoromethane (Freon 12)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,1-Dichloroethane	4.8	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,2-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,1-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
cis-1,2-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,2-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Ethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Hexachlorobutadiene	ND	0.50	µg/L	1	V-05	SW-846 8260C	9/15/11	9/15/11 18:25	TJR
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Isopropylbenzene (Cumene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-4a

Sampled: 9/13/2011 09:33

Sample ID: 1110426-05

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
p-Isopropyltoluene (p-Cymene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Methyl tert-Butyl Ether (MTBE)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
4-Methyl-2-pentanone (MIBK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Naphthalene	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Styrene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Toluene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,1,1-Trichloroethane	5.6	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,1,2-Trichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,2,3-Trichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Vinyl Chloride	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:25	TJR
Surrogates	% Recovery	Recovery Limits	Flag						
1,2-Dichloroethane-d4	91.4	70-130							
Toluene-d8	100	70-130							
4-Bromofluorobenzene	96.6	70-130							

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Sampled: 9/13/2011 09:33

Field Sample #: MW-4a

Sample ID: 1110426-05

Sample Matrix: Ground Water

# Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
CT ETPH	0.42	0.075	mg/L	1		CTDEP ETPH	9/19/11	9/20/11 21:49	CJM
Surrogates	% Recovery		Recovery Limits		Flag				
o-Terphenyl	66.6		50-150			9/20/11 21:49			

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-4b

Sampled: 9/13/2011 10:36

Sample ID: 1110426-06

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Acrylonitrile	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Benzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Bromobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Bromoform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
2-Butanone (MEK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Carbon Tetrachloride	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Chlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Chloroethane	6.8	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Chloroform	1.1	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Chloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
2-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
4-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Dibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,2-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,3-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,4-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Dichlorodifluoromethane (Freon 12)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,1-Dichloroethane	100	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,2-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,1-Dichloroethylene	7.8	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
cis-1,2-Dichloroethylene	12	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,2-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Ethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Hexachlorobutadiene	ND	0.50	µg/L	1	V-05	SW-846 8260C	9/15/11	9/15/11 18:55	TJR
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Isopropylbenzene (Cumene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-4b

Sampled: 9/13/2011 10:36

Sample ID: 1110426-06

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
p-Isopropyltoluene (p-Cymene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Methyl tert-Butyl Ether (MTBE)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
4-Methyl-2-pentanone (MIBK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Naphthalene	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Styrene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Tetrachloroethylene	6.3	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Toluene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,1,1-Trichloroethane	96	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,1,2-Trichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Trichloroethylene	2.0	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,2,3-Trichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.4	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
Vinyl Chloride	30	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 18:55	TJR

Surrogates	% Recovery	Recovery Limits	Flag
1,2-Dichloroethane-d4	92.7	70-130	
Toluene-d8	98.2	70-130	
4-Bromofluorobenzene	94.7	70-130	

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Sampled: 9/13/2011 10:36

Field Sample #: MW-4b

Sample ID: 1110426-06

Sample Matrix: Ground Water

### Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
CT ETPH	0.18	0.075	mg/L	1		CTDEP ETPH	9/19/11	9/20/11 22:07	CJM
Surrogates	% Recovery		Recovery Limits		Flag				
o-Terphenyl	65.6		50-150			9/20/11 22:07			



Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-5

Sampled: 9/13/2011 13:47

Sample ID: 1110426-07

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Acrylonitrile	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Benzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Bromobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Bromoform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
2-Butanone (MEK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Carbon Tetrachloride	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Chlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Chloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Chloroform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Chloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
2-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
4-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Dibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,2-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,3-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,4-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Dichlorodifluoromethane (Freon 12)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,1-Dichloroethane	12	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,2-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,1-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
cis-1,2-Dichloroethylene	2.0	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,2-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Ethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Hexachlorobutadiene	ND	0.50	µg/L	1	V-05	SW-846 8260C	9/15/11	9/15/11 19:25	TJR
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Isopropylbenzene (Cumene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-5

Sampled: 9/13/2011 13:47

Sample ID: 1110426-07

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
p-Isopropyltoluene (p-Cymene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Methyl tert-Butyl Ether (MTBE)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
4-Methyl-2-pentanone (MIBK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Naphthalene	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Styrene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Toluene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,1,2-Trichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,2,3-Trichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
Vinyl Chloride	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:25	TJR

Surrogates	% Recovery	Recovery Limits	Flag
1,2-Dichloroethane-d4	90.6	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	95.8	70-130	

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-5

Sampled: 9/13/2011 13:47

Sample ID: 1110426-07

Sample Matrix: Ground Water

### Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
CT ETPH	0.46	0.075	mg/L	1		CTDEP ETPH	9/19/11	9/20/11 22:25	CJM
Surrogates	% Recovery		Recovery Limits		Flag				
o-Terphenyl	66.4		50-150			9/20/11 22:25			

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-7

Sampled: 9/13/2011 12:59

Sample ID: 1110426-08

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Acrylonitrile	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Benzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Bromobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Bromoform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
2-Butanone (MEK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Carbon Tetrachloride	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Chlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Chloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Chloroform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Chloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
2-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
4-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Dibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,2-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,3-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,4-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Dichlorodifluoromethane (Freon 12)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,1-Dichloroethane	29	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,2-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,1-Dichloroethylene	1.2	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
cis-1,2-Dichloroethylene	3.7	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,2-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Ethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Hexachlorobutadiene	ND	0.50	µg/L	1	V-05	SW-846 8260C	9/15/11	9/15/11 19:56	TJR
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Isopropylbenzene (Cumene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-7

