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July 2, 2012

Richard L. DuPilka, P.E. City of Poughkeepsie 62 Civic Center Plaza PO Box 300 Poughkeepsie, New York 12

Poughkeepsie, New York 12602 via EMAIL: rdupilka@cityofpoughkeepsie.com

Re: <u>Letter Report of Annual Operation and Maintenance Services</u> performed on the property

known as the "400 Block", 413-441 Main Street and 366-372 Mill Street,

City of Poughkeepsie, Dutchess County, New York

ESI File: CP9920.81

Dear Mr. DuPilka:

This <u>Letter Report of Annual Operation and Maintenance Services</u> (<u>Letter Report</u>) summarizes services performed by Ecosystems Strategies, Inc. (ESI) on the above-referenced property. Fieldwork was conducted in order to document all on-site engineering controls (ECs). Each EC is discussed below with attachments provided as appropriate.

1.0 Inspection of Barrier Layer

Description

A barrier layer was installed at the property in order to prevent potential contact with underlying on-site contaminated soils. The barrier layer consists of a minimum of two feet of certified clean fill placed over all contaminated areas not covered by asphalt or buildings. The majority of the property is covered by asphalt which appeared to be intact. Any areas not covered by asphalt were found to be covered with vegetation and/or landscaping materials.

Finding

ESI personnel visually inspected the barrier layer on May 7, 2012. No damage to the barrier layers were evident.

2.0 Inspection of Vapor Extraction System

Description

A sub-slab vapor extraction system was installed at the property in order to intercept accumulating vapors associated with on-site contaminated soils. Intercepted vapors are vented above the rooflines of the three, adjoining on-site buildings via three roof-mounted fans (one associated with each building.)

Finding

ESI personnel performed an inspection of the fans on May 7, 2012. All fans were observed to be functioning properly. Visual fail-safe alarms (indicator lights), associated with the roof-mounted fans are located near the property manager's office. The indicator lights will turn off in the event of a malfunction with the fans. The indicator lights were observed to be on during the 2012 inspection.



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3.0 <u>Groundwater Sampling</u>

3.1 Fieldwork Methodology

Groundwater samples were collected from monitoring wells MW-2R-2, MW-3, MW-4, MW-5R, and MW-6 on May 7, 2012 (see Monitoring Well Location Map). All wells were sampled utilizing dedicated tubing and a peristaltic pump. At least three (3) well volumes were purged from each well prior to sampling. Purgewater was screened for any indications of petroleum contamination (see Table 1, below).

All groundwater samples were collected in a manner consistent with New York State Department of Environmental Conservation (NYSDEC) sample collection protocols. Dedicated tubing was used at each sample location to avoid cross-contamination. Each groundwater sample was collected into laboratory-supplied glassware. After sample collection, the containers were kept cold and transported via courier to York Analytical Labs, Inc., a New York State Department of Health-approved laboratory (ELAP Certification Number 10854). Appropriate chain-of-custody procedures were followed.

Table 1: Field Observations

| Well ID | Depth of Well | Depth to Groundwater | Observations |
|---------|---------------|-------------------------|--|
| MW-2R-2 | 19.68' | 7.70' | Both bolts snapped. Blackish purge initially, then clearing. No evidence of contamination. |
| MW-3 | 17.30' | 9.50' | No well cover. Blackish purge initially, then quickly clearing. No evidence of contamination |
| MW-4 | 20.45' | 13.05' | Light brown purge at start, then quickly clearing. No evidence of contamination. |
| MW-5R | 15.00' | 13.20' | Blackish purge initially, then quickly clearing. No evidence of contamination. |
| MW-6 | 14.78' | 6.65' | Clear purge. No evidence of contamination. |

3.2 Laboratory Analysis

One groundwater sample was collected at each monitoring well location and submitted for analysis of volatile organic compounds (VOCs) using USEPA Method 8260, and total and dissolved RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver) and MTBE using various USEPA methods. Complete laboratory results are included as Attachment C.

3.3 Guidance Levels

The term "guidance level", as defined in this <u>Letter Report</u>, refers to the concentration of a particular contaminant above which remedial actions are considered more likely. The overall objective of setting guidance levels is to assess the integrity of on-site groundwater relative to conditions that are likely to present a threat to public health, given the existing and probable future uses of the site.

