FINAL

Quarterly Operations Report
Second Quarter 2011

Groundwater Treatment Plant
GM-38 Area Groundwater Remediation
Naval Weapons Industrial Reserve Plant
Bethpage, New York

Contract No. N40085-10-D-9409
Contract Task Order No. 0002

September 2011

Prepared for:

Naval Facilities Engineering Command Mid-Atlantic
9742 Maryland Avenue
Norfolk, VA 23511

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Senior Project Manager

9/13/11

Jennifer Good Date
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Acronyms and Abbreviations

AS	air stripper
ASE	air stripper effluent
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
DCA	dichloroethane
DCE	dichloroethene
DMR	Discharge Monitoring Report
DO	dissolved oxygen
DTW	depth to water
ECL	Environmental Conservation Law
ECOR	ECOR Federal Services, LLC.
EB	equipment rinsate blank
GOCO	Government Owned Contractor Operated
GWTP	groundwater treatment plant
H&S	H&S Environmental, Inc.
HMI	human-machine interface
IRP	Installation Restoration Program
LGAC	liquid-phase granular activated carbon
MDL	method detection limit
MS/MSD	matrix spike/matrix spike duplicate
NAVFAC	Naval Facilities Engineering Command Mid-Atlantic
NELAC	National Environmental Accreditation Conference
NGC	Northrop Grumman Corporation
NWIRP	Naval Weapons Industrial Reserve Plant
NYSDEC	New York State Department of Environmental Conservation
O&M	Operation and Maintenance
ORP	oxidation reduction potential
OU	operable unit
PCE	tetrachloroethene
PLC	programmable logic controller
QA/QC	quality assurance / quality control
ROD	Record of Decision
SC	standard conductivity
TB	trip blank
TCE	trichloroethene
TE	treated effluent
TSS	total suspended solids
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
VGAC	vapor–phase granular activated carbon
VOC	volatile organic compound

1.0 INTRODUCTION

H&S Environmental, Inc. (H&S) has prepared this Quarterly Operations Report for the GM-38 Area Groundwater Treatment Plant (GWTP) at the Naval Weapons Industrial Reserve Plant (NWIRP) in Bethpage, New York. This report has been prepared for the United States Department of the Navy (Navy), Naval Facilities Engineering Command (NAVFAC), Mid-Atlantic, under Contract No. N40085-10-D-9409, Contract Task Order No. 0002. H&S assumed operational responsibility of the GWTP from ECOR Federal Services, LLC. (ECOR) on 1 June 2011. This Second Quarter 2011 Operations Report details activities that occurred from April 2011 to June 2011; data collected and operational activities in April and May 2011 were performed by ECOR. Data collected and operational activities in June 2011 were performed by H&S in accordance with the *Final Operation, Maintenance & Monitoring Plan for Groundwater Treatment Plant GM-38 Area Groundwater Remediation, Naval Weapons Industrial Reserve Plant, Bethpage, New York* prepared by Tetra Tech EC, Inc. (TtEC) in 2010, hereafter referred to as the O&M Manual.

1.1 Background

NWIRP Bethpage is located in east central Nassau County, Long Island, New York, approximately 30 miles east of New York City (**Figure 1**) and is currently listed by New York State Department of Environmental Conservation (NYSDEC) as an "inactive hazardous waste site" (#1-30-003B). Historically, the Navy's property totaled approximately 109.5 acres and was a Government Owned Contractor-Operated (GOCO) facility that was operated by the Northrop Grumman Corporation (NGC) until September 1998. NWIRP Bethpage is bordered on the north, west, and south by property owned, or formerly owned, by NGC that covered approximately 605 acres, and on the east by a residential neighborhood.

The GM-38 Area refers to a cluster of monitoring wells installed in the 1990s by NGC. The GM-38 Area is approximately 8,500 feet south southeast and hydraulically down-gradient of NWIRP Bethpage. The GWTP is located within a utility easement with a street address of 100 Broadway.

The "hot spot" cleanup remedy for the GM-38 Area groundwater was originally set forth in Record of Decision (ROD) documents for Operable Unit 2 (OU 2) Groundwater for the Northrop NGC and NWIRP Sites (New York State Registry Site Numbers 1-30-003A & 1-30-003B, respectively) issued by NYSDEC Division of Environmental Remediation in March 2001 and for the NWIRP Bethpage Site by NAVFAC in April 2003 (Revision 1). The selected remedy was chosen in accordance with the New York State Environmental Conservation Law (ECL) and the Navy's Installation Restoration Program (IRP). It is also consistent with the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), as amended, 42 U.S.C. §§ 9601-9675.

1.2 GWTP Overview

Groundwater is extracted from recovery wells RW-1 and RW-3 and treated in the GWTP. The treatment process consists of flow equalization, air stripping and vapor-phase carbon treatment, bag filtration, liquid-phase carbon treatment and pH adjustment (if needed). Though the GWTP was originally

equipped with a pH adjustment system utilizing sodium hydroxide, it has since been determined that pH adjustment is not necessary and the equipment has been taken off-line and sodium hydroxide sent off site for beneficial reuse. A process flow diagram is presented as **Figure 2**. The treated water is either re-injected into injection well IW-1 or discharged into the Nassau County Recharge Basin #495. Under CERCLA, the Navy is required to meet the effluent requirement in the NYSDEC's Storm Pollution Discharge Elimination System Permit as Applicable or Relevant and Appropriate Requirements (ARAR). The GWTP was designed to operate at an average flow rate of 1,100 gallons per minute (gpm) (800 gpm from RW-1 and 300 gpm from RW-3) with a maximum flow rate of 1,375 gpm, as measured by the average discharge flow rate. It was determined that this flow rate would be necessary to effectively contain the higher concentration of contamination in the GM-38 Area groundwater. Volatile Organic Compounds (VOCs) in the influent groundwater consists of trichloroethene (TCE), tetrachloroethene (PCE), vinyl chloride (VC), cis-1,2-dichloroethene (cis-1,2-DCE), and smaller concentrations of 1,2-dichloroethane (1,2-DCA), benzene, toluene, and total xylenes.

The air stripper (AS) is a structural aluminum tower that is packed with 3.5 inch diameter polypropylene Jaeger Tripack. Groundwater is pumped to the air stripper distribution port and sprayed over the column of Jaeger Tripack at a flow rate of approximately 1,100 gpm. Previously, 100 gpm of recirculated water was also rerouted through the AS, but as of October 2010, recirculation is no longer being utilized. An induced draft countercurrent flow of air enters the air stripper below the base of the packing material at a rate of 8,000 scfm. The large surface area of the packing material allows for a mass transfer of the VOCs from the groundwater into the air stream. All of the VOCs in the off-gas, except for vinyl chloride, are removed via two 20,000 lb vapor phase granular activated carbon (VGAC) units (VGAC-1 and VGAC-2). Vinyl chloride is oxidized by a 20,000 lb potassium permanganate vessel (VGAC-3) into potassium chloride and carbon dioxide. The potassium chloride remains in the pore structure of the zeolite substrate. The treated off-gas is discharged out of the stack.

Water treated by the air stripper is passed through three 8,000 liquid phase granular activated carbon (LGAC) units in parallel prior to discharge in the recovery basin (or injection well, if necessary).

The GWTP is controlled by a PLC-based digital and analog control system, with monitoring instrumentation, such as pH, pressure, tank level, flow transmitters, differential pressure transmitters, and pump signals that communicate with a PLC. In turn, the information in the PLC is made available to an operator via a human-machine interface (HMI) program. By using this program, the status of the GWTP can be displayed in real time and adjusted, if necessary, by the operator.

2.0 GWTP OPERATION AND MAINTENANCE

While designed to run completely automated, the GWTP requires regular weekly visits by an operator to record and adjust operational parameters and to perform scheduled maintenance.

2.1 Routine Maintenance Activities

Routine maintenance activities at the GWTP during the quarter were performed during the operator's weekly visits (generally Monday, Wednesday and Friday averaging 20 hours a week). These activities include general site inspections, collection of operational data (water and vapor flowrates, pressures, tank levels and totalizer readings), measurement of water depth in the recovery wells, adjustment of pump signal settings, collection of vapor and process water samples, changing out of bag filters, switching of lead/lag pump assignments, and preventive maintenance of system equipment.

2.2 Non-routine Maintenance Activities

The following non-routine activities were performed during the Second Quarter 2011:

- On 22 March 2011 at 2030, there was an alarm for a high level in the air stripper tower. Upon arrival of the operator at 2130, the GWTP was shutdown. However, the air stripper pump, P-4A, was still operating. As a result, the heat from the motor damaged the PVC piping. Piping and fittings were replaced as needed, and the system was restarted on 6 April 2011.

- On 26 June 2011 there was an alarm call due to the failure of AS feed pump, P-3B. The operator switched over to using the back-up pump, P-3A and restarted the system. AS feed pump P-3B was reset and is again operating properly.

- An instrumentation vendor was subcontracted to troubleshoot and repair the programming logic controller software, as it stopped logging data in mid-May 2011. The issue has since been corrected and data is again being logged.

3.0 GWTP MONITORING

The GWTP is not intended to remediate groundwater contamination in the local aquifer to non-detectable levels. Rather, the intent of the system is to remove mass and reduce elevated VOC levels to levels similar to those in the surrounding aquifer. Doing so will minimize the impacts on water supply wells and currently unaffected portions of the aquifer (TtEC 2010a). To monitor GWTP effectiveness and for compliance with Federal and State requirements, several process (water and vapor) samples are collected on a monthly basis. In addition, groundwater samples are collected quarterly to monitor water quality and determine the effectiveness of the remediation activities and monitor the hydraulic containment and capture of the groundwater "hot spot" by the recovery wells.

3.1 Process Water Quality Monitoring

Processed groundwater is analyzed to comply with calculations submitted by the Navy and approved by NYSDEC Water Division for the effluent limitations and monitoring requirements. These results are also submitted to the NYSDEC on a monthly basis in the form of a Discharge Monitoring Report (DMR). A copy of the approved NYSDEC effluent limitation and monitoring constituents and the reporting forms and monthly DMRs from April – June 2011 are included as **Appendix A**.

Samples are collected from each recovery well (RW-1 and RW-3), as well as the treated effluent (TE) water discharge line. In addition, various intermediary process system samples are collected monthly, beginning in June 2011, and consisting of air stripper effluent (ASE), bag filter effluent (BFE), and effluent of each of the three LGAC units (LC1, LC2, and LC3). The analytical results of monthly process water samples collected during the Second Quarter 2011 are presented in **Table 1**. The data demonstrates that all permitted constituents were in compliance for the quarter. **Table 1** also summarizes the average monthly flowrates in gallons per minute along with the total volume of water processed.

3.2 Air Quality Monitoring

Treated off-gas discharged at the stack of the GWTP is subject to emissions limitations as described by the calculations submitted by the Navy and approved by the NYSDEC Division of Air Resources (DAR) in July 2009. A copy of the NYSDEC approved calculations is included as **Appendix B**.

While only sampling of the stack emissions is required for NYSDEC compliance, vapor samples are also collected using 6L summa canisters at various locations to monitor for breakthrough of the VGAC units. The analytical results of monthly influent and effluent vapor samples as well midfluent locations (VC12 and VC13) during the Second Quarter 2011 are presented in **Table 2**. Air emissions calculations using the stack vapor concentrations along with discharge flowrates are presented in **Table 3**. The calculations demonstrate that all permitted constituents were in compliance.

3.3 Groundwater Quality Monitoring

The groundwater monitoring well system at the GM-38 Groundwater Remediation Area consists of 14 monitoring wells (as summarized in **Table 4)**, 3 recovery wells (RW-1, RW-2, RW-3) and one injection well (IW-1). All well locations are shown on **Figure 3**.

Depth to water (DTW) measurements are collected from 12 of the monitoring wells and water quality samples are collected from eight of the monitoring wells on a quarterly basis. Monitoring well locations are shown on **Figure 4.**

Two wells, GM-38D and GM-38D2, located at the corner of Arthur Avenue and Broadway shown on **Figure 5**, are monitored by others.

The monitoring system includes well clusters located near the recovery and injection wells as described below and as shown on **Figure 3**.

Recovery Well 1(RW-1)
The RW-1 cluster consists of three monitoring wells screened between 395 and 435 feet below ground surface (bgs). RW-1 MW-1 is located approximately 140 feet northwest of RW-1 and RW-1 MW-2 is located approximately 50 feet north of RW-1. RW-1 MW-3 is located approximately 400 feet northeast of RW-1, on the eastern side of Seaford Oyster Bay Expressway. All three wells are hydraulically monitored while only RW-1MW1 and RW-1MW-3 are monitored for water quality.

Recovery Well 2(RW-2)
The RW-2 cluster consists of three monitoring wells screened between 470 and 510 feet bgs. RW-2 MW-1 is located approximately 60 feet northwest of RW-2, RW-2 MW-2 is located approximately 20 feet west of RW-2, and RW-2 MW-3 is located approximately 100 feet west of RW-2. All three wells are hydraulically monitored while only RW-2 MW1 is monitored for water quality. However, water level data was not recorded from RW-2 MW-2 during the June 2011 monitoring event, as the well could not be located at the time due to the presence of a downed tree in the area.

Recovery Well 3(RW-3)
The RW-3 cluster consists of four monitoring wells; RW-3 MW-1 and RW-3 MW-3 are screened between 320 and 340 ft bgs, RW-3 MW-2 and RW-3 MW-4 are screened between 475 and 495 feet bgs. RW-3 MW-1 and RW-3 MW-2 are located approximately 500 feet west of the GM-38 cluster, at the intersection of Arthur Avenue and Leroy Avenue. RW-3 MW-3 and RW-3 MW-4 are located approximately 400 feet north of the intersection of Arthur Avenue and Broadway. All four wells are both hydraulically monitored and monitored for water quality.

Injection Well 3(IW-1)
There is one monitoring well associated with injection well IW-1. IW-1 MW-1 is screened between 130 and 150 feet bgs and is located approximately 20 feet south of IW-1. It is only hydraulically monitored.

TP-1
TP-1 is screened between 450 and 470 feet bgs and is located approximately 25 feet north of the GWTP building, inside the fenced area. It is hydraulically monitored to observe the change in water levels due to the influence from the pumping rates at the neighboring public water supply well field near the hot spot area and is also monitored for water quality.

3.3.1 Groundwater Quality Results

ECOR collected groundwater samples on 14-15 June 2011 from the eight monitoring wells (RW1-MW1, RW1-MW3, RW2-MW1, RW3-MW1, RW3-MW2, RW3-MW3, RW3-MW4, and TP-1). Samples were collected using bladder pumps in accordance with the United States Environmental Protection Agency (USEPA) low-flow sampling methodologies. Field parameters measured during well purging, consisting of pH, specific conductance (S.C.), temperature, oxidation-reduction potential (ORP) and dissolved oxygen (DO), are summarized in **Table 5**. Following stabilization of field parameters, samples were collected from the pump discharge. Copies of the field logs and chain of custody documentation are presented in **Appendix C**.

Groundwater samples were submitted to a National Environmental Laboratory Accreditation Conference (NELAC) accredited laboratory (Analytical Laboratories Services, Inc. located in Middletown, PA) for the analysis of Select VOCs using USEPA Method 624, mercury using USEPA Method SW846 7470A, and total suspended solids (TSS) using USEPA Method SM20 2540D. Validated analytical results of samples collected during the June 2011 monitoring event are summarized in **Table 6.** Historical groundwater analytical results through June 2011 are presented in **Table 7**. The data validation reports are presented in **Appendix D**. Raw analytical data is presented in **Appendix E**.

3.3.2 Quality Assurance/Quality Control Sampling

Quality assurance/quality control (QA/QC) samples were collected in accordance with the *Final Sampling and Analysis Plan*. (TtEC 2010b) These samples consisted of blind field duplicates (collected from RW1-MW1), matrix spike/matrix spike duplicate (MS/MSD), and equipment rinsate blanks (EB) collected at a rate of one per sampling event, and trip blanks (TB) submitted at a rate of one per sample cooler. No contaminants were detected in the equipment or trip blank samples collected during this sampling event, indicating that there was no apparent cross-contamination of samples during sample collection or transport.

4.0 References

Tetra Tech EC, Inc. (TtEC). 2010a. *Final Operation, Maintenance & Monitoring Plan for Groundwater Treatment Plant GM-38 Area Groundwater Remediation, Naval Weapons Industrial Reserve Plant, Bethpage, New York.* April.

Tetra Tech EC, Inc. (TtEC). 2010b. *Final Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan), UFP-SAP for Operations, Maintenance, and Monitoring of the Groundwater Treatment Plant, GM-38 Area, Naval Weapons Industrial Reserve Plant, Bethpage, New York.* September.

TABLES

Table 1
GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Discharge Monitoring Results
Second Quarter 2011

SPDES Parameters	Daily Maximum Goal	Units	April 2011				May 2011				June 2011									
Process Stream			RW-1	RW-3	Combined Influent [1] (RW-1 + RW-3)	Treated Effluent (TE)	RW-1	RW-3	Combined Influent [1] (RW-1 + RW-3)	Treated Effluent (TE)	RW-1	RW-3	Combined Influent [1] (RW-1 + RW-3)	Air Stripper Effluent (ASE)	Bag Filter Effluent (BFE)	Liquid Carbon 1 Effluent (LC1)	Liquid Carbon 2 Effluent (LC2)	Liquid Carbon 3 Effluent (LC3)	Treated Effluent (TE) [2]	Treated Effluent (TE) Duplicate
Well Depth		ft	500	500	N/A	N/A	500	500	N/A	N/A	500	500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Screened Interval		ft	470-500	470-500	N/A	N/A	470-500	470-500	N/A	N/A	470-500	470-500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sampling Date			4/25/11				5/25/11				6/15/11									
Average Flowrate	1100	GPM	598	161	759	789	797	201	998	1024	753	189	942	NR	NR	NR	NR	NR	1158	NR
Total Flow		gallons	NR	NR	32,778,000	34,094,057	NR	NR	44,536,985	45,697,625	31,445,500	7,907,500	39,353,000	NR	NR	NR	NR	NR	48,367,400	NR
pH	5.5 - 8.5	SU	NR	NR	6.10	6.85	NR	NR	5.1	6.8	5.44	5.02	5.36	5.28	5.68	6.10	6.13	6.13	6.07	6.07
1,1-Dichloroethane	5	µg/L	2.8	1.8	2.6	ND	3.2	2.3	3.0	ND	3.0	2.2	2.8	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	µg/L	7.5	1.5	6.2	ND	8	2.0	6.7	ND	7.8	1.8	6.6	ND	ND	ND	ND	ND	ND	ND
cis 1,2-Dichloroethene	5	µg/L	58.3	1.7	46.3	ND	59.8	1.9	47.5	0.63 J	59.9	2.0	48.3	1.6	1.6	0.73 J	0.69 J	0.49 J	0.63 J	0.60 J
trans 1,2-Dichloroethene	5	µg/L	1	ND	0.8	ND	1.2	ND	0.9	ND	0.9 J	ND	0.7 J	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	µg/L	109	ND	86	ND	117	ND	92	ND	110	0.69 J	88	1.2	1.2	ND	ND	ND	ND	ND
1,1,1-Trichloroethene	5	µg/L	7.1	0.91 J	5.8	ND	8.1	1.3	6.7	ND	7.1	1.0	5.9	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	µg/L	412	332	395	ND	399	326	384	ND	287	230	276	7.2	6.8	ND	ND	ND	ND	ND
Vinyl Chloride	2	µg/L	6.3	ND	5.0	ND	5.8	ND	4.6	ND	5.3	ND	4.2	ND	ND	ND	ND	ND	ND	ND
Mercruy	0.25	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Suspended Solids (TSS)	N/A	µg/L	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
J, B - Estimated result less than reporting limit
ND - Not Detected
NR - Not Recorded
SU - standard units
µg/L - micrograms per liter
gpm - gallons per minute
(1) Influent concentrations presented are the weighted average concentrations of RW-1 and RW-3.
(2) Effluent flow presented is based on data recorded by the effluent flow meter. The value presented appears to be greater than the actual effluent flow based on various other recorded flow data.
Data prior to June 2011 were collected by others.

Table 2
GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Air Sampling Results
Second Quarter 2011

DAR Parameters	SGC	Units	April 2011		May 2011		June 2011				
Process Stream			Influent (VCI1)	Effluent	Influent (VCI1)	Effluent	Influent (VCI1)	VCI1 Duplicate	VC12	VC23	Effluent
Sampling Date			4/29/11		5/25/11		6/17/11				
Average Flowrate		CFM		6396		7806					7680
Total Flow [1]		ft^3	NR	276,311,829	NR	348,459,840	NR	NR	NR	NR	331,795,938
Total Flow [2]		m^3	NR	7,819,625	NR	9,861,413	NR	NR	NR	NR	9,395,415
1,2-Dichloroethane	-	$\mu g/m^3$	ND	ND	ND	ND	4	4	7	0.9 J	0.8
cis 1,2-Dichloroethene	-	$\mu g/m^3$	670	ND	430	11	510	470	580	8	30
trans 1,2-Dichloroethene	-	$\mu g/m^3$	ND	ND	ND	ND	11	10	11	1	1
1,2-Dichloroethene (total)	-	$\mu g/m^3$	670	ND	430	11	521	480	591	9	31
Toluene	37000	$\mu g/m^3$	ND	ND	ND	ND	1	1	9	3	8
Xylene	4300	$\mu g/m^3$	ND	ND	ND	ND	3	2 J	13	5	9
1,1,2-Trichloroethane	-	$\mu g/m^3$	ND	ND	ND	ND	0.9 J	0.8 J	5 J	1 J	0.8 J
Trichloroethene	14000	$\mu g/m^3$	5000	48	4800	46	39	33	2,500	57	170
Vinyl Chloride	180000	$\mu g/m^3$	70	ND	50	ND	47	49	48	45	4

Notes:
ND - Not detected
NR - Not recorded
SGC - Short-term Guideline Concentration
$\mu g/m^3$ - micrograms per cubic meter
CFM - cubic feet per minute
DAR - Division of Air Rescources
[1] Total Flow (ft^3) = average flowrate (cfm) * operational time (minutes)
[2] Total Flow (m^3) = total flow (ft^3) * (0.3048^3)m^3/ft^3
Data prior to June 2011 were collected by others.

Table 3
GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Stack Emissions
Second Quarter 2011

DAR Parameters	Discharge Goal	Units	April 2011	May 2011	June 2011
Sampling Date			4/29/11	5/25/11	6/17/11
Average Flowrate		CFM	6396	7806	7680
Total Flow		ft^3	276,311,829	348,459,840	331,795,938
Total Flow		m^3	7,819,625	9,861,413	9,395,415
Trichloroethene	0.09	lb/hr	0.0011	0.0013	0.0049
Vinyl Chloride	0.01	lb/hr	0.0000	0.0000	0.0001
1,2 Dichloroethene	0.03	lb/hr	0.0000	0.0000	0.0009
1,2-Dichloroethane	BRT	lb/hr	0.0000	0.0003	0.0000
Toluene	BRT	lb/hr	0.0000	0.0003	0.0002
Xylene	BRT	lb/hr	0.0000	0.0000	0.0003
1,1,2-Trichloroethane	BRT	lb/hr	0.0000	0.0000	0.0000

Notes:
BRT - Below reporting thresholds
lb/hr - pounds per hour
DAR - Divison of Air Resources
CFM - Cubic feet per minute
Stack Emissions = average flowrate (cfm) * $(0.3048^{\wedge 3})m^3/ft^3$ * conc.(mg/m^3) * 0.000001 g/mg * 0.002205 lbs/g * 60 min/hr * operational time (hours)
Data prior to June 2011 were collected by others.

Table 4
GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Groundwater Level Measurements
June 2011

Monitoring Well ID	Date	Time	Total Depth (ft)	Screen Interval (ft)	Depth to Water (ft)
RW1-MW1	06/14/11	1201	435	395-435	35.22
RW1-MW2	06/14/11	1206	435	395-435	37.44
RW1-MW3	06/14/11	1219	435	395-435	27.87
RW2-MW1	06/14/11	1130	510	470-510	38.84
RW2-MW2 (1)	NA	NA	510	470-510	NA
RW2-MW3	06/14/11	1137	510	470-510	37.98
RW3-MW1	06/14/11	1153	350	330-350	36.81
RW3-MW2	06/14/11	1151	495	475-795	39.25
RW3-MW3	06/14/11	1146	340	320-340	38.00
RW3-MW4	06/14/11	1144	495	475-495	39.91
TP-1	06/14/11	1127	470	450-470	33.80
IW1-MW1	06/14/11	1210	150	130-150	34.87
GM38D	NA	NA	340	320-340	NA
GM382D	NA	NA	495	475-495	NA

Notes:
ft - Feet
NA - Not Available
(1) RW1-MW2 could not be located. Possibly buried under downed trees.

Table 5
Summary of Final Groundwater Chemistry Data
GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Summary of Groundwater Chemistry Results
June 2011

Location	Temp (ºC)	pH (SU)	S.C. (uS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Color (Visual)
RW1-MW1	15.63	4.71	173	0.98	274.3	3.60	clear
RW1-MW3	14.07	5.14	190	0.44	132.4	15.6	clear
RW2-MW1	13.34	6.78	122	0.58	-110.3	28.6	clear
RW3-MW1	16.58	4.91	140	1.08	279.6	>1200	brown
RW3-MW2	13.96	5.06	85	0.32	137.0	8.72	clear
RW3-MW3	16.18	5.44	162	0.26	115.0	18.7	clear
RW3-MW4	15.34	4.55	122	1.35	298.3	4.07	clear
TP-1	16.12	4.63	200	1.25	236.5	26.0	clear

Notes:
S.C. = Specific Conductance
mS/cm = milliSiemens per centimeter
NTU = nephelometric turbidity units
mg/L = milligrams per liter
ºC = degrees celsius
mV = millivolts
SU = standard units
ORP = oxidation/reduction potential

Table 6
GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Summary of Groundwater Analytical Results
June 2011

Sample ID	RW1-MW1		RW1-MW3	RW2-MW1	RW3-MW1	RW3-MW2	RW3-MW3	RW3-MW4	TP-01
Sample Date	6/14/2011[(1)]	6/14/2011	6/14/2011	6/14/2011	6/14/2011	6/14/2011	6/15/2011	6/15/2011	6/15/2011
Comments		Duplicate							
Well Depth (Ft)	435		435	510	350	495	340	495	470
Screened Interval (Ft)	395-435		395-435	470-510	330-350	475-495	320-340	475-495	470-510
VOCS (EPA 624) ug/L									
1,1-dichloroethane	1.6 J	4.2 J	9.3	0.61 J	1.1	0.52 J	7.1	0.78 J	5.0
1,2-dichloroethane	ND	ND	ND	ND	ND	ND	0.37 J	ND	ND
1,1-dichloroethene	0.85 J	2.1 J	1.8	ND	0.85 J	0.57 J	2.6	0.20 J	1.7
cis-1,2-dichloroethene	55.8 J	145 J	0.59 J	0.56 J	0.48 J	1.7	1.2	ND	43.4
trans-1,2-dichloroethene	0.71 J	2.0 J	ND	ND	ND	ND	ND	ND	1.1
Tetrachloroethene	ND	ND	0.33 J	ND	1.2	ND	0.40 J	ND	3.3
1,1,1-trichloroethane	ND	0.63 J	1.6	ND	0.78 J	0.39 J	1.3	ND	0.63 J
Trichloroethene	26.6 J	73.8 J	1.4	1.6	63.1	135	331	6.7	35.3
Vinyl chloride	ND	0.38 J	ND	ND	ND	ND	ND	ND	ND
Mercury (EPA 245.1) ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS (SM20 2540D) mg/L	ND	6 J	ND	181	5160	7	ND	ND	63

Note:
VOC analysis changed to EPA Method 624 in January 2010
J-estimated value
ND-not detected
mg/L - milligrams per liter
µg/L - micrograms per liter

Table 7
GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Summary of Historical Groundwater Analytical Results

Sample ID	RW1-MW1										RW1-MW2		
Sample Date	5/4/2005	7/22/2005	5/27/2009	1/21/2010	4/21/2010	7/28/2010	11/10/2010	3/25/2011	6/14/2011[1]	6/14/2011	5/4/2005	7/22/2005	5/28/2009
Comments										Duplicate			
Well Depth (Ft)	435										435		
Screened Interval (Ft)	395-435										395-435		
VOCS (EPA 624) ug/L													
acetone	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR	ND	ND	ND
benzene	ND	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND
bromodichloromethane	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR	ND	ND	ND
bromoform	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR	ND	ND	ND
bromomethane	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR	ND	ND	ND
2-butanone	R	R	ND	NR	ND	ND	ND	ND	NR	NR	R	R	ND
carbon disulfide	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR	ND	ND	ND
carbon tetrachloride	ND	ND	0.32J	ND	ND	ND	0.17J	ND	NR	NR	ND	ND	ND
chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND
chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND
chloroform	ND	0.7J	1.1	ND	0.70J	0.65J	0.56J	0.55J	NR	NR	ND	1.4	ND
chloromethane	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR	ND	ND	ND
cyclohexane	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
dibromochloromethane	NR	NR	ND	NR	ND	ND	ND	ND	NR	NR	NR	NR	ND
1,2-dibromo-3-chloro-propane	ND	ND	ND	NR	NR	NR	NR	NR	NR	NR	ND	ND	ND
1,2-dibromomethane	ND	ND	ND	NR	NR	NR	NR	NR	NR	NR	ND	ND	ND
1,3-dichlorobenzene	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
1,4-dichlorobenzene	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
1,2-dichlorobenzene	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
dichlorodifluoromethane	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
1,1-dichloroethane	0.74J	0.79J	3.3	2.9J	2.8	2.8	3.0	3.6	1.6 J	4.2 J	4.6	5.5	3.4
1,2-dichloroethane	ND	ND	0.29J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	1.3	2.8	3.1	1.7J	1.9	1.7	1.7	1.9	0.85 J	2.1 J	3.2	12.3	ND
cis-1,2-dichloroethene	78.6	80.4	180D	130	121	118	108	121	55.8 J	145 J	181.0	47.6	160.0
trans-1,2-dichloroethene	2.0	1.3J	2.8	4J	2.9	2.1	1.3	4.2	0.71 J	2.0 J	2.5	7.6	2.5
1,2-dichloropropane	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR	ND	ND	ND
cis-1,3-dichloropropene	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR	ND	ND	ND
trans-1,3-dichloropropene	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR	ND	ND	ND
1,4-dioxane	1.75J	NR	NR	NR	NR	NR	NR	NR	NR	NR	4.01	NR	NR
ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND
2-hexanone	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR	ND	ND	ND
isopropylbenzene	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
methyl acetate	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
methylene chloride	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR	1.0	ND	ND
methylcyclohexane	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
4-methyl-2-pentanone	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR	ND	ND	ND
methyl-tert-butyl-ether	NR	NR	ND	ND	NR	NR	NR	NR	NR	NR	NR	NR	ND
styrene	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR	ND	ND	ND
1,1,2,2-tetrachloroethane	ND	ND	ND	NR	ND	ND	ND	ND	NR	NR	ND	ND	ND
1,2,4-trichlorobenzene	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
tetrachloroethene	ND	ND	0.72J	ND	0.42J	ND	ND	ND	ND	ND	ND	134.0	19.0
1,1,1-trichloroethane	ND	ND	0.71J	ND	0.52J	0.43J	0.53J	0.79J	ND	0.63 J	1.3	1.0	ND
1,1,2-trichloroethane	ND	ND	0.58J	NR	ND	ND	ND	ND	NR	NR	ND	0.65J	ND
trichloroethene	53.6	52.7	140.0	79.0	116	95.4	84.2	97.6	26.6 J	73.8 J	158.0	198.0	200.0
trichlorofluoromethane	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
1,1,2-trichloro-1,2,2-trifluoroethane	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
toluene	ND	0.33J	0.68	ND	ND	ND	ND	ND	NR	NR	0.32J	ND	ND
vinyl chloride	ND	ND	1.6	ND	ND	ND	0.17J	ND	ND	0.38 J	12.9	187.0	4.1
xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND
Mercury (EPA 245.1) ug/L	NR	NR	ND	0.20	<0.20	<0.20	<0.20	<0.20	ND	ND	NR	NR	0.20
TSS (SM20 2540D) mg/L	NR	NR	2.8	2.8	6.0	4.0	4.0	4.0	ND	6	NR	NR	4.0

Note:
VOC analysis changed to EPA Method 624 in January 2010
D-dilution
J-estimated value
ND-not detected
NR-not requested
R-Rejected
mg/L - milligrams per liter
µg/L - micrograms per liter
Data prior to June 2011 were collected by others.

