



engineering and constructing a better tomorrow

May 2, 2007

Victor Alvarez
NPDES Permit Unit
Mail Code (CPE)
Office of Ecosystem Protection
Environmental Protection Agency
One Congress Street, Suite 110
Boston, Massachusetts 02114-2023

**RE: Notice of Intent for Remediation General Permit
NPDES Exclusion # MA 031-093
Conductorlab Site
430 Main Street
Groton, MA 01450**

Dear Mr. Alvarez:

On behalf of Honeywell International, Inc., MACTEC Engineering and Consulting, Inc. (MACTEC) is resubmitting the enclosed completed forms. This form entitled "Section B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit" is for the above-referenced site. A previous form dated October 11, 2005 to Mr. Douglas Corb was submitted, however neither MACTEC nor Honeywell International Inc. (site owner) received notification that a permit had been issued. The table of contents provides a listing of the appendices provided with backup and support of the information in the forms, including the latest laboratory analyses.

Please note that there are two analytical packages enclosed in Appendix G (STL Report Numbers 229878, dated October 18, 2005 and 231351, dated January 16, 2006). Two sets of analytical samples were submitted on January 16, 2006 as a result of discussions between Mr. Corb and Severn Trent Laboratores regarding detection limits for Total Recoverable Phenolics, 1,2-Dibromomethane, and Volatile Organic Compound analysis. On Table 3b of the "Section B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit", VOC data from both analytical reports is provided dependent on whether the specified compounds are 'believed absent' or 'believed present'.

Honeywell and MACTEC remain committed to the safe and effective operation of the groundwater treatment plant. Please contact us at 781-245-6606 with any questions.

Sincerely,
MACTEC Engineering and Consulting, Inc.

Mike Apfelbaum
Project Geologist

Kerry Tull, P.G., LSP
Project Manager

Enclosure

cc: Maria Kaouris / Honeywell
Mike Scott / Nutter, McClennen, Fish
MACTEC Project Files [P:\Honeywell\Conductor Labs\DischargeMonitoring\NOIforRGPltr-New050207.doc]

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Section 1
Notice of Intent for the Remediation General Permit

B. Suggested Form for Notice of Intent (NOD) for the Remediation General Permit

1. General site information. Please provide the following information about the site:

a) Name of facility/site: Conductorlab Site		Facility SIC code(s): Site Closed		Facility/site address: Street: 430 Main Street	
Location of facility/site: longitude: 2.613 latitude: 71.584		Town: Groton		State: MA	
b) Name of facility/site owner: Honeywell / Grimes Aerospace		Zip: 01450		County: Middlesex	
Email address of owner: Maria.Kaouris@honeywell.com		Telephone no. of facility/site owner: 973-455-3302			
Fax no. of facility/site owner: 973-455-3082		Address of owner (if different from site): Street: 101 Columbia Road			
Town: Morristown		State: NJ		Zip: 07960	
County: Morris		Operator is (check one): 1. Federal _____ 2. State/Tribal _____ 3. Private <input checked="" type="checkbox"/> 4. other, if so, describe:			
c) Legal name of operator: Same as owner		Operator telephone no: Same as owner			
Operator contact name and title: Same as owner		Operator fax no.: N/A		Operator email: N/A	

Address of operator (if different from owner):

Street:

Town:

State:

Zip:

County:

d) Check "yes" or "no" for the following:

- 1. Has a prior NPDES permit exclusion been granted for the discharge? Yes No , if "yes," number:
- 2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes No , if "yes," date and tracking #:
- 3. Is the discharge a "new discharge" as defined by 40 CFR 122.27? Yes No
- 4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes No

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes No

If "yes," please list:

- 1. site identification # assigned by the state of NH or MA: MADEP
- 2. permit or license # assigned: RTN 2-0053
- 3. state agency contact information: name, location, and telephone number: MADEP, Denise Child, 627 Main St., Worcester, MA 01608

f) Is the site/facility covered by any other EPA permit, including:

- 1. multi-sector storm water general permit? Y N , if Y, number: if Y, number:
- 2. phase I or II construction storm water general permit? Y N , if Y, number:
- 3. individual NPDES permit? Y N , if Y, number:
- 4. any other water quality related permit? Y N , if Y, number:

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage: Groundwater contaminated with VOCs and Metals is treated using Electro Chemical Cell Reduction, Multimedia Filter, Air Stripper and Carbon Treatment. Influent concentration have been reduced to below detection limits for over 14 years of operation. Discharge is piped to an infiltration gallery upgradient of site wells and to a surface discharge point which empties into an unnamed brook.

b) Provide the following information about each discharge:	1) Number of discharge points:	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow 0.04 ft ³ Average flow 0.02 ft ³ Is maximum flow a design value? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
	2 Infiltration Galleries	For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. Approximately 75% of Effluent (11.250 GPO) is discharged to surface.

3) Latitude and longitude of each discharge within 100 feet: pt.1: long. 42.618a71.584 pt.2: long. _____ lat. _____; pt.3: long. _____ lat. _____; pt.4: long. _____ lat. _____; pt.5: long. _____ lat. _____; pt.6: long. _____ lat. _____; pt.7: long. _____ lat. _____; pt.8: long. _____ lat. _____; etc.

4) If hydrostatic testing, total volume of the discharge (gals):	5) Is the discharge intermittent _____ or seasonal _____? Is discharge ongoing Yes <input checked="" type="checkbox"/> No _____?
c) Expected dates of discharge (mm/dd/yy): start 1989 _____ end 2009 _____	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: See Appendix F 1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).	

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for all of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants	Petroleum with Other Contaminants	Listed Contaminated Sites	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/L)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids	X		1	Grab	EPA 160.2	5,000				
2. Total Residual Chlorine	X		1	Grab	SM 18 4500 CLF	50				
3. Total Petroleum Hydrocarbons	X		1	Grab	1644 A SW 846 8260 B	5,200				
4. Cyanide	X		1	Grab		10				
5. Benzene	X		2	Grab	8260 B	1.0				
6. Toluene	X		2	Grab	8260 B	1.0				
7. Ethylbenzene	X		2	Grab	8260 B	1.0				
8. (m,p,o) Xylenes	X		2	Grab	8260 B	1.0				
9. Total BTEX ⁴	X		2	Grab	8260 B	1.0				

⁴BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/L)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide (1,2-Dibromo-methane)	X		1	Grab	8011	0.019	ND			
11. Methyl-tert-Butyl Ether (MIBE)	X		2	Grab	8260	1.0	ND			
12. tert-Butyl Alcohol (TBA)	X		2	Grab	8260	5.0	ND			
13. tert-Amyl Methyl Ether (TAME)	X		2	Grab	8260	5.0	ND			
14. Naphthalene	X		2	Grab	8260	5.0	ND			
15. Carbon Tetrachloride	X		2	Grab	8260	1.0	ND			
16. 1,4 Dichlorobenzene	X		2	Grab	8260	1.0	ND			
17. 1,2 Dichlorobenzene	X		2	Grab	8260	1.0	ND			
18. 1,3 Dichlorobenzene	X		2	Grab	8260	1.0	ND			
19. 1,1 Dichloroethane	X		2	Grab	8260	1.0	ND			
20. 1,2 Dichloroethane	X		2	Grab	8260	1.0	ND			
21. 1,1 Dichloroethylene	X		2	Grab	8260	1.0	ND			
22. cis-1,2 Dichloroethylene		X	2	Grab	8260	25	250			
23. Dichloromethane (Methylene Chloride)	X		2	Grab	8260	2.0	ND			
24. Tetrachloroethylene		X	2	Grab	8260	25	14 J			