The guidance levels identified in this <u>Letter Report</u> for groundwater are determined based on the NYSDEC's <u>Division of Water Technical and Operational Guidance Series</u>, <u>Ambient Water Quality Standards and Guidance levels and Groundwater Effluent Limitations (TOGS) 1.1.1, June 1998</u> and subsequent NYSDEC memoranda. All compounds referenced below are presented with their respective guidance levels.



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3.4 Laboratory Results

A discussion of the results of groundwater sampling at the property is presented below (data summary tables are provided as Attachment B).

VOCs

A low-level concentration of methyl tertiary butyl ether (MTBE, guidance level 10 μ g/L) was detected at MW-3 (5.2 μ g/L). A note from the lab states that MTBE was detected below the reporting limit but greater than or equal to the Method Detection Limit (MDL); therefore, the result is an estimated concentration.

Methylene chloride was detected in all wells. Methylene chloride is common laboratory containment and this was also found in the associated batch blank.

TOTAL RCRA METALS

Low-level concentrations of the following total RCRA metals were detected: barium (guidance level 1,000 μ g/L) was detected in all samples (peak concentration 206 μ g/L at MW-2R-2, average concentration124.2 μ g/L); chromium (guidance level 50 μ g/L) was detected at MW-5R (5 μ g/L); lead (guidance level 25 μ g/L) was detected at MW-5R (5 μ g/L). No other total RCRA metals were detected at any other sample location.

DISSOLVED RCRA METALS

Low-level concentrations of dissolved barium were detected in all samples (peak concentration 186 μ g/L at MW-2R-2, average concentration 112.6 μ g/L). No other dissolved RCRA metals were detected in any other sample.

3.5 Comparison with Previous Data

VOCs

Elevated and low-level concentrations of several VOCs were first detected at the property during sampling at monitoring well MW-2R (no longer present; replaced by MW-2R-2) in May 1999 and July 2003. Slightly elevated concentrations of MTBE were detected at MW-3 in April, August, December 2004, and April 2005. A low-level concentration of MTBE was also detected at MW-6 in January 2004, at MW-4 in April 2005, and at MW-3 in May 2008. The concentration of MTBE detected in MW-3 continues to decline when compared to previous sampling events. A low-level estimated concentration of sec-butylbenzene was detected during April 2009 sampling at MW-5R; sec-butylbenzene has not been detected at any location in the May 2011 or May 2012 sampling round. No other VOCs were detected at any other wells during any other sampling round.

PAHS

No PAHs were detected in any of the groundwater monitoring wells in any sampling round conducted between 2004 and 2006. As a result, no PAH analysis was performed during the current or previous two sampling events.

TOTAL RCRA METALS

Total arsenic detected in the wells has varied somewhat over the sampling events. Total arsenic was not detected at MW-2R-2 in May 2008; however, the concentration detected in April 2009 (15 μ g/L) was well



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below the peak concentration detected in April 2007 (71 μ g/L). Total arsenic was detected at MW-6 (9 μ g/L) for the first time since April 2004; however, the concentration detected was consistent with the previous detections (May 1999 and April 2004). No arsenic was detected during the May 2011 or the May 2012 sampling round in any location.

Total lead detected at MW-4 decreased from above the guidance level in May 2008 (51 μ g/L) to non-detectable levels during the current sampling event. Total lead was detected at concentrations consistent with previous sampling events at MW-3 during the April 2009 sampling event to non-detectable levels during the current sampling event. Total lead was detected at MW-5R (5 μ g/L) for the first time since May 2008; however, the concentration detected was consistent with the previous detections (March 2006 and May 2008). Total lead was not detected at any other location during the current sampling event.

Total barium increased slightly at MW-2R-2, and decreased slightly at all other wells when compared with the April 2009 sampling. The detected concentrations of barium remains significantly below its respective NYSDEC guidance levels at all wells.

Concentrations of total chromium remained consistent in MW-5R; however chromium was not detected at any other location during this sampling round.

Total mercury has not been detected at any location, with the exception of MW-2R-2, for at least the last six sampling rounds. A low-level concentration of total mercury (0.3 μ g/L) was detected at MW-2R-2 during the April 2007 sampling event, and has been at non-detectable levels for the last five sampling rounds. Total cadmium, selenium, and silver concentrations have remained at non-detectable levels for at least the past six sampling rounds.