Table 7
GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Summary of Historical Groundwater Analytical Results

Sample ID	RW1-MW3						RW2-MW1								
Sample Date	1/20/2010	4/21/2010	7/29/2010	11/10/2010	3/25/2011	6/14/2011	5/4/2005	7/20/2005	5/27/2009	1/18/2010	4/21/2010	7/28/2010	11/3/2010	3/24/2011	6/14/2011
Comments										EPA 624					
Well Depth (Ft)	435						510								
Screened Interval (Ft)	395-435						470-510								
VOCS (EPA 624) ug/L															
acetone	NR	ND	ND	ND	ND	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
benzene	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	0.15J	0.69J	0.58J	0.30J	NR
bromodichloromethane	NR	ND	ND	ND	ND	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
bromoform	NR	ND	ND	ND	ND	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
bromomethane	NR	ND	ND	ND	ND	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
2-butanone	NR	ND	ND	ND	ND	NR	R	R	ND	NR	ND	ND	ND	ND	NR
carbon disulfide	NR	ND	ND	ND	ND	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
carbon tetrachloride	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR
chlorobenzene	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR
chloroethane	NR	ND	ND	ND	ND	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
chloroform	0.67J	0.80J	0.47J	0.69J	0.73J	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR
chloromethane	NR	ND	ND	ND	ND	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
cyclohexane	NR	NR	NR	NR	NR	NR	NR	NR	ND	NR	NR	NR	NR	NR	NR
dibromochloromethane	NR	NR	NR	NR	NR	NR	NR	NR	ND	NR	ND	ND	ND	ND	NR
1,2-dibromo-3-chloro-propane	NR	NR	NR	NR	NR	NR	ND	ND	ND	NR	NR	NR	NR	NR	NR
1,2-dibromomethane	NR	NR	NR	NR	NR	NR	ND	ND	ND	NR	NR	NR	NR	NR	NR
1,3-dichlorobenzene	NR	NR	NR	NR	NR	NR	NR	NR	ND	NR	NR	NR	NR	NR	NR
1,4-dichlorobenzene	NR	NR	NR	NR	NR	NR	NR	NR	ND	NR	NR	NR	NR	NR	NR
1,2-dichlorobenzene	NR	NR	NR	NR	NR	NR	NR	NR	ND	NR	NR	NR	NR	NR	NR
dichlorodifluoromethane	NR	NR	NR	NR	NR	NR	NR	NR	ND	NR	NR	NR	NR	NR	NR
1,1-dichloroethane	2.4	4.6	1.5	2.3	2.4	9.3	0.53J	0.93J	1.2J	0.82J	0.60J	0.58J	0.42J	ND	0.61 J
1,2-dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	0.42J	1.10	ND	0.28J	ND	1.8	ND	0.58J	0.55J	0.63J	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	0.54J	0.48J	0.36J	0.55J	0.58J	0.59 J	ND	0.55J	1.9	1.0	0.78J	0.80J	0.55J	0.43J	0.56 J
trans-1,2-dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	NR	ND	ND	ND	ND	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
cis-1,3-dichloropropene	NR	ND	ND	ND	ND	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
trans-1,3-dichloropropene	NR	ND	ND	ND	ND	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
1,4-dioxane	NR	NR	NR	NR	NR	NR	5.34	NR	NR	NR	NR	NR	NR	NR	NR
ethylbenzene	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR
2-hexanone	NR	ND	ND	ND	ND	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
isopropylbenzene	NR	NR	NR	NR	NR	NR	NR	NR	ND	NR	NR	NR	NR	NR	NR
methyl acetate	NR	NR	NR	NR	NR	NR	NR	NR	ND	NR	NR	NR	NR	NR	NR
methylene chloride	NR	ND	ND	ND	ND	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
methylcyclohexane	NR	NR	NR	NR	NR	NR	NR	NR	ND	NR	NR	NR	NR	NR	NR
4-methyl-2-pentanone	NR	NR	NR	NR	NR	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
methyl-tert-butyl-ether	ND	NR	NR	NR	NR	NR	NR	NR	ND	ND	NR	NR	NR	NR	NR
styrene	NR	ND	ND	ND	ND	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
1,1,2,2-tetrachloroethane	NR	ND	ND	ND	ND	NR	ND	ND	ND	NR	ND	ND	ND	ND	NR
1,2,4-trichlorobenzene	NR	NR	NR	NR	NR	NR	NR	NR	ND	NR	ND	ND	ND	ND	NR
tetrachloroethene	ND	049J	ND	ND	ND	0.33 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	0.41J	0.98J	ND	0.26J	0.33J	1.6	ND	0.37J	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	0.62J	0.60J	0.36J	0.55J	0.41J	NR	ND	ND	ND	ND	ND	ND	ND	ND	NR
trichloroethene	1.2	1.6	0.58J	0.91J	1.0	1.4	37.6	34.6	12.0	15.0	0.42J	ND	ND	1.7	1.6
trichlorofluoromethane	NR	NR	NR	NR	NR	NR	NR	NR	ND	NR	NR	NR	NR	NR	NR
1,1,2-trichloro-1,2,2-trifluoroethane	NR	NR	NR	NR	NR	NR	NR	NR	ND	NR	NR	NR	NR	NR	NR
toluene	ND	ND	ND	ND	ND	NR	ND	0.85J	1.0	ND	0.52J	0.49J	0.50J	ND	NR
vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
xylenes (total)	ND	ND	ND	ND	ND	NR	ND	1.4J	ND	ND	ND	ND	ND	ND	NR
Mercury (EPA 245.1) ug/L	NR	<0.20	<0.20	<0.20	<0.20	ND	NR	NR	0.05J	NR	<0.20	<0.20	<0.20	<0.20	ND
TSS (SM20 2540D) mg/L	NR	8.0	<4.0	<4.0	<4.0	ND	NR	NR	2260.0	NR	58.0	<4.0	<4.0	<4.0	181

Note:
VOC analysis changed to EPA Method
D-dilution
J-estimated value
ND-not detected
NR-not requested
R-Rejected
mg/L - milligrams per liter
µg/L - micrograms per liter
Data prior to June 2011 were collected

Table 7
GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Summary of Historical Groundwater Analytical Results

Sample ID	RW2-MW3			RW3-MW1							RW2-MW2	
Sample Date	5/3/2005	7/20/2005	5/28/2009	1/19/2010	4/22/2010	7/29/2010	11/9/2010	3/25/2011	3/25/2011	6/14/2011	5/4/2005	7/21/2005
Comments									duplicate			
Well Depth (Ft)	510			350							510	
Screened Interval (Ft)	470-510			330-350							470-510	
VOCS (EPA 624) ug/L												
acetone	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
bromodichloromethane	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
bromoform	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
bromomethane	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
2-butanone	R	R	ND	NR	ND	ND	ND	ND	ND	NR	R	R
carbon disulfide	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
carbon tetrachloride	ND	ND	ND	ND	ND	ND	0.19J	ND	ND	NR	ND	ND
chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
chloroethane	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
chloroform	ND	ND	ND	ND	ND	ND	0.20J	ND	ND	NR	ND	ND
chloromethane	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
cyclohexane	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR
dibromochloromethane	NR	NR	ND	NR	ND	ND	ND	ND	ND	NR	NR	NR
1,2-dibromo-3-chloro-propane	ND	ND	ND	NR	NR	NR	NR	NR	NR	NR	ND	ND
1,2-dibromomethane	ND	ND	ND	NR	NR	NR	NR	NR	NR	NR	ND	ND
1,3-dichlorobenzene	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,4-dichlorobenzene	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,2-dichlorobenzene	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR
dichlorodifluoromethane	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,1-dichloroethane	0.68J	0.31J	1.4	1.6	1.5	1.7	1.4	1.3	1.3	1.1	ND	0.78J
1,2-dichloroethane	ND	ND	ND	0.27J	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	ND	ND	0.42J	1.2	1.3	1.2	1.2	1.2	1.1	0.85 J	ND	0.41J
cis-1,2-dichloroethene	0.40J	0.66J	2.3	0.37J	ND	0.32J	0.45J	0.47J	0.45J	0.48 J	0.33J	0.41J
trans-1,2-dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
cis-1,3-dichloropropene	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
trans-1,3-dichloropropene	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
1,4-dioxane	7.42J	NR	NR	NR	NR	NR	NR	NR	NR	NR	7.45J	NR
ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
2-hexanone	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
isopropylbenzene	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR
methyl acetate	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR
methylene chloride	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
methylcyclohexane	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR
4-methyl-2-pentanone	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
methyl-tert-butyl-ether	NR	NR	ND	ND	NR	NR	NR	NR	NR	NR	NR	NR
styrene	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
1,1,2,2-tetrachloroethane	ND	ND	ND	NR	ND	ND	ND	ND	ND	NR	ND	ND
1,2,4-trichlorobenzene	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR
tetrachloroethene	ND	ND	ND	0.49J	0.81J	0.73J	1.5	1.4	1.6	1.2	ND	ND
1,1,1-trichloroethane	ND	ND	ND	ND	0.98J	0.84J	1.2	1.1	1.1	0.78 J	ND	ND
1,1,2-trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	D	ND
trichloroethene	16.2	20.6	18.0	35.0	53.2	52.3	77.6	76.2	77.9	63.1	7.8	13.8
trichlorofluoromethane	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,1,2-trichloro-1,2,2-trifluoroethane	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR
toluene	ND	0.50J	0.39J	ND	ND	ND	ND	ND	ND	NR	0.33J	0.53J
vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND
Mercury (EPA 245.1) ug/L	NR	NR	ND	NR	<0.20	<0.20	<0.20	<0.20	<0.20	ND	NR	NR
TSS (SM20 2540D) mg/L	NR	NR	14.8	NR	<4.0	<4.0	<4.0	<4.0	<4.0	5160	NR	NR

Note:
VOC analysis changed to EPA Method
D-dilution
J-estimated value
ND-not detected
NR-not requested
R-Rejected
mg/L - milligrams per liter
µg/L - micrograms per liter
Data prior to June 2011 were collected

Table 7
GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Summary of Historical Groundwater Analytical Results

Sample ID	RW3-MW2								RW3-MW3						
Sample Date	1/19/2010	1/19/2010	4/22/2010	7/29/2010	11/9/2010	11/9/2010	3/25/2011	6/14/2011	1/20/2010	4/22/2010	4/22/2010	7/28/2010	11/3/2010	3/25/2011	6/15/2011
Comments		duplicate			duplicate						duplicate				
Well Depth (Ft)	495								340						
Screened Interval (Ft)	475-495								320-340						
VOCS (EPA 624) ug/L															
acetone	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
benzene	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	NR
bromodichloromethane	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
bromoform	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
bromomethane	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
2-butanone	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
carbon disulfide	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	NR
chlorobenzene	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	NR
chloroethane	NR	NR	ND	ND	ND	ND	ND	NR	NR	NR	NR	NR	NR	NR	NR
chloroform	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	0.40J	0.46J	ND	0.33J	NR
chloromethane	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
cyclohexane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
dibromochloromethane	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
1,2-dibromo-3-chloro-propane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,2-dibromomethane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,3-dichlorobenzene	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,4-dichlorobenzene	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,2-dichlorobenzene	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
dichlorodifluoromethane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,1-dichloroethane	ND	ND	0.54J	ND	ND	ND	ND	0.52 J	ND	1.6	1.6	2.3	1.0	1.5	7.1
1,2-dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.52J	0.54J	ND	ND	ND	0.37 J
1,1-dichloroethene	ND	ND	1.2	ND	ND	ND	ND	0.57 J	ND	1.1	1.3	1.2	ND	0.96J	2.6
cis-1,2-dichloroethene	1.5J	1.6J	2.4	1.1	0.92J	0.92J	1.6	1.7	ND	2.1	2.1	1.7	ND	2.3	1.2
trans-1,2-dichloroethene	ND	ND	0.43 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
cis-1,3-dichloropropene	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
trans-1,3-dichloropropene	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
1,4-dioxane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
ethylbenzene	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	NR
2-hexanone	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
isopropylbenzene	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
methyl acetate	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
methylene chloride	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
methylcyclohexane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4-methyl-2-pentanone	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
methyl-tert-butyl-ether	ND	ND	NR	NR	NR	NR	NR	NR	ND	NR	NR	NR	NR	NR	NR
styrene	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
1,1,2,2-tetrachloroethane	NR	NR	ND	ND	ND	ND	ND	NR	NR	ND	ND	ND	ND	ND	NR
1,2,4-trichlorobenzene	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.45J	0.49J	ND	ND	ND	0.40 J
1,1,1-trichloroethane	ND	ND	0.58J	ND	ND	ND	ND	0.39 J	ND	0.95J	1.0J	0.72J	ND	0.62J	1.3
1,1,2-trichloroethane	ND	ND	ND	ND	0.25 J	0.27J	ND	NR	ND	ND	ND	ND	ND	ND	NR
trichloroethene	160	170	211	73	58.2	60.9	110	135	350	397	382	297	8.5	288	331
trichlorofluoromethane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,1,2-trichloro-1,2,2-trifluoroethane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
toluene	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	NR
vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
xylenes (total)	ND	ND	ND	ND	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	NR
Mercury (EPA 245.1) ug/L	NR	NR	<0.20	<0.20	<0.20	<0.20	<0.20	ND	NR	<0.20	<0.20	<0.20	<0.20	ND	ND
TSS (SM20 2540D) mg/L	NR	NR	5.0	6.0	ND	10.0	10.0	7	NR	4.0	5.0	<4.0	<4.0	<4.0	ND

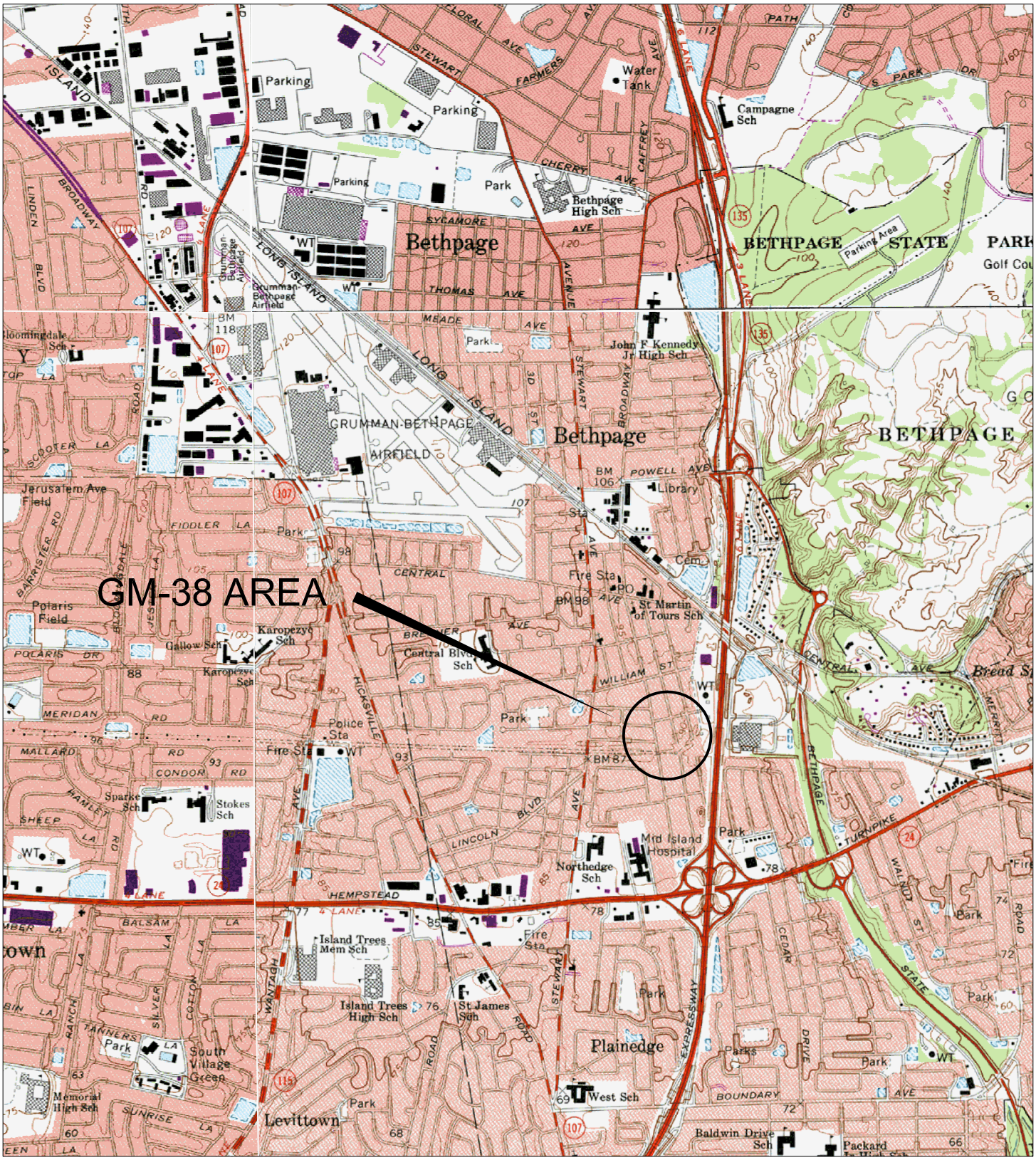
Note:
VOC analysis changed to EPA Method
D-dilution
J-estimated value
ND-not detected
NR-not requested
R-Rejected
mg/L - milligrams per liter
µg/L - micrograms per liter
Data prior to June 2011 were collected

Table 7
GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Summary of Historical Groundwater Analytical Results

Sample ID	RW3-MW4							TP-01		IW-1 MW-1	IW-1
Sample Date	1/20/2010	4/22/2010	7/28/2010	7/28/2010	11/3/2010	3/24/2011	6/15/2011	1/21/2010	6/15/2011	5/3/2005	5/27/2009
Comments				duplicate							
Well Depth (Ft)	495							470	470	150	230
Screened Interval (Ft)	475-495							470-510	470-510	130-150	200-230
VOCS (EPA 624) ug/L											
acetone	NR	ND	ND	ND	ND	ND	NR	NR	NR	ND	ND
benzene	ND	ND	ND	ND	ND	ND	NR	ND	NR	ND	ND
bromodichloromethane	NR	ND	ND	ND	ND	ND	NR	NR	NR	ND	ND
bromoform	NR	ND	ND	ND	ND	ND	NR	NR	NR	ND	ND
bromomethane	NR	ND	ND	ND	ND	ND	NR	NR	NR	ND	ND
2-butanone	NR	ND	ND	ND	ND	ND	NR	NR	NR	R	ND
carbon disulfide	NR	ND	ND	ND	ND	ND	NR	NR	NR	ND	ND
carbon tetrachloride	ND	ND	ND	ND	ND	ND	NR	ND	NR	ND	ND
chlorobenzene	ND	ND	ND	ND	ND	ND	NR	ND	NR	ND	ND
chloroethane	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND	ND
chloroform	ND	ND	ND	ND	0.32J	ND	NR	ND	NR	0.94J	0.98J
chloromethane	NR	ND	ND	ND	ND	ND	NR	NR	NR	ND	ND
cyclohexane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
dibromochloromethane	NR	ND	ND	ND	ND	ND	NR	NR	NR	NR	ND
1,2-dibromo-3-chloro-propane	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND	ND
1,2-dibromomethane	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND	ND
1,3-dichlorobenzene	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
1,4-dichlorobenzene	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
1,2-dichlorobenzene	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
dichlorodifluoromethane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
1,1-dichloroethane	2.5	0.6	0.54J	0.50J	1.8	0.81	0.78 J	3.6J	5.0	0.39J	0.22J
1,2-dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	1.0	ND	ND	ND	0.86J	ND	0.20 J	ND	1.7	ND	ND
cis-1,2-dichloroethene	0.46J	ND	ND	ND	1.6	ND	ND	190	43.4	ND	ND
trans-1,2-dichloroethene	ND	ND	ND	ND	ND	ND	ND	3.0J	1.1	ND	ND
1,2-dichloropropane	NR	ND	ND	ND	ND	ND	NR	NR	NR	ND	ND
cis-1,3-dichloropropene	NR	ND	ND	ND	ND	ND	NR	NR	NR	ND	ND
trans-1,3-dichloropropene	NR	ND	ND	ND	ND	ND	NR	NR	NR	ND	ND
1,4-dioxane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
ethylbenzene	ND	ND	ND	ND	ND	ND	NR	ND	NR	ND	ND
2-hexanone	NR	ND	ND	ND	ND	ND	NR	NR	NR	ND	ND
isopropylbenzene	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
methyl acetate	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
methylene chloride	NR	ND	ND	ND	ND	ND	NR	NR	NR	ND	ND
methylcyclohexane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
4-methyl-2-pentanone	NR	ND	ND	ND	ND	ND	NR	NR	NR	ND	ND
methyl-tert-butyl-ether	ND	NR	NR	NR	NR	NR	NR	ND	NR	NR	0.46J
styrene	NR	ND	ND	ND	ND	ND	NR	NR	NR	ND	ND
1,1,2,2-tetrachloroethane	NR	ND	ND	ND	ND	ND	NR	NR	NR	ND	ND
1,2,4-trichlorobenzene	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	3.4J	3.3	ND	ND
1,1,1-trichloroethane	ND	ND	ND	ND	0.67J	ND	ND	ND	0.63 J	0.47	0.49J
1,1,2-trichloroethane	ND	ND	ND	ND	ND	ND	NR	ND	NR	ND	ND
trichloroethene	21	11	7.5	8.0	308	7.7	6.7	65	35.3	ND	0.17J
trichlorofluoromethane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
1,1,2-trichloro-1,2,2-trifluoroethane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	ND
toluene	ND	ND	ND	ND	ND	ND	NR	ND	NR	ND	0.19J
vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
xylenes (total)	ND	ND	ND	ND	ND	ND	NR	ND	NR	ND	ND
Mercury (EPA 245.1) ug/L	NR	<0.20	<0.20	<0.20	<0.20	<0.20	ND	NR	ND	NR	0.20
TSS (SM20 2540D) mg/L	NR	16.0	<4.0	<4.0	<4.0	<4.0	ND	NR	63	NR	2.4

Note:
VOC analysis changed to EPA Method
D-dilution
J-estimated value
ND-not detected
NR-not requested
R-Rejected
mg/L - milligrams per liter
µg/L - micrograms per liter
Data prior to June 2011 were collected

FIGURES



Source: U.S.G.S. Topographic Maps (7.5 Minute)
Amityville, Freeport, Hicksville, Huntington, NY Quadrangles

U.S. Navy RAC
Engineering Field Activity, Northeast

GM-38 Area (Offsite)
NWIRP Bethpage
Bethpage, NY

Figure 1
Site Location Map

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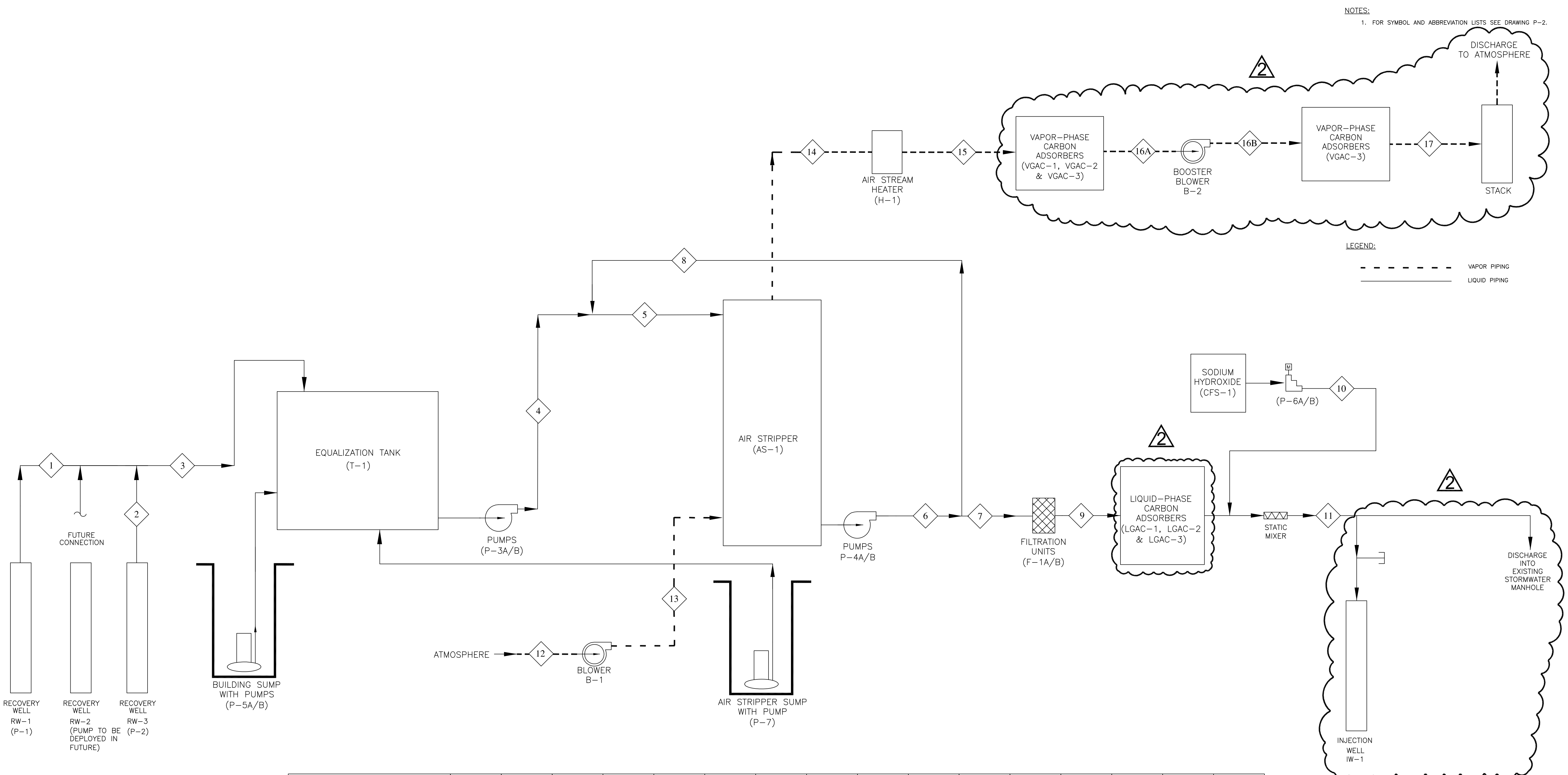


STREAM NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
COMPOSITION (UG/L, UNLESS OTHERWISE NOTED)																
BENZENE	4	4	4	4	3	-	-	-	-		-					
TOLUENE	15	15	15	15	12	-	-	-	-		-					
XYLENES, TOTAL	16	16	16	16	12	-	-	-	-		-					
1,2-DICHLOROETHANE	3	3	3	3	2.8						2.7 E-07					
cis 1,2-DICHLOROETHENE	1100	1100	1100	1100	1008	0.10	0.10	0.10	0.10		1.0 E-04					
VINYL CHLORIDE	300	300	300	300	275	0.03	0.03	0.03	0.03		2.7 E-05					
TETRACHLOROETHENE (PCE)	900	900	900	900	825	0.08	0.08	0.08	0.08		8.2 E-05					
TRICHLOROETHENE (TCE)	3400	3400	3400	3400	3117	3.12	3.12	3.12	3.12		3.1 E-03					
WATER FLOW RATE (GPM)	800	300	1100	1100	1200	1200	1100	100	1100	1.1 gpd	1100					
TEMPERATURE (°F)	55	55	55	55	55	55	55	55	55	60	55					
PRESSURE (PSIG)												-0.27	1.50	1.36	1.18	0.53
DENSITY (lb/ft^3)										95.5		0.077	0.085	0.084	0.082	0.079
MASS FLOW RATE (lb/hr)	400364	150136	550500	550500	600545	600545	550500	50,045	550500	0.59	550500	36,960	40,800	40,320	39,360	37,920
RELATIVE HUMIDITY (%)												50	50	100	50	50
STATIC PRESSURE (PSIA)												0.214	0.214	0.214	0.275	0.275
pH (S.U.)	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0	14	7.0					
VAPOR FLOW RATE (CFM)												8000	8000	8000	8000	8000
TOTAL VAPOR VOC (PPMV)												-	-	25.5	25.5	1.2
TOTAL VAPOR VOC (LBS/HR)												-	-	3.18	3.18	0.15

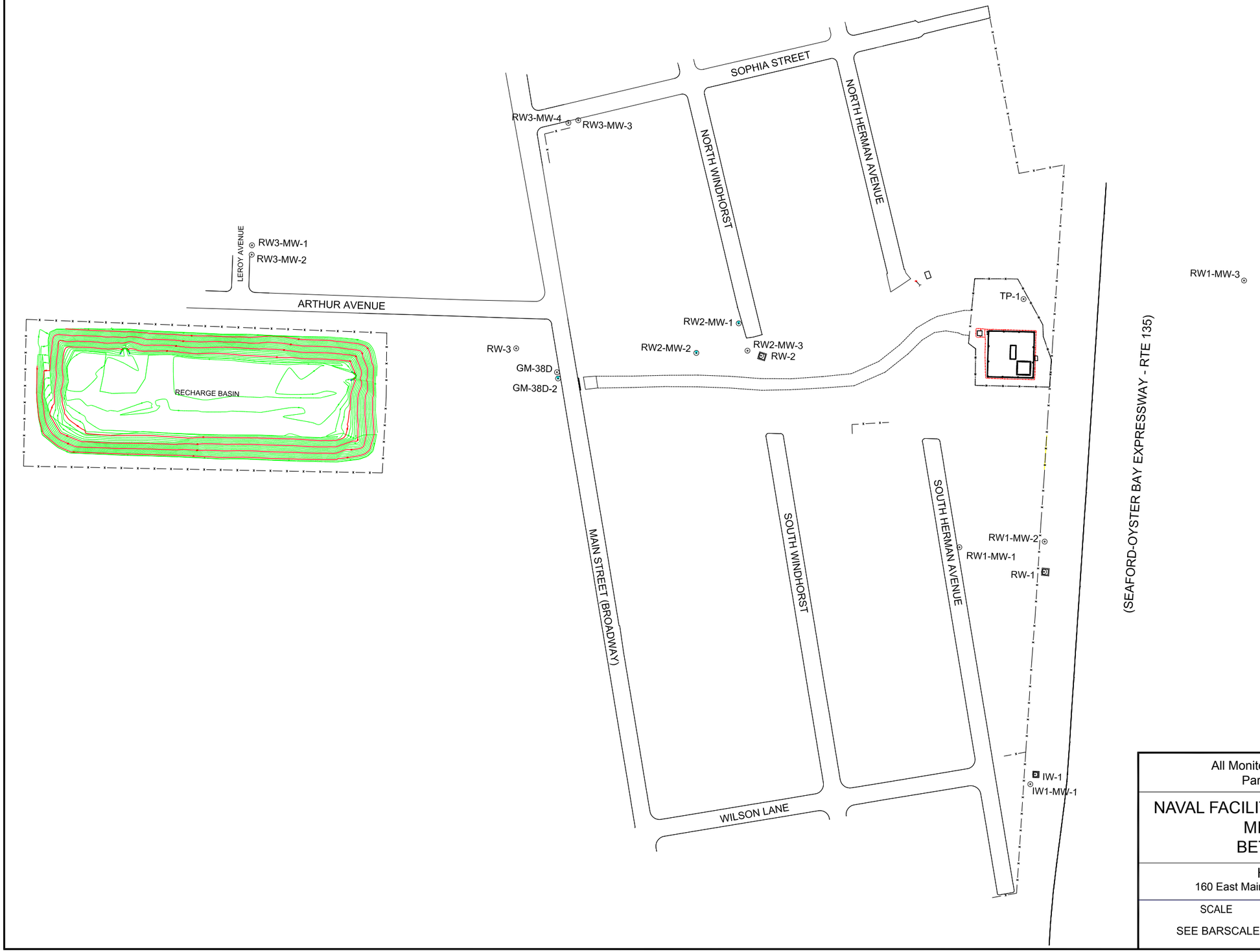
THIS DRAWING PRODUCED ON AUTOCAD DO NOT REVISE MANUALLY

TETRA TECH ENGINEERING CORPORATION PC

REV	DESCRIPTION	PREP BY	DATE	APPRVD
0	FINAL DESIGN	DL	05/05/06	BKB
1	ADDED RECOVERY WELL RW-3 CHANGED RW-2 TO FUTURE CONNECTION	DLB	03/31/08	BKB
2	REVISED BASED ON VENDOR SUBMITTALS, DRAWING UPDATES FOR CONSTRUCTION	DLB	02/24/09	BKB

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
ENGINEERING FIELD ACTIVITY - NORTHEAST
LESTER PENNSYLVANIA
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT BETHPAGE, NEW YORK
GM-38 AREA
GROUNDWATER TREATMENT PLANT
PROCESS FLOW DIAGRAM - GROUNDWATER AND OFF-GAS TREATMENT

SAT TO — DATE 05/05/06
CODE I.D. NO. 80091
SCALE : AS SHOWN
SPEC. NO.
CONSTR. CONTR. NO. N62472-99-D-0032
NAVFAC DRAWING NO. Figure 2
SHEET OF
SIZE: D
DIS. SH. NO. 1-4



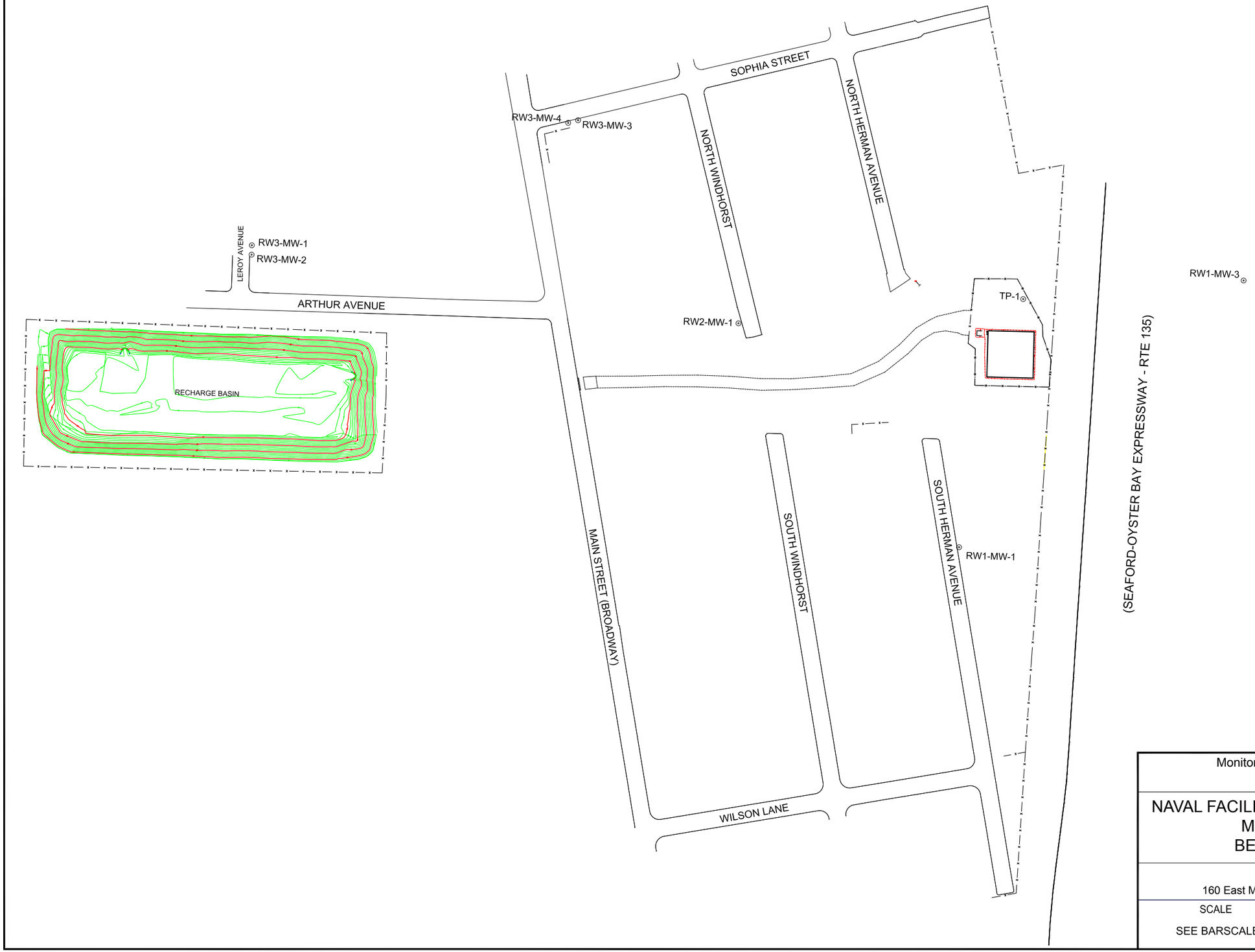
All Monitoring and Recovery Well Locations
Part of the GM-38 Area Remedy

