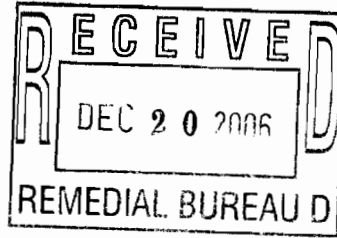




TETRA TECH EC, INC.



18 December 2006
RAC II-2006-308

Ms. Sharon Trocher
Work Assignment Manager
U.S. Environmental Protection Agency
290 Broadway, 20th Floor
New York, NY 10007-1866

**SUBJECT: USEPA RAC II CONTRACT NUMBER 68-W-98-214
WORK ASSIGNMENT NUMBER 109-RALR-0238
VESTAL WATER SUPPLY WELL, OPERABLE UNIT 1
OCTOBER 2006 PERFORMANCE MONITORING REPORT**

Dear Ms. Trocher:

I am pleased to provide the October 2006 Monthly Performance Monitoring Report for the Vestal Water Supply Well treatment facility.

A. Monthly Operations

The treatment system at the Vestal Water Supply Well operated until 16 October 2006, when the facility was transferred to the New York State Department of Environmental Conservation. A summary of the operation and maintenance activities performed during October is as follows:

- Routine inspections of the facility were performed;
- Pumps were checked and lubricated;
- Air filters were cleaned or replaced;
- Raked and mowed the grass at the facility; and
- The monthly influent and effluent samples were collected.

B. Operational Data

The following table presents operational data for the year 2006, arranged by month:

| Month | Operating Days | Average flow Meter% | Average flow rate (gpm) | Amount of groundwater treated (mg) |
|--|----------------|---------------------|-------------------------|------------------------------------|
| January | 31 | 45 | 517.5 | 23.1 |
| February | 28 | 45 | 517.5 | 20.9 |
| March | 31 | 45 | 517.5 | 23.1 |
| April | 30 | 45 | 517.5 | 22.4 |
| May | 31 | 38 | 437 | 19.5 |
| June | 26 | 32 | 368 | 13.8 |
| July | 24 | 38 | 437 | 15.1 |
| August | 27 | 32 | 368 | 14.3 |
| September | 30 | 31 | 356.5 | 15.4 |
| October | 16 | 32 | 368 | 8.5 |
| Volume of groundwater treated for 2006 | | | | 176.1 |
| Volume of groundwater treated for the OU-1 | | | | 2,951 |

gpm - gallons per minute
mg - millions of gallons



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C. Comparison of Influent and Effluent Concentrations with Discharge Criteria

The treatment plant influent and effluent analytical data received from the EPA-DESA laboratory for the month of October 2006 are included in Attachment 1. A summary of the data for the compounds detected in the plant influent and effluent is as follows:

| Compound | Discharge Criteria (ug/L) | Influent Concentration (ug/L) | | | | | | | | | | | | Effluent Conc. (ug/L) October |
|---------------------------------------|---------------------------|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|-----|-------------------------------|
| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Vinyl Chloride | 2 | 0.5U | 3.8 | 3.8 | 4.2 | 4.0 | 3.3 | 4.8 | 5.4 | 4.4 | 4.2 | | | 0.5 U |
| Chloroethane | | 0.5U | 0.61 | 0.56 | 0.58 | 0.57 | 0.53 | 0.54 | 0.97 | 0.63 | 0.66 | | | 0.5 U |
| 1,1-Dichloroethene* | 5 | 3.2 | 11 | 10.0 | 11 | 10 | 9.1 | 11 | 16 | 11 | 12 | | | 0.5U |
| 1,1,2 Trichloro-1,2,2-Trifluoroethane | | 1.2 | 4.3 | 3.9 | 3.9 | 3.8 | 3.4 | 3.7 | 6.8 | 2.4 | 3.5 | | | 0.5 U |
| Acetone | | 1.0U | 1.0U | 5.0U | 1.0U | 1.0U | 1.0U | 1.0U | 6.0U | 0.5UL | 0.5U | | | 0.5 UL |
| Methylene Chloride | | 0.5U | 0.5U | 0.5U | 0.5U | 0.5U | 0.5U | 0.5U | 0.5U | 0.5U | 1.0U | | | 1.0 UL |
| Trans 1,2-Dichloroethene* | 5 | 0.5 U | 0.5U | 0.5U | 0.5U | 0.5U | 0.5U | 0.5U | 0.5U | 0.5U | 0.51 | | | 0.5 U |
| Methyl Tert-Butyl Ether | | 1.0 | 3.7 | 3.7 | 3.9 | 4.2 | 4.0 | 5.1 | 4.3 | 7.1K | 4.7 | | | 0.59 |
| 1,1-Dichloroethane | 5 | 6.1 | 30 | 18 | 18 | 19 | 18 | 19 | 26 | 23 | 22 | | | 0.5 U |
| Cis-1,2-Dichloroethene* | 5 | 14 | 45 | 45 | 46 | 48 | 43 | 30 | 69 | 45L | 39 | | | 0.5 UL |
| Chloroform | 7 | 0.5 U | 0.5U | 0.5U | 0.5U | 0.5U | 0.5U | 0.5U | 0.5U | 0.5U | 0.5U | | | 0.5 U |
| 1,1,1-Trichloroethane* | 5 | 42 | 150 | 130 | 140 | 150 | 120 | 120 | 210 | 160 | 160 | | | 0.5 U |
| Trichloroethene* | 5 | 15L | 42 | 40 | 42 | 43 | 38 | 41 | 60 | 49 | 50 | | | 0.5 U |
| Total Volatile Organics* | 100 | 82.5 | 280.41 | 254.96 | 269.58 | 282.57 | 239.33 | 235.14 | 398.47 | 302.53 | 296.57 | | | 0.59 |

Note:

ug/L = micrograms per liter
 * = Site Contaminant of Concern

U = Below Reporting Limit
 L = Reported Value May be Biased Low

K = Reported Value May Be Biased High

D. Next Month's Activities

There are no activities anticipated for November 2006 as the facility has been transferred to New York State Department of Environmental Conservation.

E. Summary and Recommendations

Based on the treatment plant influent and effluent data summarized above, it can be concluded the treated water continues to meet the discharge limits. Please feel free to contact me at (973) 630-8197 if you should have any questions.

Sincerely,



Heidemarie Roldan
 Project Manager

Attachment

cc: P. Long (NYSDEC)

ATTACHMENT 1

Case Narrative:
Vestal 1-1. #06100014

The National Environmental Laboratory Accreditation Conference (NELAC) is a voluntary environmental laboratory accreditation association of State and Federal agencies. NELAC established and promoted a national accreditation program that provides a uniform set of standards for the generation of environmental data that are of known and defensible quality. The EPA Region 2 Laboratory is NELAC accredited. The Laboratory tests that are accredited have met all the requirements established under the NELAC Standards.

Comment(s):

None.

Reporting Limit(s):

The Laboratory was able to achieve the Contract Required Quantitation Limits (CRQLs), where applicable, for each analyte requested except for the following analyte(s):

Volatile Organic Compounds: The CRQL for Methylene Chloride in water (SOM01.1-Trace) is 0.5 ug/L. The Laboratory's Reporting Limit was raised to 1.0 ug/L due to problems associated with the initial calibration curve.

Method(s):

Low Level Volatile Organic Analysis, EPA-SOP-DW-1 (Purge & Trap GC/MS Method)

Approval: *J. R. Shea* Date: 11-17-06



U.S. Environmental Protection Agency
Region 2 Laboratory
2890 Woodbridge Avenue
Edison, NJ 08837

Data Report: Vestal Well 1-1 [10/06]