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/L)	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane		X	2	Grab	8260	1.0	1.0			
26. 1,1,2 Trichloroethane	X		2	Grab	8260	1.0	ND			
27. Trichloroethylene		X	2	Grab	8260	1,500		310		
28. Vinyl Chloride		X	2	Grab	8260	1.0	0.70			
29. Acetone	X		2	Grab	8260	50	ND			
30. 1,4 Dioxane	X		2	Grab	8260	50	ND			
31. Total Phenols			1	Grab	LAC 10-210001A	10	ND			
32. Pentachlorophenol	X		1	Grab	8270C	50	ND			
33. Total Phthalates ⁵ (Phthalate esters)	X		1	Grab		10	ND			
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	X		1	Grab	8270	10	ND			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	X		1	Grab	8270	5.0	ND			
a. Benzo(a) Anthracene	X		1	Grab	8270	5.0	ND			
b. Benzo(a) Pyrene	X		1	Grab	8270	5.0	ND			
c. Benzo(b)Fluoranthene	X		1	Grab	8270	5.0	ND			
d. Benzo(k) Fluoranthene	X		1	Grab	8270	5.0	ND			
e. Chrysene	X		1	Grab	8270	5.0	ND			

⁵The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/L)	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	X		1	Grab	9270	5.0	ND			
g. Indeno(1,2,3-cd) Pyrene	X		1	Grab	9270	5.0	ND			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	X		1	Grab	9270	5.0	ND			
h. Acenaphthene	X		1	Grab	9270	5.0	ND			
i. Acenaphthylene	X		1	Grab	9270	5.0	ND			
j. Anthracene	X		1	Grab	9270	5.0	ND			
k. Benzo(ghi) Perylene	X		1	Grab	9270	5.0	ND			
l. Fluoranthene	X		1	Grab	9270	5.0	ND			
m. Fluorene	X		1	Grab	9270	5.0	ND			
n. Naphthalene-	X		1	Grab	9270	5.0	ND			
o. Phenanthrene	X		1	Grab	9270	5.0	ND			
p. Pyrene	X		1	Grab	9270	5.0	ND			
37. Total Polychlorinated Biphenyls (PCBs)	X		1	Grab	EPA 608	1.0	ND			
38. Antimony		X	1	Grab	6010A	6.0	2.0			
39. Arsenic	X		1	Grab	6010A	5.0	ND			
40. Cadmium	X		1	Grab	6010A	1.0	ND			
41. Chromium III		X	1	Grab	6010A	5.0	740			300
42. Chromium VI		X	1	Grab	7196A	50	480			250

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (MIL) of Test Method (ug/L)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper		X	1		6010B	2.0	17			
44. Lead	X				6010B	5.0	ND			
45. Mercury	X				7470	0.20	ND			
46. Nickel		X			6010B	10	5.0 B			
47. Selenium	X					10	ND			
48. Silver	X					5.0	ND			
49. Zinc		X				10	4.0 B			
50. Iron		X				50	28			
Other (describe):										

c) For discharges where **metals** are believed present, please fill out the following:

<p><i>Step 1:</i> Do any of the metals in the influent have a reasonable potential to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y ___ N ___ X ___</p> <p><i>Step 2:</i> For any metals which have reasonable potential to exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals: <u>N/A</u></p> <p>DF: _____</p>	<p>If yes, which metals? None</p> <p>Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ___ N ___ X ___ If "Yes," list which metals:</p>
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4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system: **See Appendix F**

b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	Oil/water separator	Equalization tanks	Bag filter	GAC filter
		X		X		X
	Chlorination	Dechlorination	Other (please describe): Electro Chemical Cell Reduction, Polymer Addition, Clarifier, Filter Press, Multimedia Filter.			

c) Proposed average and maximum flow rates (gallons per minute) for the discharge and the design flow rate(s) (gallons per minute) of the treatment system:
Average flow rate of discharge 10.42 Maximum flow rate of treatment system 19.44 Design flow rate of treatment system 19.44

d) A description of chemical additives being used or planned to be used (attach MSDS sheets): **Polymer**

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct <u> </u>	Within facility <u> </u>	Storm drain <u> </u>	River/brook <u>X</u>	Wetlands <u> </u>	Other (describe): Infiltration Gallery
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b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
75% of discharge goes into unnamed brook which leads to Gratuity brook discharges to Nashua river.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: **Attached**

1. For multiple discharges, number the discharges sequentially.

2. For indirect discharges, indicate the location of the discharge to the indirect conveyance and the discharge to surface water

The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water N/A

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water Seasonal, Dry cfs
Please attach any calculation sheets used to support stream flow and dilution calculations.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes No X If yes, for which pollutant(s)?

Is there a TMDL? Yes No X If yes, for which pollutant(s)?

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes No X
Has any consultation with the federal services been completed? No X or is consultation underway? Yes No X

What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one): Yes
a "no jeopardy" opinion? or written concurrence on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes No X Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes No X

7. Supplemental information. :

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

A large, empty rectangular box with a black border, intended for providing supplemental information as requested in the text above. The box is currently blank.

Has any consultation with the federal services been completed? Yes NO OR IS CONSULTATION UNDERWAY: YES NO
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one):
a "no jeopardy" opinion? or written concurrence on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes No Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes No

7. Supplemental information :
Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following 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 who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name: Conductorlab Site
Operator signature: Maria Kaouris <i>Maria Kaouris</i>
Title: Remediation Manager
Date: 10/18/05

Appendix A
NPDES Permit Application - April 24, 2003 (Parsons)

PARSONS

100 Summer Street • Boston, Massachusetts 02110 • (617) 457-7900 • Fax: (617) 457-7979 • www.parsons.com

April 24, 2003

Mr. John Hackler
Senior Engineer, NPDES Permit Unit
US Environmental Protection Agency
1 Congress Street, Suite 1100
Boston, MA 02114-2023

Subject: NPDES Permit Application
Conductorlab Site – Groton, Massachusetts
RTN 2-00053

Dear Mr. Hackler:

In response to your letter dated February 7, 2003, please find enclosed a groundwater treatment system schematic, an updated summary table of quarterly analyses of recovery well samples for the period 2002 (Table 1), and summary tables of monthly analyses of groundwater treatment system influent and effluent samples for the period January 2002 through February 2003 (Tables 2 and 3, respectively). Presented below is additional information regarding constituents discussed in your letter and previously detected on site.

VOCs

Recovery wells and monitoring wells at the Site are monitored for VOCs by Method 8260B on a quarterly and semi-annual basis, respectively. During the four quarters of monitoring conducted in 2002, the only VOCs detected were trichloroethene, cis-1,2 dichloroethene, trans-1,2-dichloroethene, tetrachloroethene, and vinyl chloride. Results from the first quarter of 2003 are not yet available. Data from the recovery wells is presented in Table 1.

Groundwater treatment plant influent and effluent is monitored on a monthly basis for VOCs by Method 8260B. As shown on Table 2, only trichloroethene, cis-1,2 dichloroethene, tetrachloroethene, and 1,1,1, trichloroethane have been detected in the influent. As shown on Table 3, VOCs were not detected in the effluent during the period January 2002 through February 2003.

Other Organic Compounds

During initial site characterization efforts, 12 groundwater samples were collected for PCB analysis, 14 groundwater samples were collected for pesticide analysis; and 14 groundwater samples were collected for SVOC analysis. PCBs and pesticides were not detected in the samples. Similarly, with the exception of bis(2-ethylhexyl) phthalate, a common sampling / laboratory contaminant, SVOCs were only detected in one sample, and at low concentrations (i.e., phenol, 58.2 ug/l, and N-nitrosodi-n-propylamine, 10.5 ug/l). Sampling and analyses for PCBs, pesticides, and SVOCs was not included in the initial discharge permit for the GWTP, and these constituents are not expected to be a constituent of concern in the GWTP effluent.



In addition, during initial site characterization efforts, 40 groundwater samples were analyzed for total cyanide. Total cyanide was detected in 8 of the 40 samples. Detected concentrations ranged from 0.010 mg/l to 0.040 mg/l, with a median and mean of 0.020 mg/l. The 2002 National Recommended Water Quality Criteria fresh water chronic criteria for free cyanide is 0.0054 mg/l. Groundwater samples were not analyzed for free cyanide, which is typically a fraction of total cyanide. Based on the infrequency of detection, and the low concentrations that were detected, cyanide is not expected to be a constituent of concern in groundwater treatment plant effluent. Sampling and analyses for cyanide was not included in the initial discharge permit for the GWTP.

Metals

Prior to design of the groundwater treatment plant, site groundwater was analyzed for a comprehensive list of metals. A summary of the metals analyzed for is presented on Table 4. As shown on Table 4, only arsenic, chromium, hexavalent chromium, copper, iron, manganese, nickel, and zinc were detected in more than 10% of the samples. These metals are discussed below.