NAVAL FACILITIES ENGINEERING COMMAND
MID-ATLANTIC NWIRP
BETHPAGE, NEW YORK

H&S Environmental, Inc.
160 East Main Street, Suite 2F, Westborough, MA 01581

SCALE	DATE	FIGURE
SEE BARSCALE	08-12-2011	3

ECOR/GM-38 NAVAL FAC/AS-BUILT 2008-PM.dwg 11/19/2010



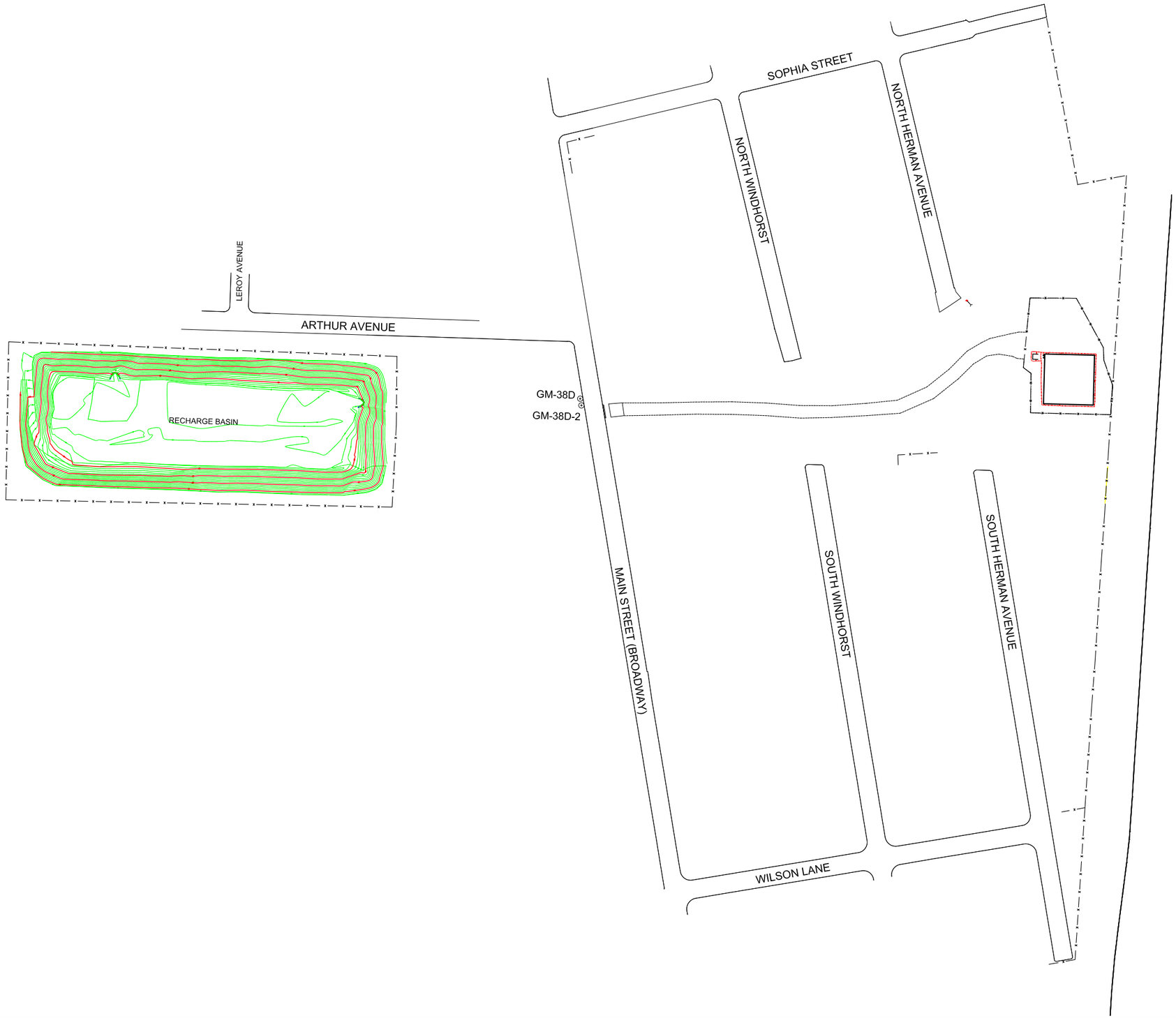
Monitoring and Recovery Well Locations
Quarterly GM-38 OM&M

NAVAL FACILITIES ENGINEERING COMMAND
MID-ATLANTIC NWIRP
BETHPAGE, NEW YORK

H&S Environmental, Inc.
160 East Main Street, Suite 2F, Westborough, MA 01581

SCALE	DATE	FIGURE
SEE BARSCALE	08-12-2011	4

ECOR/GM-38 NAVAL FAC/AS-BUILT 2008-PM.dwg 11/19/2010



Monitoring Well Locations Sampled By Northrop Grumman

NAVAL FACILITIES ENGINEERING COMMAND
MID-ATLANTIC NWIRP
BETHPAGE, NEW YORK

H&S Environmental, Inc.
160 East Main Street, Suite 2F, Westborough, MA 01581

SCALE	DATE	FIGURE
SEE BARSCALE	08-12-2011	5

ECOR/GM-38 NAVAL FAC/AS-BUILT 2008-PM.dwg 11/19/2010

APPENDIX A
NYSDEC Effluent Limitations and Monitoring Requirements and Monthly DMRs

New York State Department of Environmental Conservation
Division of Water
Bureau of Water Permits, 4th Floor
625 Broadway, Albany, New York 12233-3505
Phone: (518) 402-8111 • **FAX:** (518) 402-9029
Website: www.dec.state.ny.us

Alexander B. Grannis
Commissioner

MEMORANDUM

TO: Steven Scharf, DER

FROM: Jean Occidental, DOW, Bureau of Water Permits JO

SUBJECT: Naval Weapons Industrial Reserve Plant (NWIRP); DER Site # 1-01-001

DRAINAGE BASIN: na

DATE: June 6, 2008

In response to your request and the permittee's SPDES Permit Equivalent Application dated April 27, 2008, attached is the effluent criteria for the above noted groundwater remediation discharge.

The Division of Water does not have any regulatory authority over a discharge from a State, PRP, or Federal Superfund Site. The Division of Environmental Remediation will be responsible for ensuring compliance with the attached effluent criteria and approval of all engineering submissions. Additional Condition (1) identifies the contact to send all effluent results, engineering submissions, and modification requests. The Regional Water Engineer should be kept appraised of the status of these discharges and, in accordance with the attached criteria, receive a copy of the effluent results for informational purposes.

If you have any questions, please call me at (518) 402-8116.

Attachment

cc: (w/att) RWE, Region 1
C. Webber
BWP Permit Coordinator

Naval Weapons Industrial Reserve Plant

DER site # 1-01-001
Page 1 of 2

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning: April 1, 2009

and lasting until: April 1, 2014

the discharges from the treatment facility to Groundwater shall be limited and monitored by the operator as specified below:

Outfall and Parameters	Limitations		Units	Minimum Monitoring Requirements	
	Daily Avg.	Daily Max.		Measurement Frequency	Sample Type
Treated Groundwater Remediation Discharge from: Recovery Wells 1, 2, and 3					
Flow	Monitor	1100	GPM	Continuous	Recorder
pH (range)	5.5 - 8.5		SU	Weekly	Grab
1,1-Dichloroethane	NA	5	µg/l	Monthly [1]	Grab
1,2-Dichloroethane	NA	0.6	µg/l	Monthly [1]	Grab
1,1-Dichloroethene	NA	5	µg/l	Monthly [1]	Grab
cis-1,2-Dichloroethene	NA	5	µg/l	Monthly [1]	Grab
trans-1,2-Dichloroethene	NA	5	µg/l	Monthly [1]	Grab
Tetrachloroethene	NA	5	µg/l	Monthly [1]	Grab
1,1,1-Trichloroethane	NA	5	µg/l	Monthly [1]	Grab
Trichloroethene	NA	5	µg/l	Monthly [1]	Grab
Vinyl chloride	NA	2	µg/l	Monthly [1]	Grab
Mercury	NA	0.25	µg/l	Monthly [1]	Grab

Footnotes:

(1) The minimum measurement frequency shall be monthly following a period of 24 consecutive weekly sampling events showing no exceedances of the stated discharge limitations.

Additional Conditions:

(1) Discharge is not authorized until such time as an engineering submission showing the method of treatment is approved by the Department. The discharge rate may not exceed the effective or design treatment system capacity. All monitoring data, engineering submissions and modification requests must be submitted to:

Steven Scharf
Division of Environmental Remediation
NYSDEC, 625 Broadway
Albany, NY 12233-7015
Phone: (518) 402-9620

With a copy sent to:

Regional Water Engineer
NYSDEC - Region 1
Building 40, SUNY Campus
Stony Brook, New York 11790-2356
Phone: (631) 444-0354

(2) Only site generated wastewater is authorized for treatment and discharge.

(3) Authorization to discharge is valid only for the period noted above but may be renewed if appropriate. A request for renewal must be received 6 months prior to the expiration date to allow for a review of monitoring data and reassessment of monitoring requirements.

(4) Any use of corrosion/scale inhibitors, biocidal-type compounds, or other water treatment chemicals used in the treatment process must be approved by the department prior to use.

(5) This discharge and administration of this discharge must comply with the substantive requirements of 6NYCRR Part 750.

April 2011

Environmental
Construction
Operation &
Remediation

ECOR Federal Services, LLC
21 S High St, 2nd Floor
West Chester, PA 19382
(484) 887-7510
(610) 431-2852 (fax)

May 19, 2011

Mr. Steven Scharf
New York State Department of Environmental Conversation
Division of Environmental Remediation
Remedial Action, Bureau A
625 Broadway
Albany, NY 12233-7015

SUBJECT: **GM-38 GROUNDWATER REMEDIATION AT NWIRP BETHPAGE, NY MONTHLY REPORT ON GROUNDWATER AND AIR DISCHARGE FOR DER SITE # 1-30-003B-OU 2**

Dear Mr. Scharf:

In accordance with groundwater treatment system operational requirements for DER Site # 1-30-003B-OU 2, ECOR Federal Services, LLC. (ECOR) on behalf of the United States Department of the Navy is submitting this monthly report of the groundwater and air discharge results for the GM-38 system. The enclosed data, presented as Attachment 1, is for treatment system operations from April 1 through April 30, 2011. All constituents were within permit limitations and the plant operated within the normal operating parameters except from March 23 through April 6 when the plant was shut down due to an air stripper pump failure.

Please do not hesitate contact me with any questions regarding this letter or report at office phone # 610-840-9200 or via email at lapp@ecor-solutions.com

Sincerely,
ECOR Federal Services, LLC.

Matthew Lapp
Project Engineer

Attachments: Groundwater and Air Sampling Results from April 1 - 30, 2011

cc: Jean Occidental, NYSDEC Division of Water
William Spitz, NYSDEC – Region 1 Water Engineer
Gerard Ennis, Nassau County Department of Public Works
Richard Pfaender, Town of Oyster Bay
Lora Fly, Navy Mid-Atlantic RPM
Al Taormina, ECOR Inc.
GM-38 Project Site File

GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Discharge Monitoring Report
April 2011

SPDES Parameters	**Daily Maximum**	**Units**	**April 2011**			
Process Stream			**RW-1**	**RW-3**	**Influent**	**Effluent**
Well Depth		ft	500	500	N/A	N/A
Screened Interval		ft	470-500	470-500	N/A	N/A
Sampling Date			4/25/11			
Average Flowrate		GPM	598	161	759	789
Total Flow		gallons	NR	NR	32,778,000	34,094,057
pH (range)	5.5 - 8.5	SU	NR	NR	6.10	6.85
1,1-Dichloroethane	5	µg/l	2.8	1.8	2.6	ND
1,2-Dichloroethane	0.6	µg/l	ND	ND	ND	ND
1,1-Dichloroethene	5	µg/l	7.5	1.5	6.2	ND
Carbon Tetrachloride	N/A	µg/l	ND	ND	ND	ND
cis 1,2-Dichloroethene	5	µg/l	58.3	1.7	46.3	ND
trans 1,2-Dichloroethene	5	µg/l	1	ND	0.8	ND
Tetrachloroethene	5	µg/l	109	ND	86	ND
1,1,1-Trichloroethene	5	µg/l	7.1	0.91 J	5.8	ND
Trichloroethene	5	µg/l	412	332	395	ND
Vinyl Chloride	2	µg/l	6.3	ND	5.0	ND
Mercury	0.25	µg/l	< 0.20	<0.20	<0.20	<0.20

Notes:
J, B - Estimated result less than reporting limit
ND - Not Detected
NR - Not Recorded
N/A - Not Applicable

GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Air Sampling Results
April 2011

DAR Parameters	SGC	Units	April 2011	
Process Stream			**Influent**	**Effluent**
Sampling Date			4/29/11	
Average Flowrate		CFM		6396
Total Flow		ft^3	NR	276,311,829
Total Flow		m^3	NR	7,819,625
Trichloroethene	14000	$\mu g/m^3$	5000	48
Tetrachloroethene	1000	$\mu g/m^3$	2000	18
Vinyl Chloride	180000	$\mu g/m^3$	70	ND
trans 1,2-Dichloroethene	-	$\mu g/m^3$	ND	ND
cis 1,2-Dichloroethene	-	$\mu g/m^3$	670	ND
1,2-Dichloroethene (total)	-	$\mu g/m^3$	670	ND
1,2-Dichloroethane	-	$\mu g/m^3$	ND	ND
Toluene	37000	$\mu g/m^3$	ND	ND
Xylene	4300	$\mu g/m^3$	ND	ND
1,1,2-Trichloroethane	-	$\mu g/m^3$	ND	ND

Notes:
ND - Not detected
NR - Not recorded
SGC - Short-term Guideline Concentration

GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Controlled Stack Emissions
April 2011

DAR Parameters	Discharge Limit	Units	April 2011
Sampling Date			4/29/11
Average Flowrate		CFM	6396
Total Flow		ft^3	276,311,829
Total Flow		m^3	7,819,625
Trichloroethene	0.09	lb/hr	0.0011
Tetrachloroethene	0.02	lb/hr	0.0004
Vinyl Chloride	0.01	lb/hr	0.00
1,2 Dichloroethene	0.03	lb/hr	0.00
1,2-Dichloroethane	BRT	lb/hr	0.00
Toluene	BRT	lb/hr	0.00
Xylene	BRT	lb/hr	0.00
1,1,2-Trichloroethane	BRT	lb/hr	0.00

Notes:
BRT - Below reporting thresholds

May 2011

Environmental
Construction
Operation &
Remediation

ECOR Federal Services, LLC
21 S High St, 2nd Floor
West Chester, PA 19382
(484) 887-7510
(610) 431-2852 (fax)

June 20, 2011

Mr. Steven Scharf
New York State Department of Environmental Conversation
Division of Environmental Remediation
Remedial Action, Bureau A
625 Broadway
Albany, NY 12233-7015

SUBJECT: **GM-38 GROUNDWATER REMEDIATION AT NWIRP BETHPAGE, NY MONTHLY REPORT ON GROUNDWATER AND AIR DISCHARGE FOR DER SITE # 1-30-003B-OU 2**

Dear Mr. Scharf:

In accordance with groundwater treatment system operational requirements for DER Site # 1-30-003B-OU 2, ECOR Federal Services, LLC. (ECOR) on behalf of the United States Department of the Navy is submitting this monthly report of the groundwater and air discharge results for the GM-38 system. The enclosed data is for treatment system operations from May 1 through May 31, 2011. All constituents were within permit limitations and the plant operated within the normal operating parameters, however, it should be noted that there was one unscheduled shutdown due to a power outage.

Please do not hesitate contact me with any questions regarding this letter or report at office phone # 610-840-9200 or via email at lapp@ecor-solutions.com

Sincerely,
ECOR Federal Services, LLC.

Matthew Lapp
Project Engineer

Attachments: Groundwater and Air Sampling Results from May 1 - 31, 2011

cc: Jean Occidental, NYSDEC Division of Water
William Spitz, NYSDEC – Region 1 Water Engineer
Gerard Ennis, Nassau County Department of Public Works
Richard Pfaender, Town of Oyster Bay
Lora Fly, Navy Mid-Atlantic RPM
Al Taormina, ECOR Inc.
Jennifer Good, H&S Environmental
GM-38 Project Site File

GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Discharge Monitoring Report
May 2011

SPDES Parameters	**Daily Maximum**	**Units**	**May 2011**			
Process Stream			**RW-1**	**RW-3**	**Influent**	**Effluent**
Well Depth		ft	500	500	N/A	N/A
Screened Interval		ft	470-500	470-500	N/A	N/A
Sampling Date			5/25/11			
Average Flowrate		GPM	797	201	998	1024
Total Flow		gallons	NR	NR	44,536,985	45,697,625
pH (range)	5.5 - 8.5	SU	NR	NR	5.1	6.8
1,1-Dichloroethane	5	µg/l	3.2	2.3	3.0	ND
1,2-Dichloroethane	0.6	µg/l	ND	ND	ND	ND
1,1-Dichloroethene	5	µg/l	8	2.0	6.8	ND
Carbon Tetrachloride	N/A	µg/l	0.75 J	0.22 J	ND	ND
cis 1,2-Dichloroethene	5	µg/l	59.8	1.9	48.1	0.63 J
trans 1,2-Dichloroethene	5	µg/l	1.2	ND	1.0	ND
Tetrachloroethene	5	µg/l	117	ND	93	ND
1,1,1-Trichloroethene	5	µg/l	8.1	1.3	6.7	ND
Trichloroethene	5	µg/l	399	326	384	ND
Vinyl Chloride	2	µg/l	5.8	ND	4.6	ND
Mercury	0.25	µg/l	< 0.20	<0.20	<0.20	<0.20

Notes:
J, B - Estimated result less than reporting limit
ND - Not Detected
NR - Not Recorded
N/A - Not Applicable

GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Air Sampling Results
May 2011

DAR Parameters	SGC	Units	May 2011	
Process Stream			**Influent**	**Effluent**
Sampling Date			5/25/11	
Average Flowrate		CFM		7806
Total Flow		ft^3	NR	348,459,840
Total Flow		m^3	NR	9,861,413
Trichloroethene	14000	$\mu g/m^3$	4800	46
Tetrachloroethene	1000	$\mu g/m^3$	1200	9.8
Vinyl Chloride	180000	$\mu g/m^3$	50	ND
trans 1,2-Dichloroethene	-	$\mu g/m^3$	ND	ND
cis 1,2-Dichloroethene	-	$\mu g/m^3$	430	11
1,2-Dichloroethene (total)	-	$\mu g/m^3$	430	11
1,2-Dichloroethane	-	$\mu g/m^3$	ND	ND
Toluene	37000	$\mu g/m^3$	ND	ND
Xylene	4300	$\mu g/m^3$	ND	ND
1,1,2-Trichloroethane	-	$\mu g/m^3$	ND	ND

Notes:
ND - Not detected
NR - Not recorded
SGC - Short-term Guideline Concentration

GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Controlled Stack Emissions
May 2011

DAR Parameters	Discharge Goal	Units	May 2011
Sampling Date			5/25/11
Average Flowrate		CFM	7806
Total Flow		ft^3	348,459,840
Total Flow		m^3	9,861,413
Trichloroethene	0.09	lb/hr	0.0013
Tetrachloroethene	0.02	lb/hr	0.0003
Vinyl Chloride	0.01	lb/hr	0.0000
1,2 Dichloroethene	0.03	lb/hr	0.0000
1,2-Dichloroethane	BRT	lb/hr	0.0003
Toluene	BRT	lb/hr	0.0003
Xylene	BRT	lb/hr	0.0000
1,1,2-Trichloroethane	BRT	lb/hr	0.0000

Notes:
BRT - Below reporting thresholds

June 2011

H&S ENVIRONMENTAL
...an 8(a), SDB, woman-owned company

20 July 2011

Mr. Steven Scharf
New York State Department of Environmental Conversation
Division of Environmental Remediation
Remedial Action, Bureau A
625 Broadway
Albany, NY 12233-7015

Subject: GROUNDWATER DISCHARGE MONITORING/AIR EMISSION REPORT
JUNE 2011 REPORTING PERIOD
GM-38 AREA, NWIRP BETHPAGE, NY
DER SITE # 1-30-003B-OU 2

Dear Mr. Scharf:

H&S Environmental, Inc. (H&S) is submitting this monthly monitoring report of the groundwater discharge and air emission results for the Groundwater Treatment Plant (GWTP) located at the Former Naval Industrial Reserve Plant (NWIRP), Bethpage, NY, GM-38 Area. This report was prepared in accordance with GWTP operational requirements for DER Site # 1-30-003B-OU 2. H&S assumed operational responsibility of the GWTP on 1 June 2011. GWTP operational data from 1 June to 30 June 2011 are included in Attachment A. All constituents were within permit limitations and the plant operated within the normal parameters during this reporting period.

Please contact Ms. Jennifer Good or myself at 508-366-7442 with any questions or concerns that you may have regarding this report.

Sincerely,
H&S Environmental, Inc.

Patrick Schauble, P.E.
Program Manager

Attachment A: Groundwater and Air Sampling Results from June 2011
Cc: Jean Occidental - NYSDEC Division of Water
William Spitz - NYSDEC – Region 1 Water Engineer
Gerard Ennis - Nassau County Department of Public Works
Richard Pfaender - Town of Oyster Bay
Lora Fly - Navy Mid-Atlantic RPM; Al Taormina - ECOR
Plant Copy – NWIRP Bethpage GM-38

ATTACHMENT A

GROUNDWATER AND AIR SAMPLING RESULTS

JUNE 2011

GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Discharge Monitoring Report
June 2011

SPDES Parameters			June 2011			
Process Stream	Daily Treated Effluent Maximum	Units	RW-1	RW-3	Combined Influent (1) (RW-1 + RW-3)	Treated Effluent (2)
Well Depth	N/A	ft	500	500	500	N/A
Screened Interval	N/A	ft	470-500	470-500	470-500	N/A
Sampling Date	N/A		6/15/11			
Average Flowrate	1100	GPM	753	189	942	1158
Total Flow	N/A	gallons	31,445,500	7,907,500	39,353,000	48,367,400
pH	5.5 - 8.5	SU	5.44	5.02	5.36	6.07
1,1-Dichloroethane	5	µg/L	3.0	2.2	2.8	ND
1,2-Dichloroethane	0.6	µg/L	ND	ND	ND	ND
1,1-Dichloroethene	5	µg/L	7.8	1.8	6.6	ND
cis 1,2-Dichloroethene	5	µg/L	59.9	2.0	48.3	0.63 J
trans 1,2-Dichloroethene	5	µg/L	0.90 J	ND	0.72 J	ND
Tetrachloroethene	5	µg/L	110	0.69 J	88	ND
1,1,1-Trichloroethene	5	µg/L	7.1	1.0	5.9	ND
Trichloroethene	5	µg/L	287	230	276	ND
Vinyl Chloride	2	µg/L	5.3	ND	4.2	ND
Mercury	0.25	µg/L	ND	ND	ND	ND
Total Suspended Solids (TSS)	N/A	µg/L	ND	ND	ND	ND

Notes:
J - Estimated result between laboratory method detection limit and reporting limit
ND - Not detected above laboratory method detection limit
NR - Not Recorded
N/A - Not Applicable
(1) Influent concentrations presented are the weighted average concentrations of RW-1 and RW-3.
(2) Effluent flow presented is based on data recorded by the effluent flow meter. The value presented appears to be greater than the actual effluent flow based on various other recorded flow data.

GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Air Sampling Results
June 2011

DAR Parameters	SGC	Units	June 2011	
Process Stream			Influent	Effluent
Sampling Date	N/A	N/A	6/17/11	
Average Flowrate	N/A	CFM	NR	7680
Total Flow	N/A	ft^3	NR	331,795,938
Total Flow	N/A	m^3	NR	9,395,415
1,2-Dichloroethane	N/A	$\mu g/m^3$	4	0.8
cis 1,2-Dichloroethene	N/A	$\mu g/m^3$	510	30
trans 1,2-Dichloroethene	N/A	$\mu g/m^3$	11	1
1,2-Dichloroethene (total)	N/A	$\mu g/m^3$	521	31
Toluene	37,000	$\mu g/m^3$	1	8
Total Xylene	4,300	$\mu g/m^3$	3	9
1,1,2-Trichloroethane	N/A	$\mu g/m^3$	0.9 J	0.8 J
Trichloroethene	14,000	$\mu g/m^3$	39	170
Vinyl Chloride	180,000	$\mu g/m^3$	47	4

Notes:
CFM - cubic feet per minute
DAR - Division of Air Resources
J - Estimated result between laboratory method detection limit and reporting limit
N/A - Not Applicable
NR - Not recorded
SGC - Short-term Guideline Concentration

GM-38 Area Groundwater Remediation
Groundwater Treatment Plant
Naval Weapons Industrial Reserve Plant - Bethpage, NY
Controlled Stack Emissions
June 2011

DAR Parameters	Discharge Goal	Units	June 2011
Sampling Date	N/A	N/A	6/17/11
Average Flowrate	N/A	CFM	7680
Total Flow	N/A	ft^3	331,795,938
Total Flow	N/A	m^3	9,395,415
Trichloroethene	0.09	lb/hr	0.0049
Vinyl Chloride	0.01	lb/hr	0.0001
1,2 Dichloroethene	0.03	lb/hr	0.0009
1,2-Dichloroethane	BRT	lb/hr	0.0000
Toluene	BRT	lb/hr	0.0002
Total Xylene	BRT	lb/hr	0.0003
1,1,2-Trichloroethane	BRT	lb/hr	0.0000

Notes:
BRT - below reporting thresholds
CFM - cubic feet per minute
DAR - Division of Air Resources
N/A - Not Applicable

APPENDIX B
NYSDEC Air Permit Equivalent Approval

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Remedial Action A
625 Broadway, 11th Floor
Albany, New York 12233-7015
Phone: (518) 402-9625 • Fax: (518) 402-9022
Website: www.dec.state.ny.us

Alexander P. Grannis
Commissioner

July 24, 2009

Lora Fly, Project Manager
Naval Facilities Engineering Command-Midlant
9742 Maryland Avenue
Norfolk, VA 23511-3095

RE: Naval Weapons Industrial Research Plant(NWIRP)
Site-Bethpage, NYSDEC No. 1-30-003B.
Grumman Aerospace Site, NYSDEC Site No. 1-30-003A

Dear Ms. Fly:

Tetra Tech FW, on behalf of the Department of the Navy (Navy), has submitted the enclosed New York State Department of Environmental Conservation (NYSDEC) Division of Air Resources (DAR) Air Permit Application as a permit equivalent. This DAR Air permit equivalent is for the air stripper discharge at the GM 38 Area groundwater remediation system, Near Broadway and North Herman Avenue in Bethpage, NY. The NYSDEC Division of Environmental Remediation (DER) has reviewed the permit equivalent and, by means of this letter approves the GM 38 Area remedy air discharge for immediate operation.

The GM 38 Area remedial system utilizes the best available control technology (BACT) with activated carbon followed by potassium permanganate impregnated xeolite resin. The air discharge will be periodically monitored at start up and will be added for routine monitoring in the operation, maintenance and monitoring (OMM) plan, to be submitted shortly for Departmental review.

If you have any questions, please contact me at your earliest convenience at (518)402-9620.

Sincerely,

Steven M. Scharf, P.E.
Project Engineer
Division of Environmental Remediation
Bureau of Remedial Action A

Enclosure
ec/w/enc:
J. Swartwout/S. Scharf/File
W. Parish, Region 1 NYSDEC
A. J. Shah, region 1 NYSDEC
S. Patselos, Tetra Tech FW
J. Cofman, Northrop Grumman]
edocs: Region 1, Nassau, Oyster Bay (T): Grumman Aerospace 130003A-OU2-OMM and NWIRP Bethpage 130003B-OU2-OMM

New York State Department of Environmental Conservation
Air Permit Application

DEC ID	APPLICATION ID	OFFICE USE ONLY
- -	- /	/ /

Section I - Certification

Title V Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information [required pursuant to 6 NYCRR 201-6.3(d)] I believe the information is, true, accurate and complete I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations

Responsible Official	Title
Signature	Date / /

State Facility Certification

I certify that this facility will be operated in conformance with all provisions of existing regulations.

Responsible Official	Title
Signature	Date / /

Section II - Identification Information

Title V Facility Permit N/A	State Facility Permit N/A
❑ New ❑ Significant Modification ❑ Administrative Amendment	❑ New ❑ Modification
❑ Renewal ❑ Minor Modification General Permit Title:	General Permit Title:
☒ Application involves construction of new facility ❑ Application involves construction of new emission unit(s)	

Owner/Firm

Name	US Navy/NAVFAC Midlant			
Street Address	9742 Maryland Ave, Bldg Z-144			
City	Norfolk	State VA	Country US	Zip 23511-3095
Owner Classification	☒ Federal ❑ State ❑ Municipal ❑ Corporation/Partnership ❑ Individual			Taxpayer ID

Facility

❑ Confidential

Name	Naval Weapons Industrial Reserve Plant (NWIRP) GM-38 Area	
Location Address	Bethpage	
❑ City / ☒ Town / ❑ Village	Oyster Bay, New York	Zip 11714

Project Description

❑ Continuation Sheet(s)

Air stripping of groundwater to remove VOCs

Owner/Firm Contact Mailing Address

Name (Last, First, Middle Initial)	Fly, Lora		Phone No. (757) 444-0781
Affiliation	Department of the Navy	Title Remedial PM	Fax No. ( )
Street Address	9742 Maryland Ave. Bldg Z-144		
City	Norfolk	State VA	Country US	Zip 23511-3095

Facility Contact Mailing Address

Name (Last, First, Middle Initial)	Same		Phone No. ( )
Affiliation		Title	Fax No. ( )
Street Address			
City		State	Country	Zip

New York State Department of Environmental Conservation
Air Permit Application

DEC ID
- -

Section III - Facility Information

Classification

❑ Hospital ❑ Residential ❑ Educational/Institutional ❑ Commercial ☒ Industrial ❑ Utility

Affected States (Title V Only) N/A

❑ Vermont ❑ Massachusetts ❑ Rhode Island ❑ Pennsylvania Tribal Land:_____
❑ New Hampshire ❑ Connecticut ❑ New Jersey ❑ Ohio Tribal Land:_____

SIC Codes

9999												

Facility Description ❑ Continuation Sheet(s)

Groundwater Remediation by Air Stripping followed by Vapor-Phase GAC for emission control

Compliance Statements (Title V Only) N/A

I certify that as of the date of this application the facility is in compliance with all applicable requirements: ❑ YES ❑ NO

If one or more emission units at the facility are not in compliance with all applicable requirements at the time of signing this application (the 'NO' box must be checked), the noncomplying units must be identified in the "Compliance Plan" block on page 8 of this form along with the compliance plan information required. For all emission units at this facility that are operating in compliance with all applicable requirements complete the following:

- ❑ This facility will continue to be operated and maintained in such a manner as to assure compliance for the duration of the permit, except those units referenced in the compliance plan portion of Section IV of this application.
- ❑ For all emission units, subject to any applicable requirements that will become effective during the term of the permit, this facility will meet all such requirements on a timely basis.
- ❑ Compliance certification reports will be submitted at least once a year. Each report will certify compliance status with respect to each requirement, and the method used to determine the status.