DISSOLVED RCRA METALS

Dissolved barium continues to be detected at all of the sampling locations, with a slight increase in concentration observed at MW-2R-2 and MW-3. Decreases have been observed at all other locations. The concentrations of barium detected continue to be below the NYSDEC guidance value. Low-level dissolved metals previously detected in May 2008 (including chromium and mercury) were no longer detected in April 2009. During this sampling round, low-level dissolved chromium was detected at MW-5R. Dissolved arsenic, cadmium, selenium, silver, and lead have remained at non-detectable levels at all wells for at least the last six sampling rounds. The relatively low levels of dissolved metal concentrations relative to total metals suggests that contamination is limited to metal particulates suspended in the groundwater, which are likely to be the result of contaminated soil present in on-site soils beneath the barrier layer.

4.0 CONCLUSIONS

Annual site management activities were conducted (May 7, 2012) on the property known as the "400 Block" located in the City of Poughkeepsie, Dutchess County, New York. Investigative and analytical work was conducted to verify the integrity of the on-site barrier layer, to verify the proper functioning of on-site vapor extraction system fans, and to document the presence or absence of petroleum hydrocarbons and RCRA metals in on-site groundwater.

Data support the following conclusions:

- 1. The on-site barrier layer is intact and inspection will continue annually.
- 2. All vapor extraction system fans appeared to be functioning properly. The roof-mounted fans and associated visual fail safe alarms (located near the property manager's office) should be inspected by on-site personnel on a monthly basis.



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- 3. A low-level concentration of MTBE was detected at only one on-site monitoring well (MW-3) during the most recent sampling. The concentration of MTBE was slightly higher than the May 2009 sample, but remains below guidance levels. An estimated low-level concentration of secbutylbenzene was detected below its guidance level at MW-5R during May 2008 sampling. No sec-butylbenzene was detected during the current sampling round. No other VOCs have been detected at any of the other on-site monitoring wells during any other sample round. A slight elevation in concentrations of total RCRA metals was detected in groundwater at the locations MW-2R-2 and MW-5R. A low-level concentration of one dissolved RCRA metal (barium) is still present in all on-site wells. These data suggest that the overall condition of the on-site groundwater is generally improving, and that VOC and RCRA metal concentrations are not at levels warranting further remediation. It is recommended that groundwater monitoring frequency be modified from annually to once every two years and to modify the analyte list to remove RCRA metals completely. The rationale for sampling is that sufficient data have been generated to conclude that low grade contamination exists on the Site but such contamination does not represent a threat to on-Site users or off-site properties.
- 4. MW-3 was missing its external cover at the time of sample collection. A new monitoring well cover was provided and is being replaced.

5.0 **RECOMMENDATIONS**

The following recommendations are made:

- NYSDEC should be petitioned to modify the groundwater monitoring frequency from annually to once every two years and to modify the analyte list to remove RCRA metals completely.
- NYSDEC should be petitioned to modify the EC inspections frequency from annually to once every two years.

Please review this information and call me at (845) 452-1658 should you have any questions or comments.

Sincerely,

ECOSYSTEMS STRATEGIES, INC.

That & Catto

Paul H. Ciminello President

PHC:ndc

cc: M. Mason, NYSDEC - via Email: mamason@gw.dec.state.ny.us

File

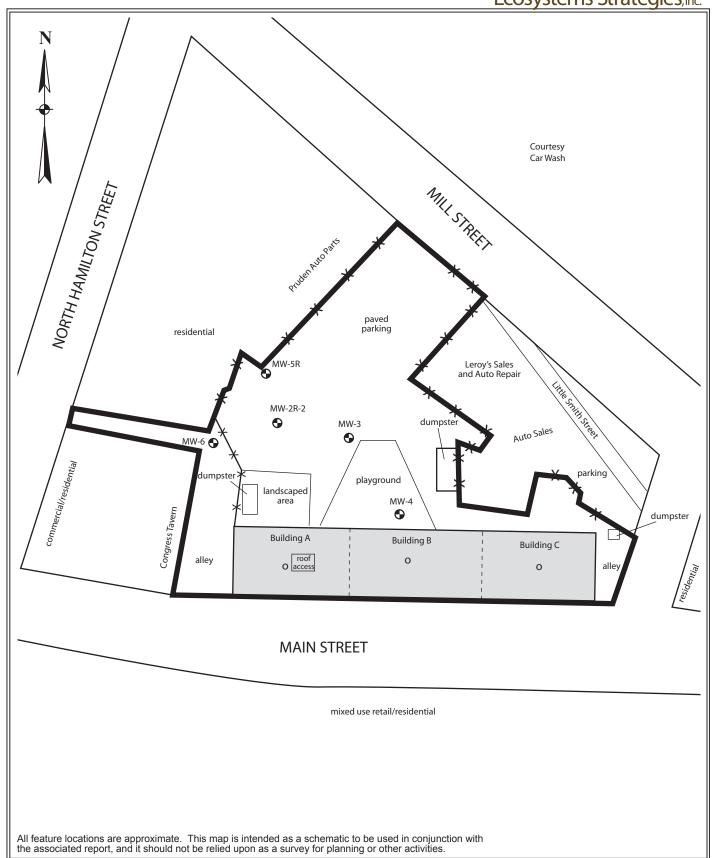
Attachments:

A Monitoring Well Location Map

B Data Summary Tables

C Laboratory Results (May 2012)

Ecosystems Strategies, Inc.



Monitoring Well Location Map

400 Block Property 413-441 Main Street and 336-372 Mill Street City of Poughkeepsie, Dutchess County, New York subject property border
monitoring well location
O SSDS vent pipe in roof

chain link fence

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June 2012

Scale: 1" = 75' approximately

Attachment A

Table 2A: Summary of VOCs and PAHs in Groundwater

All data provided in µg/L

| | | | | | | | | | | | | | | Sample Id | lentificat | ion | | | | | | | | | | | |
|------------------------------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|-----------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| VOCs (Method 8260) | Guidance | | | | | | MV | V-2R-2 | | | | | | | | | | | | | MW-3 | | | | | | |
| | Levels | Apr-04 | Aug-04 | Dec-04 | Apr-05 | Oct-05 | Mar-06 | Apr-07 | May-08 | Apr-09 | Apr-10 | May-11 | May-12 | July-03 | Jan-04 | Apr-04 | Aug-04 | Dec-04 | Apr-05 | Oct-05 | Mar-06 | Apr-07 | May-08 | Apr-09 | Apr-10 | May-11 | May-12 |
| Benzene | 0.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| n-Butylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bromomethane | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | 7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloromethane | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tert-Butylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethylene (Total) | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-Isopropyltoluene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 5 | ND | 3.9 J,B | 7.1 J,B | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3.9 J,B | 5.2 J,B |
| Isopropylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MTBE | 10 | ND | ND | ND | ND | 16 | 27 | 17 | 19 | ND | ND | ND | 8 | 5 | 5.7 | 3.2 J | 3.2 J |
| Naphthalene | 10 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| n-Propylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloro-ethylene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| P-& m-Xylene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

| | | | | | | | | | | | | Sampl | e Identifi | cation | | | | | | | | | | |
|------------------------------|----------|----|----|--------|--------|--------|--------|--------|--------|--------|---------|-------|------------|----------|--------|--------|--------|--------|--------|----|--------|--------|---------|---------|
| VOCs (Method 8260) | Guidance | | | | M | W-5R | | | | | | | | | | | MW-6 | | | | | | | |
| | Levels | | | Apr-07 | May-08 | Apr-09 | Apr-10 | May-11 | May-12 | May-99 | July-03 | | Apr-04 | Aug-04 | Dec-04 | Apr-05 | Oct-05 | Mar-06 | Apr-07 | ,, | Apr-09 | Apr-10 | , | |
| 2-Butanone | 50 | ND | ND | ND | ND | ND | ND | ND | 9. 4 J | ND | | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | 0.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| n-Butylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bromomethane | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | 7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloromethane | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tert-Butylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethylene (Total) | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | - J | ND | ND | npled | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | pun | ND | ND | ը | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p-Isopropyltoluene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | پ | ND | ND | sar | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ğ | ND | ND | ğ | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Isopropylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | = e | ND | ND | <u> </u> | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 5 | ND | ND | ND | ND | ND | ND | 11 B | 5 J,B | ND | ≱ | ND | ND | ×e | ND | ND | ND | ND | ND | ND | ND | ND | 7.0 J,B | 5,2 J,B |
| MTBE | 10 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ing | 1 | ND | ng | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Naphthalene | 10 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ig. | ND | ND | ori: | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| n-Propylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | Mon | ND | ND | ni | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | 5 | ND | ND | ND | ND | 1 J | ND | ND | ND | ND | ≥ | ND | ND | Θ | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloro-ethylene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| P-& m-Xylene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1 | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:

Guidance levels based on Title 6 NYCRR Part 703 Water Quality Standards or NYSDEC Division of Water TOGS 1.1.1 (June 1998) and subsequent NYSDEC Memoranda, as appropriate ND = Not Detected

Blue shade indicates detectable concentrations

Bold and green shade indicates exceedance of applicable regulatory criteria

J = Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value.