Sampled: 9/13/2011 12:59

Sample ID: 1110426-08

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
p-Isopropyltoluene (p-Cymene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Methyl tert-Butyl Ether (MTBE)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
4-Methyl-2-pentanone (MIBK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Naphthalene	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Styrene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Tetrachloroethylene	12	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Toluene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,1,1-Trichloroethane	41	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,1,2-Trichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Trichloroethylene	5.1	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,2,3-Trichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	2.8	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
Vinyl Chloride	6.0	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 19:56	TJR

Surrogates	% Recovery	Recovery Limits	Flag
1,2-Dichloroethane-d4	94.0	70-130	9/15/11 19:56
Toluene-d8	99.5	70-130	9/15/11 19:56
4-Bromofluorobenzene	96.1	70-130	9/15/11 19:56

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-7

Sampled: 9/13/2011 12:59

Sample ID: 1110426-08

Sample Matrix: Ground Water

#### Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
CT ETPH	0.51	0.075	mg/L	1		CTDEP ETPH	9/19/11	9/20/11 22:43	CJM
Surrogates	% Recovery		Recovery Limits		Flag				
o-Terphenyl	65.6		50-150			9/20/11 22:43			

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-8a

Sampled: 9/13/2011 11:20

Sample ID: 1110426-09

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Acrylonitrile	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Benzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Bromobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Bromoform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
2-Butanone (MEK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Carbon Tetrachloride	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Chlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Chloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Chloroform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Chloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
2-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
4-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Dibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,2-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,3-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,4-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Dichlorodifluoromethane (Freon 12)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,1-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,2-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,1-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
cis-1,2-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,2-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Ethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Hexachlorobutadiene	ND	0.50	µg/L	1	V-05	SW-846 8260C	9/15/11	9/15/11 20:26	TJR
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Isopropylbenzene (Cumene)	0.58	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-8a

Sampled: 9/13/2011 11:20

Sample ID: 1110426-09

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
p-Isopropyltoluene (p-Cymene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Methyl tert-Butyl Ether (MTBE)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
4-Methyl-2-pentanone (MIBK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Naphthalene	7.9	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Styrene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Toluene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,1,2-Trichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,2,3-Trichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
Vinyl Chloride	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:26	TJR

Surrogates	% Recovery	Recovery Limits	Flag
1,2-Dichloroethane-d4	90.8	70-130	
Toluene-d8	98.5	70-130	
4-Bromofluorobenzene	95.6	70-130	



Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Sampled: 9/13/2011 11:20

Field Sample #: MW-8a

Sample ID: 1110426-09

Sample Matrix: Ground Water

# **Petroleum Hydrocarbons Analyses**

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
CT ETPH	0.49	0.075	mg/L	1		CTDEP ETPH	9/19/11	9/20/11 23:01	CJM
Surrogates	% Recovery		Recovery Limits		Flag				
o-Terphenyl	66.4		50-150			9/20/11 23:01			

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Sampled: 9/13/2011 11:20

Field Sample #: MW-8a

Sample ID: 1110426-09

Sample Matrix: Ground Water

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**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	10	2.0	µg/L	5		SW-846 6020A	9/20/11	9/20/11 16:06	KSH

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-8b

Sampled: 9/13/2011 11:54

Sample ID: 1110426-10

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Acrylonitrile	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Benzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Bromobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Bromoform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
2-Butanone (MEK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Carbon Tetrachloride	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Chlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Chloroethane	3.7	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Chloroform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Chloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
2-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
4-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Dibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,2-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,3-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,4-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Dichlorodifluoromethane (Freon 12)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,1-Dichloroethane	1.5	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,2-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,1-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
cis-1,2-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,2-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Ethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Hexachlorobutadiene	ND	0.50	µg/L	1	V-05	SW-846 8260C	9/15/11	9/15/11 20:57	TJR
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Isopropylbenzene (Cumene)	1.4	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-8b

Sampled: 9/13/2011 11:54

Sample ID: 1110426-10

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
p-Isopropyltoluene (p-Cymene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Methyl tert-Butyl Ether (MTBE)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
4-Methyl-2-pentanone (MIBK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Naphthalene	7.8	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Styrene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Toluene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,1,2-Trichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,2,3-Trichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Vinyl Chloride	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 20:57	TJR
Surrogates	% Recovery	Recovery Limits	Flag						
1,2-Dichloroethane-d4	92.4	70-130							
Toluene-d8	100	70-130							
4-Bromofluorobenzene	100	70-130							

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-8b

Sampled: 9/13/2011 11:54

Sample ID: 1110426-10

Sample Matrix: Ground Water

### Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
CT ETPH	0.53	0.075	mg/L	1		CTDEP ETPH	9/19/11	9/20/11 23:19	CJM
Surrogates	% Recovery		Recovery Limits		Flag				
o-Terphenyl	66.1		50-150			9/20/11 23:19			

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Sampled: 9/13/2011 11:54

Field Sample #: MW-8b

Sample ID: 1110426-10

Sample Matrix: Ground Water

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**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	2.6	2.0	µg/L	5		SW-846 6020A	9/19/11	9/19/11 17:33	KSH

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-3 Dup

Sampled: 9/13/2011 12:48

Sample ID: 1110426-12

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Acrylonitrile	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Benzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Bromobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Bromoform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
2-Butanone (MEK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
tert-Butylbenzene	1.5	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Carbon Tetrachloride	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Chlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Chloroethane	2.0	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Chloroform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Chloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
2-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
4-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Dibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,2-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,3-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,4-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Dichlorodifluoromethane (Freon 12)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,1-Dichloroethane	1.2	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,2-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,1-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
cis-1,2-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,2-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Ethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Hexachlorobutadiene	ND	0.50	µg/L	1	V-05	SW-846 8260C	9/15/11	9/15/11 21:57	TJR
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Isopropylbenzene (Cumene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-3 Dup