Facility Applicable Federal Requirements N/A ❑ Continuation Sheet(s)

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
	CERCLA	all substantive requirements							

Facility State Only Requirements ❑ Continuation Sheet(s)

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

New York State Department of Environmental Conservation
Air Permit Application

DEC ID
- - - - - - - - - -

Section III - Facility Information (continued)

Facility Compliance Certification N/A ❑ Continuation Sheet(s)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

❑ Applicable Federal Requirement ❑ State Only Requirement	❑ Capping	CAS No.	Contaminant Name
		- -	

Monitoring Information

❑ Ambient Air Monitoring ❑ Work Practice Involving Specific Operations ❑ Record Keeping/Maintenance Procedures

Description

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description

Facility Emissions Summary ❑ Continuation Sheet(s)

CAS No.	Contaminant Name	PTE (lbs/yr)	PTE Range Code	Actual (lbs/yr)
NY075 - 00 - 5	PM-10			
NY075 - 00 - 0	PARTICULATES			
7446 - 09 - 5	SULFUR DIOXIDE			
NY210 - 00 - 0	OXIDES OF NITROGEN			
630 - 08 - 0	CARBON MONOXIDE			
7439 - 92 - 1	LEAD			
NY998 - 00 - 0	VOC	117		
NY100 - 00 - 0	HAP	110		
0079 - 01 - 6	Trichloroethylene	99		
00075 - 01 - 4	Vinyl Chloride	3.7		
00540 - 59 - 0	1,2-Dichloroethylene	7.3		
- -				
- -				

New York State Department of Environmental Conservation
Air Permit Application

DEC ID
- - -

Section IV - Emission Unit Information

Emission Unit Description

❑ Continuation Sheet(s)

EMISSION UNIT: 0-00EU1

Air Stripper AS-1 for groundwater remediation, provided with activated carbon for emission control. The emission point is stack 00ST-1. The 2-stage VGAC is followed by a 3rd vessel containing a potassium permanganate zeolite media for increased VC capacity.

Building

❑ Continuation Sheet(s)

Building	Building Name	Length (ft)	Width (ft)	Orientation
BLDG-1	Treatment Plant	75	75	0

Emission Point

❑ Continuation Sheet(s)

EMISSION PT.: 00ST1

Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section	
					Length (in)	Width (in)
90	40	15	36	80		
Exit Velocity (FPS)	**Exit Flow (ACFM)**	**NYTM (E) (KM)**	**NYTM (N) (KM)**	**Building**	**Distance to Property Line (ft)**	**Date of Removal**
19	8020			BLDG-1	50	

EMISSION PT.:

Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section	
					Length (in)	Width (in)
Exit Velocity (FPS)	**Exit Flow (ACFM)**	**NYTM (E) (KM)**	**NYTM (N) (KM)**	**Building**	**Distance to Property Line (ft)**	**Date of Removal**

Emission Source/Control

❑ Continuation Sheet(s)

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
AS-1	I				048	Granular Act. Carbon	Air Stripping Column

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

New York State Department of Environmental Conservation
Air Permit Application

DEC ID
- - -

Section IV - Emission Unit Information (continued)

Process Information ❑ Continuation Sheet(s)

EMISSION UNIT 0-00EU1 PROCESS PR1

Description

The remedial system is air stripping, using a packed column at a groundwater flow rate of 1,100 gpm (plus 100 gpm recycle, for a total of 1,200 gpm). Vapor phase treatment includes the use of 3 vessels, a 2-stage GAC unit, followed by a 3rd vessel containing a potassium permanganate impregnated zeolite for increased VC capacity. Prior to entering the vapor-phase GAC adsorption system, the humidity of the air stripper exhaust is reduced to approximately 50 percent or less to optimize the efficiency of the vapor-phase GAC.

Air Stripper AS-1: Existing. Type: Vertical, Cylindrical Construction: Aluminum

Packing: 25-foot Jaeger Tripack. Dimensions: 10.0 ft. Dia x 47 ft. H

Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description

❑ Confidential ☒ Operating at Maximum Capacity ❑ Activity with Insignificant Emissions	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365	BLDG-1	Main

Emission Source/Control Identifier(s)

AS-1							

EMISSION UNIT - PROCESS

Description

Source Classification Code (SCC)	Total Thruput		Thruput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description

❑ Confidential ❑ Operating at Maximum Capacity ❑ Activity with Insignificant Emissions	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		

Emission Source/Control Identifier(s)

New York State Department of Environmental Conservation
Air Permit Application

DEC ID
- -

Section IV - Emission Unit Information (continued)

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements ❑ Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
-													
-													
-													
-													

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements ❑ Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
-													
-													
-													
-													

Emission Unit Compliance Certification ❑ Continuation Sheet(s)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	212							

☒ Applicable Federal Requirement ❑ State Only Requirement ❑ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
0-00EU1	00ST1	PR1	AS-1	00079 - 01 - 6	Trichloroethylene

Monitoring Information

❑ Continuous Emission Monitoring
☒ Intermittent Emission Testing
❑ Ambient Air Monitoring
❑ Monitoring of Process or Control Device Parameters as Surrogate
❑ Work Practice Involving Specific Operations
❑ Record Keeping/Maintenance Procedures

Description

Monthly grab samples analyzed for VOCs from the vapor phase treatment system influent, effluent and two intermediate locations.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.
23	Concentration	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
3,125		255	micrograms per cubic meter

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
01	Instantaneous	05	Monthly	10	Upon Request

DEC ID
- -

Section IV - Emission Unit Information (continued)

Determination of Non-Applicability (Title V Only) N/A ❑ Continuation Sheet(s)

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

Emission Unit	Emission Point	Process	Emission Source	❑ Applicable Federal Requirement ❑ State Only Requirement
-				

Description

Rule Citation

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause

Emission Unit	Emission Point	Process	Emission Source	❑ Applicable Federal Requirement ❑ State Only Requirement
-				

Description

Process Emissions Summary ❑ Continuation Sheet(s)

EMISSION UNIT	0-00EU1				PROCESS	P R 1
CAS No.	Contaminant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
0079 - 01 - 6	Trichloroethylene			95	1.87	02

PTE (lbs/hr)	PTE (lbs/yr)	PTE (standard units)	Standard Units	PTE How Determined	Actual (lbs/hr)	Actual (lbs/yr)
0.09	99			02		

EMISSION UNIT	0-00EU1				PROCESS	P R 1
CAS No.	Contaminant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
00075- 01 - 4	Vinyl Chloride			95	0.17	03

PTE (lbs/hr)	PTE (lbs/yr)	PTE (standard units)	Standard Units	PTE How Determined	Actual (lbs/hr)	Actual (lbs/yr)
0.01	3.7			02		

EMISSION UNIT	0-00EU1				PROCESS	P R 1
CAS No.	Contaminant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
000540 - 59 - 0	1,2-Dichloroethylene			95	0.6	02

PTE (lbs/hr)	PTE (lbs/yr)	PTE (standard units)	Standard Units	PTE How Determined	Actual (lbs/hr)	Actual (lbs/yr)
0.03	7.3			02		

DEC ID
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Section IV - Emission Unit Information (continued)

EMISSION UNIT 0-00EU1	Emission Unit Emissions Summary			❑ Continuation Sheet(s)
CAS No.	Contaminant Name			
00107-06-2	1,2-Dichloroethane			
ERP (lbs/yr)	PTE Emissions		Actual	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
13.4	Below Reporting Threshold BRT			
CAS No.	Contaminant Name			
00108-88-3	Toluene			
ERP (lbs/yr)	PTE Emissions		Actual	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
72.7	BRT	BRT		
CAS No.	Contaminant Name			
01330-20-7	Xylene			
ERP (lbs/yr)	PTE Emissions		Actual	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
77.1	BRT	BRT		
CAS No.	Contaminant Name			
- -	1,1,2-Trichloroethane			
ERP (lbs/yr)	PTE Emissions		Actual	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
	BRT	BRT		

Compliance Plan

❑ Continuation Sheet(s)

For any emission units which are not in compliance at the time of permit application, the applicant shall complete the following

Consent Order — Certified progress reports are to be submitted every 6 months beginning ____/____/____

Emission Unit	Process	Emission Source	Applicable Federal Requirement									
			Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
-												

Remedial Measure / Intermediate Milestones	R/I	Date Scheduled

DEC ID

Section IV - Emission Unit Information (continued)

Request for Emission Reduction Credits

❑ Continuation Sheet(s)

EMISSION UNIT

Emission Reduction Description

Contaminant Emission Reduction Data

Baseline Period ____/____/____ to ____/____/____

Reduction Date	Reduction Method
/ /	

CAS No.	Contaminant Name	ERC (lbs/yr) Netting	ERC (lbs/yr) Offset
- -			
- -			
- -			

Facility to Use Future Reduction

Name

APPLICATION ID

Location Address

❑ City / ❑ Town / ❑ Village | State | Zip

Use of Emission Reduction Credits

❑ Continuation Sheet(s)

EMISSION UNIT

Proposed Project Description

Contaminant Emissions Increase Data

CAS No.	Contaminant Name	PEP (lbs/yr)
- -		

Statement of Compliance

❑ All facilities under the ownership of this "ownership/firm" are operating in compliance with all applicable requirements and state regulations including any compliance certification requirements under Section 114(a)(3) of the Clean Air Act Amendments of 1990, or are meeting the schedule of a consent order.

Source of Emission Reduction Credit - Facility

Name

PERMIT ID

Location Address

❑ City / ❑ Town / ❑ Village | State | Zip

Emission Unit	CAS No.	Contaminant Name	ERC (lbs/yr) Netting	ERC (lbs/yr) Offset
-	- -			
-	- -			
-	- -			

DEC ID
- -

Supporting Documentation

- ☒ P.E. Certification (form attached)
- ☐ List of Exempt Activities (form attached)
- ☒ Plot Plan
- ☐ Methods Used to Determine Compliance (form attached)
- ☒ Calculations
- ☐ Air Quality Model (_____ / _____ / _____)
- ☐ Confidentiality Justification
- ☐ Ambient Air Monitoring Plan (_____ / _____ / _____)
- ☐ Stack Test Protocols/Reports (_____ / _____ / _____)
- ☐ Continuous Emissions Monitoring Plans/QA/QC (_____ / _____ / _____)
- ☐ MACT Demonstration (_____ / _____ / _____)
- ☐ Operational Flexibility: Description of Alternative Operating Scenarios and Protocols
- ☐ Title IV: Application/Registration
- ☐ ERC Quantification (form attached)
- ☐ Use of ERC(s) (form attached)
- ☐ Baseline Period Demonstration
- ☐ Analysis of Contemporaneous Emission Increase/Decrease
- ☐ LAER Demonstration (_____ / _____ / _____)
- ☐ BACT Demonstration (_____ / _____ / _____)
- ☐ Other Document(s): _____ (/ /)

_____ (/ /)
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ATTACHMENT 1
Emission Estimate

Feed Water Flow	1,100	gpm: max or normal
	250	m^3/hr
Water Flow Including Recycle	1,200	gpm: max or normal
	273	m^3/hr
Air Flow	8,000	cfm
	13,592	m^3/hr
A/W vol ratio	50	

EXAMPLE EMISSION CALC: Vinyl Chloride
4.8 ug/L x 1000 L/m^3 x 250 m^3 water/13,623 m^3 air = 88 ug/m^3

					GW Conc.[1]		Effluent Conc[1]		Uncontrolled Stripper Exhaust							
	CAS	Toxicity:			Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg
Name	Number	H/M/L[2]	VOC[3]	HAP[4]	ug/L	ug/L	ug/L	ug/L	lb/day	lb/day	lb/hr	lb/hr	gm/sec	gm/sec	ug/m^3	ug/m^3
1,1,1-Trichloroethane (Methyl Chloroform)	00071-55-6	L	**No**	Yes	3	3.0			0.04	0.04	0.00	0.00	2.08E-04	2.08E-04	55	55
1,1,2-Trichloroethane	00079-00-5	M	Yes	Yes	3.5	0.3			0.05	0.00	0.00	0.00	2.43E-04	2.08E-05	64	6
1,1-Dichloroethane	00075-34-3	L	Yes	Yes	4	0.7			0.05	0.01	0.00	0.00	2.77E-04	4.85E-05	74	13
1,2-Dichloroethane	00107-06-2	M	Yes	Yes	3	1.0	0.3	0.1	0.04	0.01	0.00	0.00	1.87E-04	6.24E-05	55	18
1,1-Dichloroethylene (Vinylidene Chloride)	00075-35-4	M	Yes	Yes	9	1.6			0.12	0.02	0.00	0.00	6.24E-04	1.11E-04	165	29
1,2-Dichloroethylene	00540-59-0	M	Yes	**No**	1,100	31.5	1.3	0.0	14.51	0.42	0.60	0.02	7.62E-02	2.18E-03	20,219	579
Benzene	00071-43-2	H	Yes	Yes	4	0.1			0.05	0.00	0.00	0.00	2.77E-04	6.94E-06	74	2
Carbon Tetrachloride	00056-23-5	H	Yes	Yes	4	0.1			0.05	0.00	0.00	0.00	2.77E-04	6.94E-06	74	2
Chlorobenzene (Monochlorobenzene)	00108-90-7	M	Yes	Yes	1	0.1			0.01	0.00	0.00	0.00	6.94E-05	6.94E-06	18	2
Chloroform	00067-66-3	M	Yes	Yes	2	0.8			0.03	0.01	0.00	0.00	1.39E-04	5.55E-05	37	15
Methyl Tert Butyl Ether	01634-04-4	M	Yes	Yes	2	0.1			0.03	0.00	0.00	0.00	1.39E-04	6.94E-06	37	2
Tetrachloroethylene	00127-18-4	M	Yes	Yes	900	33.8	0.9	0.0	11.88	0.45	0.49	0.02	6.24E-02	2.34E-03	16,543	621
Toluene	00108-88-3	L	Yes	Yes	15	0.7			0.20	0.01	0.01	0.00	1.04E-03	4.85E-05	276	13
Trichloroethylene	00079-01-6	M	Yes	Yes	3,400	411.5	4.5	0.5	44.86	5.43	1.87	0.23	2.35E-01	2.85E-02	62,494	7,564
Vinyl chloride	00075-01-4	H	Yes	Yes	300	4.8	0.0	0.0	3.96	0.06	0.17	0.00	2.08E-02	3.33E-04	5,514	88
Xylenes	01330-20-7	M	Yes	Yes	16	0.2			0.21	0.00	0.01	0.00	1.11E-03	1.39E-05	294	4
Total VOCs					5,764	487.3	7.0	0.6	76.05	6.43	3.17	0.27				
Total HAPs					4,667	458.8	5.7	0.6	61.57	6.05	2.57	0.25				

Total Uncontrolled VOC 2,347 lb/yr
Total Uncontrolled HAP 2,209 lb/yr

1. Source: "GM-38 Groundwater Remedy Analysis Report", February 2003
2. Source: DAR-1 AGC/SGC Tables, NYSDEC Division of Air Resources, Air Toxics Section, September 10, 2007.
3. Source: 6 NYCRR Part 200.1(cg)
4. Source: 6 NYCRR Part 200.1(ag)

ATTACHMENT 1
Emission Estimate

Feed Water Flow	1,100	gpm: max or normal
	250	m^3/hr
Water Flow Including Recycle	1,200	gpm: max or normal
	273	m^3/hr
Air Flow	8,000	cfm
	13,592	m^3/hr
A/W vol ratio	50	

								Controlled Stripper Exhaust	
Name	CAS Number	Toxicity: H/M/L[2]	VOC[3]	HAP[4]	Control by GAC	Max lb/day	Avg lb/day	Max gm/sec	Avg gm/sec
1,1,1-Trichloroethane (Methyl Chloroform)	00071-55-6	L	**No**	Yes	95%	0.00	0.00	1.04E-05	1.04E-05
1,1,2-Trichloroethane	00079-00-5	M	Yes	Yes	95%	0.00	0.00	1.21E-05	1.04E-06
1,1-Dichloroethane	00075-34-3	L	Yes	Yes	95%	0.00	0.00	1.39E-05	2.43E-06
1,2-Dichloroethane	00107-06-2	M	Yes	Yes	95%	0.00	0.00	9.36E-06	3.12E-06
1,1-Dichloroethylene (Vinylidene Chloride)	00075-35-4	M	Yes	Yes	95%	0.01	0.00	3.12E-05	5.55E-06
1,2-Dichloroethylene	00540-59-0	M	Yes	**No**	95%	0.73	0.02	3.81E-03	1.09E-04
Benzene	00071-43-2	H	Yes	Yes	95%	0.00	0.00	1.39E-05	3.47E-07
Carbon Tetrachloride	00056-23-5	H	Yes	Yes	95%	0.00	0.00	1.39E-05	3.47E-07
Chlorobenzene (Monochlorobenzene)	00108-90-7	M	Yes	Yes	95%	0.00	0.00	3.47E-06	3.47E-07
Chloroform	00067-66-3	M	Yes	Yes	95%	0.00	0.00	6.94E-06	2.77E-06
Methyl Tert Butyl Ether	01634-04-4	M	Yes	Yes	95%	0.00	0.00	6.94E-06	3.47E-07
Tetrachloroethylene	00127-18-4	M	Yes	Yes	95%	0.59	0.02	3.12E-03	1.17E-04
Toluene	00108-88-3	L	Yes	Yes	95%	0.01	0.00	5.20E-05	2.43E-06
Trichloroethylene	00079-01-6	M	Yes	Yes	95%	2.24	0.27	1.18E-02	1.43E-03
Vinyl chloride	00075-01-4	H	Yes	Yes	95%	0.20	0.00	1.04E-03	1.66E-05
Xylenes	01330-20-7	M	Yes	Yes	95%	0.01	0.00	5.55E-05	6.94E-07
Total VOCs						3.80	0.32		
Total HAPs						3.08	0.30		

Total Controlled VOC	117	lb/yr
Total Controlled HAP	110	lb/yr

1. Source: "GM-38 Groundwater Remedy Analysis Report", February 2003
2. Source: DAR-1 AGC/SGC Tables, NYSDEC Division of Air Resources, Air Tox
3. Source: 6 NYCRR Part 200.1(cg)
4. Source: 6 NYCRR Part 200.1(ag)

ATTACHMENT 2
AIR SCREENING ANALYSIS:
Annual

BETHPAGE SCREENING ANALYSIS					1-Hour Impact	405.7	(ug/m^3)	
ANNUAL IMPACTS COMPARED TO ANNUAL GUIDELINE CONCENTRATIONS (AGCs)					Annual Impact	32.456	(ug/m^3)	
		NYSDEC Guideline	Estimated Emissions		Predicted Annual Impact		Maximum Percent of AGC	
		AGC	Uncontrolled	Controlled	Uncontrolled	Controlled	Uncontrolled	Controlled
Pollutant	CAS Number	(ug/m^3)	(g/s)	(g/s)	(ug/m^3)	(ug/m^3)	Pct	Pct
1,1,1-Trichloroethane (Methyl Chloroform)	00071-55-6	1000.00	2.08E-04	1.04E-05	0.0068	0.0003	0.0%	0.0%
1,1,2-Trichloroethane	00079-00-5	1.40	2.08E-05	1.04E-06	0.0007	0.0000	0.0%	0.0%
1,1-Dichloroethane	00075-34-3	0.63	4.85E-05	2.43E-06	0.0016	0.0001	0.3%	0.0%
1,2-Dichloroethane	00107-06-2	0.04	6.24E-05	3.12E-06	0.0020	0.0001	5.3%	0.3%
1,1-Dichloroethylene (Vinylidene Chloride)	00075-35-4	70.00	1.11E-04	5.55E-06	0.0036	0.0002	0.0%	0.0%
1,2-Dichloroethylene	00540-59-0	63.00	2.18E-03	1.09E-04	0.0709	0.0035	0.1%	0.0%
Benzene	00071-43-2	0.13	6.94E-06	3.47E-07	0.0002	0.0000	0.2%	0.0%
Carbon Tetrachloride	00056-23-5	0.07	6.94E-06	3.47E-07	0.0002	0.0000	0.3%	0.0%
Chlorobenzene (Monochlorobenzene)	00108-90-7	110.00	6.94E-06	3.47E-07	0.0002	0.0000	0.0%	0.0%
Chloroform	00067-66-3	0.04	5.55E-05	2.77E-06	0.0018	0.0001	4.2%	0.2%
Methyl tert-Butyl Ether	01634-04-4	3000.00	6.94E-06	3.47E-07	0.0002	0.0000	0.0%	0.0%
Tetrachloroethylene	00127-18-4	1.00	2.34E-03	1.17E-04	0.0761	0.0038	7.6%	0.4%
Toluene	00108-88-3	5000.00	4.85E-05	2.43E-06	0.0016	0.0001	0.0%	0.0%
Trichloroethylene	00079-01-6	0.50	2.85E-02	1.43E-03	0.9252	0.0463	**185.0%**	9.3%
Vinyl Chloride	00075-01-4	0.11	3.33E-04	1.66E-05	0.0108	0.0005	9.8%	0.5%
Xylenes	01330-20-7	100.00	1.39E-05	6.94E-07	0.0005	0.0000	0.0%	0.0%

ATTACHMENT 2
AIR SCREENING ANALYSIS:
Short term

BETHPAGE SCREENING ANALYSIS					1-Hour Impact	405.7	(ug/m^3)
SHORT-TERM IMPACTS COMPARED TO SHORT-TERM GUIDELINE CONCENTRATIONS (SGCs)					Annual Impact	32.456	(ug/m^3)

		NYSDEC Guideline	Estimated Emissions		Predicted Short-term Impact		Maximum Percent of SGC	
		SGC	Uncontrolled	Controlled	Uncontrolled	Controlled	Uncontrolled	Controlled
Pollutant	CAS Number	(ug/m^3)	(g/s)	(g/s)	(ug/m^3)	(ug/m^3)	Pct	Pct
1,1,1-Trichloroethane (Methyl Chloroform)	00071-55-6	68000.00	2.08E-04	1.04E-05	0.084	0.004	0.0%	0.0%
1,1,2-Trichloroethane	00079-00-5	-	2.43E-04	1.21E-05	0.098	0.005	-	-
1,1-Dichloroethane	00075-34-3	-	2.77E-04	1.39E-05	0.113	0.006	-	-
1,2-Dichloroethane	00107-06-2	-	1.87E-04	9.36E-06	0.076	0.004	-	-
1,1-Dichloroethylene (Vinylidene Chloride)	00075-35-4	-	6.24E-04	3.12E-05	0.253	0.013	-	-
1,2-Dichloroethylene	00540-59-0	-	7.62E-02	3.81E-03	30.915	1.546	-	-
Benzene	00071-43-2	1300.00	2.77E-04	1.39E-05	0.113	0.006	0.0%	0.0%
Carbon Tetrachloride	00056-23-5	1900.00	2.77E-04	1.39E-05	0.113	0.006	0.0%	0.0%
Chlorobenzene (Monochlorobenzene)	00108-90-7	-	6.94E-05	3.47E-06	0.028	0.001	-	-
Chloroform	00067-66-3	150.00	1.39E-04	6.94E-06	0.056	0.003	0.0%	0.0%
Methyl tert-Butyl Ether	01634-04-4	-	1.39E-04	6.94E-06	0.056	0.003	-	-
Tetrachloroethylene	00127-18-4	1000.00	6.24E-02	3.12E-03	25.298	1.265	2.5%	0.1%
Toluene	00108-88-3	37000.00	1.04E-03	5.20E-05	0.422	0.021	0.0%	0.0%
Trichloroethylene	00079-01-6	14000.00	2.35E-01	1.18E-02	95.541	4.777	0.7%	0.0%
Vinyl Chloride	00075-01-4	180000.00	2.08E-02	1.04E-03	8.441	0.422	0.0%	0.0%
Xylenes	01330-20-7	4300.00	1.11E-03	5.55E-05	0.450	0.023	0.0%	0.0%

ATTACHMENT 2
AIR SCREENING ANALYSIS:
Short term

BETHPAGE SCREENING ANALYSIS					1-Hour Impact	405.7	(ug/m^3)	
SHORT-TERM IMPACTS COMPARED TO SHORT-TERM GUIDELINE CONCENTRATIONS (SGCs)					Annual Impact	32.456	(ug/m^3)	
		NYSDEC Guideline	Estimated Emissions		Predicted Short-term Impact		Maximum Percent of SGC	
		SGC	Uncontrolled	Controlled	Uncontrolled	Controlled	Uncontrolled	Controlled
Pollutant	CAS Number	(ug/m^3)	(g/s)	(g/s)	(ug/m^3)	(ug/m^3)	Pct	Pct
1,1,1-Trichloroethane (Methyl Chloroform)	00071-55-6	68000.00	2.08E-04	1.04E-05	0.084	0.004	0.0%	0.0%
1,1,2-Trichloroethane	00079-00-5	-	2.43E-04	1.21E-05	0.098	0.005	-	-
1,1-Dichloroethane	00075-34-3	-	2.77E-04	1.39E-05	0.113	0.006	-	-
1,2-Dichloroethane	00107-06-2	-	1.87E-04	9.36E-06	0.076	0.004	-	-
1,1-Dichloroethylene (Vinylidene Chloride)	00075-35-4	-	6.24E-04	3.12E-05	0.253	0.013	-	-
1,2-Dichloroethylene	00540-59-0	-	7.62E-02	3.81E-03	30.915	1.546	-	-
Benzene	00071-43-2	1300.00	2.77E-04	1.39E-05	0.113	0.006	0.0%	0.0%
Carbon Tetrachloride	00056-23-5	1900.00	2.77E-04	1.39E-05	0.113	0.006	0.0%	0.0%
Chlorobenzene (Monochlorobenzene)	00108-90-7	-	6.94E-05	3.47E-06	0.028	0.001	-	-
Chloroform	00067-66-3	150.00	1.39E-04	6.94E-06	0.056	0.003	0.0%	0.0%
Methyl tert-Butyl Ether	01634-04-4	-	1.39E-04	6.94E-06	0.056	0.003	-	-
Tetrachloroethylene	00127-18-4	1000.00	6.24E-02	3.12E-03	25.298	1.265	2.5%	0.1%
Toluene	00108-88-3	37000.00	1.04E-03	5.20E-05	0.422	0.021	0.0%	0.0%
Trichloroethylene	00079-01-6	14000.00	2.35E-01	1.18E-02	95.541	4.777	0.7%	0.0%
Vinyl Chloride	00075-01-4	180000.00	2.08E-02	1.04E-03	8.441	0.422	0.0%	0.0%
Xylenes	01330-20-7	4300.00	1.11E-03	5.55E-05	0.450	0.023	0.0%	0.0%

03/16/09
11:26:15

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

Bethpage GM-38 Air Stripper Uncontrolled

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	1.00000
STACK HEIGHT (M)	=	12.2000
STK INSIDE DIAM (M)	=	.9100
STK EXIT VELOCITY (M/S)	=	5.7700
STK GAS EXIT TEMP (K)	=	294.0000
AMBIENT AIR TEMP (K)	=	293.0000
RECEPTOR HEIGHT (M)	=	.0000
URBAN/RURAL OPTION	=	URBAN
BUILDING HEIGHT (M)	=	7.6000
MIN HORIZ BLDG DIM (M)	=	22.9000
MAX HORIZ BLDG DIM (M)	=	22.9000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = .040 M**4/S**3; MOM. FLUX = 6.869 M**4/S**2.

*** FULL METEOROLOGY ***

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
10.	.1323E-07	1	1.5	1.5	480.0	22.39	3.65	2.99	NO
100.	278.3	3	1.0	1.0	320.0	27.34	22.00	20.46	NO
200.	339.9	6	1.0	1.1	10000.0	20.81	21.31	14.25	NO
MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 10. M:									
201.	339.9	6	1.0	1.1	10000.0	20.81	21.51	14.37	NO

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF 2. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
210.	405.7	6	1.0	1.1	10000.0	18.81	22.32	14.86	NO
300.	307.9	6	1.0	1.1	10000.0	18.81	31.28	20.08	NO
400.	219.2	6	1.0	1.1	10000.0	18.81	40.93	25.42	NO

500.	162.3	6	1.0	1.1	10000.0	18.81	50.27	30.34	NO
600.	125.2	6	1.0	1.1	10000.0	18.81	59.32	34.91	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 210. M:

210.	405.7	6	1.0	1.1	10000.0	18.81	22.32	14.86	NO

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF 9. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
610.	133.2	6	1.0	1.1	10000.0	11.81	60.21	35.35	NO
700.	107.4	6	1.0	1.1	10000.0	11.81	68.10	39.19	NO
800.	87.22	6	1.0	1.1	10000.0	11.81	76.63	43.22	NO
900.	72.75	6	1.0	1.1	10000.0	11.81	84.93	47.03	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 610. M:

610.	133.2	6	1.0	1.1	10000.0	11.81	60.21	35.35	NO

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF 11. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1000.	62.47	6	1.0	1.1	10000.0	9.81	93.00	50.66	NO
1100.	54.05	6	1.0	1.1	10000.0	9.81	100.86	54.11	NO
1200.	47.42	6	1.0	1.1	10000.0	9.81	108.53	57.42	NO
1300.	42.10	6	1.0	1.1	10000.0	9.81	116.01	60.60	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1000. M:

1000.	62.47	6	1.0	1.1	10000.0	9.81	93.00	50.66	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

****
* SUMMARY OF TERRAIN HEIGHTS ENTERED FOR *
* SIMPLE ELEVATED TERRAIN PROCEDURE *
****

TERRAIN HT (M)	DISTANCE RANGE (M) MINIMUM	MAXIMUM
0.	10.	200.
2.	210.	600.
9.	610.	920.

```
          11.         1000.       1300.

****************************************
     *** REGULATORY (Default) ***
    PERFORMING CAVITY CALCULATIONS
  WITH ORIGINAL SCREEN CAVITY MODEL
          (BRODE, 1988)
****************************************
```

*** CAVITY CALCULATION - 1 ***			*** CAVITY CALCULATION - 2 ***		
CONC (UG/M**3)	=	.0000	CONC (UG/M**3)	=	.0000
CRIT WS @10M (M/S)	=	99.99	CRIT WS @10M (M/S)	=	99.99
CRIT WS @ HS (M/S)	=	99.99	CRIT WS @ HS (M/S)	=	99.99
DILUTION WS (M/S)	=	99.99	DILUTION WS (M/S)	=	99.99
CAVITY HT (M)	=	7.84	CAVITY HT (M)	=	7.84
CAVITY LENGTH (M)	=	22.86	CAVITY LENGTH (M)	=	22.86
ALONGWIND DIM (M)	=	22.90			

APPENDIX C
Field Data Sheets and Chain of Custody Documentation

Date: 6/14/11

Groundwater Level Measurement Sheet

Project Site: NWIRP Bethpage – GM-38
Location: Bethpage, NY
Field Crew: JG

Water Level Meter: Solinst
Weather: cloudy, breezy, ~60's F
Time of Low Tide: N/A
Time of High Tide: N/A

Well ID	Time	Depth to Water (ft.)	Total Depth of Well / Screed Interval (ft.)	PID (ppm)	Comments
RW1-MW1	1201	35.22	435 / 395-435	0.0	Dup, MS/MSD
RW1-MW2	1206	37.44	435 / 395-435	0.0	Gauge only
(1) RW1-MW3	1219	27.87	435 / 395-435	0.0	
RW2-MW1	1130	38.84	510 / 470-510	0.0	
RW2-MW2	CANNOT	LOCATE	510 / 470-510	~~0.0~~	Gauge only BURIED?
RW2-MW3	1137	37.98	510 / 470-510	0.0	Gauge only
RW3-MW1	1153	36.81	350 / 330-350	0.0	
RW3-MW2	1151	39.25	495 / 475-495	0.0	
RW3-MW3	1146	38.00	340 / 320-340	0.0	Missing bolts
RW3-MW4	1144	39.91	495 / 475-495	0.0	Missing tubing - had to reinstall tubing (430' (down) inner casing is 10ft
TP1	1127	33.80	470 / 450-470	0.0	
IW1-MW1	1220	~~34.87~~	470 / 450-470	0.0	Gauge only

Tubing Extrusion in well is 395' bgs, screened interval 450-470' - need air/water line of 65'

Signature: [signature]

Date: 6/14/11

H&S Environmental, Inc.

Low Flow/ Low Stress Groundwater Sampling Log

Project: NWIRP Bethpage - GM-38
Location: Bethpage, NY
Well ID: RW 1 - MW 1

Date: 6/14/11
Sampler: JL
PID: ------

Start Time: 1625 End Time: 1710
Well Construction: 4" Steel
Depth to Water: 35.22
Well Depth: 435
Water Column: ~399
Total Volume Removed (L): ~6.0
Dedicated Pump in Well?: No

Field Testing Equipment

Make	Model	Serial #
YSI	556	10H100928
LaMotte	2020e	ME15044
QED	MP15	———
Marschalk Bladder Pui	24"	ID#9975

Time (hh:mm)	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (µS/cm°)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
1625	0.6	120	34.22	15.81	5.09	163	2.32	197.7	13.8	clear
1630	0.6		34.22	16.07	5.07	163	1.78	205.3	19.8	cloudy white
1635			34.22	16.23	5.07	165	1.85	210.4	20.0	"
1640			34.22	16.47	5.07	167	1.89	222.9	21.9	"
1645			34.22	16.31	4.96	168	1.85	246.0	13.6	"
1650			34.22	15.71	4.85	168	1.79	254.6	7.57	clear
1655			34.22	15.65	4.74	170	1.27	269.4	≤ 13	"
1700			34.22	15.67	4.68	171	1.09	280.4	4.39	"
1705			34.22	15.64	4.68	171	1.06	281.3	4.10	"
1710			34.22	15.63	4.71	173	0.98	274.3	3.60	"
Acceptance Criteria:			<0.3ft	3%	±0.1	3%	10%	± 10mv	10%	

(changed out tanks →)

2" Screen Volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# Bottles	Preservative	Analysis
1710	NWIRP-GM-38-GW-RW1-MW1-06142011	40 mL CG	3	HCl	TCL VOCs (624)
		500 mL PL	1	HNO_3	Hg (245.1)
		250 mL PL	1	---	TSS (SM2540D)
	NWIRP-GM-38-GW-RW1-MW1-06142011-DUP			SAME AS ABOVE	
		- MS/MSD		TCL VOCs, Hg only	

Comments

Signature

6/14/11
Date

H&S Environmental, Inc.