B = Analyte is found in the associated analysis batch blank

Wells MW-1, MW-2R, and MW 5 are no longer present. Data from these wells can be found in previous reports.



Table 2B: Summary of VOCs and PAHs in Groundwater

All data provided in µg/L

| VOCa (Mathed 9300) | Cuidons | | | | | | S | | ntification | | | | | |
|------------------------------|--------------------|--------|---------|--------|--------|--------|--------|--------------|--------------|--------|--------|--------|----------|---------|
| VOCs (Method 8260) | Guidance Levels | May-99 | July-03 | Aug-04 | Dec-04 | Apr-05 | Oct-05 | MW Mar-06 | -4 Apr-07 | May-08 | Apr-09 | Apr-10 | May-11 | May-12 |
| | | | , | | | | | | | _ | | | Way-11 | |
| Benzene | 0.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | _ | ND |
| n-Butylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Bromomethane | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Chloroform | 7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Chloromethane | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Tert-Butylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 1,2-Dichloroethylene (Total) | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | p un | ND |
| Ethylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |] in | ND |
| p-Isopropyltoluene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | T 4 | ND |
| Toluene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | not | ND |
| Methylene chloride | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | well | 5.9 J,B |
| Isopropylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| MTBE | 10 | ND | ND | ND | ND | 1 | ND | ND | ND | ND | ND | ND | nitoring | ND |
| Naphthalene | 10 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ğ | ND |
| n-Propylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | l ig | ND |
| sec-Butylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | Š | ND |
| 1,2,4-Trimethylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Tetrachloroethene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| Tetrachloro-ethylene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| 1,3,5-Trimethylbenzene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| o-Xylene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | | ND |
| P-& m-Xylene | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1 | ND |

Notes:

Guidance levels based on Title 6 NYCRR Part 703 Water Quality Standards or NYSDEC Division of Water TOGS 1.1.1 (June 1998) and subsequent NYSDEC Memoranda, as appropriate ND = Not Detected

J = Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value.

Wells MW-1, MW-2R, and MW 5 are no longer present. Data from these wells can be found in previous reports.

Blue shade indicates detectable concentrations

Bold and green shade indicates exceedance of applicable regulatory criteria

B = Analyte is found in the associated analysis batch blank



Table 3: Summary of Total RCRA Metals in Groundwater

All data provided in µg/L

| | | | | | | | | | | | | | | Sar | nple Identifi | cation | | | | | | | | | | | | |
|----------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Guidance | | | | | | MW-2F | | | | | | | | | | | | | | MW-3 | | | | | | | |
| Metals | Level | Apr-04 | Aug-04 | Dec-04 | Apr-05 | Oct-05 | Mar-06 | Apr-07 | May-08 | Apr-09 | Apr-10 | May-11 | May-12 | May-99 | July-03 | Jan-04 | Apr-04 | Aug-04 | Dec-04 | Apr-05 | Oct-05 | Mar-06 | Apr-07 | May-08 | Apr-09 | Apr-10 | May-11 | May-12 |
| Arsenic | 25 | 30 | 48 | 83 | 43 | 18 | 16 | 71 | ND | 15 | ND | ND | ND | 10 | ND | ND | 5 | 10 | ND | 7 | ND |
| Barium | 1,000 | 652 | 477 | 970 | 518 | 233 | 40 | 115 | 84 | 122 | 219 | 130 | 206 | 780 | 75 | 60 | 148 | 181 | 251 | 65 | 99 | 40 | 89 | 90 | 162 | 71 | 81 | 157 |
| Cadmium | 5 | ND | ND | 6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chromium | 50 | 20 | 18 | 29 | 15 | 12 | ND | 9 | 6 | ND | ND | ND | ND | 60 | 7 | 5 | 7 | 10 | 15 | 6 | 6 | ND | 8 | 8 | 9 | ND | ND | ND |
| Lead | 25 | 1,010 | 683 | 1,860 | 864 | 307 | 5 | 75 | 6 | ND | ND | ND | ND | 13 | 46 | ND | 108 | 275 | 574 | 16 | 31 | ND | 7 | 6 | 5 | ND | ND | ND |
| Mercury | 0.7 | 4.3 | 8 | 12.7 | 9.4 | 1.4 | ND | 0.3 | ND | ND | ND | ND | ND | ND | 5.2 | ND | ND | 0.8 | 2.7 | ND |
| Selenium | 10 | ND | 16 | 22 | ND | ND | ND | 11 | ND |
| Silver | 50 | ND | 20 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