Sampled: 9/13/2011 12:48

Sample ID: 1110426-12

Sample Matrix: Ground Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
p-Isopropyltoluene (p-Cymene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Methyl tert-Butyl Ether (MTBE)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
4-Methyl-2-pentanone (MIBK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Naphthalene	7.4	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Styrene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Toluene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,1,2-Trichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,2,3-Trichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Vinyl Chloride	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 21:57	TJR
Surrogates	% Recovery	Recovery Limits	Flag						
1,2-Dichloroethane-d4	91.8	70-130							
Toluene-d8	101	70-130							
4-Bromofluorobenzene	96.9	70-130							



Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-3 Dup

Sampled: 9/13/2011 12:48

Sample ID: 1110426-12

Sample Matrix: Ground Water

# Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
CT ETPH	0.58	0.075	mg/L	1		CTDEP ETPH	9/19/11	9/20/11 23:54	CJM
Surrogates	% Recovery		Recovery Limits		Flag				
o-Terphenyl	61.4		50-150			9/20/11 23:54			

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Field Sample #: MW-3 Dup

Sampled: 9/13/2011 12:48

Sample ID: 1110426-12

Sample Matrix: Ground Water

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**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	12	2.0	µg/L	5		SW-846 6020A	9/19/11	9/19/11 17:36	KSH

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Sampled: 9/13/2011 07:00

Field Sample #: TB-1

Sample ID: 1110426-13

Sample Matrix: Trip Blank Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Acrylonitrile	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Benzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Bromobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Bromoform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
2-Butanone (MEK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Carbon Tetrachloride	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Chlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Chloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Chloroform	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Chloromethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
2-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
4-Chlorotoluene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Dibromomethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,2-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,3-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,4-Dichlorobenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Dichlorodifluoromethane (Freon 12)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,1-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,2-Dichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,1-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
cis-1,2-Dichloroethylene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,2-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Ethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Hexachlorobutadiene	ND	0.50	µg/L	1	V-05	SW-846 8260C	9/15/11	9/15/11 13:53	TJR
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Isopropylbenzene (Cumene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR

Project Location: IR New Britain

Sample Description:

Work Order: 1110426

Date Received: 9/14/2011

Sampled: 9/13/2011 07:00

Field Sample #: TB-1

Sample ID: 1110426-13

Sample Matrix: Trip Blank Water

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
p-Isopropyltoluene (p-Cymene)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Methyl tert-Butyl Ether (MTBE)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
4-Methyl-2-pentanone (MIBK)	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Naphthalene	ND	5.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Styrene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Toluene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,1,2-Trichloroethane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,2,3-Trichloropropane	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
Vinyl Chloride	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	9/15/11	9/15/11 13:53	TJR

Surrogates	% Recovery	Recovery Limits	Flag
1,2-Dichloroethane-d4	90.0	70-130	
Toluene-d8	99.4	70-130	
4-Bromofluorobenzene	95.7	70-130	

**Sample Extraction Data****Prep Method: SW-846 3510C-CTDEP ETPH**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
11I0426-01 [MW-1]	B037450	1000	1.00	09/19/11
11I0426-02 [MW-2a]	B037450	1000	1.00	09/19/11
11I0426-03 [MW-2b]	B037450	1000	1.00	09/19/11
11I0426-04 [MW-3]	B037450	1000	1.00	09/19/11
11I0426-05 [MW-4a]	B037450	1000	1.00	09/19/11
11I0426-06 [MW-4b]	B037450	1000	1.00	09/19/11
11I0426-07 [MW-5]	B037450	1000	1.00	09/19/11
11I0426-08 [MW-7]	B037450	1000	1.00	09/19/11
11I0426-09 [MW-8a]	B037450	1000	1.00	09/19/11
11I0426-10 [MW-8b]	B037450	1000	1.00	09/19/11
11I0426-12 [MW-3 Dup]	B037450	1000	1.00	09/19/11

**Prep Method: SW-846 3005A-SW-846 6020A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
11I0426-10 [MW-8b]	B037469	50.0	50.0	09/19/11
11I0426-12 [MW-3 Dup]	B037469	50.0	50.0	09/19/11

**Prep Method: SW-846 3005A-SW-846 6020A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
11I0426-01 [MW-1]	B037562	50.0	50.0	09/20/11
11I0426-04 [MW-3]	B037562	50.0	50.0	09/20/11
11I0426-09 [MW-8a]	B037562	50.0	50.0	09/20/11

**Prep Method: SW-846 5030B-SW-846 8260C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
11I0426-01 [MW-1]	B037323	5	5.00	09/15/11
11I0426-02 [MW-2a]	B037323	5	5.00	09/15/11
11I0426-03 [MW-2b]	B037323	5	5.00	09/15/11
11I0426-04 [MW-3]	B037323	5	5.00	09/15/11
11I0426-05 [MW-4a]	B037323	5	5.00	09/15/11
11I0426-06 [MW-4b]	B037323	5	5.00	09/15/11
11I0426-07 [MW-5]	B037323	5	5.00	09/15/11
11I0426-08 [MW-7]	B037323	5	5.00	09/15/11
11I0426-09 [MW-8a]	B037323	5	5.00	09/15/11
11I0426-10 [MW-8b]	B037323	5	5.00	09/15/11
11I0426-12 [MW-3 Dup]	B037323	5	5.00	09/15/11
11I0426-13 [TB-1]	B037323	5	5.00	09/15/11

**QUALITY CONTROL**
**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B037323 - SW-846 5030B**
**Blank (B037323-BLK1)**