Arsenic was detected in 17% of the samples, in concentrations ranging from 0.006 mg/l to 1.0 mg/l. The average detected concentration was 0.108 mg/l; the median detected concentration was 0.018 mg/l. Review of the data indicates that the maximum detected concentration is an outlier, and that 78% of the detected concentrations were below the 2002 National Recommended Water Quality Criteria fresh water chronic criteria of 0.150 mg/l. Arsenic compounds were not identified as having been used at the facility, based on a review of available documentation concerning facility operations. Sampling and analyses for arsenic was not included in the initial discharge permit for the GWTP, and arsenic is not expected to be a constituent of concern in the GWTP effluent.

Zinc was detected in 33% of the samples. Review of historical data indicates that GWTP influent and effluent were monitored for zinc in 1993 and 1994. Results are summarized on Table 5. As shown on Table 5, detected concentrations of zinc in the effluent averaged 0.030 mg/l, well below the 2002 National Recommended Water Quality Criteria fresh water chronic criteria of 0.120 mg/l. Monitoring for zinc ceased after 1994.

Chromium, hexavalent chromium, copper, iron, manganese, and nickel are included in the current monthly influent and effluent sampling for the GWTP. Sample results are summarized on Tables 2 and 3, respectively. The February 7, 2003 letter requested verification of the nickel concentrations in the recovery wells presented on Table 1. Upon review, a discrepancy with the units of measurement was confirmed. Table 1 has been updated to reflect that the maximum detected concentration of nickel was 29 µg/l at RW-4 in September 2002 and that the maximum detected concentration of Cr+6 was 2450 µg/l at RW-6 in September 2002.

Other Parameters

The current monitoring program includes influent and effluent testing for fluoride and sulfate. Sample results are summarized on Tables 2 and 3.

Review of the available historical correspondence did not indicate why fluoride was included in the initial discharge permit. Review of historical documentation did indicate that fluoboric acid was used on site in a plating process. Recent GWTP influent and effluent concentrations of fluoride are presented on Tables 2 and 3. There are no 2002 National Recommended Water Quality Criteria for fluoride.

According to correspondence from the MADEP in July 1994, sulfate was included in the MADEP groundwater permit "due to the high background levels of sulfate and the occasional addition of H₂SO₄ to the system..." During routine operations of the treatment system, H₂SO₄ is added to the system for acid wash of the electrochemical reduction unit and for pH adjustment. In addition, caustic (NaOH) is added to the system for pH adjustment. The addition of chemicals into the treatment process is at an intermediate point in the process – the pH is monitored and corrected before the final stages of treatment. Recent GWTP influent and effluent concentrations of sulfate are also presented on Tables 2 and 3. There are no 2002 National Recommended Water Quality Criteria for sulfate.

Based on the performance of the treatment system, the proposed limits described in the draft Attachment A to your February 7, 2003 letter are achievable. If you have any further questions regarding this information, please contact David Perry at (617) 457-7884.

Very truly yours,



David B. Perry
Project Engineer



Paul G. Boyajian, P.E.
Project Manager

Enclosures

cc: Maria Kaouris (Honeywell)
Tom Byrne (Honeywell)
Michael Scott (Nutter, McClennen, & Fish)
James M. O'Loughlin, P.E., LSP (Parsons)

**FIGURE 4-1
GROUNDWATER TREATMENT SYSTEM SCHEMATIC
CONDUCTORLAB SITE, GROTON, MA**

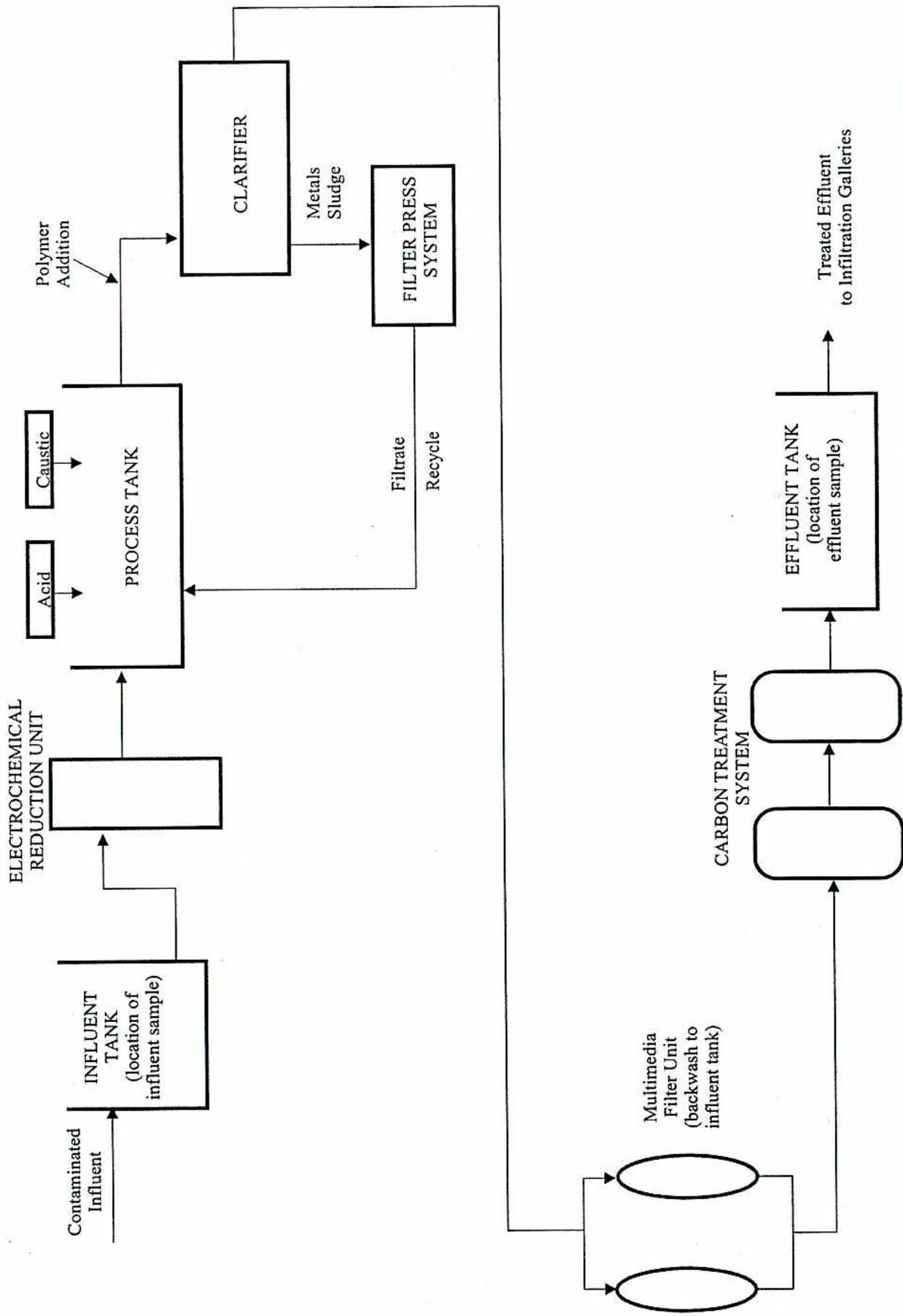


Table 2
Monthly Analytical Results
Influent Data
Conductorlab Site - Groton, Massachusetts