| | | | | | | | | | | | Sam | ple Identi | fication | | | | | | | | | |
|----------|----------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Guidance | | | | | | | MW-4 | | | | | | | | | | MW. | -5R | | | |
| Metals | Level | May-99 | July-03 | Aug-04 | Dec-04 | Apr-05 | Oct-05 | Mar-06 | Apr-07 | May-08 | Apr-09 | Apr-10 | May-11 | May-12 | Oct-05 | Mar-06 | Apr-07 | May-08 | Apr-09 | Apr-10 | May-11 | May-12 |
| Arsenic | 25 | ND | ND | 11 | ND | t | ND | ND | ND | ND | ND | ND | 191 | ND | ND |
| Barium | 1,000 | 320 | 144 | 191 | 141 | 106 | 175 | 99 | 110 | 284 | 101 | 97 | 2 | 89 | 111 | 108 | 256 | 189 | 94 | ND | 102 | 76 |
| Cadmium | 5 | 1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | e e | ND |
| Chromium | 50 | ND | ND | 10 | 8 | 6 | 12 | 6 | 10 | 9 | 9 | ND | g ≥ | ND | 11 | 7 | 39 | 18 | 15 | 18 | 12 | 5 |
| Lead | 25 | 6 | 10 | 245 | 114 | 58 | 115 | 12 | 14 | 51 | ND | ND | i je jo | ND | ND | 6 | ND | 6 | ND | ND | ND | 5 |
| Mercury | 0.7 | ND | ND | 1.2 | 1 | 0.3 | ND | ND | ND | ND | ND | ND | <u>ē</u> . | ND |
| Selenium | 10 | ND | ND | 12 | ND |] 5 | ND |
| Silver | 50 | ND | 2.1 | ND |] ≥ | ND |

| | | | | | | | | MW-6 | | | | | | | |
|----------|--------|----------|--------|--------|------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| | May-99 | July-03 | Jan-04 | Apr-04 | Aug-04 | Dec-04 | Apr-05 | Oct-05 | Mar-06 | Apr-07 | May-08 | Apr-09 | Apr-10 | May -11 | May-12 |
| Arsenic | 8 | Ť | ND | 9 | با | ND | ND | ND | ND | ND | ND | 9 | 159 | ND | ND |
| Barium | 140 | 2 | 28 | 84 | 2 | 94 | 103 | 112 | 169 | 201 | 112 | 87 | ND | 98 | 85 |
| Cadmium | ND | llə/ | ND | ND | le l | ND | ND |
| Chromium | ND | y g | 7 | 10 | g w | 11 | 12 | 10 | 7 | 8 | 8 | 12 | ND | ND | ND |
| Lead | 60 | r in Q | ND | 26 | i i i | 38 | 18 | 9 | 5 | ND | 7 | ND | ND | ND | ND |
| Mercury | ND | ito | ND | ND | ito | ND | ND |
| Selenium | ND | <u> </u> | ND | ND |] <u>6</u> | ND | ND |
| Silver | ND | Σ | ND | ND | Ž | ND | ND |

Notes:

Guidance levels based on Title 6 NYCRR Part 703 Water Quality Standards or NYSDEC Division of Water TOGS 1.1.1 (June 1998) and subsequent NYSDEC Memoranda, as appropriate

ND = Not Detected

Wells MW-1, MW-2R, and MW 5 are no longer present. Data from these wells can be found in previous reports.

Blue shade indicates detectable concentrations

Bold and green shade indicates exceedance of applicable regulatory criteria

J = Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value.