Prepared &amp; Analyzed: 09/15/11

Acetone	ND	5.0	µg/L
Acrylonitrile	ND	2.0	µg/L
Benzene	ND	0.50	µg/L
Bromobenzene	ND	0.50	µg/L
Bromodichloromethane	ND	0.50	µg/L
Bromoform	ND	0.50	µg/L
Bromomethane	ND	2.0	µg/L
2-Butanone (MEK)	ND	5.0	µg/L
n-Butylbenzene	ND	1.0	µg/L
sec-Butylbenzene	ND	1.0	µg/L
tert-Butylbenzene	ND	1.0	µg/L
Carbon Disulfide	ND	5.0	µg/L
Carbon Tetrachloride	ND	0.50	µg/L
Chlorobenzene	ND	0.50	µg/L
Chlorodibromomethane	ND	0.50	µg/L
Chloroethane	ND	0.50	µg/L
Chloroform	ND	0.50	µg/L
Chloromethane	ND	0.50	µg/L
2-Chlorotoluene	ND	0.50	µg/L
4-Chlorotoluene	ND	0.50	µg/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.0	µg/L
1,2-Dibromoethane (EDB)	ND	0.50	µg/L
Dibromomethane	ND	0.50	µg/L
1,2-Dichlorobenzene	ND	0.50	µg/L
1,3-Dichlorobenzene	ND	0.50	µg/L
1,4-Dichlorobenzene	ND	0.50	µg/L
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L
Dichlorodifluoromethane (Freon 12)	ND	0.50	µg/L
1,1-Dichloroethane	ND	0.50	µg/L
1,2-Dichloroethane	ND	0.50	µg/L
1,1-Dichloroethylene	ND	0.50	µg/L
cis-1,2-Dichloroethylene	ND	0.50	µg/L
trans-1,2-Dichloroethylene	ND	1.0	µg/L
1,2-Dichloropropane	ND	0.50	µg/L
1,3-Dichloropropane	ND	0.50	µg/L
2,2-Dichloropropane	ND	1.0	µg/L
1,1-Dichloropropene	ND	0.50	µg/L
cis-1,3-Dichloropropene	ND	0.50	µg/L
trans-1,3-Dichloropropene	ND	0.50	µg/L
Ethylbenzene	ND	0.50	µg/L
Hexachlorobutadiene	ND	0.50	µg/L
2-Hexanone (MBK)	ND	10	µg/L
Isopropylbenzene (Cumene)	ND	0.50	µg/L
p-Isopropyltoluene (p-Cymene)	ND	0.50	µg/L
Methyl tert-Butyl Ether (MTBE)	ND	0.50	µg/L
Methylene Chloride	ND	5.0	µg/L
4-Methyl-2-pentanone (MIBK)	ND	5.0	µg/L
Naphthalene	ND	5.0	µg/L
n-Propylbenzene	ND	1.0	µg/L
Styrene	ND	1.0	µg/L
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L

V-05

**QUALITY CONTROL**
**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B037323 - SW-846 5030B**
**Blank (B037323-BLK1)**

Prepared &amp; Analyzed: 09/15/11

Tetrachloroethylene	ND	1.0	µg/L							
Tetrahydrofuran	ND	10	µg/L							
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	2.0	µg/L							
1,2,4-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	0.50	µg/L							
Trichloroethylene	ND	1.0	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L							
1,2,3-Trichloropropane	ND	0.50	µg/L							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	µg/L							
1,2,4-Trimethylbenzene	ND	0.50	µg/L							
1,3,5-Trimethylbenzene	ND	0.50	µg/L							
Vinyl Chloride	ND	1.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	22.8		µg/L	25.0		91.3	70-130			
Surrogate: Toluene-d8	25.0		µg/L	25.0		99.8	70-130			
Surrogate: 4-Bromofluorobenzene	23.5		µg/L	25.0		93.9	70-130			

**LCS (B037323-BS1)**

Prepared &amp; Analyzed: 09/15/11

Acetone	85.8	5.0	µg/L	100		85.8	70-130			
Acrylonitrile	8.63	2.0	µg/L	10.0		86.3	70-130			
Benzene	9.02	0.50	µg/L	10.0		90.2	70-130			
Bromobenzene	8.33	0.50	µg/L	10.0		83.3	70-130			
Bromodichloromethane	9.54	0.50	µg/L	10.0		95.4	70-130			
Bromoform	9.28	0.50	µg/L	10.0		92.8	70-130			
Bromomethane	8.38	2.0	µg/L	10.0		83.8	70-130			
2-Butanone (MEK)	88.0	5.0	µg/L	100		88.0	70-130			
n-Butylbenzene	7.52	1.0	µg/L	10.0		75.2	70-130			
sec-Butylbenzene	8.71	1.0	µg/L	10.0		87.1	70-130			
tert-Butylbenzene	8.27	1.0	µg/L	10.0		82.7	70-130			
Carbon Disulfide	88.8	5.0	µg/L	100		88.8	70-130			
Carbon Tetrachloride	8.82	0.50	µg/L	10.0		88.2	70-130			
Chlorobenzene	8.37	0.50	µg/L	10.0		83.7	70-130			
Chlorodibromomethane	11.6	0.50	µg/L	10.0		116	70-130			
Chloroethane	7.97	0.50	µg/L	10.0		79.7	70-130			
Chloroform	8.70	0.50	µg/L	10.0		87.0	70-130			
Chloromethane	8.75	0.50	µg/L	10.0		87.5	70-130			
2-Chlorotoluene	8.50	0.50	µg/L	10.0		85.0	70-130			
4-Chlorotoluene	8.55	0.50	µg/L	10.0		85.5	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	9.31	1.0	µg/L	10.0		93.1	70-130			
1,2-Dibromoethane (EDB)	9.64	0.50	µg/L	10.0		96.4	70-130			
Dibromomethane	8.71	0.50	µg/L	10.0		87.1	70-130			
1,2-Dichlorobenzene	8.38	0.50	µg/L	10.0		83.8	70-130			
1,3-Dichlorobenzene	8.39	0.50	µg/L	10.0		83.9	70-130			
1,4-Dichlorobenzene	8.17	0.50	µg/L	10.0		81.7	70-130			
trans-1,4-Dichloro-2-butene	9.75	2.0	µg/L	10.0		97.5	70-130			
Dichlorodifluoromethane (Freon 12)	7.81	0.50	µg/L	10.0		78.1	70-130			
1,1-Dichloroethane	8.45	0.50	µg/L	10.0		84.5	70-130			
1,2-Dichloroethane	8.59	0.50	µg/L	10.0		85.9	70-130			
1,1-Dichloroethylene	8.15	0.50	µg/L	10.0		81.5	70-130			