Low Flow/ Low Stress Groundwater Sampling Log

Project: NWIRP Bethpage - GM-38
Location: Bethpage, NY
Well ID: RW 1 - MW 3

Date: 6/14/11
Sampler: JG
PID: ------

Start Time: 1340 End Time: ~~1435~~ 1435
Well Construction: 4" ~~Steel~~ PVC
Depth to Water: 27.87
Well Depth: 435'
Water Column: ~407'
Total Volume Removed (L): ~15.4 L
Dedicated Pump in Well?: No

Field Testing Equipment

Make	Model	Serial #
YSI	556	10H100928
LaMotte	2020e	ME15044
QED	MP15	~~~~
Marschalk Bladder Pu	24"	ID#9975

Time (hh:mm)	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (µS/cm^c)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
1345	~~280~~ 1.4	280	27.70	14.42	6.10	155	2.88	166.2	18.8	Clear
1350	1.4		27.68	14.27	5.04	190	2.03	122.5	52.4	cloudy-white
1355			27.66	14.30	5.07	191	1.77	122.4	47.1	"
1400			27.66	14.39	5.08	190	1.47	122.5	42.7	"
1405			27.62	14.39	5.11	190	1.14	123.4	36.8	"
1410			27.62	14.28	5.15	190	1.00	124.0	32.0	Clear
1415			27.62	14.21	5.16	190	0.83	125.2	26.7	"
1420			27.62	14.20	5.16	190	0.80	126.0	24.6	"
1425			27.62	14.09	5.18	190	0.48	128.5	16.5	"
1430			27.62	14.06	5.15	189	0.46	131.2	15.3	"
1435			27.62	14.07	5.14	190	0.44	132.4	15.6	"
Acceptance Criteria:			<0.3ft	3%	±0.1	3%	10%	± 10mv	10%	

Switched out pumps

2" Screen Volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# Bottles	Preservative	Analysis
1435	NWIRP-GM-38-GW-RW1-MW3-061411	40 mL CG	3	HCl	TCL VOCs (624)
↓	↓	500 mL PL	1	HNO_3	Hg (245.1)
↓	↓	250 mL PL	1	---	TSS (SM2540D)

Comments

Field Blank (NWIRP-GM-38-FB-061411) was collected @ 1445 after cleaning pump for TCL VOCs / Hg only

Signature

6/14/11
Date

H&S Environmental, Inc.

Low Flow/ Low Stress Groundwater Sampling Log

Project: NWIRP Bethpage - GM-38
Location: Bethpage, NY
Well ID: RW2 - MW 1

Date: 6/14 /11
Sampler: JR
PID: ------

Start Time: 1505 End Time: 1650
Well Construction: 4" steel
Depth to Water: 38.84
Well Depth: 510
Water Column: ~471
Total Volume Removed (L): ~12.6
Dedicated Pump in Well?: No

Field Testing Equipment

Make	Model	Serial #
YSI	556	10H100928
LaMotte	2020e	ME15044
QED	MP15	———
Marschalk Bladder Pu	24"	ID#9975

Time (hh:mm)	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (µS/cm^c)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
1510	1.05	210	37.90	13.73	6.14	217	3.85	-70.8	10.47	clear
1515			37.90	13.50	6.26	195	2.96	-96.1	10.89	"
1520			37.90	13.40	6.39	180	2.10	-105.0	12.6	"
1525			37.90	13.44	6.53	159	0.91	-109.8	13.8	"
1530			37.90	13.65	6.63	149	0.81	-112.6	34.6	cloudy with silt
1535			37.90	13.23	6.74	138	0.76	-112.5	38.6	"
1540			37.90	13.24	6.76	127	0.79	-106.3	27.9	"
1545			37.90	13.34	6.76	123	0.63	-106.5	28.8	"
1550			37.90	13.39	6.76	120	0.58	-106.3	28.6	"
1555			37.90	13.37	6.78	121	0.58	-109.9	28.3	"
1600	↓	↓	37.90	13.34	6.78	122	0.58	-110.3	28.6	"
Acceptance Criteria:			<0.3ft	3%	±0.1	3%	10%	± 10mv	10%	

2" Screen Volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# Bottles	Preservative	Analysis
	NWIRP-GM-38-GW-RW2-MW1 - 06142011	40 mL CG	3	HCl	TCL VOCs (624)
	↓	500 mL PL	1	HNO_3	Hg (245.1)
	↓	250 mL PL	1	---	TSS (SM2540D)

Comments

Signature

6/14/11
Date

H&S Environmental, Inc.

Low Flow/ Low Stress Groundwater Sampling Log

Project: NWIRP Bethpage - GM-38
Location: Bethpage, NY
Well ID: RW 3 - MW 1

Date: 6/14/11
Sampler: JR
PID: ------

Start Time: 1745 End Time: 1830
Well Construction: 4"
Depth to Water: 36.81
Well Depth: 350
Water Column: ~313
Total Volume Removed (L): ~6.8
Dedicated Pump in Well?: No

Field Testing Equipment

Make	Model	Serial #
YSI	556	10H100928
LaMotte	2020e	ME15044
QED	MP15	~~~~
Marschalk Bladder Pui	24"	ID#9975

Time (hh:mm)	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (µS/cm°)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
1750	0.75	150	36.30	14.86	5.04	108	1.56	226.2	4.68	clear
1755	0.75	"	36.30	15.07	4.89	107	0.79	239.3	354	Brown/orange
1800	"	"	36.30	16.25	5.13	115	0.76	223.7	340	"
1805	"	"	36.30	16.31	5.09	116	0.86	231.8	>1200	"
1810	"	"	36.30	16.34	5.04	134	0.99	241.2	>1200	"
1815	"	"	36.30	15.61	4.92	142	1.11	272.9	>1200	"
1820	"	"	36.30	15.89	4.91	141	1.08	276.1	>1200	"
1825	"	"	36.30	16.01	4.91	141	1.09	277.6	>1200	"
1830	"	"	36.30	16.58	4.91	140	1.08	279.6	>1200	"
Acceptance Criteria:			<0.3ft	3%	±0.1	3%	10%	± 10mv	10%	

2" Screen Volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# Bottles	Preservative	Analysis
1830	NWIRP-GM-38-GW- RW3-MW1 - 061411	40 mL CG	3	HCl	TCL VOCs (624)
"	"	500 mL PL	1	HNO_3	Hg (245.1)
"	"	250 mL PL	1	---	TSS (SM2540D)

Comments

1815 pull pump up 10 - 15' to see if the turbidity clears - makes no diff., turbidity remains high but stable

Signature

6/14/11
Date

H&S Environmental, Inc.

Low Flow/ Low Stress Groundwater Sampling Log

Project: NWIRP Bethpage - GM-38
Location: Bethpage, NY
Well ID: RW3 - MW2

Date: 6/14/11
Sampler: SK, GB
PID: ------

Start Time: 1910 End Time: 2000
Well Construction: 4" steel
Depth to Water: 39.25
Well Depth: 495
Water Column: ~455
Total Volume Removed (L): ~7.7
Dedicated Pump in Well?: No

Field Testing Equipment

Make	Model	Serial #
YSI	556	10H100928
LaMotte	2020e	ME15044
QED	MP15	
Marschalk Bladder Pui	24"	ID#9975

Time (hh:mm)	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (µS/cm°)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
1915	1.40	140	38.62	13.87	4.52	81	4.09	256.1	17.5	clear
1925	1.40		38.62	13.31	4.61	79	0.47	227.6	18.4	"
1935	1.40		38.62	14.36	4.95	82	2.06	113.4	17.1	"
1945	1.40		38.62	13.87	5.04	85	0.37	179.2	10.74	"
1950	0.70		38.62	13.93	5.06	85	0.35	133.8	9.35	"
1955	↓	↓	38.62	13.90	5.04	85	0.33	136.8	8.49	"
2000	↓	↓	38.62	13.96	5.06	85	0.32	137.0	8.76	"
Acceptance Criteria:			<0.3ft	3%	±0.1	3%	10%	± 10mv	10%	

changed out tank

2" Screen Volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# Bottles	Preservative	Analysis
2000	NWIRP-GM-38-GW-RW3MW2-06142011	40 mL CG	3	HCl	TCL VOCs (624)
↓	↓	500 mL PL	1	HNO_3	Hg (245.1)
↓	↓	250 mL PL	1	---	TSS (SM2540D)

Comments

Signature

6/14/11
Date

H&S Environmental, Inc.

Low Flow/ Low Stress Groundwater Sampling Log

Project: NWIRP Bethpage - GM-38
Location: Bethpage, NY
Well ID: RW 3 - MW 3

Date: 6/15/11
Sampler: [illegible]
PID: ------

Start Time: 1510 End Time: 1600
Well Construction: 4" PVC
Depth to Water: 38.00
Well Depth: 340
Water Column: ~302
Total Volume Removed (L): ~9.0
Dedicated Pump in Well?: No

Field Testing Equipment

Make	Model	Serial #
YSI	556	10H100928
LaMotte	2020e	ME15044
QED	MP15	—
Marschalk Bladder Pui	24"	ID#99759

Time (hh:mm)	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (µS/cm^c)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
1515	0.9	180	37.60	16.96	4.70	133	2.07	176.0	24.2	Tan (many floating sediment)
1520	0.9	↓	37.56	17.00	5.05	159	1.36	142.3	26.5	"
1525	0.9		37.56	16.70	5.20	162	0.97	128.7	21.7	"
1530	0.9		37.56	16.01	5.25	163	0.59	124.3	18.8	Clear
1535	0.9		37.56	16.00	5.27	162	0.51	123.4	17.7	"
1540	0.9		37.56	16.59	5.34	163	0.38	118.9	18.2	"
1545	0.9		37.56	16.25	5.42	163	0.33	115.7	18.5	"
1550	0.9		37.56	16.43	5.39	162	0.28	116.9	18.2	"
1555	0.9		37.56	16.24	5.43	163	0.27	115.3	18.2	"
1600	0.9	↓	37.56	16.18	5.44	162	0.26	115.0	18.7	"
Acceptance Criteria:			<0.3ft	3%	±0.1	3%	10%	± 10mv	10%	

2" Screen Volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# Bottles	Preservative	Analysis
1600	NWIRP-GM-38-GW-RW3-MW3-06152011	40 mL CG	3	HCl	TCL VOCs (624)
↓	↓	500 mL PL	1	HNO_3	Hg (245.1)
↓	↓	250 mL PL	1	---	TSS (SM2540D)

Comments

Signature: [signature]

Date: 6/15/11

H&S Environmental, Inc.

Low Flow/ Low Stress Groundwater Sampling Log

Project: NWIRP Bethpage - GM-38
Location: Bethpage, NY
Well ID: RW3 - MW4

Date: 6/15/11
Sampler: JG
PID: ------

Start Time: ~~1750~~ 1805 End Time: 1850
Well Construction: 4" ~~Steel~~ PVC
Depth to Water: 39.91
Well Depth: 495
Water Column: ~455
Total Volume Removed (L): ~12.6
Dedicated Pump in Well?: No

Field Testing Equipment

Make	Model	Serial #
YSI	556	10H100928
LaMotte	2020e	ME15044
QED	MP15	—
Marschalk Bladder Pu	24"	ID# ~~9975~~ 9979

Time (hh:mm)	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (µS/cm°)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
~~1755~~ 1810	1.4	280	39.15	16.18	4.28	121	2.59	280.8	6.32	Clear
1815	1.4	↓	39.15	15.90	4.35	121	2.44	280.0	4.82	"
1820	1.4		39.15	15.76	4.53	120	2.17	284.5	3.41	"
1825	1.4		39.16	15.73	4.59	121	2.02	285.0	3.45	"
1830	1.4		39.16	15.60	4.59	121	1.68	288.9	4.51	"
1835	1.4		39.16	15.49	4.58	121	1.59	293.5	5.88	"
1840	1.4		39.20	15.46	4.56	121	1.40	296.5	4.98	"
1845	1.4		39.20	15.34	4.55	121	1.38	298.0	4.40	"
1850	1.4		39.20	15.34	4.55	122	1.35	298.3	4.07	"

Acceptance Criteria: <0.3ft, 3%, ±0.1, 3%, 10%, ± 10mv, 10%

2" Screen Volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# Bottles	Preservative	Analysis
1850	NWIRP-GM-38-GW-RW3-MW4-0615	40 mL CG	3	HCl	TCL VOCs (624)
↓	7211 ↓	500 mL PL	1	HNO_3	Hg (245.1)
		250 mL PL	1	---	TSS (SM2540D)

Comments

Could not get pump to work at depth, needed too high of pressure to pull up water which collapsed the bladder - had to pull water from bottom of pump set location instead of top tube which was ~85' bgs

Signature

Date 6/15/11

H&S Environmental, Inc.

Low Flow/ Low Stress Groundwater Sampling Log

Project: NWIRP Bethpage - GM-38
Location: Bethpage, NY
Well ID: TP1

Date: 6/15/11
Sampler: JG
PID: ------

Start Time: 1240 End Time: 1325
Well Construction: 4" ~~Steel~~ PVC JG
Depth to Water: 33.80
Well Depth: 470
Water Column: ~436
Total Volume Removed (L): ~10.5
Dedicated Pump in Well?: No

Field Testing Equipment

Make	Model	Serial #
YSI	556	10H100928
LaMotte	2020e	ME15044
QED	MP15	~~~
Marschalk Bladder Pur	24"	ID#9975 JG

Time (hh:mm)	Volume Removed (L)	Flow Rate (ml/min)	Depth to Water (ft)	Temp (°C)	pH (STD)	SPC (µS/cm^c)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Color
1245	1.3	260	33.16	16.22	5.37	199	2.57	126.1	10.12	Clear
1250	1.3	"	33.14	16.45	5.25	196	2.48	142.6	20.2	"
1255	1.3	"	33.12	16.63	5.18	194	2.42	151.3	21.1	"
1300	1.3	"	33.12	16.37	5.07	195	1.95	168.1	35.6	Cloudy
1305	1.3	"	33.12	16.34	4.85	194	1.70	193.5	26.8	Clear
1310	1.3	"	33.10	16.29	4.64	198	1.51	221.5	26.2	"
1315	1.3	"	33.10	15.92	4.64	200	1.33	229.5	26.4	"
1320	1.3	"	33.10	16.17	4.62	200	1.31	234.3	27.6	"
1325	1.3	"	33.10	16.12	4.63	200	1.25	236.5	26.0	"
Acceptance Criteria:			<0.3ft	3%	±0.1	3%	10%	± 10mv	10%	

2" Screen Volume = 0.163 gal/ft or 616 ml per foot

Sample Collection

Time	Sample ID	Container	# Bottles	Preservative	Analysis
1325	NWIRP-GM-38-GW-TP1- 061511	40 mL CG	3	HCl	TCL VOCs (624)
"	"	500 mL PL	1	HNO_3	Hg (245.1)
"	"	250 mL PL	1	---	TSS (SM2540D)

Comments

Signature

6/15/11
Date

Instrument Calibration Log

Project/Site Name: NWIRP Bethpage – GM-38 **Date:** 6/14/11 **Weather:** overcast, breezy, ~60°F

Calibrated By: JG **Instrument:** YSI 556 **Serial Number:** 10H100928

Parameters	Morning Calibration Time: 1100	Cal. Temperature °C	Afternoon Cal. Check Time: 2030	Comments
Conductivity (1000) (µS/cm°)	979 | 1000	18.61	967	
pH (7)	7.21 | 7.00	18.89	6.88	
pH (4)	3.39 | 4.00	18.65	4.12	
pH (10)	9.91 | 9.99	18.50	10.15	
ORP (200) (mv)	191.2 | 200.0	18.79	195.5	
Dissolved Oxygen (%)	95.3% | 99.7%	18.41	102.5	
Zero Dissolved Oxygen (mg/L)	—	—	—	
Barometric Pressure (mmHg)	757.4	—	757.1	

pH Check (Every 3 hrs):

Time:	Time:	Time:
Standard:	Standard:	Standard:
Reading:	Reading:	Reading:

Signature: _____ Date: 6/14/11

Instrument Calibration Log

Project/Site Name: NWIRP Bethpage – GM-38 **Date:** 6/15/11 **Weather:** partly cloudy, ~65°F

Calibrated By: JG **Instrument:** YSI 556 **Serial Number:** 10H100928

Parameters	Morning Calibration Time: 0600	Cal. Temperature °C	Afternoon Cal. Check Time: 1915	Comments
Conductivity (1000) (µS/cm^c)	967 / 1000	20.42	989	
pH (7)	6.88 / 7.00	20.35	6.92	
pH (4)	4.12 / 4.00	20.58	4.08	
pH (10)	10.15 / 10.02	20.32	10.12	
ORP (mv)	195.5 / 200.0	20.23	197.6	
Dissolved Oxygen (%)	102.5 / 99.5	19.22	96.8	
Zero Dissolved Oxygen (mg/L)	—	—	—	
Barometric Pressure (mmHg)	756.6	—	756.8	

pH Check (Every 3 hrs):

Time:	Time:	Time:
Standard:	Standard:	Standard:
Reading:	Reading:	Reading:

Signature: _____ Date: 6/15/11

Instrument Calibration Log

Project/Site Name: NWIRP Bethpage GM-38 **Calibrated By:** JG

Instrument/Serial Number	Pre-Cal 1-AM (NTU)	Pre-Cal 1-PM (NTU)	Pre-Cal 10-AM (NTU)	Pre-Cal 10-PM (NTU)	Post-Cal 1-AM (NTU)	Post-Cal 1-PM (NTU)	Post-Cal 10-AM (NTU)	Post-Cal 10-PM (NTU)	Date
LaMotte 2020e / ME15044	0.58	0.88	6.58	9.53	1.00	1.00	10.00	10.00	6/14/11 Time: 1100 & 2000
↓	0.88	0.92	9.53	9.87	1.00	1.00	10.00	10.00	6/15/11 Time: 0600 & 1915
									Time: &
									Time: &
									Time: &
									Time: &
									Time: &
									Time: &
									Time: &
									Time: &
									Time: &

Signature: _____ Date: 6/15/11

Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:

Tracking #:

Co. Name: H&S Environmental, Inc.

Contact (Report to): Jen Good **Phone:** 508.366.7442

Address: 160 E. Main St., Suite 2F
Westborough, MA 01581

Bill to (if different than Report to): Same

PO#: 2031-005

Project Name/#: NWIRP Bethpage GM-38 Qtrly LTM **ALSI Quote #:**

TAT: [x] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges. **Date Required:** **Approved By:**

Email? [x] -Y jgood@hsenv.com **Fax?** [ ] -Y No.:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	TCL VOCs (Method 624)	Mercury (Method 245.1)	TSS (SM2540D)
***Container Type		40 mL	500 mL	250 mL				
***Container Size		CG	PL	PL				
*** Preservative		HCL	HNO3	—				
1 NWIRP-GM-38-GW-RW1-MW1- 06142011	MS/MSD for VOCs, Hg	6/14/11	1710	G	GW	9	3	1
2 NWIRP-GM-38-GW-RW1-MW3- 06142011			1435	G	GW	3	1	1
3 NWIRP-GM-38-GW-RW2-MW1- 06142011			1600	G	GW	3	1	1
4 NWIRP-GM-38-GW-RW3-MW1- 06142011			1830	G	GW	3	1	1
5 NWIRP-GM-38-GW-RW3-MW2- 06142011			2000	G	GW	3	1	1
6 NWIRP-GM-38-GW-RW3-MW3- 06152011		6/15/11	1600	G	GW	3	1	1
7 NWIRP-GM-38-GW-RW3-MW4- 06152011			1850	G	GW	3	1	1
8 NWIRP-GM-38-GW-TP1- 06152011			1325	G	GW	3	1	1

ANALYSES/METHOD REQUESTED — Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receipient)

Performed by:

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
	N / Y	N / Y	N / Y	N / Y	
1	Y	Y	Y	Y	Y
2	N	N	N	N	N
3	Y	Y	Y	Y	Y
4	Y	Y	Y	Y	Y
5	Y	Y	Y	Y	Y
6	Y	Y	Y	Y	Y
7	Y	Y	Y	Y	Y
8	Y	Y	Y	Y	Y

	Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
	N / Y	N / Y	N / Y	N / Y	N / Y

SAMPLED BY (Please Print): G. Gangemi, J. Good

LOGGED BY(signature): DATE TIME

REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	6/16/11	1600	2		
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full (other)

EDDs Required? [ ] If yes, format type:

DOD Criteria Required?

SDWA Forms? yes [ ] yes [ ] yes [ ]

State Samples Collected In? MD [ ] NJ [ ] NY [X] PA [ ]

Other

PWSID

ALSI FIELD SERVICES

[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite

**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Oi=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:

Tracking #:

Co. Name: H&S Environmental, Inc.

Contact (Report to): Jen Good **Phone:** 508.366.7442

Address: 160 E. Main St., Suite 2F
Westborough, MA 01581

Bill to (if different than Report to):
Same

PO#: 2031-005

Project Name/#: NWIRP Bethpage GM-38 Qtrly LTM **ALSI Quote #:**

TAT: [x] Normal-Standard TAT is 10-12 business days. **Date Required:**
[ ] Rush-Subject to ALSI approval and surcharges. **Approved By:**

Email? [x] -Y jgood@hsenv.com
Fax? [ ] -Y No.:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	TCL VOCs (Method 624)	Mercury (Method 245.1)	TSS (SM2540D)							
***Container Type						40 mL	500 mL	250 mL							
***Container Size						CG	PL	PL							
*** Preservative						HCL	HNO3	---							
						ANALYSES/METHOD REQUESTED									
						Enter Number of Containers Per Analysis									
1	NWIRP-GM-38-GW-RW1-MW1-061411-DUP	6/14/11	0000	G	GW	3	1	1							
2	NWIRP-GM-38-FB-061411	"	1445	G	GW	3	1								
3	NWIRP-GM-38-TB-061411			G	GW	3									
4				G	GW										
5				G	GW										
6				G	GW										
7				G	GW										
8				G	GW										

Receipt Information (completed by Sample Receiving)
Performed by: DATA HERE
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

Circle appropriate Y or N.	Container in good condition?	COC/Labels complete/accurate?	Received on ice?	Custody seals Present?	(if present) Seals intact?
Correct containers?	N / Y				
Correct sample volume?	N / Y				
Correct preservation?	N / Y				
Headspace/Volatiles?	N / Y				
	N	N	N	N	N
	Y	Y	Y	Y	Y

SAMPLED BY (Please Print): G. Gangemi, J. Good

LOGGED BY(signature): DATE TIME

REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] / H+S	6/16/11	1600	2		
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full (other) [ ]
EDDs Required? [ ] If yes, format type:
DOD Criteria Required?

SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected In? MD [ ] NJ [ ] NY [x] PA [ ]
Other
PWSID

ALSI FIELD SERVICES
[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite
**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Oil=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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APPENDIX D
Data Validation Reports

VOLATILE ORGANIC COMPOUNDS
USEPA Region II – Tier II Data Validation

Project Name: Naval Weapons Industrial Reserve Plant, GM-38 Area-LTM

Location: 100 Broadway, Bethpage, NY

Project Number: 2031-005

SDG #: 9911475-HNW-010

Client: H&S Environmental, Inc.

Date: 07/22/2011

Laboratory: ALS Environmental, Middletown, PA

Reviewer: Samir A. Naguib

Summary:

1. Tier II data validation was performed on the data for nine (9) water samples, one (1) trip blank and one (1) field blank analyzed for Volatiles by EPA Method 624.

2. The samples were collected on 06/14, 15 and 17/2011. The samples were submitted to ALS Environmental, Middletown, PA on 06/17/2011 for analysis.

3. The USEPA Region II SOP HW-24, Revision No.: 2, August 2008: Validating Volatile Organic Compounds by SW-846 Method 8260B; USEPA National Functional Guidelines for Organic Data Review, EPA 540/R-99/008, October 1999; EPA Method 624 and Quality Assurance Project Plan for GM-38 Area, Naval Weapons Industrial Reserve Plant, Bethpage, NY; September 3, 2009 were used in evaluating the Volatiles data in this summary report.

4. In general, the data are valid as reported and may be used for decision making purposes. Selected data points were qualified due to nonconformance of certain Quality Control criteria (See discussion below).

Samples:

The samples included in this review are listed below:

Client Sample ID	Laboratory Sample ID	Collection Date	Matrix	Sample Status
NWIRP-GM-38-GW-RW1-MW1	9911475001	06/14/11	Water	
NWIRP-GM-38-GW-RW1-MW3	9911475002	06/14/11	Water	
NWIRP-GM-38-GW-RW2-MW1	9911475003	06/14/11	Water	
NWIRP-GM-38-GW-RW3-MW1	9911475004	06/14/11	Water	
NWIRP-GM-38-GW-RW3-MW2	9911475005	06/14/11	Water	
NWIRP-GM-38-GW-RW3-MW3	9911475006	06/15/11	Water	
NWIRP-GM-38-GW-RW3-MW4	9911475007	06/15/11	Water	
NWIRP-GM-38-GW-TP	9911475008	06/15/11	Water	
NWIRP-GM-38-GW-RW1-MW1-DUP	9911475009	06/14/11	Water	Field Duplicate of sample NWIRP-GM-38-GW-RW1-MW1
NWIRP-GM-38-GW-FB	9911475010	06/14/11	Water	Field Blank
NWIRP-GM-38-GW-TB	9911475011	06/17/11	Water	Trip Blank

Sample Conditions/Problems:

1. The Traffic Reports/Chain-of-Custody Records, Sampling Report and/or Laboratory Case Narrative did not indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data. No qualifications were required.

Holding Times:

1. All water samples were analyzed within 14days from sample collection. No qualifications were required.

2. All water samples were properly preserved (pH<2.0). No qualifications were required.

GC/MS Tuning:

1. All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration:

1. Initial calibration curve analyzed on 06/28/2011 (ms03.i) exhibited acceptable %RSD and average RRF values for all compounds. No qualifications were required.

Continuing Calibration Verification (CCV):

1. CCV analyzed on 06/29/2011 @02:44PM (ms03.i) exhibited acceptable %Ds (≤15.0%) for all compounds with the following exception(s):

Compound	%D
Vinyl chloride	-41.0

Client Sample ID	Laboratory Sample ID	Compound	Action
NWIRP-GM-38-GW-RW3-MW3	9911475006	Vinyl chloride	UJ
NWIRP-GM-38-GW-RW3-MW4	9911475007	Vinyl chloride	UJ
NWIRP-GM-38-GW-TP	9911475008	Vinyl chloride	UJ

Surrogates:

1. All surrogates %REC values for all water samples and associated QC were within the laboratory control limits. No qualifications were required.

Internal Standard (IS) Area Performance:

1. All samples exhibited acceptable area count for all five internal standards. No qualifications were required.

Method Blank (MB), Storage Blank (SB), Trip Blank (TB), Field Blank (FB), Rinsate Blank (RB) and Equipment Blank (EB):

1. Method Blank (858840-MB) analyzed on 06/28/2011 was free of contamination. No qualifications were required.

2. Method Blank (858536-MB) analyzed on 06/29/2011 was free of contamination. No qualifications were required.

3. Field Blank (NWIRP-GM38-GW-FB) (9911475010) analyzed on 06/28/2011was free of contamination. No qualifications were required.

4. Trip Blank (NWIRP-GM38-GW-TB) (9911475011) analyzed on 06/30/2011 was free of contamination. No qualifications were required.

Laboratory Control Sample (LCS)/ Laboratory Control Sample Duplicate (LCSD):

1. Laboratory Control Sample (858841-LCS) was analyzed on 06/28/2011. All %RECs were within the laboratory control limits. No qualifications were required.

2. Laboratory Control Sample (858537-LCS) was analyzed on 06/29/2011. All %RECs were within the laboratory control limits. No qualifications were required.

Field Duplicate:

1. Sample NWIRP-GM-38-GW-RW1-MW1-DUP (9911475009) was collected as field duplicate for sample NWIRP-GM-38-GW-RW1-MW1 (9911475001). All RPDs were >50%.

Field Sample	Compound	Analytical Method	Result	Units	Field Duplicate	Result	Units	RPD	Qualifier
MWIRP-GM-38-GW-RW1-MW-1	1,1-Dichloroethane	EPA 624	1.6	µg/l	MWIRP-GM-38-RW-1-MW-1-DUP	4.2	µg/l	89.7	J
MWIRP-GM-38-GW-RW1-MW-1	1,1-Dichloroethylene	EPA 624	0.85	µg/l	MWIRP-GM-38-RW-1-MW-1-DUP	2.1	µg/l	84.7	J
MWIRP-GM-38-GW-RW1-MW-1	cis-1,2-Dichloroethylene	EPA 624	55.8	µg/l	MWIRP-GM-38-RW-1-MW-1-DUP	145	µg/l	88.8	J
MWIRP-GM-38-GW-RW1-MW-1	trans-1,2-Dichloroethylene	EPA 624	0.71	µg/l	MWIRP-GM-38-RW-1-MW-1-DUP	2.0	µg/l	95.2	J
MWIRP-GM-38-GW-RW1-MW-1	Trichloroethylene	EPA 624	26.6	µg/l	MWIRP-GM-38-RW-1-MW-1-DUP	73.8	µg/l	94.0	J

Matrix Spike (MS)/ Matrix Spike Duplicate (MSD):

1. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) were performed on sample NWIRP-GM-38-GW-RW-1-MW-1 (9911475001). All %RECs and RPDs were within the laboratory control limits with the following exception(s):

Compound	%REC/%REC/RPD	Action
1,1-Dichloroethene	A/A/23	J
Cis-1,2-Dichloroethene	510/532/A	J
Trichloroethene	303/320/A	J

A= Acceptable

Compound Quantitation and Reported Contract Required Quantitation Limits (CRQLs):

1. All results were within the linear calibration range. No qualifications were required.

Target Compound Identification:

1. All Relative Retention Times (RRTs) of the reported compounds were within ± 0.06 RRT units of the standard (opening CCV).

2. Sample compound spectra were compared against the laboratory standard spectra.

3. No QC deviations were observed.

Comments:

1. Validation qualifiers (if required) were entered into the EDD for SDG: 9911475.

MERCURY

USEPA Region II – Tier II Data Validation

Project Name: Naval Weapons Industrial Reserve Plant, GM-38 Area-LTM

Location: 100 Broadway, Bethpage, NY

Project Number: 2031-005

SDG #: 9911475-HNW-010

Client: H&S Environmental, Inc.

Date: 07/22/2011

Laboratory: ALS Environmental, Middletown, PA

Reviewer: Samir A. Naguib

Summary:

1. Tier II data validation was performed on the data for nine (9) water samples and one (1) field blank analyzed for Mercury by EPA Method 245.1.

2. The samples were collected on 06/14 and 15/2011. The samples were submitted to ALS Environmental, Middletown, PA on 06/17/2011 for analysis.

3. The USEPA Region II SOP No. HW-2, Revision 13, September 2006, for Evaluation of Metals Data for Contract Laboratory Program (CLP), based on SOW-ILM05.3 (SOP Revision 13) and Quality Assurance Project Plan for GM-38 Area, Naval Weapons Industrial Reserve Plant, Bethpage, NY; September 3, 2009 were used in evaluating the Mercury data in this summary report.

4. In general, the data are valid as reported and may be used for decision making purposes. Selected data points were qualified due to nonconformance of certain Quality Control criteria (See discussion below).

Samples:

The samples included in this review are listed below:

Client Sample ID	Laboratory Sample ID	Collection Date	Matrix	Sample Status
NWIRP-GM-38-GW-RW1-MW1	9911475001	06/14/11	Water	
NWIRP-GM-38-GW-RW1-MW3	9911475002	06/14/11	Water	
NWIRP-GM-38-GW-RW2-MW1	9911475003	06/14/11	Water	
NWIRP-GM-38-GW-RW3-MW1	9911475004	06/14/11	Water	
NWIRP-GM-38-GW-RW3-MW2	9911475005	06/14/11	Water	
NWIRP-GM-38-GW-RW3-MW3	9911475006	06/15/11	Water	
NWIRP-GM-38-GW-RW3-MW4	9911475007	06/15/11	Water	
NWIRP-GM-38-GW-TP	9911475008	06/15/11	Water	
NWIRP-GM-38-GW-RW1-MW1-DUP	9911475009	06/14/11	Water	Field Duplicate of sample NWIRP-GM-38-GW-RW1-MW1
NWIRP-GM-38-GW-FB	9911475010	06/14/11	Water	Field Blank

Sample Conditions/Problems:

1. The Traffic Reports/Chain-of-Custody Records, Sampling Report and/or Laboratory Case Narrative did not indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data. No qualifications were required.

Holding Times:

1. All water samples were digested and analyzed within the 28days holding times for Mercury. No qualifications were required.

Initial and Continuing Calibration Verification (ICV and CCV):

Mercury:

1 All correlation coefficient for Mercury calibration curve analyzed were ≥0.995. No qualifications were required.

2. All ICVs and CCVs %REC values were within the QC limits (80-120%). No qualifications were required.

CRQL Check Standard (CRI):

1. The CRI %REC was within the control limits (70-130%). No qualifications were required.

Blanks (Method Blank, ICB and CCB):

1. All ICBs and CCBs were free of contamination. No qualifications were required.

2. Method Blank (855896) digested on 06/22/2011 was free of contamination. No qualifications were required.

Field Blank (FB) and Equipment Blank (EB):

1. Field Blank (NWIRP-GM-38-FB) (9911475010) analyzed on 06/22/2011 was free of contamination. No qualifications were required.

Laboratory Control Sample (LCS)/ Laboratory Control Sample Duplicate (LCSD):

1. Mercury %REC in Laboratory Control Sample (855897) analyzed on 06/22/2011 was within the laboratory control limits. No qualifications were required.

Field Duplicate:

1. Sample NWIRP-GM-38-GW-RW1-MW1-DUP (9911475009) was collected as field duplicate for sample NWIRP-GM-38-GW-RW1-MW1 (9911475001). Both samples were reported as non-detects. No qualifications were required.

Matrix Spike (MS)/ Matrix Spike Duplicate (MSD):

1. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) were performed on sample NWIRP-GM-38-GW-RW1-MW1 (9911475001). All %RECs and RPD were within the laboratory control limits. No qualifications were required.