Project Number: 06100014

Program: Y206E

Project Leader: L. Arabia

| Remark Codes | Explanation |
|--------------|--|
| U | THE ANALYTE WAS NOT DETECTED AT OR ABOVE THE REPORTING LIMIT. |
| J | THE IDENTIFICATION OF THE ANALYTE IS ACCEPTABLE; THE REPORTED VALUE IS AN ESTIMATE. |
| UJ | THE ANALYTE WAS NOT DETECTED AT OR ABOVE THE REPORTING LIMIT. THE REPORTING LIMIT IS AN ESTIMATE. |
| N | THERE IS PRESUMPTIVE EVIDENCE THAT THE ANALYTE IS PRESENT; THE ANALYTE IS REPORTED AS A TENTATIVE IDENTIFICATION. |
| NJ | THERE IS PRESUMPTIVE EVIDENCE THAT THE ANALYTE IS PRESENT; THE ANALYTE IS REPORTED AS A TENTATIVE IDENTIFICATION. THE REPORTED VALUE IS AN ESTIMATE. |
| R | THE PRESENCE OR ABSENCE OF THE ANALYTE CANNOT BE DETERMINED FROM THE DATA DUE TO SEVERE QUALITY CONTROL PROBLEMS. THE DATA ARE REJECTED AND CONSIDERED UNUSABLE. |
| K | THE IDENTIFICATION OF THE ANALYTE IS ACCEPTABLE; THE REPORTED VALUE MAY BE BIASED HIGH. THE ACTUAL VALUE IS EXPECTED TO BE LESS THAN THE REPORTED VALUE. |
| L | THE IDENTIFICATION OF THE ANALYTE IS ACCEPTABLE; THE REPORTED VALUE MAY BE BIASED LOW. THE ACTUAL VALUE IS EXPECTED TO BE GREATER THAN THE REPORTED VALUE. |
| NV | NOT VALIDATED |
| INC | RESULT NOT ENTERED |



U.S. EPA Region 2 Laboratory
Data Report

Survey Name: Vestal Well 1-1 [10/06]

Project Number: 06100014

*Sorted By Sample ID

AH06006 Field/Station ID: INFLUENT
Matrix: Aqueous

Date Received: 10/6/2006

Sample Description:

Analysis Type: VOA SOM1.1-TRACE GCMS AQUEOUS

| CAS Number | Analyte Name | Result | Remark Codes | Units |
|------------|---------------------------------------|--------|--------------|-------|
| 75-43-4 | DICHLORODIFLUOROMETHANE | --- | 0.50U | ug/L |
| 000074873 | CHLOROMETHANE | --- | 0.50U | ug/L |
| 000075014 | VINYL CHLORIDE | 4.2 | | ug/L |
| 000074839 | BROMOMETHANE | --- | 0.50U | ug/L |
| 000075003 | CHLOROETHANE | 0.66 | | ug/L |
| 000075694 | TRICHLOROFLUOROMETHANE | --- | 0.50U | ug/L |
| 000075354 | 1,1-DICHLOROETHENE | 12 | | ug/L |
| 76-13-1 | 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE | 3.5 | | ug/L |
| 000075150 | CARBON DISULFIDE | --- | 0.50U | ug/L |
| 67-64-1 | ACETONE | --- | 5.0U | ug/L |
| 79-20-9 | METHYL ACETATE | --- | 0.50U | ug/L |
| 75-09-2 | METHYLENE CHLORIDE | --- | 1.0U | ug/L |
| 000156605 | TRANS-1,2-DICHLOROETHENE | 0.51 | K | ug/L |
| 001634044 | METHYL TERT-BUTYL ETHER | 4.7 | | ug/L |
| 000075343 | 1,1-DICHLOROETHANE | 22 | | ug/L |
| 000156592 | CIS-1,2-DICHLOROETHENE | 39 | L | ug/L |
| 000078933 | 2-BUTANONE | --- | 5.0U | ug/L |
| 000074975 | BROMOCHLOROMETHANE | --- | 0.50U | ug/L |
| 000067663 | CHLOROFORM | --- | 0.50U | ug/L |
| 71-55-6 | 1,1,1-TRICHLOROETHANE | 160 | | ug/L |
| 110-82-7 | CYCLOHEXANE | --- | 0.50U | ug/L |
| 000056235 | CARBON TETRACHLORIDE | --- | 0.50U | ug/L |
| 000071432 | BENZENE | --- | 0.50U | ug/L |
| 000107062 | 1,2-DICHLOROETHANE | --- | 0.50U | ug/L |
| 025323891 | TRICHLOROETHENE | 50 | | ug/L |
| 000078875 | 1,2-DICHLOROPROPANE | --- | 0.50U | ug/L |
| 75-27-4 | BROMODICHLOROMETHANE | --- | 0.50U | ug/L |
| 010061015 | CIS-1,3-DICHLOROPROPENE | --- | 0.50U | ug/L |
| 000108101 | 4-METHYL-2-PENTANONE | --- | 5.0U | ug/L |
| 000108883 | TOLUENE | --- | 0.50U | ug/L |
| 010061026 | TRANS-1,3-DICHLOROPROPENE | --- | 0.50U | ug/L |
| 000079005 | 1,1,2-TRICHLOROETHANE | --- | 0.50U | ug/L |
| 000127184 | TETRACHLOROETHENE | --- | 0.50U | ug/L |
| 108-87-2 | METHYLCYCLOHEXANE | --- | 0.50U | ug/L |
| 000124481 | DIBROMOCHLOROMETHANE | --- | 0.50U | ug/L |
| 000106934 | 1,2-DIBROMOETHANE | --- | 0.50U | ug/L |
| 000591786 | 2-HEXANONE | --- | 5.0U | ug/L |
| 000108907 | CHLOROBENZENE | --- | 0.50U | ug/L |
| 000630206 | 1,1,1,2-TETRACHLOROETHANE | --- | 0.50U | ug/L |
| 100-41-4 | ETHYLBENZENE | --- | 0.50U | ug/L |
| 001330207 | M/P-XYLENE | --- | 0.50U | ug/L |
| 000095476 | O-XYLENE | --- | 0.50U | ug/L |