**QUALITY CONTROL**
**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B037323 - SW-846 5030B</b>										
<b>LCS (B037323-BS1)</b>				Prepared & Analyzed: 09/15/11						
cis-1,2-Dichloroethylene	8.59	0.50	µg/L	10.0		85.9	70-130			
trans-1,2-Dichloroethylene	8.53	1.0	µg/L	10.0		85.3	70-130			
1,2-Dichloropropane	8.40	0.50	µg/L	10.0		84.0	70-130			
1,3-Dichloropropane	8.79	0.50	µg/L	10.0		87.9	70-130			
2,2-Dichloropropane	11.2	1.0	µg/L	10.0		112	70-130			
1,1-Dichloropropene	8.55	0.50	µg/L	10.0		85.5	70-130			
cis-1,3-Dichloropropene	11.2	0.50	µg/L	10.0		112	70-130			
trans-1,3-Dichloropropene	12.6	0.50	µg/L	10.0		126	70-130			V-20
Ethylbenzene	8.56	0.50	µg/L	10.0		85.6	70-130			
Hexachlorobutadiene	7.34	0.50	µg/L	10.0		73.4	70-130			V-05
2-Hexanone (MBK)	85.9	10	µg/L	100		85.9	70-130			
Isopropylbenzene (Cumene)	8.78	0.50	µg/L	10.0		87.8	70-130			
p-Isopropyltoluene (p-Cymene)	8.62	0.50	µg/L	10.0		86.2	70-130			
Methyl tert-Butyl Ether (MTBE)	9.32	0.50	µg/L	10.0		93.2	70-130			
Methylene Chloride	8.48	5.0	µg/L	10.0		84.8	70-130			
4-Methyl-2-pentanone (MIBK)	90.7	5.0	µg/L	100		90.7	70-130			
Naphthalene	9.62	5.0	µg/L	10.0		96.2	70-130			
n-Propylbenzene	8.54	1.0	µg/L	10.0		85.4	70-130			
Styrene	9.07	1.0	µg/L	10.0		90.7	70-130			
1,1,1,2-Tetrachloroethane	11.6	0.50	µg/L	10.0		116	70-130			
1,1,2,2-Tetrachloroethane	8.76	0.50	µg/L	10.0		87.6	70-130			
Tetrachloroethylene	8.87	1.0	µg/L	10.0		88.7	70-130			
Tetrahydrofuran	8.06	10	µg/L	10.0		80.6	70-130			
Toluene	8.87	1.0	µg/L	10.0		88.7	70-130			
1,2,3-Trichlorobenzene	7.95	2.0	µg/L	10.0		79.5	70-130			
1,2,4-Trichlorobenzene	7.23	1.0	µg/L	10.0		72.3	70-130			
1,1,1-Trichloroethane	8.92	1.0	µg/L	10.0		89.2	70-130			
1,1,2-Trichloroethane	8.73	0.50	µg/L	10.0		87.3	70-130			
Trichloroethylene	8.20	1.0	µg/L	10.0		82.0	70-130			
Trichlorofluoromethane (Freon 11)	8.41	2.0	µg/L	10.0		84.1	70-130			
1,2,3-Trichloropropane	8.70	0.50	µg/L	10.0		87.0	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.86	0.50	µg/L	10.0		88.6	70-130			
1,2,4-Trimethylbenzene	8.65	0.50	µg/L	10.0		86.5	70-130			
1,3,5-Trimethylbenzene	9.02	0.50	µg/L	10.0		90.2	70-130			
Vinyl Chloride	8.47	1.0	µg/L	10.0		84.7	70-130			
m+p Xylene	17.3	2.0	µg/L	20.0		86.6	70-130			
o-Xylene	8.58	1.0	µg/L	10.0		85.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	23.0		µg/L	25.0		92.0	70-130			
Surrogate: Toluene-d8	25.5		µg/L	25.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	25.0		µg/L	25.0		100	70-130			



**QUALITY CONTROL**
**Petroleum Hydrocarbons Analyses - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch B037450 - SW-846 3510C**
**Blank (B037450-BLK1)**

Prepared: 09/19/11 Analyzed: 09/20/11

CT ETPH	ND	0.075	mg/L							
Surrogate: o-Terphenyl	0.0775		mg/L	0.100		77.5	50-150			

**LCS (B037450-BS1)**

Prepared: 09/19/11 Analyzed: 09/20/11

CT ETPH	0.824	0.075	mg/L	1.00		82.4	60-120			
Surrogate: o-Terphenyl	0.0762		mg/L	0.100		76.2	50-150			

**LCS Dup (B037450-BSD1)**

Prepared: 09/19/11 Analyzed: 09/20/11

CT ETPH	0.844	0.075	mg/L	1.00		84.4	60-120	2.36	30	
Surrogate: o-Terphenyl	0.0770		mg/L	0.100		77.0	50-150			