Compound Quantitation and Reported Detection Limits:

1. All sample results were reported within the linear calibration range.

Comments:

1. Validation qualifiers (if required) were entered into the EDD for SDG: 9911475.

GENERAL CHEMISTRY
USEPA Region II – Tier II Data Validation

Project Name: Naval Weapons Industrial Reserve Plant, GM-38 Area-LTM

Location: 100 Broadway, Bethpage, NY

Project Number: 2031-005

SDG #: 9911475-HNW-010

Client: H&S Environmental, Inc.

Date: 07/22/2011

Laboratory: ALS Environmental, Middletown, PA

Reviewer: Samir A. Naguib

Summary:

1. Tier II data validation was performed on the data for nine (9) water samples analyzed for Solids, Total Suspended (TSS) by SM20th 2540D.

2. The samples were collected on 06/14 and 15/2011. The samples were submitted to ALS Environmental, Middletown, PA on 06/17/2011 for analysis.

3. The USEPA Region II SOP No. HW-2, Revision 13, September 2006, for Evaluation of Metals Data for Contract Laboratory Program (CLP), based on SOW-ILM05.3 (SOP Revision 13) was used in evaluating the Solids, Total Suspended data in this summary report.

4. In general, the data are valid as reported and may be used for decision making purposes. Selected data points were qualified due to nonconformance of certain Quality Control criteria (See discussion below).

Samples:

The samples included in this review are listed below:

Client Sample ID	Laboratory Sample ID	Collection Date	Matrix	Sample Status
NWIRP-GM-38-GW-RW1-MW1	9911475001	06/14/11	Water	
NWIRP-GM-38-GW-RW1-MW3	9911475002	06/14/11	Water	
NWIRP-GM-38-GW-RW2-MW1	9911475003	06/14/11	Water	
NWIRP-GM-38-GW-RW3-MW1	9911475004	06/14/11	Water	
NWIRP-GM-38-GW-RW3-MW2	9911475005	06/14/11	Water	
NWIRP-GM-38-GW-RW3-MW3	9911475006	06/15/11	Water	
NWIRP-GM-38-GW-RW3-MW4	9911475007	06/15/11	Water	
NWIRP-GM-38-GW-TP	9911475008	06/15/11	Water	
NWIRP-GM-38-GW-RW1-MW1-DUP	9911475009	06/14/11	Water	Field Duplicate of sample NWIRP-GM-38-GW-RW1-MW1

Sample Conditions/Problems:

1. The Traffic Reports/Chain-of-Custody Records, Sampling Report and/or Laboratory Case Narrative did not indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data. No qualifications were required.

Holding Times:

1. All water samples were analyzed within the 7days holding times for Solids, Total Suspended. No qualifications were required.

Method Blank (MB), Storage Blank (SB), Field Blank (FB), Rinsate Blank (RB) and Equipment Blank (EB):

1. Method Blanks 855365 and 855370 analyzed on 06/21/2011 were free of contamination. No qualifications were required.

Field Duplicate:

1. Sample NWIRP-GM-38-GW-RW1-MW1-DUP (9911475009) was collected as field duplicate for sample NWIRP-GM-38-GW-RW1-MW1 (9911475001). The native sample result was non-detect and field duplicate result was <5x RL. The absolute difference was <2x RL. No qualifications were required.

Laboratory Duplicate:

1. Laboratory Duplicate source sample was associated with a different SDG.

Compound Quantitation and Reported Detection Limits:

1. All sample results were reported within the linear calibration range.

Comments:

1. Validation qualifiers (if required) were entered into the EDD for SDG: 9911475.

APPENDIX E
Raw Analytical Data

April 2011

Report of Analysis

Client Sample ID:	GM38-RW1-042511		
Lab Sample ID:	JA74058-1	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A108502.D	1	04/27/11	HSS	n/a	n/a	V2A4626
Run #2	T159178.D	10	04/28/11	JNW	n/a	n/a	VT6342

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.9	ug/l	
71-43-2	Benzene	ND	1.0	0.27	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.29	ug/l	
75-25-2	Bromoform	ND	1.0	0.19	ug/l	
74-83-9	Bromomethane	ND	1.0	0.23	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.7	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.14	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.26	ug/l	
75-00-3	Chloroethane	ND	1.0	0.47	ug/l	
67-66-3	Chloroform	0.67	1.0	0.17	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.16	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
75-34-3	1,1-Dichloroethane	2.8	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.53	ug/l	
75-35-4	1,1-Dichloroethene	7.5	1.0	0.24	ug/l	
156-59-2	cis-1,2-Dichloroethene	58.3	1.0	0.24	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.0	1.0	0.35	ug/l	
540-59-0	1,2-Dichloroethene (total)	59.3	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.4	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.17	ug/l	
100-42-5	Styrene	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.16	ug/l	
127-18-4	Tetrachloroethene	109	1.0	0.51	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	7.1	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-RW1-042511		
Lab Sample ID:	JA74058-1	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	412 [a]	10	2.5	ug/l	
75-01-4	Vinyl chloride	6.3	1.0	0.16	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	99%	109%	68-134%
2037-26-5	Toluene-D8 (SUR)	96%	99%	87-112%
460-00-4	4-Bromofluorobenzene (SUR)	97%	96%	83-116%
1868-53-7	Dibromofluoromethane (S)	98%	99%	85-117%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-RW1-042511		
Lab Sample ID:	JA74058-1	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.20	0.20	ug/l	1	05/16/11	05/16/11	JW	SW846 7470A [1]	SW846 7470A [2]

(1) Instrument QC Batch: MA26382
(2) Prep QC Batch: MP58233

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-RW1-042511		
Lab Sample ID:	JA74058-1	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Total Suspended	< 4.0	4.0	mg/l	1	04/28/11	RI	SM20 2540D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-RW3-042511		
Lab Sample ID:	JA74058-2	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A108503.D	1	04/27/11	HSS	n/a	n/a	V2A4626
Run #2	T159180.D	10	04/28/11	JNW	n/a	n/a	VT6342

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.9	ug/l	
71-43-2	Benzene	ND	1.0	0.27	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.29	ug/l	
75-25-2	Bromoform	ND	1.0	0.19	ug/l	
74-83-9	Bromomethane	ND	1.0	0.23	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.7	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.14	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.26	ug/l	
75-00-3	Chloroethane	ND	1.0	0.47	ug/l	
67-66-3	Chloroform	0.20	1.0	0.17	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.16	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
75-34-3	1,1-Dichloroethane	1.8	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.53	ug/l	
75-35-4	1,1-Dichloroethene	1.5	1.0	0.24	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.7	1.0	0.24	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.35	ug/l	
540-59-0	1,2-Dichloroethene (total)	1.7	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.4	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.17	ug/l	
100-42-5	Styrene	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.16	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.51	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	0.91	1.0	0.21	ug/l	J
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-RW3-042511		
Lab Sample ID:	JA74058-2	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	332 [a]	10	2.5	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	98%	111%	68-134%
2037-26-5	Toluene-D8 (SUR)	95%	101%	87-112%
460-00-4	4-Bromofluorobenzene (SUR)	95%	98%	83-116%
1868-53-7	Dibromofluoromethane (S)	99%	102%	85-117%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-RW3-042511		
Lab Sample ID:	JA74058-2	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.20	0.20	ug/l	1	05/16/11	05/16/11	JW	SW846 7470A [1]	SW846 7470A [2]

(1) Instrument QC Batch: MA26382
(2) Prep QC Batch: MP58233

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-RW3-042511		
Lab Sample ID:	JA74058-2	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Total Suspended	< 4.0	4.0	mg/l	1	04/28/11	RI	SM20 2540D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-TE-042511-01		
Lab Sample ID:	JA74058-3	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A108504.D	1	04/27/11	HSS	n/a	n/a	V2A4626
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.9	ug/l	
71-43-2	Benzene	ND	1.0	0.27	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.29	ug/l	
75-25-2	Bromoform	ND	1.0	0.19	ug/l	
74-83-9	Bromomethane	ND	1.0	0.23	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.7	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.14	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.26	ug/l	
75-00-3	Chloroethane	ND	1.0	0.47	ug/l	
67-66-3	Chloroform	ND	1.0	0.17	ug/l	
74-87-3	Chloromethane	ND	1.0	0.16	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.53	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.24	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.24	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.35	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.4	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.17	ug/l	
100-42-5	Styrene	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.16	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.51	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-TE-042511-01		
Lab Sample ID:	JA74058-3	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	99%		68-134%
2037-26-5	Toluene-D8 (SUR)	97%		87-112%
460-00-4	4-Bromofluorobenzene (SUR)	97%		83-116%
1868-53-7	Dibromofluoromethane (S)	99%		85-117%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-TE-042511-01		
Lab Sample ID:	JA74058-3	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.20	0.20	ug/l	1	05/16/11	05/16/11	JW	SW846 7470A [1]	SW846 7470A [2]

(1) Instrument QC Batch: MA26382
(2) Prep QC Batch: MP58233

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-TE-042511-01		
Lab Sample ID:	JA74058-3	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Total Suspended	< 4.0	4.0	mg/l	1	04/28/11	RI	SM20 2540D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-TE-042511-02		
Lab Sample ID:	JA74058-4	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A108505.D	1	04/27/11	HSS	n/a	n/a	V2A4626
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.9	ug/l	
71-43-2	Benzene	ND	1.0	0.27	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.29	ug/l	
75-25-2	Bromoform	ND	1.0	0.19	ug/l	
74-83-9	Bromomethane	ND	1.0	0.23	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.7	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.14	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.26	ug/l	
75-00-3	Chloroethane	ND	1.0	0.47	ug/l	
67-66-3	Chloroform	ND	1.0	0.17	ug/l	
74-87-3	Chloromethane	ND	1.0	0.16	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.53	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.24	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.24	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.35	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.4	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.17	ug/l	
100-42-5	Styrene	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.16	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.51	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-TE-042511-02		
Lab Sample ID:	JA74058-4	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	98%		68-134%
2037-26-5	Toluene-D8 (SUR)	97%		87-112%
460-00-4	4-Bromofluorobenzene (SUR)	96%		83-116%
1868-53-7	Dibromofluoromethane (S)	99%		85-117%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-TE-042511-02		
Lab Sample ID:	JA74058-4	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.20	0.20	ug/l	1	05/16/11	05/16/11	JW	SW846 7470A [1]	SW846 7470A [2]

(1) Instrument QC Batch: MA26382
(2) Prep QC Batch: MP58233

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-TE-042511-02		
Lab Sample ID:	JA74058-4	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Total Suspended	< 4.0	4.0	mg/l	1	04/28/11	RI	SM20 2540D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-ASE-042511		
Lab Sample ID:	JA74058-5	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A108506.D	1	04/27/11	HSS	n/a	n/a	V2A4626
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.9	ug/l	
71-43-2	Benzene	ND	1.0	0.27	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.29	ug/l	
75-25-2	Bromoform	ND	1.0	0.19	ug/l	
74-83-9	Bromomethane	ND	1.0	0.23	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.7	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.14	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.26	ug/l	
75-00-3	Chloroethane	ND	1.0	0.47	ug/l	
67-66-3	Chloroform	ND	1.0	0.17	ug/l	
74-87-3	Chloromethane	ND	1.0	0.16	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.53	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.24	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.6	1.0	0.24	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.35	ug/l	
540-59-0	1,2-Dichloroethene (total)	1.6	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.4	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.17	ug/l	
100-42-5	Styrene	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.16	ug/l	
127-18-4	Tetrachloroethene	1.1	1.0	0.51	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-ASE-042511		
Lab Sample ID:	JA74058-5	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	6.7	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	97%		68-134%
2037-26-5	Toluene-D8 (SUR)	98%		87-112%
460-00-4	4-Bromofluorobenzene (SUR)	96%		83-116%
1868-53-7	Dibromofluoromethane (S)	97%		85-117%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-ASE-042511		
Lab Sample ID:	JA74058-5	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.20	0.20	ug/l	1	05/16/11	05/16/11	JW	SW846 7470A [1]	SW846 7470A [2]

(1) Instrument QC Batch: MA26382
(2) Prep QC Batch: MP58233

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-ASE-042511		
Lab Sample ID:	JA74058-5	**Date Sampled:**	04/25/11
Matrix:	AQ - Ground Water	**Date Received:**	04/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Total Suspended	< 4.0	4.0	mg/l	1	04/28/11	RI	SM20 2540D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB		
Lab Sample ID:	JA74058-6	**Date Sampled:**	04/25/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A108507.D	1	04/27/11	HSS	n/a	n/a	V2A4626
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.9	ug/l	
71-43-2	Benzene	ND	1.0	0.27	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.29	ug/l	
75-25-2	Bromoform	ND	1.0	0.19	ug/l	
74-83-9	Bromomethane	ND	1.0	0.23	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.7	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.14	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.26	ug/l	
75-00-3	Chloroethane	ND	1.0	0.47	ug/l	
67-66-3	Chloroform	ND	1.0	0.17	ug/l	
74-87-3	Chloromethane	ND	1.0	0.16	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.53	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.24	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.24	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.35	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.4	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.17	ug/l	
100-42-5	Styrene	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.16	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.51	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB		
Lab Sample ID:	JA74058-6	**Date Sampled:**	04/25/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	98%		68-134%
2037-26-5	Toluene-D8 (SUR)	98%		87-112%
460-00-4	4-Bromofluorobenzene (SUR)	97%		83-116%
1868-53-7	Dibromofluoromethane (S)	98%		85-117%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST LABORATORIES

GW WTB

CHAIN OF CUSTODY

2235 Route 130, Dayton, NJ 08810
Tel: 732-329-0200 FAX: 732-329-3499/3480
www. acutest.com

FED-EX Tracking #: 874080862045 | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: JA74058

Client / Reporting Information

Company Name: ECOR Solutions
Street Address: 440 Creamery Way
City: Exton State: PA Zip: 19341
Project Contact: MATT LAPP E-mail:
Phone #: 610 840-9200 Fax #: 610 831-2852
Sampler(s) Name(s): Greg Gangemi Phone #:

Project Information

Project Name: Gm38 Bethpage
Street: 100 Broadway
City: Bethpage State: N.Y
Project #: EFO32
Client Purchase Order #:
Project Manager: FRED MATTISON

Billing Information (If different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet): mercSm254.1, Voc's EPA624, TSS Sm 254.0D, MS/MSD

Matrix Codes: DW - Drinking Water, GW - Ground Water, WW - Water, SW - Surface Water, SO - Soil, SL - Sludge, SED-Sediment, OI - Oil, LIQ - Other Liquid, AIR - Air, SOL - Other Solid, WP - Wipe, FB-Field Blank, EB-Equipment Blank, RB- Rinse Blank, TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	merc Sm254.1	Voc's EPA624	TSS Sm 254.0D	MS/MSD	LAB USE ONLY
1	Gm38-RW1-042511		04-25-11	1000	GG	GW	13	9		3		1				X	X	X	X	A4ET19
2	Gm38-RW3-042511		04-25-11	1005	GG	GW	5	3		1		1				X	X	X		WC 32
3	Gm38-TE-042511-01		04-25-11	1015	GG	GW	5	3		1		1				X	X	X		2156
4	Gm38-TE-042511-02		04-25-11	1025	GG	GW	5	3		1		1				X	X	X		
5	Gm38-ASE-042511		04-25-11	1035	GG	GW	5	3		1		1				X	X	X		
6	TB		04-25-11	1100	GG	GW	2	2									X			

Turnaround Time (Business days)

- ☐ Std. 15 Business Days
- ☐ Std. 10 Business Days (by Contract only)
- ☐ 10 Day RUSH
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- ☐ Commercial "A" (Level 1)
- ☐ Commercial "B" (Level 2)
- ☐ FULLT1 (Level 3+4)
- ☐ NJ Reduced
- ☐ Commercial "C"
- ☐ NYASP Category A
- ☐ NYASP Category B
- ☐ State Forms
- ☐ EDD Format
- ☐ Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1	Date Time: 4/25/11 1200	Received By: 1 [signature]		Relinquished By: 2 [signature]	Date Time: 4/26/11 1000	Received By: 2 [signature]	
Relinquished by Sampler: 3	Date Time:	Received By: 3		Relinquished By: 4	Date Time:	Received By: 4	
Relinquished by: 5	Date Time:	Received By: 5		Custody Seal # 728	☑ Intact ☐ Not intact	Preserved where applicable ☑	On Ice ☑ Cooler Temp. 2.6

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: Gm38-VC12-042911

Lab ID#: 1104647-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.74	24	1.9	63
trans-1,2-Dichloroethene	0.74	1.6	3.0	6.6
cis-1,2-Dichloroethene	0.74	78	3.0	310
Trichloroethene	0.74	57	4.0	310
Toluene	0.74	0.96	2.8	3.6
Tetrachloroethene	0.74	11	5.0	75

Client Sample ID: Gm38-VC11-042911

Lab ID#: 1104647-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.7	27	6.8	70
cis-1,2-Dichloroethene	2.7	170	11	670
Trichloroethene	2.7	930	14	5000
Tetrachloroethene	2.7	290	18	2000

Client Sample ID: Gm38-VC23-042911

Lab ID#: 1104647-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.72	26	1.8	66
Trichloroethene	0.72	0.99	3.9	5.3

Client Sample ID: Gm38-ES-042911-1

Lab ID#: 1104647-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.73	1.2	3.9	6.4

Client Sample ID: Gm38-ES-042911-2

Lab ID#: 1104647-05A

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: Gm38-ES-042911-2

Lab ID#: 1104647-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	1.1	8.9	5.7	48
Tetrachloroethene	1.1	2.7	7.2	18

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Gm38-VC12-042911

Lab ID#: 1104647-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p051018**	**Date of Collection:**	**4/29/11 11:30:00 AM**
Dil. Factor:	**1.49**	**Date of Analysis:**	**5/11/11 10:42 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.74	24	1.9	63
trans-1,2-Dichloroethene	0.74	1.6	3.0	6.6
cis-1,2-Dichloroethene	0.74	78	3.0	310
1,2-Dichloroethane	0.74	Not Detected	3.0	Not Detected
Trichloroethene	0.74	57	4.0	310
Toluene	0.74	0.96	2.8	3.6
1,1,2-Trichloroethane	0.74	Not Detected	4.1	Not Detected
Tetrachloroethene	0.74	11	5.0	75
m,p-Xylene	0.74	Not Detected	3.2	Not Detected
o-Xylene	0.74	Not Detected	3.2	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Gm38-VC11-042911

Lab ID#: 1104647-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p051017**	**Date of Collection:**	**4/29/11 11:30:00 AM**
Dil. Factor:	**5.36**	**Date of Analysis:**	**5/11/11 10:10 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.7	27	6.8	70
trans-1,2-Dichloroethene	2.7	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	2.7	170	11	670
1,2-Dichloroethane	2.7	Not Detected	11	Not Detected
Trichloroethene	2.7	930	14	5000
Toluene	2.7	Not Detected	10	Not Detected
1,1,2-Trichloroethane	2.7	Not Detected	15	Not Detected
Tetrachloroethene	2.7	290	18	2000
m,p-Xylene	2.7	Not Detected	12	Not Detected
o-Xylene	2.7	Not Detected	12	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	93	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Gm38-VC23-042911

Lab ID#: 1104647-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p051013**	**Date of Collection:**	**4/29/11 11:30:00 AM**
Dil. Factor:	**1.44**	**Date of Analysis:**	**5/11/11 08:27 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.72	26	1.8	66
trans-1,2-Dichloroethene	0.72	Not Detected	2.8	Not Detected
cis-1,2-Dichloroethene	0.72	Not Detected	2.8	Not Detected
1,2-Dichloroethane	0.72	Not Detected	2.9	Not Detected
Trichloroethene	0.72	0.99	3.9	5.3
Toluene	0.72	Not Detected	2.7	Not Detected
1,1,2-Trichloroethane	0.72	Not Detected	3.9	Not Detected
Tetrachloroethene	0.72	Not Detected	4.9	Not Detected
m,p-Xylene	0.72	Not Detected	3.1	Not Detected
o-Xylene	0.72	Not Detected	3.1	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Gm38-ES-042911-1

Lab ID#: 1104647-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p051014**	**Date of Collection:**	**4/29/11 11:30:00 AM**
Dil. Factor:	**1.46**	**Date of Analysis:**	**5/11/11 08:49 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.73	Not Detected	1.9	Not Detected
trans-1,2-Dichloroethene	0.73	Not Detected	2.9	Not Detected
cis-1,2-Dichloroethene	0.73	Not Detected	2.9	Not Detected
1,2-Dichloroethane	0.73	Not Detected	3.0	Not Detected
Trichloroethene	0.73	1.2	3.9	6.4
Toluene	0.73	Not Detected	2.8	Not Detected
1,1,2-Trichloroethane	0.73	Not Detected	4.0	Not Detected
Tetrachloroethene	0.73	Not Detected	5.0	Not Detected
m,p-Xylene	0.73	Not Detected	3.2	Not Detected
o-Xylene	0.73	Not Detected	3.2	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	95	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Gm38-ES-042911-2

Lab ID#: 1104647-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p051016**	**Date of Collection:**	**4/29/11 12:30:00 PM**
Dil. Factor:	**2.12**	**Date of Analysis:**	**5/11/11 09:48 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.3	Not Detected
Trichloroethene	1.1	8.9	5.7	48
Toluene	1.1	Not Detected	4.0	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Tetrachloroethene	1.1	2.7	7.2	18
m,p-Xylene	1.1	Not Detected	4.6	Not Detected
o-Xylene	1.1	Not Detected	4.6	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager FRED MATTISON

Collected by: (Print and Sign) Greg Gansen

Company Ecor Solutions Email

Address 440 Creamery Way City Exton State PA Zip 19341

Phone 610 340 9200 Fax

Project Info:
P.O. # EF032
Project # EF032.200
Project Name Gm38 Bethpage

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	Gm38-VC12-042911	427	4-29-11	1130	Select VOCs TO15	-25	-3		
02A	Gm38-VC11-042911	1067	4-29-11	1130	" "	-30	-5		
03A	Gm38-VC23-042911	2403	4-29-11	1130	" "	-30	-5		
04A	Gm38-ES-042911-1	13853	4-29-11	1130	" "	-30	-4		
05A	Gm38-ES-042911-2	3088	4-29-11	1230	" "	-25	-5		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
	4-29-11 1300		4/30/11 0930
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fedex		NA	good	Yes No None	1104647

Form 1293 rev.11

May 2011

Report of Analysis

Client Sample ID:	GM38-RW1-052511		
Lab Sample ID:	JA76842-1	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T160701.D	1	06/06/11	JNW	n/a	n/a	VT6406
Run #2	T160702.D	10	06/06/11	JNW	n/a	n/a	VT6406

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.9	ug/l	
71-43-2	Benzene	ND	1.0	0.27	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.29	ug/l	
75-25-2	Bromoform	ND	1.0	0.19	ug/l	
74-83-9	Bromomethane	ND	1.0	0.23	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.7	ug/l	
75-15-0	Carbon disulfide	0.25	1.0	0.25	ug/l	J
56-23-5	Carbon tetrachloride	0.75	1.0	0.14	ug/l	J
108-90-7	Chlorobenzene	ND	1.0	0.26	ug/l	
75-00-3	Chloroethane	ND	1.0	0.47	ug/l	
67-66-3	Chloroform	0.79	1.0	0.17	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.16	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
75-34-3	1,1-Dichloroethane	3.2	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.53	ug/l	
75-35-4	1,1-Dichloroethene	8.0	1.0	0.24	ug/l	
156-59-2	cis-1,2-Dichloroethene	59.8	1.0	0.24	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.2	1.0	0.35	ug/l	
540-59-0	1,2-Dichloroethene (total)	61.0	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.4	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.17	ug/l	
100-42-5	Styrene	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.16	ug/l	
127-18-4	Tetrachloroethene	117	1.0	0.51	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	8.1	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.38	1.0	0.21	ug/l	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-RW1-052511		
Lab Sample ID:	JA76842-1	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	399 [a]	10	2.5	ug/l	
75-01-4	Vinyl chloride	5.8	1.0	0.16	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	107%	102%	68-134%
2037-26-5	Toluene-D8 (SUR)	99%	101%	87-112%
460-00-4	4-Bromofluorobenzene (SUR)	107%	104%	83-116%
1868-53-7	Dibromofluoromethane (S)	100%	101%	85-117%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-RW1-052511		
Lab Sample ID:	JA76842-1	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.20	0.20	ug/l	1	06/08/11	06/09/11	JW	SW846 7470A [1]	SW846 7470A [2]

(1) Instrument QC Batch: MA26502
(2) Prep QC Batch: MP58604

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-RW1-052511		
Lab Sample ID:	JA76842-1	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Total Suspended	< 4.0	4.0	mg/l	1	05/31/11	RI	SM20 2540D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-RW3-052511		
Lab Sample ID:	JA76842-2	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T160716.D	1	06/06/11	JNW	n/a	n/a	VT6406
Run #2	T160794.D	10	06/08/11	JNW	n/a	n/a	VT6410

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.9	ug/l	
71-43-2	Benzene	ND	1.0	0.27	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.29	ug/l	
75-25-2	Bromoform	ND	1.0	0.19	ug/l	
74-83-9	Bromomethane	ND	1.0	0.23	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.7	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	0.22	1.0	0.14	ug/l	J
108-90-7	Chlorobenzene	ND	1.0	0.26	ug/l	
75-00-3	Chloroethane	ND	1.0	0.47	ug/l	
67-66-3	Chloroform	0.38	1.0	0.17	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.16	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
75-34-3	1,1-Dichloroethane	2.3	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.53	ug/l	
75-35-4	1,1-Dichloroethene	2.0	1.0	0.24	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.9	1.0	0.24	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.35	ug/l	
540-59-0	1,2-Dichloroethene (total)	2.1	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.4	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.17	ug/l	
100-42-5	Styrene	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.16	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.51	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	1.3	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-RW3-052511		
Lab Sample ID:	JA76842-2	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	326 [a]	10	2.5	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	100%	88%	68-134%
2037-26-5	Toluene-D8 (SUR)	98%	93%	87-112%
460-00-4	4-Bromofluorobenzene (SUR)	102%	104%	83-116%
1868-53-7	Dibromofluoromethane (S)	100%	93%	85-117%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-RW3-052511		
Lab Sample ID:	JA76842-2	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.20	0.20	ug/l	1	06/08/11	06/09/11	JW	SW846 7470A [1]	SW846 7470A [2]

(1) Instrument QC Batch: MA26502
(2) Prep QC Batch: MP58604

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-RW3-052511		
Lab Sample ID:	JA76842-2	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Total Suspended	< 4.0	4.0	mg/l	1	05/31/11	RI	SM20 2540D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-TE-052511-01		
Lab Sample ID:	JA76842-3	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T160715.D	1	06/06/11	JNW	n/a	n/a	VT6406
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.9	ug/l	
71-43-2	Benzene	ND	1.0	0.27	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.29	ug/l	
75-25-2	Bromoform	ND	1.0	0.19	ug/l	
74-83-9	Bromomethane	ND	1.0	0.23	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.7	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.14	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.26	ug/l	
75-00-3	Chloroethane	ND	1.0	0.47	ug/l	
67-66-3	Chloroform	ND	1.0	0.17	ug/l	
74-87-3	Chloromethane	ND	1.0	0.16	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.53	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.24	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.63	1.0	0.24	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.35	ug/l	
540-59-0	1,2-Dichloroethene (total)	0.63	1.0	0.24	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.4	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.17	ug/l	
100-42-5	Styrene	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.16	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.51	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-TE-052511-01		
Lab Sample ID:	JA76842-3	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	102%		68-134%
2037-26-5	Toluene-D8 (SUR)	100%		87-112%
460-00-4	4-Bromofluorobenzene (SUR)	101%		83-116%
1868-53-7	Dibromofluoromethane (S)	100%		85-117%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-TE-052511-01		
Lab Sample ID:	JA76842-3	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.20	0.20	ug/l	1	06/08/11	06/09/11	JW	SW846 7470A [1]	SW846 7470A [2]

(1) Instrument QC Batch: MA26502
(2) Prep QC Batch: MP58604

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-TE-052511-01		
Lab Sample ID:	JA76842-3	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Total Suspended	< 4.0	4.0	mg/l	1	05/31/11	RI	SM20 2540D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-TE-052511-02		
Lab Sample ID:	JA76842-4	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T160714.D	1	06/06/11	JNW	n/a	n/a	VT6406
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.9	ug/l	
71-43-2	Benzene	ND	1.0	0.27	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.29	ug/l	
75-25-2	Bromoform	ND	1.0	0.19	ug/l	
74-83-9	Bromomethane	ND	1.0	0.23	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.7	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.14	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.26	ug/l	
75-00-3	Chloroethane	ND	1.0	0.47	ug/l	
67-66-3	Chloroform	ND	1.0	0.17	ug/l	
74-87-3	Chloromethane	ND	1.0	0.16	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.53	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.24	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.48	1.0	0.24	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.35	ug/l	
540-59-0	1,2-Dichloroethene (total)	0.48	1.0	0.24	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.4	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.17	ug/l	
100-42-5	Styrene	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.16	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.51	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-TE-052511-02		
Lab Sample ID:	JA76842-4	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	101%		68-134%
2037-26-5	Toluene-D8 (SUR)	99%		87-112%
460-00-4	4-Bromofluorobenzene (SUR)	104%		83-116%
1868-53-7	Dibromofluoromethane (S)	100%		85-117%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-TE-052511-02		
Lab Sample ID:	JA76842-4	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.20	0.20	ug/l	1	06/08/11	06/09/11	JW	SW846 7470A [1]	SW846 7470A [2]

(1) Instrument QC Batch: MA26502
(2) Prep QC Batch: MP58604

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-TE-052511-02		
Lab Sample ID:	JA76842-4	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Total Suspended	< 4.0	4.0	mg/l	1	05/31/11	RI	SM20 2540D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-ASE-052511		
Lab Sample ID:	JA76842-5	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T160713.D	1	06/06/11	JNW	n/a	n/a	VT6406
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.9	ug/l	
71-43-2	Benzene	ND	1.0	0.27	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.29	ug/l	
75-25-2	Bromoform	ND	1.0	0.19	ug/l	
74-83-9	Bromomethane	ND	1.0	0.23	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.7	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.14	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.26	ug/l	
75-00-3	Chloroethane	ND	1.0	0.47	ug/l	
67-66-3	Chloroform	ND	1.0	0.17	ug/l	
74-87-3	Chloromethane	ND	1.0	0.16	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.53	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.24	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.81	1.0	0.24	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.35	ug/l	
540-59-0	1,2-Dichloroethene (total)	0.81	1.0	0.24	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.4	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.17	ug/l	
100-42-5	Styrene	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.16	ug/l	
127-18-4	Tetrachloroethene	0.70	1.0	0.51	ug/l	J
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-ASE-052511		
Lab Sample ID:	JA76842-5	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	4.1	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	103%		68-134%
2037-26-5	Toluene-D8 (SUR)	101%		87-112%
460-00-4	4-Bromofluorobenzene (SUR)	104%		83-116%
1868-53-7	Dibromofluoromethane (S)	100%		85-117%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GM38-ASE-052511		
Lab Sample ID:	JA76842-5	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	< 0.20	0.20	ug/l	1	06/08/11	06/09/11	JW	SW846 7470A [1]	SW846 7470A [2]

(1) Instrument QC Batch: MA26502
(2) Prep QC Batch: MP58604

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GM38-ASE-052511		
Lab Sample ID:	JA76842-5	**Date Sampled:**	05/25/11
Matrix:	AQ - Ground Water	**Date Received:**	05/26/11
		Percent Solids:	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Total Suspended	4.0	4.0	mg/l	1	05/31/11	RI	SM20 2540D

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB		
Lab Sample ID:	JA76842-6	**Date Sampled:**	05/25/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T160712.D	1	06/06/11	JNW	n/a	n/a	VT6406
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.9	ug/l	
71-43-2	Benzene	ND	1.0	0.27	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.29	ug/l	
75-25-2	Bromoform	ND	1.0	0.19	ug/l	
74-83-9	Bromomethane	ND	1.0	0.23	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.7	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.14	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.26	ug/l	
75-00-3	Chloroethane	ND	1.0	0.47	ug/l	
67-66-3	Chloroform	ND	1.0	0.17	ug/l	
74-87-3	Chloromethane	ND	1.0	0.16	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.53	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.24	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.24	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.35	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.12	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.4	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.17	ug/l	
100-42-5	Styrene	ND	2.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.16	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.51	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB		
Lab Sample ID:	JA76842-6	**Date Sampled:**	05/25/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/26/11
Method:	EPA 624	**Percent Solids:**	n/a
Project:	GM-38, 100 Broadway, Bethpage, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.16	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	102%		68-134%
2037-26-5	Toluene-D8 (SUR)	100%		87-112%
460-00-4	4-Bromofluorobenzene (SUR)	105%		83-116%
1868-53-7	Dibromofluoromethane (S)	100%		85-117%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2235 Route 130, Dayton, NJ 08810
Tel: 732-329-0200 FAX: 732-329-3499/3480
www.acutest.com

PAGE ___ OF ___

FED-EX Tracking #: 8754 2607 8939
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: JA 76842

Client / Reporting Information
Company Name: ECOR Solutions
Street Address: 440 Creamery way
City: Exton State: PA Zip: 19341
Project Contact: MATT LAPP E-mail:
Phone #: 610 840-9200 Fax #: 610 831 2858
Sampler(s) Name(s): Greg Gangemi Phone #:

Project Information
Project Name: Gm-38 Bethpage
Street: 100 Broadway
City: Bethpage State: N.Y
Project #: EF032
Client Purchase Order #:
Project Manager: FRED MATTISON

Billing Information (if different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet): MERC Sm 254.1; VOC's EPA 624; TSS Sm 254.0D; MS/MSD