	01/21/02	02/26/02	03/20/02	04/26/02	05/21/02	06/20/02	07/22/02	08/23/02	09/20/02	10/24/02	11/19/02	12/20-26/2002	01/30/03	02/25/03
All values in ug/l														
Volatiles:														
1,1,2-Dichloroethene	69	44	57	65	26	60	37	52	76	47	68	27	22	35
trans-1,2-Dichloroethene	5 U	5 U	5 U	20 U	5 U	10 U	20 U	20 U	50 U	20 U	20 U	10 U	5 U	5 U
ethylene Chloride	5 U	5 U	5 U	40 U	10 U	20 U	40 U	40 U	100 U	40 U	40 U	20 U	10 U	10 U
tetrachloroethene	22	15	15	15	5 U	12	20 U	20 U	50 U	20 U	20 U	10 U	5 U	4
1,1-Trichloroethane	9	5 U	5 U	20 U	5 U	10 U	20 U	20 U	50 U	20 U	20 U	10 U	5 U	5 U
trichloroethene	890	530	510	500	260	558	884	1,050	1,250	810	966	430	180	240
vinyl Chloride	5 U	5 U	5 U	40 U	10 U	20 U	40 U	40 U	100 U	40 U	40 U	10 U	5 U	5 U
Insoluble Metals:														
chromium (total)	949	1,070	951	980	850	920	1,080	1,220	1,260	1,070	907	834	851	791
chromium (VI)	853	912	782	1,200	1,020	800	1,020	1,140	1,000	1,270	870	1,070	1,130	980
copper	97	73	90	86	50	76	66	56	74	41	58	92	45	57
iron	100 U	100 U	100 U	50 U	50 U	50 U	93	50 U	50 U	50 U	73	50 U	100 U	50 U
manganese	214	315	286	310	175	426	229	214	209	145	261	295	304	266
nickel	50 U	50 U	50 U	20 U	10 U	14	12	10	16	10 U	10	15	20 U	10
Organic Compounds:														
chloride	43,000	42,100	45,200	48,000	40,800	47,200	47,500	44,200	47,200	40,200	42,700	45,100	40,000	46,600
sulfate	3,630	2,720	2,880	6,700	4,000 U	4,220	3,680	3,140	2,920	3,640	4,520	2,560	2,820	2,720
sulfate	42,000	48,000	48,000	44,000	44,300	43,100	43,300	41,200	49,600	39,200	41,300	47,700	39,700	39,800

Notes

U= Indicates that the analyte was analyzed for but not detected; method detection limit is reported. For VOCs a "U" qualifier also indicates that the sample detection limit has been corrected for dilution and percent moisture. This detection limit is not necessarily the instrument detection limit.

The following test methods were used:

- Volatile Organics: SW846 8260B
- Volatile TIC: VOA TIC
- Chloride & Sulfate: EPA300.0 PartA
- Sulfate: SM18 4500FC
- Chromium (VI): SM18 3500D
- Metals Analysis (trace): SW846 6010B

Table 2 above contains data only for volatile organic compounds detected in recovery wells, the influent or effluent, or previously permitted. All other volatiles tested for with method 8260 were below detection limits.

Table 3
Monthly Analytical Results
Effluent Data
Conductorlab Site - Groton, Massachusetts

All values in ug/l	01/21/02	02/26/02	03/20/02	04/26/02	05/21/02	06/20/02	07/22/02	08/23/02	09/20/02	10/24/02	11/19/02	12/20-26/2002	01/31/03	02/25/03
Volatiles:														
-1,2-Dichloroethene	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
ethylene Chloride	5 U	5 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
trichloroethene	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Trichloroethane	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
chloroethene	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
vinyl Chloride	5 U	5 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dissolved Metals:														
chromium (Total)	30 U	30 U	30 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U
chromium (VI)	10 U	11	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
nickel	25 U	25 U	25 U	20 U	10 U	20 U	10 U							
lead	235	100 U	100 U	50 U	53	111	62	50 U	50 U	50 U	92	104	100 U	88
zinc	278	317	284	380	161	326	218	63	77	181	176	10 U	408	189
mercury	50 U	50 U	50 U	20 U	10 U	13	10 U	25	11					
Organic Compounds:														
benzene	42,100	43,500	47,100	47,000	41,200	63,500	83,600	45,300	48,300	54,400	40,800	43,700	36,400	48,100
toluene	3,980	2,600	2,760	6,600	2,640	3,340	2,980	2,740	2,650	2,820	3,870	3,330	2,930	2,430
ethylbenzene	37,000	38,000	37,000	38,000	36,100	34,000	57,200	31,600	44,500	40,300	40,900	43,600	29,700	35,000

U= Indicates that the analyte was analyzed for but not detected; method detection limit is reported. For VOCs a "U" qualifier also indicates that the sample detection limit has been reached for dilution and percent moisture. This detection limit is not necessarily the instrument detection limit.

The following test methods were used:

volatile Organics: SW846 8260B
 volatile TIC: VOA TIC
 chloride & Sulfate: EPA300.0 PartA
 fluoride: SM18 4500FC
 chromium (VI): SM18 3500D
 metals Analysis (trace): SW846 6010B

Table 3 above contains data only for volatile organic compounds detected in recovery wells, the influent or effluent, or previously permitted. All other volatiles tested for with method 30 were below detection limits.

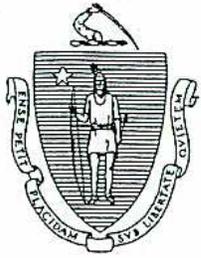
Table 4
Groundwater and Detection Frequency - Metals
Conductorlab Site - Groton, Massachusetts

Metal	Times Sought	Times Detected	Frequency of Detection
Antimony	100	1	1%
Arsenic	110	19	17%
Beryllium	99	1	1%
Cadmium	131	10	8%
Chromium	242	146	60%
Chromium VI	245	97	40%
Copper	176	73	41%
Iron	78	47	60%
Lead	167	12	7%
Manganese	79	62	78%
Mercury	58	3	5%
Nickel	176	33	19%
Selenium	50	2	4%
Silver	75	2	3%
Thallium	99	1	1%
Zinc	125	41	33%

Table 5
Groundwater Treatment Plant Data
Concentrations of Zinc in Influent & Effluent
Conductorlab Site - Groton, Massachusetts

Date	Influent (mg/l)	Effluent (mg/l)
Jun-93	LT 0.01	LT 0.01
Jul-93	LT 0.01	LT 0.01
Aug-93	0.02	LT 0.01
Sep-93	LT 0.01	0.05
Oct-93	LT 0.01	0.08
Nov-93	0.01	LT 0.01
Dec-93	LT 0.01	0.06
Jan-94	LT 0.01	0.04
Feb-94	LT 0.01	0.03
Mar-94	0.02	0.03
Apr-94	0.02	0.01
May-94	0.02	0.06
Jun-94	LT 0.01	0.01
Jul-94	LT 0.01	0.02
Aug-94	0.02	0.04
Sep-94	LT 0.01	0.02
Oct-94	LT 0.01	0.02
Dec-94	LT 0.01	LT 0.01

Appendix B
Outstanding Resource Water - February 3, 2003 (MADEP)



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Watershed Management, 627 Main Street 2nd Floor, Worcester, MA 01608

MITT ROMNEY
Governor

KERRY HEALEY
Lieutenant Governor

ELLEN ROY HERZFELDER
Secretary

LAUREN A. LISS
Commissioner

February 3, 2003

Mr. David Perry
Project Engineer
Parsons
100 Summer Street - 8th Floor
Boston, MA 02110

Re: Outstanding Resource Water
Conductorlab Site
Groton, Massachusetts

Dear Mr. Perry:

Please excuse the delay in responding to your recent inquiry regarding the need to obtain a permit required by Massachusetts Surface Water Discharge Permit Program (314 CMR 3.00) for the discharge from a ground water remediation and treatment system located at Conductorlab in Groton, Massachusetts. The discharge is currently authorized by and in compliance with the Massachusetts Contingency Plan as a Tier 1B site. The receiving water is an unnamed tributary to Gratuity Brook

Please be advised that the Department has reviewed the pertinent information and determined that the unnamed tributary to Gratuity Brook is **not** classified as an Outstanding Resource Water. Therefore, a permit is **not** required in accordance with 314 CMR 3.05(8).

If you should have any questions regarding this determination, Please contact me at (508) 849-4003 at you earliest convenience.

Sincerely,

Bryant J. Firmin
Surface Water Discharge Permit Program

Cc: Brian Pitt, USEPA, Boston, MA

This information is available in alternate format by calling our ADA Coordinator at (617) 574-6872.