**QUALITY CONTROL**
**Metals Analyses (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B037469 - SW-846 3005A</b>										
<b>Blank (B037469-BLK1)</b>				Prepared & Analyzed: 09/19/11						
Arsenic	ND	2.0	µg/L							
<b>LCS (B037469-BS1)</b>				Prepared & Analyzed: 09/19/11						
Arsenic	501	4.0	µg/L	500		100	80-120			
<b>LCS Dup (B037469-BSD1)</b>				Prepared & Analyzed: 09/19/11						
Arsenic	491	4.0	µg/L	500		98.1	80-120	2.02	20	
<b>Batch B037562 - SW-846 3005A</b>										
<b>Blank (B037562-BLK1)</b>				Prepared & Analyzed: 09/20/11						
Arsenic	ND	2.0	µg/L							
<b>LCS (B037562-BS1)</b>				Prepared & Analyzed: 09/20/11						
Arsenic	256	2.0	µg/L	250		102	80-120			
<b>LCS Dup (B037562-BSD1)</b>				Prepared & Analyzed: 09/20/11						
Arsenic	256	2.0	µg/L	250		102	80-120	0.201	20	

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.
V-20	Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

# CERTIFICATIONS

## Certified Analyses included in this Report

Analyte	Certifications
<b>CTDEP ETPH in Water</b>	
CT ETPH	CT
<b>SW-846 6020A in Water</b>	
Arsenic	CT,NH,NY,RI,NC,ME
<b>SW-846 8260C in Water</b>	
Acetone	CT,NH,NY,ME
Acrylonitrile	CT,NY,ME,RI
Benzene	CT,NH,NY,ME,RI
Bromodichloromethane	CT,NH,NY,ME,RI
Bromoform	CT,NH,NY,ME,RI
Bromomethane	CT,NH,NY,ME,RI
2-Butanone (MEK)	CT,NH,NY,ME
n-Butylbenzene	NY,ME
sec-Butylbenzene	NY,ME
tert-Butylbenzene	NY,ME
Carbon Disulfide	CT,NH,NY,ME
Carbon Tetrachloride	CT,NH,NY,ME,RI
Chlorobenzene	CT,NH,NY,ME,RI
Chlorodibromomethane	CT,NH,NY,ME,RI
Chloroethane	CT,NH,NY,ME,RI
Chloroform	CT,NH,NY,ME,RI
Chloromethane	CT,NH,NY,ME,RI
2-Chlorotoluene	NY,ME
4-Chlorotoluene	NY,ME
Dibromomethane	NH,NY,ME
1,2-Dichlorobenzene	CT,NY,ME,RI
1,3-Dichlorobenzene	CT,NH,NY,ME,RI
1,4-Dichlorobenzene	CT,NH,NY,ME,RI
trans-1,4-Dichloro-2-butene	NH,NY,ME
Dichlorodifluoromethane (Freon 12)	NH,NY,ME,RI
1,1-Dichloroethane	CT,NH,NY,ME,RI
1,2-Dichloroethane	CT,NH,NY,ME,RI
1,1-Dichloroethylene	CT,NH,NY,ME,RI
cis-1,2-Dichloroethylene	ME
trans-1,2-Dichloroethylene	CT,NH,NY,ME,RI
1,2-Dichloropropane	CT,NH,NY,ME,RI
1,3-Dichloropropane	NY,ME
2,2-Dichloropropane	NH,NY,ME
1,1-Dichloropropene	NH,NY,ME
cis-1,3-Dichloropropene	CT,NH,NY,ME,RI
trans-1,3-Dichloropropene	CT,NH,NY,ME,RI
Ethylbenzene	CT,NH,NY,ME,RI
Hexachlorobutadiene	CT,NH,NY,ME
2-Hexanone (MBK)	CT,NH,NY,ME
Isopropylbenzene (Cumene)	NY,ME
p-Isopropyltoluene (p-Cymene)	CT,NH,NY,ME
Methyl tert-Butyl Ether (MTBE)	CT,NH,NY,ME

# CERTIFICATIONS

## Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260C in Water</i>	
Methylene Chloride	CT,NH,NY,ME,RI
4-Methyl-2-pentanone (MIBK)	CT,NH,NY,ME
Naphthalene	NH,NY,ME
n-Propylbenzene	CT,NH,NY,ME
Styrene	CT,NH,NY,ME
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME,RI
Tetrachloroethylene	CT,NH,NY,ME,RI
Toluene	CT,NH,NY,ME,RI
1,2,3-Trichlorobenzene	NH,NY,ME
1,2,4-Trichlorobenzene	CT,NH,NY,ME
1,1,1-Trichloroethane	CT,NH,NY,ME,RI
1,1,2-Trichloroethane	CT,NH,NY,ME,RI
Trichloroethylene	CT,NH,NY,ME,RI
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME,RI
1,2,3-Trichloropropane	NH,NY,ME
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	NY
1,2,4-Trimethylbenzene	NY,ME
1,3,5-Trimethylbenzene	NY,ME
Vinyl Chloride	CT,NH,NY,ME,RI
m+p Xylene	CT,NH,NY,ME,RI
o-Xylene	CT,NH,NY,ME,RI

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Public Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013



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East Brunswick, NJ 01038

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10/10/2010 10:10:10 AM

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2. *Journal of the American Statistical Association*, 1997, 92, 1023-1032.

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**Abstract**

Journal of Interpersonal Violence 30(1)

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**Abstract**

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**2012-2013**

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TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED. PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

# CHAIN OF CUSTODY RECORD

Phone: 413-525-2332

Fax: 413-525-6405

Email: info@contestlabs.com

www.contestlabs.com



**con-test**  
ANALYTICAL LABORATORY

11 ID 426

Company Name: HQ Assoc Inc

Telephone: (603) 674-9576

Address: 159 Set Swamp Rd

Project # IN60076 T-2

Attention: Farmington CT 06032  
Stefanie Klepper

Client PO#  
DATA DELIVERY (check all that apply)  
☒ FAX ☒ EMAIL ☒ WEBSITE

Project Location: IR New Britain

Fax #  
Email: 514

Sampled By: ACR

Format: ☒ PDF ☒ EXCEL ☐ OGIS  
☐ OTHER

Project Proposal Provided? (for billing purposes)  
☒ Yes 610-110-14 proposal date

Con-Test Lab ID

Client Sample ID / Description

Beginning Date/Time

Ending Date/Time

11 RMW-15

9.15.11 2:06

Composite Grab

\*Matrix Code

12 MW-3 dup

12:45

↓

↓

13 TB-1

7:00

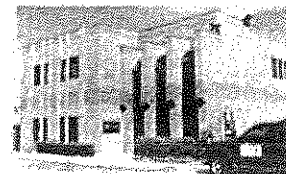
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IF TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

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39 Spruce St.  
East Longmeadow, MA. 01028  
P: 413-525-2332  
F: 413-525-6405  
www.contestlabs.com



## Sample Receipt Checklist

CLIENT NAME: HRP RECEIVED BY: PB DATE: 9/14/11

1) Was the chain(s) of custody relinquished and signed? ☒ Yes No No CoC Included

2) Does the chain agree with the samples?