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	MERC	VOC's	TSS	MS/MSD	LAB USE ONLY
1	Gm38-RW1-052511		05-25-11	0900	GG	GW	13	9		3		1				X	X	X	X	AMET25,
2	Gm38-RW3-052511		↓	0905	GG	GW	5	3		1		1				X	X	X		WC11
3	Gm38-TE-052511-01		↓	0910	GG	GW	5	3		1		1				X	X	X		Y99I
4	Gm38-TE-052511-02		↓	0915	GG	GW	5	3		1		1				X	X	X		
5	Gm38-ASE-052511		↓	0930	GG	GW	5	3		1		1				X	X	X		
6	TB Ø		↓	1000	GG	GW	2	2									X			

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

Turnaround Time (Business days)
- ☐ Std. 15 Business Days
- ☐ Std. 10 Business Days (by Contract only)
- ☐ 10 Day RUSH
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information
- ☐ Commercial "A" (Level 1)
- ☐ Commercial "B" (Level 2)
- ☐ FULLT1 (Level 3+4)
- ☐ NJ Reduced
- ☐ Commercial "C"
- ☐ NYASP Category A
- ☐ NYASP Category B
- ☐ State Forms
- ☐ EDD Format ______
- ☐ Other ______

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions
Ø TB filled 5/18/11 @ 1515 FRS 5/26/11

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1	Date Time: 5/25/11 1100	Received By: 1 Fedex	Relinquished By: 2 Fedex	Date Time: 5/26/11 11a	Received By: 2 [signature]
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # 738 ☑ Intact ☐ Not intact	Preserved where applicable ☒	On Ice ☒ Cooler Temp. 3.6°C

FRS 5/26/11

JA76842: Chain of Custody
Page 1 of 3

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: GM38-VC12-052511

Lab ID#: 1105528-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.67	0.73	1.7	1.9
cis-1,2-Dichloroethene	0.67	10	2.6	40
Trichloroethene	0.67	14	3.6	75
Tetrachloroethene	0.67	2.4	4.5	16

Client Sample ID: GM38-VC11-052511

Lab ID#: 1105528-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.0	20	7.6	50
cis-1,2-Dichloroethene	3.0	110	12	430
Trichloroethene	3.0	890	16	4800
Tetrachloroethene	3.0	180	20	1200

Client Sample ID: GM38-VC23-052511

Lab ID#: 1105528-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	3.7	1.9	9.5
Trichloroethene	0.76	2.6	4.1	14

Client Sample ID: GM38-ES-052511-01

Lab ID#: 1105528-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.82	2.8	3.2	11
Trichloroethene	0.82	8.6	4.4	46
Tetrachloroethene	0.82	1.4	5.6	9.8

Client Sample ID: GM38-ES-052511-02

Lab ID#: 1105528-05A

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: GM38-ES-052511-02

Lab ID#: 1105528-05A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: GM38-VC12-052511

Lab ID#: 1105528-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p060121**	**Date of Collection:**	**5/25/11 2:30:00 PM**
Dil. Factor:	**1.34**	**Date of Analysis:**	**6/1/11 05:37 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.67	0.73	1.7	1.9
trans-1,2-Dichloroethene	0.67	Not Detected	2.6	Not Detected
cis-1,2-Dichloroethene	0.67	10	2.6	40
1,2-Dichloroethane	0.67	Not Detected	2.7	Not Detected
Trichloroethene	0.67	14	3.6	75
Toluene	0.67	Not Detected	2.5	Not Detected
1,1,2-Trichloroethane	0.67	Not Detected	3.6	Not Detected
Tetrachloroethene	0.67	2.4	4.5	16
m,p-Xylene	0.67	Not Detected	2.9	Not Detected
o-Xylene	0.67	Not Detected	2.9	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	117	70-130
4-Bromofluorobenzene	101	70-130

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Laboratory Services Since 1989

Client Sample ID: GM38-VC11-052511

Lab ID#: 1105528-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p060120**	**Date of Collection: 5/25/11 2:30:00 PM**	
Dil. Factor:	**5.96**	**Date of Analysis: 6/1/11 05:07 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.0	20	7.6	50
trans-1,2-Dichloroethene	3.0	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	3.0	110	12	430
1,2-Dichloroethane	3.0	Not Detected	12	Not Detected
Trichloroethene	3.0	890	16	4800
Toluene	3.0	Not Detected	11	Not Detected
1,1,2-Trichloroethane	3.0	Not Detected	16	Not Detected
Tetrachloroethene	3.0	180	20	1200
m,p-Xylene	3.0	Not Detected	13	Not Detected
o-Xylene	3.0	Not Detected	13	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: GM38-VC23-052511

Lab ID#: 1105528-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p060122**	**Date of Collection: 5/25/11 2:30:00 PM**	
Dil. Factor:	**1.52**	**Date of Analysis: 6/1/11 05:56 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	3.7	1.9	9.5
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,2-Dichloroethane	0.76	Not Detected	3.1	Not Detected
Trichloroethene	0.76	2.6	4.1	14
Toluene	0.76	Not Detected	2.9	Not Detected
1,1,2-Trichloroethane	0.76	Not Detected	4.1	Not Detected
Tetrachloroethene	0.76	Not Detected	5.2	Not Detected
m,p-Xylene	0.76	Not Detected	3.3	Not Detected
o-Xylene	0.76	Not Detected	3.3	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	113	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: GM38-ES-052511-01

Lab ID#: 1105528-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p060123**	**Date of Collection: 5/25/11 2:30:00 PM**	
Dil. Factor:	**1.64**	**Date of Analysis: 6/1/11 06:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.82	2.8	3.2	11
1,2-Dichloroethane	0.82	Not Detected	3.3	Not Detected
Trichloroethene	0.82	8.6	4.4	46
Toluene	0.82	Not Detected	3.1	Not Detected
1,1,2-Trichloroethane	0.82	Not Detected	4.5	Not Detected
Tetrachloroethene	0.82	1.4	5.6	9.8
m,p-Xylene	0.82	Not Detected	3.6	Not Detected
o-Xylene	0.82	Not Detected	3.6	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	113	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: GM38-ES-052511-02

Lab ID#: 1105528-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p060124**	**Date of Collection:**	**5/25/11 3:00:00 PM**
Dil. Factor:	**1.58**	**Date of Analysis:**	**6/1/11 06:46 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.79	Not Detected	2.0	Not Detected
trans-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected
1,2-Dichloroethane	0.79	Not Detected	3.2	Not Detected
Trichloroethene	0.79	Not Detected	4.2	Not Detected
Toluene	0.79	Not Detected	3.0	Not Detected
1,1,2-Trichloroethane	0.79	Not Detected	4.3	Not Detected
Tetrachloroethene	0.79	Not Detected	5.4	Not Detected
m,p-Xylene	0.79	Not Detected	3.4	Not Detected
o-Xylene	0.79	Not Detected	3.4	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	113	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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(916) 985-1000 FAX (916) 985-1020

Project Manager: FRED MATTISON

Collected by: (Print and Sign) Greg Gangemi

Company: ECOR Solutions Email:

Address: 440 Creamery Way City: Exton State: PA Zip: 19341

Phone: 6108490200 Fax: 6108312857

Project Info:
P.O. #: EF032
Project #: EF032
Project Name: Gm38 Bethpage

Turn Around Time:
[X] Normal
[ ] Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	Gm38-VC12-052511	4347	5-25-11	1430	Select VOC's TO15	-30	-0		
02A	Gm38-VC11-052511	2987	5-25-11	1430		-30	-5		
03A	Gm38-VC03-052511	13857	5-25-11	1430		-30	-5		
04A	Gm38-ES-052511-01	5759	5-25-11	1430		-30	-5		
05A	Gm38-ES-052511-08	5746	5-25-11	1500		-30	-5		

Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
5/25/11 1530	B. Whittaker AIC 5/26/11 0900
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fedex		N/A	Good	Yes No (None)	1105528

June 2011

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9911389 HNW008|NWIRP Bethpage GM-38

Lab ID: **9911389001** Date Collected: 6/15/2011 08:50 Matrix: Water

Sample ID: **NWIRP-GM-38-PS-RW1-06152011** Date Received: 6/16/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	3.0	ug/L		1.0	1.0	0.19	EPA 624		6/29/11 03:43	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/29/11 03:43	DJB	A
1,1-Dichloroethene	7.8	ug/L		1.0	1.0	0.17	EPA 624		6/29/11 03:43	DJB	A
cis-1,2-Dichloroethene	59.9	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 03:43	DJB	A
trans-1,2-Dichloroethene	0.90J	ug/L		1.0	1.0	0.12	EPA 624		6/29/11 03:43	DJB	A
Tetrachloroethene	110	ug/L	1,2	1.0	1.0	0.26	EPA 624		6/29/11 03:43	DJB	A
1,1,1-Trichloroethane	7.1	ug/L		1.0	1.0	0.27	EPA 624		6/29/11 03:43	DJB	A
Trichloroethene	287	ug/L		10.0	10.0	2.1	EPA 624		6/30/11 00:39	DJB	B
Vinyl Chloride	5.3	ug/L	3	2.0	2.0	0.24	EPA 624		6/29/11 03:43	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	115	%		72-142			EPA 624		6/29/11 03:43	DJB	A
4-Bromofluorobenzene (S)	107	%		73-119			EPA 624		6/29/11 03:43	DJB	A
Dibromofluoromethane (S)	109	%		74-132			EPA 624		6/29/11 03:43	DJB	A
Toluene-d8 (S)	127	%		75-133			EPA 624		6/29/11 03:43	DJB	A
1,2-Dichloroethane-d4 (S)	120	%		72-142			EPA 624		6/30/11 00:39	DJB	B
4-Bromofluorobenzene (S)	110	%		73-119			EPA 624		6/30/11 00:39	DJB	B
Dibromofluoromethane (S)	111	%		74-132			EPA 624		6/30/11 00:39	DJB	B
Toluene-d8 (S)	132	%		75-133			EPA 624		6/30/11 00:39	DJB	B
WET CHEMISTRY											
Total Suspended Solids	5U	mg/L		5	5	5	SM20-2540 D		6/21/11 20:50	DLV	M
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/21/11 12:14	MNP	J1

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

A dilution of the GCMS volatiles analysis was performed outside of the holding time because one or more of the analytes exceeded the calibration range in the initial analysis.

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ANALYTICAL RESULTS

Workorder: 9911389 HNW008|NWIRP Bethpage GM-38

Lab ID:	**9911389001**	Date Collected:	6/15/2011 08:50	Matrix:	Water
Sample ID:	**NWIRP-GM-38-PS-RW1-06152011**	Date Received:	6/16/2011 09:05		

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9911389 HNW008|NWIRP Bethpage GM-38

Lab ID: **9911389002** Date Collected: 6/15/2011 08:58 Matrix: Water

Sample ID: **NWIRP-GM-38-PS-RW3-06152011** Date Received: 6/16/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	2.2	ug/L		1.0	1.0	0.19	EPA 624		6/29/11 04:17	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/29/11 04:17	DJB	A
1,1-Dichloroethene	1.8	ug/L		1.0	1.0	0.17	EPA 624		6/29/11 04:17	DJB	A
cis-1,2-Dichloroethene	2.0	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 04:17	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/29/11 04:17	DJB	A
Tetrachloroethene	0.69J	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 04:17	DJB	A
1,1,1-Trichloroethane	1.0	ug/L		1.0	1.0	0.27	EPA 624		6/29/11 04:17	DJB	A
Trichloroethene	230	ug/L		10.0	10.0	2.1	EPA 624		6/30/11 00:07	DJB	A
Vinyl Chloride	2.0U	ug/L	3	2.0	2.0	0.24	EPA 624		6/29/11 04:17	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	116	%		72-142			EPA 624		6/29/11 04:17	DJB	A
4-Bromofluorobenzene (S)	106	%		73-119			EPA 624		6/29/11 04:17	DJB	A
Dibromofluoromethane (S)	111	%		74-132			EPA 624		6/29/11 04:17	DJB	A
Toluene-d8 (S)	127	%		75-133			EPA 624		6/29/11 04:17	DJB	A
1,2-Dichloroethane-d4 (S)	122	%		72-142			EPA 624		6/30/11 00:07	DJB	A
4-Bromofluorobenzene (S)	111	%		73-119			EPA 624		6/30/11 00:07	DJB	A
Dibromofluoromethane (S)	110	%		74-132			EPA 624		6/30/11 00:07	DJB	A
Toluene-d8 (S)	126	%		75-133			EPA 624		6/30/11 00:07	DJB	A
WET CHEMISTRY											
Total Suspended Solids	5U	mg/L		5	5	5	SM20-2540 D		6/21/11 20:50	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/21/11 12:17	MNP	D1

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

A dilution of the GCMS volatiles analysis was performed outside of the holding time because one or more of the analytes exceeded the calibration range in the initial analysis.

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ANALYTICAL RESULTS

Workorder: 9911389 HNW008|NWIRP Bethpage GM-38

Lab ID:	**9911389002**	Date Collected:	6/15/2011 08:58	Matrix:	Water
Sample ID:	**NWIRP-GM-38-PS-RW3-06152011**	Date Received:	6/16/2011 09:05		

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr

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ANALYTICAL RESULTS

Workorder: 9911389 HNW008|NWIRP Bethpage GM-38

Lab ID: **9911389003** Date Collected: 6/15/2011 09:20 Matrix: Water

Sample ID: **NWIRP-GM-38-PS-ASE-06152011** Date Received: 6/16/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	1.0U	ug/L		1.0	1.0	0.19	EPA 624		6/29/11 04:49	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/29/11 04:49	DJB	A
1,1-Dichloroethene	1.0U	ug/L		1.0	1.0	0.17	EPA 624		6/29/11 04:49	DJB	A
cis-1,2-Dichloroethene	1.6	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 04:49	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/29/11 04:49	DJB	A
Tetrachloroethene	1.2	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 04:49	DJB	A
1,1,1-Trichloroethane	1.0U	ug/L		1.0	1.0	0.27	EPA 624		6/29/11 04:49	DJB	A
Trichloroethene	7.2	ug/L		1.0	1.0	0.21	EPA 624		6/29/11 04:49	DJB	A
Vinyl Chloride	2.0U	ug/L	3	2.0	2.0	0.24	EPA 624		6/29/11 04:49	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	118	%		72-142			EPA 624		6/29/11 04:49	DJB	A
4-Bromofluorobenzene (S)	108	%		73-119			EPA 624		6/29/11 04:49	DJB	A
Dibromofluoromethane (S)	110	%		74-132			EPA 624		6/29/11 04:49	DJB	A
Toluene-d8 (S)	126	%		75-133			EPA 624		6/29/11 04:49	DJB	A
WET CHEMISTRY											
Total Suspended Solids	5U	mg/L		5	5	5	SM20-2540 D		6/21/11 20:50	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/21/11 12:18	MNP	D1

Sample Comments:

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Technical Manager

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ANALYTICAL RESULTS

Workorder: 9911389 HNW008|NWIRP Bethpage GM-38

Lab ID: **9911389004** Date Collected: 6/15/2011 09:05 Matrix: Water

Sample ID: **NWIRP-GM-38-PS-BFE-06152011** Date Received: 6/16/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	1.0U	ug/L		1.0	1.0	0.19	EPA 624		6/29/11 05:21	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/29/11 05:21	DJB	A
1,1-Dichloroethene	1.0U	ug/L		1.0	1.0	0.17	EPA 624		6/29/11 05:21	DJB	A
cis-1,2-Dichloroethene	1.6	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 05:21	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/29/11 05:21	DJB	A
Tetrachloroethene	1.2	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 05:21	DJB	A
1,1,1-Trichloroethane	1.0U	ug/L		1.0	1.0	0.27	EPA 624		6/29/11 05:21	DJB	A
Trichloroethene	6.8	ug/L		1.0	1.0	0.21	EPA 624		6/29/11 05:21	DJB	A
Vinyl Chloride	2.0U	ug/L	3	2.0	2.0	0.24	EPA 624		6/29/11 05:21	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	117	%		72-142			EPA 624		6/29/11 05:21	DJB	A
4-Bromofluorobenzene (S)	107	%		73-119			EPA 624		6/29/11 05:21	DJB	A
Dibromofluoromethane (S)	110	%		74-132			EPA 624		6/29/11 05:21	DJB	A
Toluene-d8 (S)	129	%		75-133			EPA 624		6/29/11 05:21	DJB	A
WET CHEMISTRY											
Total Suspended Solids	5U	mg/L		5	5	5	SM20-2540 D		6/21/11 20:50	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/21/11 12:19	MNP	D1

Sample Comments:

Anna G Milliken
Technical Manager

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9911389 HNW008|NWIRP Bethpage GM-38

Lab ID: **9911389005** Date Collected: 6/15/2011 09:10 Matrix: Water

Sample ID: **NWIRP-GM-38-PS-TE-06152011** Date Received: 6/16/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	1.0U	ug/L		1.0	1.0	0.19	EPA 624		6/29/11 05:54	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/29/11 05:54	DJB	A
1,1-Dichloroethene	1.0U	ug/L		1.0	1.0	0.17	EPA 624		6/29/11 05:54	DJB	A
cis-1,2-Dichloroethene	0.63J	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 05:54	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/29/11 05:54	DJB	A
Tetrachloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 05:54	DJB	A
1,1,1-Trichloroethane	1.0U	ug/L		1.0	1.0	0.27	EPA 624		6/29/11 05:54	DJB	A
Trichloroethene	1.0U	ug/L		1.0	1.0	0.21	EPA 624		6/29/11 05:54	DJB	A
Vinyl Chloride	2.0U	ug/L	3	2.0	2.0	0.24	EPA 624		6/29/11 05:54	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	120	%		72-142			EPA 624		6/29/11 05:54	DJB	A
4-Bromofluorobenzene (S)	105	%		73-119			EPA 624		6/29/11 05:54	DJB	A
Dibromofluoromethane (S)	113	%		74-132			EPA 624		6/29/11 05:54	DJB	A
Toluene-d8 (S)	127	%		75-133			EPA 624		6/29/11 05:54	DJB	A
WET CHEMISTRY											
Total Suspended Solids	5U	mg/L		5	5	5	SM20-2540 D		6/21/11 20:50	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/21/11 12:20	MNP	D1

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9911389 HNW008|NWIRP Bethpage GM-38

Lab ID: **9911389006** Date Collected: 6/15/2011 09:20 Matrix: Water

Sample ID: **NWIRP-GM-38-PS-LC1-06152011** Date Received: 6/16/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	1.0U	ug/L		1.0	1.0	0.19	EPA 624		6/29/11 06:26	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/29/11 06:26	DJB	A
1,1-Dichloroethene	1.0U	ug/L		1.0	1.0	0.17	EPA 624		6/29/11 06:26	DJB	A
cis-1,2-Dichloroethene	0.73J	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 06:26	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/29/11 06:26	DJB	A
Tetrachloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 06:26	DJB	A
1,1,1-Trichloroethane	1.0U	ug/L		1.0	1.0	0.27	EPA 624		6/29/11 06:26	DJB	A
Trichloroethene	1.0U	ug/L		1.0	1.0	0.21	EPA 624		6/29/11 06:26	DJB	A
Vinyl Chloride	2.0U	ug/L	3	2.0	2.0	0.24	EPA 624		6/29/11 06:26	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	120	%		72-142			EPA 624		6/29/11 06:26	DJB	A
4-Bromofluorobenzene (S)	107	%		73-119			EPA 624		6/29/11 06:26	DJB	A
Dibromofluoromethane (S)	112	%		74-132			EPA 624		6/29/11 06:26	DJB	A
Toluene-d8 (S)	128	%		75-133			EPA 624		6/29/11 06:26	DJB	A
WET CHEMISTRY											
Total Suspended Solids	5U	mg/L		5	5	5	SM20-2540 D		6/21/11 20:50	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/21/11 12:21	MNP	D1

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9911389 HNW008|NWIRP Bethpage GM-38

Lab ID: **9911389007** Date Collected: 6/15/2011 09:25 Matrix: Water

Sample ID: **NWIRP-GM-38-PS-LC2-06152011** Date Received: 6/16/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	1.0U	ug/L		1.0	1.0	0.19	EPA 624		6/29/11 06:59	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/29/11 06:59	DJB	A
1,1-Dichloroethene	1.0U	ug/L		1.0	1.0	0.17	EPA 624		6/29/11 06:59	DJB	A
cis-1,2-Dichloroethene	0.69J	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 06:59	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/29/11 06:59	DJB	A
Tetrachloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 06:59	DJB	A
1,1,1-Trichloroethane	1.0U	ug/L		1.0	1.0	0.27	EPA 624		6/29/11 06:59	DJB	A
Trichloroethene	1.0U	ug/L		1.0	1.0	0.21	EPA 624		6/29/11 06:59	DJB	A
Vinyl Chloride	2.0U	ug/L	3	2.0	2.0	0.24	EPA 624		6/29/11 06:59	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	121	%		72-142			EPA 624		6/29/11 06:59	DJB	A
4-Bromofluorobenzene (S)	107	%		73-119			EPA 624		6/29/11 06:59	DJB	A
Dibromofluoromethane (S)	113	%		74-132			EPA 624		6/29/11 06:59	DJB	A
Toluene-d8 (S)	130	%		75-133			EPA 624		6/29/11 06:59	DJB	A
WET CHEMISTRY											
Total Suspended Solids	5U	mg/L		5	5	5	SM20-2540 D		6/21/11 20:50	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/21/11 12:22	MNP	D1

Sample Comments:

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Technical Manager

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ANALYTICAL RESULTS

Workorder: 9911389 HNW008|NWIRP Bethpage GM-38

Lab ID: **9911389008** Date Collected: 6/15/2011 09:30 Matrix: Water

Sample ID: **NWIRP-GM-38-PS-LC3-06152011** Date Received: 6/16/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	1.0U	ug/L		1.0	1.0	0.19	EPA 624		6/29/11 07:32	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/29/11 07:32	DJB	A
1,1-Dichloroethene	1.0U	ug/L		1.0	1.0	0.17	EPA 624		6/29/11 07:32	DJB	A
cis-1,2-Dichloroethene	0.49J	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 07:32	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/29/11 07:32	DJB	A
Tetrachloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 07:32	DJB	A
1,1,1-Trichloroethane	1.0U	ug/L		1.0	1.0	0.27	EPA 624		6/29/11 07:32	DJB	A
Trichloroethene	1.0U	ug/L		1.0	1.0	0.21	EPA 624		6/29/11 07:32	DJB	A
Vinyl Chloride	2.0U	ug/L	3	2.0	2.0	0.24	EPA 624		6/29/11 07:32	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	120	%		72-142			EPA 624		6/29/11 07:32	DJB	A
4-Bromofluorobenzene (S)	107	%		73-119			EPA 624		6/29/11 07:32	DJB	A
Dibromofluoromethane (S)	110	%		74-132			EPA 624		6/29/11 07:32	DJB	A
Toluene-d8 (S)	128	%		75-133			EPA 624		6/29/11 07:32	DJB	A
WET CHEMISTRY											
Total Suspended Solids	5U	mg/L		5	5	5	SM20-2540 D		6/21/11 20:50	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/21/11 12:25	MNP	D1

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9911389 HNW008|NWIRP Bethpage GM-38

Lab ID: **9911389009** Date Collected: 6/15/2011 00:00 Matrix: Water

Sample ID: **NWIRP-GM-38-PS-TE-06152011 DUP** Date Received: 6/16/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	1.0U	ug/L		1.0	1.0	0.19	EPA 624		6/29/11 08:05	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/29/11 08:05	DJB	A
1,1-Dichloroethene	1.0U	ug/L		1.0	1.0	0.17	EPA 624		6/29/11 08:05	DJB	A
cis-1,2-Dichloroethene	0.60J	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 08:05	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/29/11 08:05	DJB	A
Tetrachloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 08:05	DJB	A
1,1,1-Trichloroethane	1.0U	ug/L		1.0	1.0	0.27	EPA 624		6/29/11 08:05	DJB	A
Trichloroethene	1.0U	ug/L		1.0	1.0	0.21	EPA 624		6/29/11 08:05	DJB	A
Vinyl Chloride	2.0U	ug/L	3	2.0	2.0	0.24	EPA 624		6/29/11 08:05	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	121	%		72-142			EPA 624		6/29/11 08:05	DJB	A
4-Bromofluorobenzene (S)	108	%		73-119			EPA 624		6/29/11 08:05	DJB	A
Dibromofluoromethane (S)	110	%		74-132			EPA 624		6/29/11 08:05	DJB	A
Toluene-d8 (S)	126	%		75-133			EPA 624		6/29/11 08:05	DJB	A
WET CHEMISTRY											
Total Suspended Solids	5U	mg/L		5	5	5	SM20-2540 D		6/21/11 20:50	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/21/11 12:26	MNP	D1

Sample Comments:

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ANALYTICAL RESULTS

Workorder: 9911389 HNW008|NWIRP Bethpage GM-38

Lab ID: **9911389010** Date Collected: 6/16/2011 09:05 Matrix: Water

Sample ID: **NWIRP-GM-38-TB-06152011** Date Received: 6/16/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	1.0U	ug/L		1.0	1.0	0.19	EPA 624		6/29/11 03:10	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/29/11 03:10	DJB	A
1,1-Dichloroethene	1.0U	ug/L		1.0	1.0	0.17	EPA 624		6/29/11 03:10	DJB	A
cis-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 03:10	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/29/11 03:10	DJB	A
Tetrachloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 03:10	DJB	A
1,1,1-Trichloroethane	1.0U	ug/L		1.0	1.0	0.27	EPA 624		6/29/11 03:10	DJB	A
Trichloroethene	1.0U	ug/L		1.0	1.0	0.21	EPA 624		6/29/11 03:10	DJB	A
Vinyl Chloride	2.0U	ug/L	3	2.0	2.0	0.24	EPA 624		6/29/11 03:10	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	115	%		72-142			EPA 624		6/29/11 03:10	DJB	A
4-Bromofluorobenzene (S)	108	%		73-119			EPA 624		6/29/11 03:10	DJB	A
Dibromofluoromethane (S)	110	%		74-132			EPA 624		6/29/11 03:10	DJB	A
Toluene-d8 (S)	126	%		75-133			EPA 624		6/29/11 03:10	DJB	A

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 9911389 HNW008|NWIRP Bethpage GM-38

PARAMETER QUALIFIERS\FLAGS

[1] The QC sample type MS for method EPA 624 was outside the control limits for the analyte Tetrachloroethene. The % Recovery was reported as 3.77 and the control limits were 64 to 148.

[2] The QC sample type MSD for method EPA 624 was outside the control limits for the analyte Tetrachloroethene. The % Recovery was reported as 22.1 and the control limits were 64 to 148.

[3] In the second source LCS after the initial calibration, this compound was recovered below 50%. The recovery passed criteria in the batch LCS, meeting method requirements. Data is not believed to be impacted.

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 2

Courier: FedEx

Tracking #: 870524031

9911389

Co. Name: H&S Environmental, Inc.

Contact (Report to): Jen Good

Phone: 508.366.7442

Address: 160 E. Main St., Suite 2F, Westborough, MA 01581

Bill to (if different than Report to): Same

PO#: 2031-003

Project Name/#: NWIRP Bethpage GM-38 Monthly O&M

ALSI Quote #:

TAT: [x] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.

Date Required:

Approved By:

Email? [x] -Y jgood@hsenv.com

Fax? [ ] -Y No.:

***Container Type	40 mL	500 mL	250 mL
***Container Size	CG	PL	PL
***Preservative	HCL	HNO3	--

ANALYSES/METHOD REQUESTED: Select VOCs (Method 624); Mercury (Method 245.1); TSS (SM2540D); pH (Measured in field using YSI 556) — NA / NA

Performed by: DA

Cooler Temp: 5°C

Therm. ID: 101332724

No. of Coolers:

Notes:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Select VOCs (Method 624)	Mercury (Method 245.1)	TSS (SM2540D)	pH
1 NWIRP-GM-38-PS-RW1-06152011	MS/MSD for VOCs, Hg	6/15/11	0850	G	GW	9	3	1	5.44
2 NWIRP-GM-38-PS-RW3-06152011		↓	0855	G	GW	3	1	1	5.02
3 NWIRP-GM-38-PS-ASE-06152011		↓	0900	G	GW	3	1	1	5.28
4 NWIRP-GM-38-PS-BFE-06152011		↓	0905	G	GW	3	1	1	5.68
5 NWIRP-GM-38-PS-TE-06152011		↓	0910	G	GW	3	1	1	6.07
6 NWIRP-GM-38-PS-LC1-06152011		↓	0920	G	GW	3	1	1	6.10
7 NWIRP-GM-38-PS-LC2-06152011		↓	0925	G	GW	3	1	1	6.13
8 NWIRP-GM-38-PS-LC3-06152011		↓	0930	G	GW	3	1	1	6.13

Enter Number of Containers Per Analysis

Check	Y/N
Correct containers?	Y
Correct sample volume?	Y
Correct preservation?	Y
Headspace/Volatiles?	N
Custody seals Present?	N
(if present) Seals Intact?	—
Received on ice?	Y
COC/Labels complete/accurate?	Y
Container in good condition?	Y

Circle appropriate Y or N.

SAMPLED BY (Please Print): G. Gangemi

LOGGED BY (signature): [signature] DATE 6/16 TIME 0905

REVIEWED BY (signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	6/15	1600	2 [signature]	6/16/11	0905
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)

EDDs Required? [ ] If yes, format type:

SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ]

State Samples Collected In? MD [ ] NJ [ ] NY [X] PA [ ] Other

PWSID

DOD Criteria Required?

ALSI FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY ***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc. Rev 08-2008

Analytical Laboratory Services, Inc.
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 2 of 2
Courier: FedEx
Tracking #: 870524030857

9911389

Co. Name: H&S Environmental, Inc.
Contact (Report to): Jen Good Phone: 508.366.7442
Address: 160 E. Main St., Suite 2F, Westborough, MA 01581

Bill to (if different than Report to): Same
PO#: 2031-003

Project Name/#: NWIRP Bethpage GM-38 Monthly O&M
ALSI Quote #:

TAT: [x] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:

Email? [x] -Y jgood@hsenv.com
Fax? [ ] -Y No.:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Select VOCs (Method 624)	Mercury (Method 245.1)	TSS (SM2540D)
1 NWIRP-GM-38-PS-06152011	NWIRP-GM-38-PS-TE-06152011 - DUP	6/15/11	0930	G	GW	3	1	1
2 NWIRP-GM-38-TB-06152011		—	—	G	GW	3		
3				G	GW			
4				G	GW			
5				G	GW			
6				G	GW			
7				G	GW			
8				G	GW			

***Container Type: 40 mL CG HCL; 500 mL PL HNO3; 250 mL PL ---
***Preservative

ANALYSES/METHOD REQUESTED
Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receiving)
Performed by: DA 6-14-11 9:12
Cooler Temp: 5.6
Therm. ID: 101932724
No. of Coolers:
Notes:

	Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
1	(Y)	Y	Y	Y	(Y)
2	(N)	—	N	N	N
3			N	N	N
4			N	N	N
5			N	N	N
6			N	N	N
7			N	N	N
8			N	N	N

	Correct containers?	Correct sample volume?	Correct preservation?	HeadspaceVolatiles?	Circle appropriate Y or N.
1	(Y)	(Y)	(Y)	Y	
2	(N)	(N)	(N)	N	
3				N	
4				N	
5				N	
6				N	
7				N	
8				N	

SAMPLED BY (Please Print): G. Gangemi
LOGGED BY(signature): DATE 6/18 TIME 0830
REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	6/15	1600	2	6/16	0905
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)
EDDs Required? [ ] If yes, format type:
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected In? MD [ ] NJ [ ] NY [x] PA [ ]
Other
PWSID
DOD Criteria Required?