Refer to Page 1 for an explanation of Remark Codes

Report Date: 11/16/2006 9:31AM

Page 2 of 4



U.S. EPA Region 2 Laboratory
Data Report

Survey Name: Vestal Well 1-1 [10/06]

Project Number: 06100014

*Sorted By Sample ID

AH06006

Field/Station ID: INFLUENT

Date Received: 10/6/2006

Matrix: Aqueous

Sample Description:

Analysis Type: VOA SOM1.1-TRACE GCMS AQUEOUS

| CAS Number | Analyte Name | Result | Remark Codes | Units |
|------------|--|--------|--------------|-------|
| 000100425 | STYRENE | --- | 0.50U | ug/L |
| 000075252 | BROMOFORM | --- | 0.50U | ug/L |
| 000098828 | ISOPROPYLBENZENE | --- | 0.50U | ug/L |
| 000541731 | 1,3-DICHLOROBENZENE | --- | 0.50U | ug/L |
| 000106467 | 1,4-DICHLOROBENZENE | --- | 0.50U | ug/L |
| 000095501 | 1,2-DICHLOROBENZENE | --- | 0.50U | ug/L |
| 000096128 | 1,2-DIBROMO-3-CHLOROPROPANE | --- | 0.50U | ug/L |
| 000120821 | 1,2,4-TRICHLOROBENZENE | --- | 0.50U | ug/L |
| 000087616 | 1,2,3-TRICHLOROBENZENE | --- | 0.50U | ug/L |
| | ETHANE,1,2-DICHLORO-1,1,2-TRIFLU,RT=5.10 | 0.79 | NJ | ug/L |

AH06007

Field/Station ID: EFFLUENT

Date Received: 10/6/2006

Matrix: Aqueous

Sample Description:

Analysis Type: VOA SOM1.1-TRACE GCMS AQUEOUS

| CAS Number | Analyte Name | Result | Remark Codes | Units |
|------------|---------------------------------------|--------|--------------|-------|
| 75-43-4 | DICHLORODIFLUOROMETHANE | --- | 0.50U | ug/L |
| 000074873 | CHLOROMETHANE | --- | 0.50U | ug/L |
| 000075014 | VINYL CHLORIDE | --- | 0.50U | ug/L |
| 000074839 | BROMOMETHANE | --- | 0.50U | ug/L |
| 000075003 | CHLOROETHANE | --- | 0.50U | ug/L |
| 000075694 | TRICHLOROFLUOROMETHANE | --- | 0.50U | ug/L |
| 000075354 | 1,1-DICHLOROETHENE | --- | 0.50U | ug/L |
| 76-13-1 | 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE | --- | 0.50U | ug/L |
| 000075150 | CARBON DISULFIDE | --- | 0.50U | ug/L |
| 67-64-1 | ACETONE | --- | 5.0U L | ug/L |
| 79-20-9 | METHYL ACETATE | --- | 0.50U | ug/L |
| 75-09-2 | METHYLENE CHLORIDE | --- | 1.0U | ug/L |
| 000156605 | TRANS-1,2-DICHLOROETHENE | --- | 0.50U | ug/L |
| 001634044 | METHYL TERT-BUTYL ETHER | 0.59 | | ug L |
| 000075343 | 1,1-DICHLOROETHANE | --- | 0.50U | ug L |
| 000156592 | CIS-1,2-DICHLOROETHENE | --- | 0.50U L | ug L |
| 000078933 | 2-BUTANONE | --- | 5.0U | ug/L |