<http://www.state.ma.us/dep> • Phone (508) 792-7470 • Fax (508) 791-4131



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

February 7, 2003

Mr. David Perry
Parsons
100 Summer St, 8th Floor
Boston, MA 02110

Re: Conductorlab Site, Groton, MA

Dear Mr. Perry:

EPA-New England has reviewed Parson's application submitted on behalf of Grimes Aerospace for surface water discharge and NPDES permit exclusion received on January 14, 2003 and subsequent copy of the MA DEP's 1994 groundwater permit for this site received on January 29, 2003. This letter provides our preliminary review, and a draft "Attachment A" which would become the temporary surface water requirements for direct discharge until EPA can finalize one or more general permits for groundwater remediation currently being developed for 2003, or issues an individual discharge permit. We understand the present groundwater discharge system fails periodically and there is a need to switch to a surface water discharge. We are familiar with the MA MCP process and the fact that the DEP is not required to issue permits for cleanups being done under the MCP. In fact, we just received a copy of DEP's February 3, 2003 letter to you indicating that the proposed discharge location into Gratuity Brook is not an Outstanding Resource Water which would have triggered a DEP permit or waiver. The MCP does, however, defer to EPA's authority to issue NPDES permits for surface water discharges.

In reviewing the information provided, several questions arise for which we are asking a response in order to accurately reflect the discharge characteristics and finalize the discharge requirements. The draft Attachment A represents our current understanding but may be changed after your response to this letter.

Regarding the "Chemicals of Concern (COC)", it appears from Table 1, compounds detected in groundwater monitoring wells, Mar-Sept, 2002, that the primary contaminants in the groundwater recovery wells are: Trichloroethylene(TCE), cis-1,2-Dichloroethylene (cis-1,2-DCE), total chromium(Cr+3), hexavalent chromium(Cr+6), and nickel. The DEP groundwater permit set limits for all of the above except for cis-1,2-DCE and included a number of other parameters (copper, fluoride, sulfate, PERC or tetrachloroethylene, and methylene chloride). We cannot determine from the data submitted whether these additional parameters are still required and/or what the original basis for their inclusion was. EPA's old permit file for Conductorlab has been archived to the Federal Records Center, thus we do not have it readily available to review the original plant operations and effluent characteristics. We are requesting additional input from Parsons on the COC's so we can establish the appropriate parameters.

Toll Free • 1-888-372-7341

Internet Address (URL) • <http://www.epa.gov/region1>

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APPENDIX C

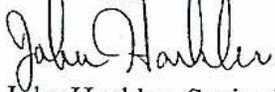
APPENDIX D

The effluent limits EPA establishes currently for surface water are fairly similar to those used by DEP for MCP sites, usually GW-1 standards, although for some parameters, in particular metals, the surface water quality criteria where no dilution is available, are often more stringent than GW-1 standards which are usually based on MCLs (or MMCL's) or other health standards. This is the case for Cr+3, Cr+6, and nickel as included on Attachment A. The discharge is to an "unnamed brook" to Gratuity Brook, to the Nashua River which is why we use a "zero" dilution factor. The limits are not dramatically lower however, and based on the nearly 10 years of monthly effluent data for total chromium (typically 0.01 mg/l or 10 ppb) which we assume to be the lab reporting limit, the proposed limits should be achievable for the total chromium limits at a minimum. Again, we have no data on effluent Cr+6 or nickel values. The levels of Cr+6 and nickel in RW-1 and RW-4 appear quite high (as much as 2450 ug/l and 29,000 ug/l respectively). Is this correct? The draft limits are based on EPA's (and DEP's adopted) 2002 published Water Quality Criteria and, for lack of any hardness data, are set at H= 100 mg/l, and are calculated as Total Recoverable values as required by regulation (using conversion factors from dissolved metal).

Finally, since this will be a "new discharge", we will be contacting the MA DEP regarding anti-degradation review as required by NPDES regulations.

This concludes our initial comments and questions. Please contact me at (617) 918-1551 if you would like to discuss this letter further. We will not proceed further until receipt of your written response.

Sincerely yours,



John Hackler, Senior Engineer
NPDES Permit Unit

cc. B. Pitt, EPA
P. Hogan, DEP

APPENDIX C

APPENDIX D

APPENDIX E

APPENDIX F

**** CONDUCTORLAB SITE, GROTON, MA ****

ATTACHMENT A

The discharge(s) referenced in the accompanying letter must be in accordance with the following provisions:

1. No discharge of oil, sufficient to cause a sheen (as defined in 40 CFR 110), occurs to the drainage system. The discharge of a sheen of oil or gasoline constitutes an oil spill and must be reported immediately to the National Response Center (NRC) at (800) 424-8802.
2. Security provisions are maintained to assure that system failure, vandalism, or other incidents will be addressed in a timely fashion, preventing the loss of oil or contaminated water to the drainage system.
3. The flow rate shall be maintained within acceptable operating parameters and shall not exceed the design flow of the treatment system. There shall be no bypass of the treatment system unless unavoidable to prevent loss of life, personal injury, or severe property damage. No filter backwash or other maintenance waters shall be discharged without treatment.
4. Sampling and analysis, in accordance with EPA Methods, must be performed for the following chemicals with the listed limits being applicable:

CONVENTIONAL

Flow
pH

Monitor, Daily Avg./Totalizer
6.5-8.3 S.U.

ORGANICS

Trichloroethylene (TCE) 5.0 ppb
cis-1,2-Dichloroethylene (cis-1,2-DCE) 70.0 ppb

METALS (1)

Total Recoverable Chromium (Cr) (2) 86.0 ppb
Hexavalent Chromium (Cr+6) (3) 12.0 ppb
Total Recoverable Nickel (Ni) (2) 53.0 ppb

- (1) Metals limits based on "zero" dilution factor
- (2) Limits for Class B, freshwater chronic criteria @ 100 mg/l hardness (H); converted from dissolved metal to total recoverable metal
- (3) Limit for Class B, freshwater chronic criteria converted from dissolved to total

Should sampling indicate the presence of additional chemicals, discharge concentrations should not exceed the Federal Drinking Water Standards (MCL's) or 100 ppb, whichever is lower, in the effluent.

Solids - These waters shall be free from floating, suspended, and settleable solids in concentrations or combinations that would impair any use assigned to this class, that would cause esthetically objectionable conditions, or that would impair the benthic biota or degrade the chemical composition of the bottom sediments.

Color and Turbidity - These waters shall be free from color and turbidity in concentrations or combinations that are esthetically objectionable conditions or that would impair the use assigned to this class.

Laboratory samples must be obtained from the influent to treatment, and from the effluent to the drainage system once each day for the first, third and sixth day of discharge. These samples must be analyzed with a 72-hour turnaround time. If the system is working properly, sampling for the remainder of the month shall be weekly and then monthly thereafter. The turnaround time for these samples shall ensure that no more than seven days pass between the sampling event and when the results are received and reviewed by the contractor.

If analysis indicates that the effluent limits have been exceeded, then the system must be shut down immediately and the problem corrected. Upon restarting the system, a sample must be taken and there must be 24 hour turnaround for the results. If the analysis indicates that the problem has been corrected, then the sampling schedule shall resume. If not, then the system shall be shut down again and repaired.

Analytical Reports, with quality control information, are to be reported to EPA and the MADEP or NHDES Project Manager by the 28th of the following month. Reports to EPA should be sent to:

NPDES Permit Unit
 Mail Code (CPE)
 Office of Ecosystem Protection
 Environmental Protection Agency
 One Congress St., Suite 1100
 Boston, MA 02114-2023

RE: NPDES [please include assigned reference # on all correspondence]

You, or your contractor, must maintain copies of all analytical reports, and quality control information for a period of 3 years from the date of the report.

1 should consider these requirements to be in effect immediately.

APPENDIX C

APPENDIX D

APPENDIX E

APPENDIX F

Appendix C
Monthly Analytical Results – July to December 2006 (MACTEC)

engineering and constructing a better tomorrow

August 28, 2006

NPDES Permit Unit
Mail Code (CPE)
Office of Ecosystem Protection
Environmental Protection Agency
One Congress Street, Suite 110
Boston, Massachusetts 02114-2023

**RE: NPDES Exclusion # MA 031-093
July 2006 Analytical Results**

Dear NPDES Permit Unit:

On behalf of Honeywell International, Inc., MACTEC Engineering and Consulting, Inc. (MACTEC) is forwarding the enclosed analytical report (STL Job Number: 360-4360-1) for the Conductorlab Site in Groton, Massachusetts. Table 1 shows the analytical results for the samples taken on July 5, 2006. Table 2 shows the flow data for July 1, 2006 to July 30, 2006.