☒ Yes No

If not, explain:

3) Are all the samples in good condition?

☒ Yes No

If not, explain:

4) How were the samples received:

On Ice ☒ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☒

Were the samples received in Temperature Compliance of (2-6°C)? ☒ Yes No N/A

Temperature °C by Temp blank \_\_\_\_\_ Temperature °C by Temp gun 5.6

5) Are there Dissolved samples for the lab to filter?

Yes ☒ No

Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

6) Are there any RUSH or SHORT HOLDING TIME samples?

Yes ☒ No

Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

7) Location where samples are stored:

19

Permission to subcontract samples? Yes No  
(Walk-in clients only) if not already approved  
Client Signature: \_\_\_\_\_

## Containers received at Con-Test

|                                | # of containers |                       | # of containers |
|--------------------------------|-----------------|-----------------------|-----------------|
| 1 Liter Amber                  | <u>12 unp</u>   | 8 oz amber/clear jar  |                 |
| 500 mL Amber                   |                 | 4 oz amber/clear jar  |                 |
| 250 mL Amber (8oz amber)       |                 | 2 oz amber/clear jar  |                 |
| 1 Liter Plastic                |                 | Air Cassette          |                 |
| 500 mL Plastic                 |                 | Hg/Hopcalite Tube     |                 |
| 250 mL plastic                 | <u>5 hno3</u>   | Plastic Bag / Ziploc  |                 |
| 40 mL Vial - type listed below | <u>39</u>       | PM 2.5 / PM 10        |                 |
| Colisure / bacteria bottle     |                 | PUF Cartridge         |                 |
| Dissolved Oxygen bottle        |                 | SOC Kit               |                 |
| Encore                         |                 | TO-17 Tubes           |                 |
| Flashpoint bottle              |                 | Non-ConTest Container |                 |
| Perchlorate Kit                |                 | Other glass jar       |                 |
| Other                          |                 | Other                 |                 |

Laboratory Comments:

40 mL vials: # HCl 39 # Methanol \_\_\_\_\_  
# Bisulfate \_\_\_\_\_ # DI Water \_\_\_\_\_  
# Thiosulfate \_\_\_\_\_ Unpreserved \_\_\_\_\_

Time and Date Frozen:

Do all samples have the proper Acid pH: ☒ Yes No N/A

Doc# 277

Do all samples have the proper Base pH: Yes No N/A

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**CT ETPH DISCRIMINATION CHECK**

Date Acquired 9/20/11  
Data File Name A0919106.D  
Sample Name ETPH 1500  
Instrument Name 5890DFID

| Compound    | Ret Time | Target Response | Average Response | *%D +/- 20 |
|-------------|----------|-----------------|------------------|------------|
| c - 9       | 1.31     | 315080          | 333039           | -5         |
| c - 10      | 1.67     | 320975          | 333039           | -4         |
| c - 12      | 2.41     | 329351          | 333039           | -1         |
| c - 14      | 3.09     | 338514          | 333039           | 2          |
| c - 16      | 3.70     | 345720          | 333039           | 4          |
| c - 18      | 4.35     | 348872          | 333039           | 5          |
| o-Terphenyl | 4.64     | 393127          | 333039           |            |
| c - 20      | 4.95     | 344564          | 333039           | 3          |
| c - 22      | 5.45     | 334160          | 333039           | 0          |
| c - 24      | 5.89     | 341580          | 333039           | 3          |
| c - 26      | 6.28     | 337974          | 333039           | 1          |
| c - 28      | 6.65     | 335037          | 333039           | 1          |
| c - 30      | 6.98     | 331915          | 333039           | 0          |
| c - 32      | 7.30     | 328375          | 333039           | -1         |
| c - 34      | 7.60     | 323834          | 333039           | -3         |
| c - 36      | 7.98     | 319637          | 333039           | -4         |

\* One compound allowed %D <= 50%

**Samples**

11I0359-01  
11I0359-02  
11I0359-03  
11I0369-01  
11I0426-04  
11I0426-05  
11I0426-06  
11I0426-07  
11I0426-08  
11I0426-09  
11I0426-10  
11I0426-11  
11I0426-12

**CT ETPH DISCRIMINATION CHECK**

Date Acquired 9/20/11  
 Data File Name A0919107.D  
 Sample Name ETPH 1500  
 Instrument Name 5890DFID

| Compound    | Ret Time | Target Response | Average Response | *%D +/- 20 |
|-------------|----------|-----------------|------------------|------------|
| c - 9       | 1.32     | 272726          | 304182           | -10        |
| c - 10      | 1.68     | 279590          | 304182           | -8         |
| c - 12      | 2.41     | 290598          | 304182           | -4         |
| c - 14      | 3.08     | 303724          | 304182           | 0          |
| c - 16      | 3.69     | 313927          | 304182           | 3          |
| c - 18      | 4.33     | 319671          | 304182           | 5          |
| o-Terphenyl | 4.62     | 360151          | 304182           |            |
| c - 20      | 4.92     | 317509          | 304182           | 4          |
| c - 22      | 5.42     | 309392          | 304182           | 2          |
| c - 24      | 5.86     | 317168          | 304182           | 4          |
| c - 26      | 6.25     | 314269          | 304182           | 3          |
| c - 28      | 6.61     | 311590          | 304182           | 2          |
| c - 30      | 6.95     | 308561          | 304182           | 1          |
| c - 32      | 7.26     | 305104          | 304182           | 0          |
| c - 34      | 7.56     | 300978          | 304182           | -1         |
| c - 36      | 7.93     | 297928          | 304182           | -2         |