B = Analyte is found in the associated analysis batch blank



Table 4: Summary of Dissolved RCRA Metals in Groundwater

All data provided in µg/L

| | | | | | | | | | | | | | | Sam | ple Identific | ation | | | | | | | | | | | | |
|----------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Guidance | | | | | | MW- | 2R-2 | | | | | | | | | | | | | MW-3 | | | | | | | |
| Metals | Level | Apr-04 | Aug-04 | Dec-04 | Apr-05 | Oct-05 | Mar-06 | Apr-07 | May-08 | Apr-09 | Apr-10 | Apr-11 | May-12 | May-99 | July-03 | Jan-04 | Apr-04 | Aug-04 | Dec-04 | Apr-05 | Oct-05 | Mar-06 | Apr-07 | May-08 | Apr-09 | Apr-10 | May-11 | May-12 |
| Arsenic | 25 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Barium | 1,000 | 170 | 96 | 49 | 55 | 74 | 25 | 68 | 69 | 98 | 197 | 117 | 186 | 700 | 44 | 57 | 111 | 95 | 82 | 58 | 83 | 36 | 80 | 81 | 150 | 63 | 68 | 156 |
| Cadmium | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chromium | 50 | 6 | 5 | 5 | ND | ND | ND | 6 | 7 | ND | ND | ND | ND | 60 | ND | ND | ND | 6 | 6 | 5 | 6 | ND | 8 | 7 | ND | ND | ND | ND |
| Lead | 25 | 5 | ND | ND | 5 | ND | ND | ND | ND | ND | 5 | ND |
| Mercury | 0.7 | ND | 0.9 | ND |
| Selenium | 10 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Silver | 50 | ND | 20 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

| | | | | | | | | | | | Sample Ide | entification | | | | | | | | | | 1 |
|----------|----------|--------|---------|--------|--------|--------|--------|--------|--------|--------|------------|--------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Guidance | | | | | | | MW-4 | | | | | | | | | | MW | /-5R | | | |
| Metals | Level | May-99 | July-03 | Aug-04 | Dec-04 | Apr-05 | Oct-05 | Mar-06 | Apr-07 | May-08 | Apr-09 | Apr-10 | May-11 | May-12 | Oct-05 | Mar-06 | Apr-07 | May-08 | Apr-09 | Apr-10 | May-11 | May-12 |
| Arsenic | 25 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ıt | ND |
| Barium | 1,000 | 280 | 134 | 90 | 76 | 76 | 98 | 85 | 99 | 138 | 96 | 94 | ou U | 86 | 111 | 98 | 252 | 182 | 82 | 174 | 97 | 63 |
| Cadmium | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | le l | ND |
| Chromium | 50 | ND | ND | 5 | 5 | 6 | 5 | 6 | 9 | 7 | ND | ND | y p | ND | 11 | ND | 38 | 17 | ND | 17 | 11 | ND |
| Lead | 25 | ND | ND | ND | ND | 6 | ND | ND | ND | ND | ND | ND | rin fou | ND |
| Mercury | 0.7 | ND | ND | ND | ND | ND | ND | ND | ND | 0.2 | ND | ND | ito | ND |
| Selenium | 10 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | Jon | ND |
| Silver | 50 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2 | ND |

| | | | | | | | Sam | ple Identific | ation | | | | | | |
|----------|--------|-----------|--------|--------|--------|--------|--------|---------------|--------|--------|--------|--------|--------|--------|--------|
| | | | | | | | | MW-6 | | | | | | | |
| Metals | May-99 | July-03 | Jan-04 | Apr-04 | Aug-04 | Dec-04 | Apr-05 | Oct-05 | Mar-06 | Apr-07 | May-08 | Apr-09 | Apr-10 | May-11 | May-12 |
| Arsenic | ND | ıt | ND | ND | ıt | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Barium | 80 | ou Ou | 18 | 51 | 2 | 40 | 45 | 59 | 132 | 191 | 96 | 61 | 144 | 81 | 70 |
| Cadmium | ND | le le | ND | ND | 를 p | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chromium | 1 | y g | 7 | 8 | b a | 6 | 8 | ND | 7 | 8 | 9 | ND | ND | ND | ND |
| Lead | ND | ri for | ND | ND | ᆲᇎ | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Mercury | ND | ito | ND | ND | ي إذ | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Selenium | ND | lor | ND | ND | Ī. | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Silver | ND | | ND | ND | | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:

Guidance levels based on Title 6 NYCRR Part 703 Water Quality Standards or NYSDEC Division of Water TOGS 1.1.1 (June 1998) and subsequent NYSDEC Memoranda, as appropriate

ND = Not Detecte

J = Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value. B = Analyte is found in the associated analysis batch blank

Wells MW-1, MW-2R, and MW 5 are no longer present. Data from these wells can be found in previous reports.