Consistent with previous discussions with the Town of Groton Conservation Commission and the Conductorlab Oversight Committee, the treated effluent was directed into the Unnamed Brook and the infiltration galleries throughout the month of July.

As site conditions permit (i.e., no observed breakout of groundwater near the infiltration galleries), the discharge of treated effluent to the Unnamed Brook will be minimized during the warmer weather/drier season. However, if groundwater breakout is observed, flow will be redirected (in part or all) to the Unnamed Brook.

Honeywell and MACTEC remain committed to the safe and effective operation of the groundwater treatment plant. Please contact us at 781-245-6606 with any questions.

Sincerely,
MACTEC Engineering and Consulting, Inc.

Mike Apfelbaum w/permission
Mike Apfelbaum *J.M.N.*
Geologist


Kerry Tull, LSP
Project Manager

Enclosure



engineering and constructing a better tomorrow

cc: Denise Child / MADEP
Maria Kaouris / Honeywell
Mike Scott / Nutter, McClennen & Fish, LLP
Conductorlab Oversight Committee / Town of Groton
Board of Health / Town of Groton
Conservation Commission / Town of Groton
MACTEC Project Files [P:\W2-mfg\Honeywell\Conductor Labs\DischargeMonitoring\2006July-2006July-06 NPDES.doc]

Table 1
July 2006 Analytical Results

Parameter	Influent	Effluent	NPDES limit
pH	6.62	7.00	6.5-8.3 S.U.
Parameter	Influent ppb (µg/l)	Effluent ppb (µg/l)	NPDES limit ppb (µg/l)
Trichloroethene (TCE)	200	< 1	5
cis-1,2-Dichloroethene (DCE)	60	< 1	70
Total Recoverable Chromium (Cr)	800	2.5 J	86
Hexavalent Chromium (Cr ⁺⁶)	810	< 5	12
Total Recoverable Nickel (Ni)	6.5 J	5.5 J	53

Notes:

Samples were collected on July 5, 2006.

J: Indicates an estimated result value. The result was measured between the reporting limit and the method detection limit.

<: Indicates that the analyte was analyzed for but not detected.

Prepared by: DLC

Checked by: MAA

Table 2
July 2006 Flow Data

Period	Total Throughput		Effluent to Unnamed Brook			Effluent to infiltration galleries		
	Gallons	Daily Average (Gallons)	Gallons	Days in Service	Daily Average (Gallons)	Gallons	Days in Service	Daily Average (Gallons)
7/1/06 to 7/31/06	639,150	20,618	582,611	27	21,578	56,539	4	14,135

Notes:

The daily average values for discharge to the brook or galleries is given as an average of flow to the receptor over the period in use not averaged over the entire month.

Days in Service may collectively exceed the number of days in the month since the effluent can be directed to both receptors at the same time (with flow to each metered separately).

Prepared by: DLC

Checked by: MAA



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September 20, 2006

NPDES Permit Unit
Mail Code (CPE)
Office of Ecosystem Protection
Environmental Protection Agency
One Congress Street, Suite 110
Boston, Massachusetts 02114-2023

**RE: NPDES Exclusion # MA 031-093
August 2006 Analytical Results**

Dear NPDES Permit Unit:

On behalf of Honeywell International, Inc., MACTEC Engineering and Consulting, Inc. (MACTEC) is forwarding the enclosed analytical report (STL Job Number: 360-5022-1) for the Conductorlab Site in Groton, Massachusetts. Table 1 shows the analytical results for the samples taken on August 3, 2006. Table 2 shows the flow data for August 1, 2006 to August 31, 2006.

Consistent with previous discussions with the Town of Groton Conservation Commission and the Conductorlab Oversight Committee, the treated effluent was directed into the Unnamed Brook and the infiltration galleries throughout the month of August.

Vinyl chloride was detected in the GWTS effluent sample collected on August 3, 2006. The concentration of vinyl chloride detected in the effluent was 0.35J ppb, less than the Massachusetts Contingency Plan (MCP) GW-1 (2 ppb), GW-2 (2 ppb), and GW-3 (50,000 ppb) Standards. On August 21, 2006, groundwater was redirected to the on-Site infiltration galleries while a determination could be made regarding the source well(s) for the vinyl chloride to the GWTS.

Honeywell and MACTEC remain committed to the safe and effective operation of the groundwater treatment plant. Please contact us at 781-245-6606 with any questions.

Sincerely,
MACTEC Engineering and Consulting, Inc.

Mike Apfelbaum
Mike Apfelbaum *w/ permission*
Geologist *D.M.N*

Kerry Tull
Kerry Tull, LSP
Project Manager

Enclosure



engineering and constructing a better tomorrow

cc: Denise Child / MADEP
Maria Kaouris / Honeywell
Mike Scott / Nutter, McClennen & Fish, LLP
Conductorlab Oversight Committee / Town of Groton
Board of Health / Town of Groton
Conservation Commission / Town of Groton
MACTEC Project Files [P:\W2-mfg\Honeywell\Conductor Labs\DischargeMonitoring\2006\August-2006\August-06 NPDES.doc]

Table 1
August 2006 Analytical Results

Parameter	Influent	Midpoint	Effluent	NPDES Limit
pH	6.55	---	6.99	6.5-8.3 S.U.
Parameter	Influent ppb (µg/l)	Midpoint ppb (µg/l)	Effluent ppb (µg/l)	NPDES Limit ppb (µg/l)
Trichloroethene (TCE)	380	3.3	< 1	5
cis-1,2-Dichloroethene (DCE)	100	8.6	< 1	70
vinyl chloride	1.9 J	0.51 J	0.35 J	NA
Total Recoverable Chromium (Cr)	780	---	2.7 J	86
Hexavalent Chromium (Cr ⁺⁶)	950	---	< 5	12
Total Recoverable Nickel (Ni)	5.5 J	---	2.6 J	53

Notes:

Samples were collected on August 3, 2006.

J: Indicates an estimated result value. The result was measured between the reporting limit and the method detection limit.

<: Indicates that the analyte was analyzed for but not detected.

NA: Indicates that the parameter does not have a specified limit assigned by the NPDES exclusion permit.

---: Indicates that the parameter was not analyzed/measured.

Prepared by: BJR

Checked by: JML

Table 2
August 2006 Flow Data

Period	Total Throughput		Effluent to Unnamed Brook			Effluent to infiltration galleries		
	Gallons	Daily Average (Gallons)	Gallons	Days in Service	Daily Average (Gallons)	Gallons	Days in Service	Daily Average (Gallons)
8/1/06 to 8/31/06	331,192	10,684	210,448	21	10,021	120,744	10	12,074

Notes:

The daily average values for discharge to the brook or galleries is given as an average of flow to the receptor over the period in use not averaged over the entire month.

Days in Service may collectively exceed the number of days in the month since the effluent can be directed to both receptors at the same time (with flow to each metered separately).

Prepared by: BJR

Checked by: JML



engineering and constructing a better tomorrow

October 31, 2006

NPDES Permit Unit
Mail Code (CPE)
Office of Ecosystem Protection
Environmental Protection Agency
One Congress Street, Suite 110
Boston, Massachusetts 02114-2023

**RE: NPDES Exclusion # MA 031-093
September 2006 Analytical Results
MACTEC Project No. 3650-05-0037.6100**

Dear NPDES Permit Unit:

On behalf of Honeywell International, Inc. (Honeywell), MACTEC Engineering and Consulting, Inc. (MACTEC) is forwarding the enclosed analytical reports (STL Job Numbers: 360-5593-1; Attachment A 360-6005-1; Attachment B) for the Conductorlab Site in Groton, Massachusetts. Due to the detection of vinyl chloride in the GWTS effluent sample collected during the month of August, 2006, two rounds of sampling for volatile organic compounds were collected in September, 2006 (September 5th and September 22nd) for continued monitoring purposes. Table 1 shows the analytical results for the samples taken during the month of September. Table 2 shows the flow data for September 1, 2006 to September 30, 2006.