\* One compound allowed %D <= 50%

## Samples

11I0358-05RE1  
 11I0358-07RE1  
 11I0438-10  
 11I0438-11  
 11I0426-01  
 11I0426-02  
 11I0426-03  
 11I0579-03  
 11I0579-05  
 11I0579-01  
 11I0579-04



## REASONABLE CONFIDENCE PROTOCOL LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

**Laboratory Name:** Con-Test Analytical Laboratory

**Client:** HRP Associates, Inc. (Private)

**Project Location:** IR New Britain

**Project Number:** 11I0426

**Laboratory Sample ID(s):**

11I0426-01 thru 11I0426-13

**Sample Date(s):**

09/13/2011

**List RCP Methods Used:**

CTDEP ETPH, SW-846 6020A, SW-846 8260C

|    |                                                                                                                                                                                                                                                                                                                  |                                                                                                     |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 1  | For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                 |
| 1A | Were the method specified preservation and holding time requirements met?                                                                                                                                                                                                                                        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                 |
| 1B | VPH and EPH Methods only: Was the VPH and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)?                                                                                                                                                                   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input checked="" type="checkbox"/> N/A |
| 2  | Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?                                                                                                                                                                        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                 |
| 3  | Were samples received at an appropriate temperature (< 6 degrees C.)?                                                                                                                                                                                                                                            | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> N/A |
| 4  | Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?                                                                                                                                                                                                    | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                 |
| 5A | Were reporting limits specified or referenced on the chain-of-custody?                                                                                                                                                                                                                                           | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                 |
| 5B | Were these reporting limits met?                                                                                                                                                                                                                                                                                 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                 |
| 6  | For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?                                                                                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                 |
| 7  | Are project-specific matrix spikes and laboratory duplicates included in this data set?                                                                                                                                                                                                                          | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                 |

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence."

This form may not be altered and all questions must be answered.

**I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.**

**Authorized Signature:**

**Position:** Laboratory Director

**Printed Name:** Michael A. Erickson

**Date:** 09/22/11

**Name of Laboratory:** Con-Test Analytical Laboratory

**This certification form is to be used for RCP methods only.**

**APPENDIX C**  
**LNAPL CALCULATIONS**

**Determination of residual saturation pore space based on TPH (EPA 418.1) sample results from soil samples collected from the excavation bottom below the water table.**

#### Volume of Product in Soil Sample

$$V_{\text{prod}} = C_{\text{etph}} \div \rho_{\text{prod}}$$

Where:

$V_{\text{prod}}$  = volume of product

$C_{\text{etph}}$  = ETPH concentration

$\rho_{\text{prod}}$  = density of product

$\rho_{\text{prod}} = 0.9 \text{ kg/l}$  (Geosphere, Inc CH2MHILL, September 2006)

$C_{\text{etph}} = 21000 \text{ mg/kg}$  TPH concentration detected at B28-S12

$$V_{\text{prod}} = 21000 \text{ mg/kg}_{\text{soil}} \div (0.9 \text{ kg/l} \times (10^6 \text{ mg/kg}) \times (\text{l}/1000 \text{ ml})) = 23.3 \text{ ml/kg}_{\text{soil}}$$

#### Soil Pore Volume

$$V_{\text{pore}} = \Theta_{\text{soil}} \div \rho_{\text{soil}}$$

Where:

$V_{\text{pore}}$  = soil pore volume

$\Theta_{\text{soil}}$  = soil porosity

$\rho_{\text{soil}}$  = soil bulk density

$\Theta_{\text{soil}} = 0.30$  (

$\rho_{\text{soil}} = 2 \text{ gm/cm}^3$  (Fetter, 1988, p. 401)

$$V_{\text{pore}} = 0.30 \div (2 \text{ gm}_{\text{soil}}/\text{cm}^3) \times 1000 \text{ gm}_{\text{soil}}/\text{kg}_{\text{soil}} = 150 \text{ ml/ kg}_{\text{soil}}$$

#### Percentage of Pore Space Saturated by NAPL

$$\emptyset_{\text{prod}} = V_{\text{prod}} \div V_{\text{pore}}$$

$$\emptyset_{\text{prod}} = 23.3 \text{ ml/kg}_{\text{soil}} \div 150 \text{ ml/ kg}_{\text{soil}} = 0.156 \text{ or } 15.6\%$$

|                                         |                                    |
|-----------------------------------------|------------------------------------|
| <b>% of NAPL saturated pore space :</b> | $\emptyset_{\text{prod}} = 15.6\%$ |
|-----------------------------------------|------------------------------------|

| Sample ID | TPH (mg/kg) | $V_{\text{prod}}$<br>(ml/kg <sub>soil</sub> ) | $V_{\text{pore}}$<br>(ml/kg <sub>soil</sub> ) | Percent of NAPL<br>saturated Pore<br>Space |
|-----------|-------------|-----------------------------------------------|-----------------------------------------------|--------------------------------------------|
| B28-S7    | 11000       | 12                                            | 150                                           | 8.1%                                       |
| B28-S12   | 21000       | 23                                            | 150                                           | 15.6%                                      |
| B28-S15   | 18000       | 20                                            | 150                                           | 13.3%                                      |
| B28-S23   | 9800        | 11                                            | 150                                           | 7.3%                                       |