ALSI FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9911442 HNW009|NWIRP Bethpage - GM-38

Lab ID: **9911442001** Date Collected: 6/17/2011 09:00 Matrix: Air

Sample ID: **NWIRP-GM-38-AIR-VCI1-06172011** Date Received: 6/20/2011 09:35

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS @ STP											
1,2-Dichloroethane	0.96	ppbv		0.20	0.10	0.016	TO-15		7/4/11 06:06	ECB	A
cis-1,2-Dichloroethene	130	ppbv		2.0	1.0	0.36	TO-15		7/2/11 09:02	ECB	A
trans-1,2-Dichloroethene	2.7	ppbv		0.20	0.10	0.010	TO-15		7/4/11 06:06	ECB	A
Toluene	0.39	ppbv	1	0.20	0.10	0.0090	TO-15		7/4/11 06:06	ECB	A
Total Xylenes	0.68	ppbv		0.60	0.30	0.10	TO-15		7/4/11 06:06	ECB	A
1,1,2-Trichloroethane	0.16J	ppbv		0.20	0.10	0.016	TO-15		7/4/11 06:06	ECB	A
Trichloroethene	7.3	ppbv		0.20	0.10	0.011	TO-15		7/4/11 06:06	ECB	A
Vinyl Chloride	19	ppbv		0.20	0.10	0.016	TO-15		7/4/11 06:06	ECB	A
1,2-Dichloroethane	4	ug/m3		0.8	0.4	0.06	TO-15		7/4/11 06:06	ECB	A
cis-1,2-Dichloroethene	510	ug/m3		8	4	1	TO-15		7/2/11 09:02	ECB	A
trans-1,2-Dichloroethene	11	ug/m3		0.8	0.4	0.04	TO-15		7/4/11 06:06	ECB	A
Toluene	1	ug/m3	1	0.8	0.4	0.03	TO-15		7/4/11 06:06	ECB	A
Total Xylenes	3	ug/m3		3	1	0.1	TO-15		7/4/11 06:06	ECB	A
1,1,2-Trichloroethane	0.9J	ug/m3		1	0.6	0.09	TO-15		7/4/11 06:06	ECB	A
Trichloroethene	39	ug/m3		1	0.5	0.06	TO-15		7/4/11 06:06	ECB	A
Vinyl Chloride	47	ug/m3		0.5	0.3	0.04	TO-15		7/4/11 06:06	ECB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	102	%		70-130			TO-15		7/2/11 09:02	ECB	A
4-Bromofluorobenzene (S)	97	%		70-130			TO-15		7/4/11 06:06	ECB	A

Sample Comments:

Anna G Milliken
Technical Manager

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9911442 HNW009|NWIRP Bethpage - GM-38

Lab ID: **9911442002** Date Collected: 6/17/2011 09:00 Matrix: Air

Sample ID: **NWIRP-GM-38-AIR-VC12-06172011** Date Received: 6/20/2011 09:35

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS @ STP											
1,2-Dichloroethane	1.7	ppbv		1.0	0.50	0.080	TO-15		7/4/11 06:50	ECB	A
cis-1,2-Dichloroethene	150	ppbv		1.0	0.50	0.18	TO-15		7/4/11 06:50	ECB	A
trans-1,2-Dichloroethene	2.7	ppbv		1.0	0.50	0.050	TO-15		7/4/11 06:50	ECB	A
Toluene	2.4	ppbv	1	1.0	0.50	0.045	TO-15		7/4/11 06:50	ECB	A
Total Xylenes	3.1	ppbv		3.0	1.5	0.50	TO-15		7/4/11 06:50	ECB	A
1,1,2-Trichloroethane	0.96J	ppbv		1.0	0.50	0.080	TO-15		7/4/11 06:50	ECB	A
Trichloroethene	460	ppbv		4.0	2.0	0.22	TO-15		7/5/11 01:33	ECB	A
Vinyl Chloride	19	ppbv		1.0	0.50	0.080	TO-15		7/4/11 06:50	ECB	A
1,2-Dichloroethane	7	ug/m3		4	2	0.3	TO-15		7/4/11 06:50	ECB	A
cis-1,2-Dichloroethene	580	ug/m3		4	2	0.7	TO-15		7/4/11 06:50	ECB	A
trans-1,2-Dichloroethene	11	ug/m3		4	2	0.2	TO-15		7/4/11 06:50	ECB	A
Toluene	9	ug/m3	1	4	2	0.2	TO-15		7/4/11 06:50	ECB	A
Total Xylenes	13	ug/m3		13	6	0.5	TO-15		7/4/11 06:50	ECB	A
1,1,2-Trichloroethane	5J	ug/m3		5	3	0.4	TO-15		7/4/11 06:50	ECB	A
Trichloroethene	2500	ug/m3		21	11	1	TO-15		7/5/11 01:33	ECB	A
Vinyl Chloride	48	ug/m3		3	1	0.2	TO-15		7/4/11 06:50	ECB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	98	%		70-130			TO-15		7/4/11 06:50	ECB	A
4-Bromofluorobenzene (S)	97	%		70-130			TO-15		7/5/11 01:33	ECB	A

Sample Comments:

The reporting limits for the TO15 analytes were raised due to the dilution of the sample caused by the level of target compounds.

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 9911442 HNW009|NWIRP Bethpage - GM-38

Lab ID: **9911442003** Date Collected: 6/17/2011 08:45 Matrix: Air

Sample ID: **NWIRP-GM-38-AIR-VC23-06172011** Date Received: 6/20/2011 09:35

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS @ STP											
1,2-Dichloroethane	0.23J	ppbv		0.24	0.12	0.019	TO-15		7/4/11 07:35	ECB	A
cis-1,2-Dichloroethene	2.1	ppbv		0.24	0.12	0.043	TO-15		7/4/11 07:35	ECB	A
trans-1,2-Dichloroethene	0.25	ppbv		0.24	0.12	0.012	TO-15		7/4/11 07:35	ECB	A
Toluene	0.69	ppbv	1	0.24	0.12	0.011	TO-15		7/4/11 07:35	ECB	A
Total Xylenes	1.2	ppbv		0.72	0.36	0.12	TO-15		7/4/11 07:35	ECB	A
1,1,2-Trichloroethane	0.21J	ppbv		0.24	0.12	0.019	TO-15		7/4/11 07:35	ECB	A
Trichloroethene	11	ppbv		0.24	0.12	0.013	TO-15		7/4/11 07:35	ECB	A
Vinyl Chloride	18	ppbv		0.24	0.12	0.019	TO-15		7/4/11 07:35	ECB	A
1,2-Dichloroethane	0.9J	ug/m3		1	0.5	0.08	TO-15		7/4/11 07:35	ECB	A
cis-1,2-Dichloroethene	8	ug/m3		0.9	0.5	0.2	TO-15		7/4/11 07:35	ECB	A
trans-1,2-Dichloroethene	1	ug/m3		0.9	0.5	0.05	TO-15		7/4/11 07:35	ECB	A
Toluene	3	ug/m3	1	0.9	0.5	0.04	TO-15		7/4/11 07:35	ECB	A
Total Xylenes	5	ug/m3		3	2	0.1	TO-15		7/4/11 07:35	ECB	A
1,1,2-Trichloroethane	1J	ug/m3		1	0.7	0.1	TO-15		7/4/11 07:35	ECB	A
Trichloroethene	57	ug/m3		1	0.6	0.07	TO-15		7/4/11 07:35	ECB	A
Vinyl Chloride	45	ug/m3		0.6	0.3	0.05	TO-15		7/4/11 07:35	ECB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	97	%		70-130			TO-15		7/4/11 07:35	ECB	A

Sample Comments:

This TO-15 sample was received at the lab with insufficient sample volume which caused the raised reporting limits in the results.

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 9911442 HNW009|NWIRP Bethpage - GM-38

Lab ID: **9911442004** Date Collected: 6/17/2011 08:45 Matrix: Air

Sample ID: **NWIRP-GM-38-AIR-ES-06172011** Date Received: 6/20/2011 09:35

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS @ STP											
1,2-Dichloroethane	0.21	ppbv	1	0.20	0.10	0.016	TO-15		7/5/11 02:16	ECB	A
cis-1,2-Dichloroethene	7.7	ppbv		0.20	0.10	0.036	TO-15		7/5/11 02:16	ECB	A
trans-1,2-Dichloroethene	0.26	ppbv		0.20	0.10	0.010	TO-15		7/5/11 02:16	ECB	A
Toluene	2.1	ppbv		0.20	0.10	0.0090	TO-15		7/5/11 02:16	ECB	A
Total Xylenes	2.0	ppbv	1	0.60	0.30	0.10	TO-15		7/5/11 02:16	ECB	A
1,1,2-Trichloroethane	0.15J	ppbv		0.20	0.10	0.016	TO-15		7/5/11 02:16	ECB	A
Trichloroethene	31	ppbv		2.0	1.0	0.11	TO-15		7/2/11 14:15	ECB	A
Vinyl Chloride	1.6	ppbv		0.20	0.10	0.016	TO-15		7/5/11 02:16	ECB	A
1,2-Dichloroethane	0.8	ug/m3	1	0.8	0.4	0.06	TO-15		7/5/11 02:16	ECB	A
cis-1,2-Dichloroethene	30	ug/m3		0.8	0.4	0.1	TO-15		7/5/11 02:16	ECB	A
trans-1,2-Dichloroethene	1	ug/m3		0.8	0.4	0.04	TO-15		7/5/11 02:16	ECB	A
Toluene	8	ug/m3		0.8	0.4	0.03	TO-15		7/5/11 02:16	ECB	A
Total Xylenes	9	ug/m3	1	3	1	0.1	TO-15		7/5/11 02:16	ECB	A
1,1,2-Trichloroethane	0.8J	ug/m3		1	0.6	0.09	TO-15		7/5/11 02:16	ECB	A
Trichloroethene	170	ug/m3		11	5	0.6	TO-15		7/2/11 14:15	ECB	A
Vinyl Chloride	4	ug/m3		0.5	0.3	0.04	TO-15		7/5/11 02:16	ECB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	102	%		70-130			TO-15		7/2/11 14:15	ECB	A
4-Bromofluorobenzene (S)	99	%		70-130			TO-15		7/5/11 02:16	ECB	A

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 9911442 HNW009|NWIRP Bethpage - GM-38

Lab ID: **9911442005** Date Collected: 6/17/2011 09:30 Matrix: Air

Sample ID: **NWIRP-GM-38-AIR-VCl1-DUP** Date Received: 6/20/2011 09:35

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS @ STP											
1,2-Dichloroethane	0.92	ppbv	1	0.20	0.10	0.016	TO-15		7/5/11 03:00	ECB	A
cis-1,2-Dichloroethene	120	ppbv		2.0	1.0	0.36	TO-15		7/2/11 14:58	ECB	A
trans-1,2-Dichloroethene	2.6	ppbv		0.20	0.10	0.010	TO-15		7/5/11 03:00	ECB	A
Toluene	0.26	ppbv	1	0.20	0.10	0.0090	TO-15		7/5/11 03:00	ECB	A
Total Xylenes	0.56J	ppbv	1	0.60	0.30	0.10	TO-15		7/5/11 03:00	ECB	A
1,1,2-Trichloroethane	0.15J	ppbv		0.20	0.10	0.016	TO-15		7/5/11 03:00	ECB	A
Trichloroethene	6.1	ppbv		0.20	0.10	0.011	TO-15		7/5/11 03:00	ECB	A
Vinyl Chloride	19	ppbv		0.20	0.10	0.016	TO-15		7/5/11 03:00	ECB	A
1,2-Dichloroethane	4	ug/m3	1	0.8	0.4	0.06	TO-15		7/5/11 03:00	ECB	A
cis-1,2-Dichloroethene	470	ug/m3		8	4	1	TO-15		7/2/11 14:58	ECB	A
trans-1,2-Dichloroethene	10	ug/m3		0.8	0.4	0.04	TO-15		7/5/11 03:00	ECB	A
Toluene	1	ug/m3	1	0.8	0.4	0.03	TO-15		7/5/11 03:00	ECB	A
Total Xylenes	2J	ug/m3	1	3	1	0.1	TO-15		7/5/11 03:00	ECB	A
1,1,2-Trichloroethane	0.8J	ug/m3		1	0.6	0.09	TO-15		7/5/11 03:00	ECB	A
Trichloroethene	33	ug/m3		1	0.5	0.06	TO-15		7/5/11 03:00	ECB	A
Vinyl Chloride	49	ug/m3		0.5	0.3	0.04	TO-15		7/5/11 03:00	ECB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	99	%		70-130			TO-15		7/2/11 14:58	ECB	A
4-Bromofluorobenzene (S)	96	%		70-130			TO-15		7/5/11 03:00	ECB	A

Sample Comments:

Anna G Milliken
Technical Manager

ANALYTICAL RESULTS QUALIFIERS\FLAGS

Workorder: 9911442 HNW009|NWIRP Bethpage - GM-38

PARAMETER QUALIFIERS\FLAGS

[1] This compound was dectected at less than the reporting limit but greater than 1/2 the reporting limit in the method blank.

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page of
Courier: FED EX
Tracking #: 872649024473

9911442

Co. Name: H&S Environmental, Inc.
Contact (Report to): Jen Good Phone: 508.366.7442
Address: 160 E. Main St., Suite 2F, Westborough, MA 01581

Bill to (if different than Report to): Same PO#: 2031-004

Project Name/#: NWIRP Bethpage GM-38 Monthly O&M ALSI Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges. Date Required: Approved By:

Email? [X] -Y jgood@hserv.com
Fax? [ ] -Y No.:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Select VOCs (TO-15)	Enter Number of Containers Per Analysis
1	NWIRP-GM-38-AIR-VC11-	Start 0830 End 0900	6-17	0900	G	AIR	1	
2	NWIRP-GM-38-AIR-VC12-	Start 0830 End 0900	6-17	0900	G	AIR	1	
3	NWIRP-GM-38-AIR-VC23-	Start 0830 End 0845	6-17	0845	G	AIR	1	
4	NWIRP-GM-38-AIR-ES-	Start 0830 End 0845	6-17	0845	G	AIR	1	
5	NWIRP-GM-38-AIR-VC11- -DUP	Start 0900 End 0930	6-17	0930	G	AIR	1	
6								
7								
8								

***Container Type: 6L
***Container Size: summa
*** Preservative: –

ANALYSES/METHOD REQUESTED

Receipt Information (completed by Sample Receipt)
Performed by:
Cooler Temp: 24
Therm. ID: 101332-11
No. of Coolers:
Notes:

	Y or N
Correct containers?	(Y)
Correct sample volume?	(Y)
Correct preservation?	(Y)
Headspace/Volatiles?	X
Circle appropriate Y or N.	
Custody seals Present?	(N)
(if present) Seals intact?	N
Received on ice?	(N)
COC/Labels complete/accurate?	Y
Container in good condition?	Y

SAMPLED BY (Please Print): G. Gangemi
LOGGED BY(signature): DATE 6/20/11 TIME 1450
REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	6-17	11:00	2	6/8	93
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)
EDDs Required? [ ] If yes, format type:
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected In? MD [ ] NJ [ ] NY [X] PA [ ] Other PWSID
DOD Criteria Required?

ALSI FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite
** Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
*** Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9911475 HNW010|NWIRP Bethpage - GM-38

Lab ID: **9911475001** Date Collected: 6/14/2011 17:10 Matrix: Water

Sample ID: **NWIRP-GM-38-GW-RW-1-MW-1** Date Received: 6/17/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	1.6	ug/L		1.0	1.0	0.19	EPA 624		6/28/11 21:10	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/28/11 21:10	DJB	A
1,1-Dichloroethene	0.85J	ug/L	1	1.0	1.0	0.17	EPA 624		6/28/11 21:10	DJB	A
cis-1,2-Dichloroethene	55.8	ug/L	2,3	1.0	1.0	0.26	EPA 624		6/28/11 21:10	DJB	A
trans-1,2-Dichloroethene	0.71J	ug/L		1.0	1.0	0.12	EPA 624		6/28/11 21:10	DJB	A
Tetrachloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/28/11 21:10	DJB	A
1,1,1-Trichloroethane	1.0U	ug/L		1.0	1.0	0.27	EPA 624		6/28/11 21:10	DJB	A
Trichloroethene	26.6	ug/L	4,5	1.0	1.0	0.21	EPA 624		6/28/11 21:10	DJB	A
Vinyl Chloride	2.0U	ug/L	6	2.0	2.0	0.24	EPA 624		6/28/11 21:10	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	111	%		72-142			EPA 624		6/28/11 21:10	DJB	A
4-Bromofluorobenzene (S)	108	%		73-119			EPA 624		6/28/11 21:10	DJB	A
Dibromofluoromethane (S)	111	%		74-132			EPA 624		6/28/11 21:10	DJB	A
Toluene-d8 (S)	126	%		75-133			EPA 624		6/28/11 21:10	DJB	A
WET CHEMISTRY											
Total Suspended Solids	5U	mg/L		5	5	5	SM20-2540 D		6/21/11 21:15	DLV	L
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/22/11 19:00	MNP	I1

Sample Comments:

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 9911475 HNW010|NWIRP Bethpage - GM-38

Lab ID: **9911475002** Date Collected: 6/14/2011 14:35 Matrix: Water

Sample ID: **NWIRP-GM-38-GW-RW-1-MW-3** Date Received: 6/17/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	9.3	ug/L		1.0	1.0	0.19	EPA 624		6/28/11 21:43	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/28/11 21:43	DJB	A
1,1-Dichloroethene	1.8	ug/L		1.0	1.0	0.17	EPA 624		6/28/11 21:43	DJB	A
cis-1,2-Dichloroethene	0.59J	ug/L		1.0	1.0	0.26	EPA 624		6/28/11 21:43	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/28/11 21:43	DJB	A
Tetrachloroethene	0.33J	ug/L		1.0	1.0	0.26	EPA 624		6/28/11 21:43	DJB	A
1,1,1-Trichloroethane	1.6	ug/L		1.0	1.0	0.27	EPA 624		6/28/11 21:43	DJB	A
Trichloroethene	1.4	ug/L		1.0	1.0	0.21	EPA 624		6/28/11 21:43	DJB	A
Vinyl Chloride	2.0U	ug/L	6	2.0	2.0	0.24	EPA 624		6/28/11 21:43	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	111	%		72-142			EPA 624		6/28/11 21:43	DJB	A
4-Bromofluorobenzene (S)	109	%		73-119			EPA 624		6/28/11 21:43	DJB	A
Dibromofluoromethane (S)	111	%		74-132			EPA 624		6/28/11 21:43	DJB	A
Toluene-d8 (S)	127	%		75-133			EPA 624		6/28/11 21:43	DJB	A
WET CHEMISTRY											
Total Suspended Solids	5U	mg/L		5	5	5	SM20-2540 D		6/21/11 21:15	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/22/11 19:03	MNP	D1

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9911475 HNW010|NWIRP Bethpage - GM-38

Lab ID: **9911475003** Date Collected: 6/14/2011 16:00 Matrix: Water

Sample ID: **NWIRP-GM-38-GW-RW-2-MW-1** Date Received: 6/17/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	0.61J	ug/L		1.0	1.0	0.19	EPA 624		6/28/11 23:53	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/28/11 23:53	DJB	A
1,1-Dichloroethene	1.0U	ug/L		1.0	1.0	0.17	EPA 624		6/28/11 23:53	DJB	A
cis-1,2-Dichloroethene	0.56J	ug/L		1.0	1.0	0.26	EPA 624		6/28/11 23:53	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/28/11 23:53	DJB	A
Tetrachloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/28/11 23:53	DJB	A
1,1,1-Trichloroethane	1.0U	ug/L		1.0	1.0	0.27	EPA 624		6/28/11 23:53	DJB	A
Trichloroethene	1.6	ug/L		1.0	1.0	0.21	EPA 624		6/28/11 23:53	DJB	A
Vinyl Chloride	2.0U	ug/L	6	2.0	2.0	0.24	EPA 624		6/28/11 23:53	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	114	%		72-142			EPA 624		6/28/11 23:53	DJB	A
4-Bromofluorobenzene (S)	107	%		73-119			EPA 624		6/28/11 23:53	DJB	A
Dibromofluoromethane (S)	111	%		74-132			EPA 624		6/28/11 23:53	DJB	A
Toluene-d8 (S)	125	%		75-133			EPA 624		6/28/11 23:53	DJB	A
WET CHEMISTRY											
Total Suspended Solids	181	mg/L		5	5	5	SM20-2540 D		6/21/11 21:15	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/22/11 19:06	MNP	D1

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9911475 HNW010|NWIRP Bethpage - GM-38

Lab ID: **9911475004** Date Collected: 6/14/2011 18:30 Matrix: Water

Sample ID: **NWIRP-GM-38-GW-RW-3-MW-1** Date Received: 6/17/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	1.1	ug/L		1.0	1.0	0.19	EPA 624		6/28/11 22:16	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/28/11 22:16	DJB	A
1,1-Dichloroethene	0.85J	ug/L		1.0	1.0	0.17	EPA 624		6/28/11 22:16	DJB	A
cis-1,2-Dichloroethene	0.48J	ug/L		1.0	1.0	0.26	EPA 624		6/28/11 22:16	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/28/11 22:16	DJB	A
Tetrachloroethene	1.2	ug/L		1.0	1.0	0.26	EPA 624		6/28/11 22:16	DJB	A
1,1,1-Trichloroethane	0.78J	ug/L		1.0	1.0	0.27	EPA 624		6/28/11 22:16	DJB	A
Trichloroethene	63.1	ug/L		1.0	1.0	0.21	EPA 624		6/28/11 22:16	DJB	A
Vinyl Chloride	2.0U	ug/L	6	2.0	2.0	0.24	EPA 624		6/28/11 22:16	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	111	%		72-142			EPA 624		6/28/11 22:16	DJB	A
4-Bromofluorobenzene (S)	109	%		73-119			EPA 624		6/28/11 22:16	DJB	A
Dibromofluoromethane (S)	111	%		74-132			EPA 624		6/28/11 22:16	DJB	A
Toluene-d8 (S)	126	%		75-133			EPA 624		6/28/11 22:16	DJB	A
WET CHEMISTRY											
Total Suspended Solids	5160	mg/L		5	5	5	SM20-2540 D		6/21/11 21:15	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/22/11 19:07	MNP	D1

Sample Comments:

Anna G Milliken
Technical Manager

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ANALYTICAL RESULTS

Workorder: 9911475 HNW010|NWIRP Bethpage - GM-38

Lab ID: **9911475005** Date Collected: 6/14/2011 20:00 Matrix: Water

Sample ID: **NWIRP-GM-38-GW-RW-3-MW-2** Date Received: 6/17/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	0.52J	ug/L		1.0	1.0	0.19	EPA 624		6/28/11 22:49	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/28/11 22:49	DJB	A
1,1-Dichloroethene	0.57J	ug/L		1.0	1.0	0.17	EPA 624		6/28/11 22:49	DJB	A
cis-1,2-Dichloroethene	1.7	ug/L		1.0	1.0	0.26	EPA 624		6/28/11 22:49	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/28/11 22:49	DJB	A
Tetrachloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/28/11 22:49	DJB	A
1,1,1-Trichloroethane	0.39J	ug/L		1.0	1.0	0.27	EPA 624		6/28/11 22:49	DJB	A
Trichloroethene	135	ug/L		1.0	1.0	0.21	EPA 624		6/28/11 22:49	DJB	A
Vinyl Chloride	2.0U	ug/L	6	2.0	2.0	0.24	EPA 624		6/28/11 22:49	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	114	%		72-142			EPA 624		6/28/11 22:49	DJB	A
4-Bromofluorobenzene (S)	107	%		73-119			EPA 624		6/28/11 22:49	DJB	A
Dibromofluoromethane (S)	109	%		74-132			EPA 624		6/28/11 22:49	DJB	A
Toluene-d8 (S)	126	%		75-133			EPA 624		6/28/11 22:49	DJB	A
WET CHEMISTRY											
Total Suspended Solids	7	mg/L		5	5	5	SM20-2540 D		6/21/11 21:15	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/22/11 19:08	MNP	D1

Sample Comments:

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Technical Manager

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ANALYTICAL RESULTS

Workorder: 9911475 HNW010|NWIRP Bethpage - GM-38

Lab ID: **9911475006** Date Collected: 6/15/2011 16:00 Matrix: Water

Sample ID: **NWIRP-GM-38-GW-RW-3-MW-3** Date Received: 6/17/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	7.1	ug/L		1.0	1.0	0.19	EPA 624		6/29/11 22:28	DJB	A
1,2-Dichloroethane	0.37J	ug/L		1.0	1.0	0.22	EPA 624		6/29/11 22:28	DJB	A
1,1-Dichloroethene	2.6	ug/L		1.0	1.0	0.17	EPA 624		6/29/11 22:28	DJB	A
cis-1,2-Dichloroethene	1.2	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 22:28	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/29/11 22:28	DJB	A
Tetrachloroethene	0.40J	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 22:28	DJB	A
1,1,1-Trichloroethane	1.3	ug/L		1.0	1.0	0.27	EPA 624		6/29/11 22:28	DJB	A
Trichloroethene	331	ug/L		5.0	5.0	1.1	EPA 624		6/30/11 12:59	DJB	B
Vinyl Chloride	2.0U	ug/L		2.0	2.0	0.24	EPA 624		6/29/11 22:28	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	118	%		72-142			EPA 624		6/29/11 22:28	DJB	A
4-Bromofluorobenzene (S)	108	%		73-119			EPA 624		6/29/11 22:28	DJB	A
Dibromofluoromethane (S)	109	%		74-132			EPA 624		6/29/11 22:28	DJB	A
Toluene-d8 (S)	132	%		75-133			EPA 624		6/29/11 22:28	DJB	A
1,2-Dichloroethane-d4 (S)	122	%		72-142			EPA 624		6/30/11 12:59	DJB	B
4-Bromofluorobenzene (S)	107	%		73-119			EPA 624		6/30/11 12:59	DJB	B
Dibromofluoromethane (S)	109	%		74-132			EPA 624		6/30/11 12:59	DJB	B
Toluene-d8 (S)	130	%		75-133			EPA 624		6/30/11 12:59	DJB	B
WET CHEMISTRY											
Total Suspended Solids	5U	mg/L		5	5	5	SM20-2540 D		6/21/11 21:15	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/22/11 19:09	MNP	D1

Sample Comments:

The GCMS volatiles analysis was performed at a dilution due to the level of target compounds.

A dilution of the GCMS volatiles analysis was performed outside of the holding time because one or more of the analytes exceeded the calibration range in the initial analysis.

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ANALYTICAL RESULTS

Workorder: 9911475 HNW010|NWIRP Bethpage - GM-38

Lab ID:	**9911475006**	Date Collected:	6/15/2011 16:00	Matrix:	Water
Sample ID:	**NWIRP-GM-38-GW-RW-3-MW-3**	Date Received:	6/17/2011 09:05		

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr

Anna G Milliken
Technical Manager

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 9911475 HNW010|NWIRP Bethpage - GM-38

Lab ID: **9911475007** Date Collected: 6/15/2011 18:50 Matrix: Water

Sample ID: **NWIRP-GM-38-GW-RW-3-MW-4** Date Received: 6/17/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	0.78J	ug/L		1.0	1.0	0.19	EPA 624		6/29/11 23:01	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/29/11 23:01	DJB	A
1,1-Dichloroethene	0.20J	ug/L		1.0	1.0	0.17	EPA 624		6/29/11 23:01	DJB	A
cis-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 23:01	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/29/11 23:01	DJB	A
Tetrachloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 23:01	DJB	A
1,1,1-Trichloroethane	1.0U	ug/L		1.0	1.0	0.27	EPA 624		6/29/11 23:01	DJB	A
Trichloroethene	6.7	ug/L		1.0	1.0	0.21	EPA 624		6/29/11 23:01	DJB	A
Vinyl Chloride	2.0U	ug/L		2.0	2.0	0.24	EPA 624		6/29/11 23:01	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	122	%		72-142			EPA 624		6/29/11 23:01	DJB	A
4-Bromofluorobenzene (S)	109	%		73-119			EPA 624		6/29/11 23:01	DJB	A
Dibromofluoromethane (S)	112	%		74-132			EPA 624		6/29/11 23:01	DJB	A
Toluene-d8 (S)	132	%		75-133			EPA 624		6/29/11 23:01	DJB	A
WET CHEMISTRY											
Total Suspended Solids	5	mg/L		5	5	5	SM20-2540 D		6/21/11 21:15	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/22/11 19:10	MNP	D1

Sample Comments:

Anna G Milliken
Technical Manager

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State Certifications: CT PH-0224 , DE ID 11 , GA 914 , MA PA0102 , MD 128 , LA 04162 , VA 421 , WY EPA Region 8 , WV 343

ANALYTICAL RESULTS

Workorder: 9911475 HNW010|NWIRP Bethpage - GM-38

Lab ID: **9911475008** Date Collected: 6/15/2011 13:25 Matrix: Water

Sample ID: **NWIRP-GM-38-GW-TP** Date Received: 6/17/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	5.0	ug/L		1.0	1.0	0.19	EPA 624		6/29/11 23:34	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/29/11 23:34	DJB	A
1,1-Dichloroethene	1.7	ug/L		1.0	1.0	0.17	EPA 624		6/29/11 23:34	DJB	A
cis-1,2-Dichloroethene	43.4	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 23:34	DJB	A
trans-1,2-Dichloroethene	1.1	ug/L		1.0	1.0	0.12	EPA 624		6/29/11 23:34	DJB	A
Tetrachloroethene	3.3	ug/L		1.0	1.0	0.26	EPA 624		6/29/11 23:34	DJB	A
1,1,1-Trichloroethane	0.63J	ug/L		1.0	1.0	0.27	EPA 624		6/29/11 23:34	DJB	A
Trichloroethene	35.3	ug/L		1.0	1.0	0.21	EPA 624		6/29/11 23:34	DJB	A
Vinyl Chloride	2.0U	ug/L		2.0	2.0	0.24	EPA 624		6/29/11 23:34	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	120	%		72-142			EPA 624		6/29/11 23:34	DJB	A
4-Bromofluorobenzene (S)	108	%		73-119			EPA 624		6/29/11 23:34	DJB	A
Dibromofluoromethane (S)	110	%		74-132			EPA 624		6/29/11 23:34	DJB	A
Toluene-d8 (S)	129	%		75-133			EPA 624		6/29/11 23:34	DJB	A
WET CHEMISTRY											
Total Suspended Solids	63	mg/L		5	5	5	SM20-2540 D		6/21/11 21:40	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/22/11 19:11	MNP	D1

Sample Comments:

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ANALYTICAL RESULTS

Workorder: 9911475 HNW010|NWIRP Bethpage - GM-38

Lab ID: **9911475009** Date Collected: 6/14/2011 00:00 Matrix: Water

Sample ID: **NWIRP-GM-38-RW-1-MW-1-DUP** Date Received: 6/17/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	4.2	ug/L		1.0	1.0	0.19	EPA 624		6/28/11 23:21	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/28/11 23:21	DJB	A
1,1-Dichloroethene	2.1	ug/L		1.0	1.0	0.17	EPA 624		6/28/11 23:21	DJB	A
cis-1,2-Dichloroethene	145	ug/L		1.0	1.0	0.26	EPA 624		6/28/11 23:21	DJB	A
trans-1,2-Dichloroethene	2.0	ug/L		1.0	1.0	0.12	EPA 624		6/28/11 23:21	DJB	A
Tetrachloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/28/11 23:21	DJB	A
1,1,1-Trichloroethane	0.63J	ug/L		1.0	1.0	0.27	EPA 624		6/28/11 23:21	DJB	A
Trichloroethene	73.8	ug/L		1.0	1.0	0.21	EPA 624		6/28/11 23:21	DJB	A
Vinyl Chloride	0.38J	ug/L	6	2.0	2.0	0.24	EPA 624		6/28/11 23:21	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	117	%		72-142			EPA 624		6/28/11 23:21	DJB	A
4-Bromofluorobenzene (S)	109	%		73-119			EPA 624		6/28/11 23:21	DJB	A
Dibromofluoromethane (S)	113	%		74-132			EPA 624		6/28/11 23:21	DJB	A
Toluene-d8 (S)	128	%		75-133			EPA 624		6/28/11 23:21	DJB	A
WET CHEMISTRY											
Total Suspended Solids	6	mg/L		5	5	5	SM20-2540 D		6/21/11 21:40	DLV	E
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/22/11 19:12	MNP	D1

Sample Comments:

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ANALYTICAL RESULTS

Workorder: 9911475 HNW010|NWIRP Bethpage - GM-38

Lab ID: **9911475010** Date Collected: 6/14/2011 14:45 Matrix: Water

Sample ID: **NWIRP-GM-38-FB** Date Received: 6/17/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	1.0U	ug/L		1.0	1.0	0.19	EPA 624		6/28/11 20:37	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/28/11 20:37	DJB	A
1,1-Dichloroethene	1.0U	ug/L		1.0	1.0	0.17	EPA 624		6/28/11 20:37	DJB	A
cis-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/28/11 20:37	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/28/11 20:37	DJB	A
Tetrachloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/28/11 20:37	DJB	A
1,1,1-Trichloroethane	1.0U	ug/L		1.0	1.0	0.27	EPA 624		6/28/11 20:37	DJB	A
Trichloroethene	1.0U	ug/L		1.0	1.0	0.21	EPA 624		6/28/11 20:37	DJB	A
Vinyl Chloride	2.0U	ug/L	6	2.0	2.0	0.24	EPA 624		6/28/11 20:37	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichldroethane-d4 (S)	113	%		72-142			EPA 624		6/28/11 20:37	DJB	A
4-Bromofluorobenzene (S)	110	%		73-119			EPA 624		6/28/11 20:37	DJB	A
Dibromofluoromethane (S)	112	%		74-132			EPA 624		6/28/11 20:37	DJB	A
Toluene-d8 (S)	129	%		75-133			EPA 624		6/28/11 20:37	DJB	A
METALS											
Mercury, Total	0.00050 U	mg/L		0.00050	0.00050	0.00016	EPA 245.1	6/22/11	6/22/11 19:14	MNP	D1

Sample Comments:

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ANALYTICAL RESULTS

Workorder: 9911475 HNW010|NWIRP Bethpage - GM-38

Lab ID: **9911475011** Date Collected: 6/17/2011 09:05 Matrix: Water

Sample ID: **NWIRP-GM-38-TB** Date Received: 6/17/2011 09:05

Parameters	Results	Units	Footnotes	LOQ	LOD	DL	Method	Prepared	Analyzed	By	Cntr
VOLATILE ORGANICS											
1,1-Dichloroethane	1.0U	ug/L		1.0	1.0	0.19	EPA 624		6/30/11 17:56	DJB	A
1,2-Dichloroethane	1.0U	ug/L		1.0	1.0	0.22	EPA 624		6/30/11 17:56	DJB	A
1,1-Dichloroethene	1.0U	ug/L		1.0	1.0	0.17	EPA 624		6/30/11 17:56	DJB	A
cis-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/30/11 17:56	DJB	A
trans-1,2-Dichloroethene	1.0U	ug/L		1.0	1.0	0.12	EPA 624		6/30/11 17:56	DJB	A
Tetrachloroethene	1.0U	ug/L		1.0	1.0	0.26	EPA 624		6/30/11 17:56	DJB	A
1,1,1-Trichloroethane	1.0U	ug/L		1.0	1.0	0.27	EPA 624		6/30/11 17:56	DJB	A
Trichloroethene	1.0U	ug/L		1.0	1.0	0.21	EPA 624		6/30/11 17:56	DJB	A
Vinyl Chloride	2.0U	ug/L		2.0	2.0	0.24	EPA 624		6/30/11 17:56	DJB	A
Surrogate Recoveries	*Results*	*Units*	*Footnotes*	*Limits*			*Method*	*Prepared*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	124	%		72-142			EPA 624		6/30/11 17:56	DJB	A
4-Bromofluorobenzene (S)	107	%		73-119			EPA 624		6/30/11 17:56	DJB	A
Dibromofluoromethane (S)	113	%		74-132			EPA 624		6/30/11 17:56	DJB	A
Toluene-d8 (S)	130	%		75-133			EPA 624		6/30/11 17:56	DJB	A

Sample Comments:

Anna G Milliken
Technical Manager