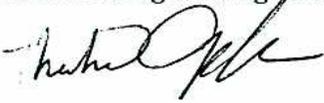
Consistent with previous discussions with the Town of Groton Conservation Commission and the Conductorlab Oversight Committee, the treated effluent was directed into the Unnamed Brook and the infiltration galleries throughout the month of September.

Analytical results from these sampling rounds indicated that no vinyl chloride was detected in all effluent samples collected during the month of September.

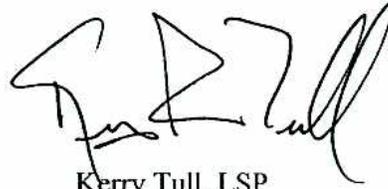
Pursuant to the interim discharge requirements for the Conductorlab Site specified in 'Attachment A' of the July 30, 2003 letter from EPA-New England, samples were collected for effluent toxicity testing between September 20th through September 27th, 2006. A total of three, 24-hour composite samples collected from the effluent tank were submitted to Severn Trent Laboratories in Westfield, Massachusetts. The discharge requirements indicate that the Lethal Concentration 50 (LC-50) and Chronic- No Observed Effect Concentration (C-NOEC) values must be equal to or greater than 100%. These specific criteria were met during the annual toxicity test for the Conductorlab Site (Table 3). Please refer to Attachment C (360-5925-1) for the complete laboratory data package.

Honeywell and MACTEC remain committed to the safe and effective operation of the groundwater treatment plant. Please contact us at 781-245-6606 with any questions.

Sincerely,
MACTEC Engineering and Consulting, Inc.



Mike Apfelbaum
Geologist



Kerry Tull, LSP
Project Manager

Enclosure

cc: Denise Child / MADEP
Maria Kaouris / Honeywell
Mike Scott / Nutter, McClennen & Fish, LLP
Conductorlab Oversight Committee / Town of Groton
Board of Health / Town of Groton
Conservation Commission / Town of Groton
MACTEC Project Files [P:\W2-mfg\Honeywell\Conductor Labs\DischargeMonitoring\2006\September-2006\September-06 NPDES.doc]

Table 1
September 2006 Analytical Results

Parameter	NPDES Limit (µg/l)	September 5, 2006			September 22, 2006	
		Influent (µg/l)	Midpoint (µg/l)	Effluent (µg/l)	Midpoint (µg/l)	Effluent (µg/l)
pH	6.5-8.3 S.U.	6.58	---	7.15	---	7.05
Trichloroethene (TCE)	5	280	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene (DCE)	70	75	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl chloride (VC)	NA	1.8 J	0.36 J	< 1.0	< 1.0	< 1.0
Total Recoverable Chromium (Cr)	86	940	---	1.8 J	---	---
Hexavalent Chromium (Cr ⁺⁶)	12	940	---	< 5.0	---	---
Total Recoverable Nickel (Ni)	53	4.0 J	---	3.2 J	---	---

Notes:

Samples were collected on September 5, 2006 and September 22, 2006.

J: Indicates an estimated result value. The result was measured between the reporting limit (RL) and the method detection limit (MDL).

<: Indicates that the analyte was analyzed for but not detected.

NA: Indicates that the parameter does not have a specified limit assigned by the NPDES exclusion permit.

---: Indicates that the parameter was not analyzed/measured.

Influent samples were not collected during the September 22, 2005 collection event.

µg/l = microgram per liter, and is equivalent to parts per billion (ppb)

Prepared by: MAA
Checked by: MAM

Table 2
September 2006 Flow Data

Period	Total Throughput		Effluent to Unnamed Brook			Effluent to infiltration galleries		
	Gallons	Daily Average (Gallons)	Gallons	Days in Service	Daily Average (Gallons)	Gallons	Days in Service	Daily Average (Gallons)
9/1/06 to 9/30/06	403,300	13,843	221,156	18	12,286	182,144	12	15,179

Notes:

The daily average values for discharge to the brook or galleries is given as an average of flow to the receptor over the period in use not averaged over the entire month.

Days in Service may collectively exceed the number of days in the month since the effluent can be directed to both receptors at the same time (with flow to each metered separately).

Prepared by: MAA
Checked by: MAM

Table 3
September 2006 Toxicity Test Results

Species Name	Effluent	NPDES limit
<i>Ceriodaphnia dubia</i>		
LC-50 (%)	≥ 100	≥ 100
C-NOEC (%)	≥ 100	≥ 100
<i>Pimephales promelas</i>		
LC-50 (%)	≥ 100	≥ 100
C-NOEC (%)	≥ 100	≥ 100

Notes:

LC-50: Lethal Concentration 50

C-NOEC: Chronic- No Observed Effect Concentration

Prepared by: MAA

Checked by: MAM



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November 30, 2006

NPDES Permit Unit
Mail Code (CPE)
Office of Ecosystem Protection
Environmental Protection Agency
One Congress Street, Suite 110
Boston, Massachusetts 02114-2023

**RE: NPDES Exclusion # MA 031-093
October 2006 Analytical Results
MACTEC Project No. 3650-05-0037.6100**

Dear NPDES Permit Unit:

On behalf of Honeywell International, Inc. (Honeywell), MACTEC Engineering and Consulting, Inc. (MACTEC) is forwarding the enclosed analytical reports (STL Job Numbers: 360-6237-1; Attachment A 360-6537-1; Attachment B) for the Conductorlab Site in Groton, Massachusetts. Due to the detection of vinyl chloride in the GWTS effluent sample collected during the month of August 2006, two rounds of sampling for volatile organic compounds were collected in October 2006 (October 5th and October 19th) for continued monitoring purposes. Table 1 shows the analytical results for the samples taken during the month of October. Table 2 shows the flow data for October 1, 2006 to October 31, 2006.

Consistent with previous discussions with the Town of Groton Conservation Commission and the Conductorlab Oversight Committee, the treated effluent was directed into the Unnamed Brook and the infiltration galleries throughout the month of October.

Analytical results from these sampling rounds indicated that no vinyl chloride was detected in either of the two effluent samples collected during the month of October. There were no other VOCs detected above laboratory reporting limits in the effluent samples.

Honeywell and MACTEC remain committed to the safe and effective operation of the groundwater treatment plant. Please contact us at 781-245-6606 with any questions.

Sincerely,
MACTEC Engineering and Consulting, Inc.


Judith LeClair
Senior Geologist


Kerry Tull, LSP
Project Manager

Enclosure

cc: Denise Child / MADEP
Maria Kaouris / Honeywell
Mike Scott / Nutter, McClennen & Fish, LLP
Conductorlab Oversight Committee / Town of Groton
Board of Health / Town of Groton
Conservation Commission / Town of Groton
MACTEC Project Files [P:\W2-mfg\Honeywell\Conductor Labs\DischargeMonitoring\2006\October-2006\October-06 NPDES.doc]

Table 1
October 2006 Analytical Results

Parameter	NPDES Limit (µg/l)	October 5, 2006			October 19, 2006	
		Influent (µg/l)	Midpoint (µg/l)	Effluent (µg/l)	Midpoint (µg/l)	Effluent (µg/l)
pH	6.5-8.3 S.U.	7.00	---	7.04	---	7.06
Trichloroethene (TCE)	5	520	1.4	< 1.0	5.9	< 1.0
cis-1,2-Dichloroethene (DCE)	70	90	4.8	< 1.0	11	< 1.0
Vinyl chloride (VC)	NA	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Recoverable Chromium (Cr)	86	920	---	2.0 J	---	---
Hexavalent Chromium (Cr ⁺⁶)	12	890	---	< 5.0	---	---
Total Recoverable Nickel (Ni)	53	5.5 J	---	2.6 J	---	---

Notes:

Samples were collected on October 5 and October 19, 2006.

J: Indicates an estimated result value. The result was measured between the reporting limit (RL) and the method detection limit (MDL).

<: Indicates that the analyte was analyzed for but not detected.

NA: Indicates that the parameter does not have a specified limit assigned by the NPDES exclusion permit.