U.S. EPA Region 2 Laboratory
Data Report

Survey Name: Vestal Well 1-1 [10/06]

Project Number: 06100014

*Sorted By Sample ID

AH06007 Field/Station ID: EFFLUENT
Matrix: Aqueous
Sample Description:

Date Received: 10/6/2006

Analysis Type: VOA SOM1.1-TRACE GCMS AQUEOUS

| CAS Number | Analyte Name | Result | Remark Codes | Units |
|------------|-----------------------------|--------|--------------|-------|
| 000074975 | BROMOCHLOROMETHANE | --- | 0.50U | ug/L |
| 000067663 | CHLOROFORM | --- | 0.50U | ug/L |
| 71-55-6 | 1,1,1-TRICHLOROETHANE | --- | 0.50U | ug/L |
| 110-82-7 | CYCLOHEXANE | --- | 0.50U | ug/L |
| 000056235 | CARBON TETRACHLORIDE | --- | 0.50U | ug/L |
| 000071432 | BENZENE | --- | 0.50U | ug/L |
| 000107062 | 1,2-DICHLOROETHANE | --- | 0.50U | ug/L |
| 025323891 | TRICHLOROETHENE | --- | 0.50U | ug/L |
| 000078875 | 1,2-DICHLOROPROPANE | --- | 0.50U | ug/L |
| 75-27-4 | BROMODICHLOROMETHANE | --- | 0.50U | ug/L |
| 010061015 | CIS-1,3-DICHLOROPROPENE | --- | 0.50U | ug/L |
| 000108101 | 4-METHYL-2-PENTANONE | --- | 5.0U | ug/L |
| 000108883 | TOLUENE | --- | 0.50U | ug/L |
| 010061026 | TRANS-1,3-DICHLOROPROPENE | --- | 0.50U | ug/L |
| 000079005 | 1,1,2-TRICHLOROETHANE | --- | 0.50U | ug/L |
| 000127184 | TETRACHLOROETHENE | --- | 0.50U | ug/L |
| 108-87-2 | METHYLCYCLOHEXANE | --- | 0.50U | ug/L |
| 000124481 | DIBROMOCHLOROMETHANE | --- | 0.50U | ug/L |
| 000106934 | 1,2-DIBROMOETHANE | --- | 0.50U | ug/L |
| 000591786 | 2-HEXANONE | --- | 5.0U | ug/L |
| 000108907 | CHLOROBENZENE | --- | 0.50U | ug/L |
| 000630206 | 1,1,1,2-TETRACHLOROETHANE | --- | 0.50U | ug/L |
| 100-41-4 | ETHYLBENZENE | --- | 0.50U | ug/L |
| 001330207 | M/P-XYLENE | --- | 0.50U | ug/L |
| 000095476 | O-XYLENE | --- | 0.50U | ug/L |
| 000100425 | STYRENE | --- | 0.50U | ug/L |
| 000075252 | BROMOFORM | --- | 0.50U | ug/L |
| 000098828 | ISOPROPYLBENZENE | --- | 0.50U | ug/L |
| 000541731 | 1,3-DICHLOROBENZENE | --- | 0.50U | ug/L |
| 000106467 | 1,4-DICHLOROBENZENE | --- | 0.50U | ug/L |
| 000095501 | 1,2-DICHLOROBENZENE | --- | 0.50U | ug/L |
| 000096128 | 1,2-DIBROMO-3-CHLOROPROPANE | --- | 0.50U | ug/L |
| 000120821 | 1,2,4-TRICHLOROBENZENE | --- | 0.50U L | ug/L |
| 000087616 | 1,2,3-TRICHLOROBENZENE | --- | 0.50U L | ug/L |

Project Approval:

Date: 11-17-06

Refer to Page 1 for an explanation of Remark Codes

Report Date: 11/16/2006 9:31AM