---: Indicates that the parameter was not analyzed/measured.

Influent samples were not collected during the October 19, 2006 collection event.

µg/l = microgram per liter, and is equivalent to parts per billion (ppb).

Prepared by: MAM

Checked by: JML

Table 2
October 2006 Flow Data

Period	Total Throughput		Effluent to Unnamed Brook			Effluent to infiltration galleries		
	Gallons	Daily Average (Gallons)	Gallons	Days in Service	Daily Average (Gallons)	Gallons	Days in Service	Daily Average (Gallons)
10/1/06 to 10/31/06	392,155	12,651	392,155	30	13,072	0	0	0

Notes:

The daily average values for discharge to the brook or galleries is given as an average of flow to the receptor over the period in use not averaged over the entire month.

Days in Service may collectively exceed the number of days in the month since the effluent can be directed to both receptors at the same time (with flow to each metered separately).

Prepared by: MAM

Checked by: JML



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December 26, 2006

NPDES Permit Unit
Mail Code (CPE)
Office of Ecosystem Protection
Environmental Protection Agency
One Congress Street, Suite 110
Boston, Massachusetts 02114-2023

**RE: NPDES Exclusion # MA 031-093
November 2006 Analytical Results
MACTEC Project No. 3650-05-0037.6100**

Dear NPDES Permit Unit:

On behalf of Honeywell International, Inc. (Honeywell), MACTEC Engineering and Consulting, Inc. (MACTEC) is forwarding the enclosed analytical report (STL Job Number: 360-6796-1; Attachment A) for the Conductorlab Site in Groton, Massachusetts. Table 1 shows the analytical results for the samples taken during the month of November. Table 2 shows the flow data for November 1, 2006 to November 30, 2006.

Consistent with previous discussions with the Town of Groton Conservation Commission and the Conductorlab Oversight Committee, the treated effluent was directed into the Unnamed Brook throughout the month of November.

Honeywell and MACTEC remain committed to the safe and effective operation of the groundwater treatment plant. Please contact us at 781-245-6606 with any questions.

Sincerely,
MACTEC Engineering and Consulting, Inc.

Mike Apfelbaum
Project Geologist

Kerry Tull, LSP
Project Manager

*with permission
ACW*

Enclosure

cc: Denise Child / MADEP
Maria Kaouris / Honeywell
Mike Scott / Nutter, McClennen & Fish, LLP
Conductorlab Oversight Committee / Town of Groton
Board of Health / Town of Groton
Conservation Commission / Town of Groton
MACTEC Project Files [P:\Honeywell\Conductor Labs\DischargeMonitoring\2006\November-2006\November-06 NPDES.doc]

Table 1
November 2006 Analytical Results

Parameter	NPDES Limit (µg/l)	November 2, 2006		
		Influent (µg/l)	Midpoint (µg/l)	Effluent (µg/l)
pH	6.5-8.3 S.U.	6.51	---	6.99
Trichloroethene (TCE)	5	340	21	< 1.0
cis-1,2-Dichloroethene (DCE)	70	110	24	2.3
Vinyl chloride (VC)	NA	3.9	< 1.0	< 1.0
Total Recoverable Chromium (Cr)	86	1,000	---	1.0 J
Hexavalent Chromium (Cr ⁺⁶)	12	970	---	< 5.0
Total Recoverable Nickel (Ni)	53	5.4 J	---	2.8 J

Notes:

Samples were collected on November 2, 2006.

J: Indicates an estimated result value. The result was measured between the reporting limit (RL) and the method detection limit (MDL).

<: Indicates that the analyte was analyzed for but not detected.

NA: Indicates that the parameter does not have a specified limit assigned by the NPDES exclusion permit.

---: Indicates that the parameter was not analyzed/measured.

Influent samples were not collected during the October 19, 2006 collection event.

µg/l = microgram per liter, and is equivalent to parts per billion (ppb).

Prepared by: MAA

Checked by: JML

Table 2
November 2006 Flow Data

Period	Total Throughput		Effluent to Unnamed Brook			Effluent to infiltration galleries		
	Gallons	Daily Average (Gallons)	Gallons	Days in Service	Daily Average (Gallons)	Gallons	Days in Service	Daily Average (Gallons)
11/1/06 to 11/30/06	602,262	20,075	602,262	30	20,075	0	0	0

Notes:

The daily average values for discharge to the brook or galleries is given as an average of flow to the receptor over the period in use not averaged over the entire month.

Days in Service may collectively exceed the number of days in the month since the effluent can be directed to both receptors at the same time (with flow to each metered separately).

Prepared by: MAA

Checked by: JML



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January 18, 2007

NPDES Permit Unit
Mail Code (CPE)
Office of Ecosystem Protection
Environmental Protection Agency
One Congress Street, Suite 110
Boston, Massachusetts 02114-2023

**RE: NPDES Exclusion # MA 031-093
December 2006 Analytical Results
MACTEC Project No. 3650-05-0037.6100**

Dear NPDES Permit Unit:

On behalf of Honeywell International Inc. (Honeywell), MACTEC Engineering and Consulting, Inc. (MACTEC) is forwarding the enclosed analytical report (STL Job Number: 360-7469-1; Attachment A) for the Conductorlab Site in Groton, Massachusetts. Table 1 shows the analytical results for the samples taken during the month of December 2006. Table 2 shows the flow data for December 1, 2006 to December 31, 2006.

Consistent with previous discussions with the Town of Groton Conservation Commission and the Conductorlab Oversight Committee, the treated effluent was directed into the Unnamed Brook throughout the month of December.

Recently, an air stripper unit was added to the Conductorlab groundwater treatment system. The decision to install the air stripper unit was based upon a very minor and estimated detection of vinyl chloride (0.35 J $\mu\text{g/L}$) from effluent samples collected on August 3, 2006. The air stripper unit was installed to serve as an additional preventative measure designed to remove any potential vinyl chloride from the treatment system prior to discharge into the Unnamed Brook. Start-up of the air stripper occurred on December 11, 2006.

Honeywell and MACTEC remain committed to the safe and effective operation of the groundwater treatment plant. Please contact us at 781-245-6606 with any questions.

Sincerely,
MACTEC Engineering and Consulting, Inc.

Mike Apfelbaum
Project Geologist

Kerry Tull, LSP
Project Manager

Table 1
December 2006 Analytical Results

Parameter	NPDES Limit (µg/l)	December 11, 2006		
		Influent (µg/l)	Midpoint (µg/l)	Effluent (µg/l)
pH	6.5-8.3 S.U.	6.59	---	7.04
Trichloroethene (TCE)	5	690	0.65	< 1.0
cis-1,2-Dichloroethene (DCE)	70	160	2.0	< 1.0
Vinyl chloride (VC)	NA	< 20	< 1.0	< 1.0
Total Recoverable Chromium (Cr)	86	840	---	1.8 J
Hexavalent Chromium (Cr ⁺⁶)	12	860	---	< 5.0
Total Recoverable Nickel (Ni)	53	6.1 J	---	8.5 J

Notes:

Samples were collected on December 11, 2006.

J: Indicates an estimated result value. The result was measured between the reporting limit (RL) and the method detection limit (MDL).

<: Indicates that the analyte was analyzed for but not detected.

NA: Indicates that the parameter does not have a specified limit assigned by the NPDES exclusion permit.

---: Indicates that the parameter was not analyzed/measured.

µg/l = microgram per liter, and is equivalent to parts per billion (ppb).

Prepared by: MAA

Checked by: JML

Table 2
December 2006 Flow Data

Period	Total Throughput		Effluent to Unnamed Brook			Effluent to infiltration galleries		
	Gallons	Daily Average (Gallons)	Gallons	Days in Service	Daily Average (Gallons)	Gallons	Days in Service	Daily Average (Gallons)
12/1/06 to 12/31/06	527,026	17,001	527,026	31	17,001	0	0	0

Notes:

The daily average values for discharge to the brook or galleries is given as an average of flow to the receptor over the period in use not averaged over the entire month.

Days in Service may collectively exceed the number of days in the month since the effluent can be directed to both receptors at the same time (with flow to each metered separately).

Prepared by: MAA

Checked by: JML