Blue shade indicates detectable concentrations

Bold and green shade indicates exceedance of applicable regulatory criteria



Technical Report

prepared for:

Ecosystems Strategies, Inc. 24 Davis Avenue Poughkeepsie, NY 12603 Attention: Adam Lee

Report Date: 5/8/2008 Re: Client Project ID: CP9920.81 York Project No.: 08050101

CT License No. PH-0723

New Jersey License No. CT-005

New York License No. 10854





Report Date: 5/8/2008 Client Project ID: CP9920.81 York Project No.: 08050101

Ecosystems Strategies, Inc.

24 Davis Avenue Poughkeepsie, NY 12603 Attention: Adam Lee

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on 05/01/08. The project was identified as your project "CP9920.81".

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

Analysis Results

| Client Sample ID | | | MW-2R-2 | | MW-3 | |
|------------------------------|------------|-------|--------------|-----|--------------|-----|
| York Sample ID | | | 08050101-01 | | 08050101-02 | |
| Matrix | | | WATER | | WATER | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Volatiles, 8021+MTBE | SW846-8260 | ug/L | | | | |
| 1,1,1,2-Tetrachloroethane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,1,2-Trichloroethane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,1-Dichloroethane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,1-Dichloroethylene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,1-Dichloropropylene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2,3-Trichlorobenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2,3-Trichloropropane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2,4-Trichlorobenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2,4-Trimethylbenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2-Dibromo-3-chloropropane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2-Dibromoethane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2-Dichlorobenzene | | , , | Not detected | 5.0 | Not detected | 5.0 |
| 1,2-Dichloroethane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2-Dichloroethylene (Total) | | | Not detected | 5.0 | Not detected | 5.0 |



| Client Sample ID | Ţ <u>-</u> | | MW-2R-2 | | MW-3 | T |
|--------------------------------------|---|--|----------------------------|--|----------------------------|--------------|
| York Sample ID | 1 | | 08050101-01 | | 08050101-02 | |
| Matrix | | | WATER | | WATER | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| 1,2-Dichloropropane | ATACTION | Units | Not detected | 5.0 | Not detected | 5.0 |
| 1,3,5-Trimethylbenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,3-Dichloropropane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,4-Dichlorobenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| 2,2-Dichloropropane | | | Not detected | 5.0 | Not detected | 5.0 |
| 2-Chlorotoluene | | 1 | Not detected | 5.0 | Not detected | 5.0 |
| 4-Chlorotoluene | | | Not detected | 5.0 | Not detected | 5.0 |
| Benzene | | 1 | Not detected | 5.0 | Not detected | 5.0 |
| Bromobenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| Bromochloromethane | 1 | | Not detected | 5.0 | Not detected | 5.0 |
| Bromodichloromethane | | | Not detected | 5.0 | Not detected | 5.0 |
| Bromoform | | | Not detected | 5.0 | Not detected | 5.0 |
| Bromomethane | | | Not detected | 5.0 | Not detected | 5.0 |
| Carbon tetrachloride | | <u> </u> | Not detected | 5.0 | Not detected | 5.0 |
| Chlorobenzene | · · · · · · · · · · · · · · · · · · · | · | Not detected | 5.0 | Not detected | 5.0 |
| Chloroethane | | | Not detected Not detected | 5.0 | Not detected | 5.0 |
| Chloroform | | | Not detected | 5.0 | Not detected | 5.0 |
| Chloromethane | | | Not detected | 5.0 | Not detected | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | 5.0 | Not detected | 5.0 |
| Dibromochloromethane | | | Not detected Not detected | 5.0 | Not detected | 5.0 |
| Dibromomethane | | | Not detected | 5.0 | Not detected | 5.0 |
| Dichlorodifluoromethane | | | Not detected | 5.0 | Not detected | 5.0 |
| Ethylbenzene | | | Not detected Not detected | 5.0 | Not detected Not detected | 5.0 |
| Hexachlorobutadiene | | | Not detected | 5.0 | Not detected Not detected | 5.0 |
| Isopropylbenzene | | | Not detected Not detected | 5.0 | Not detected | 5.0 |
| Methyl tert-butyl ether (MTBE) | | | Not detected | 5.0 | 8 | 5.0 |
| Methylene chloride | | | Not detected | 5.0 | Not detected | 5.0 |
| Naphthalene | | | Not detected | 5.0 | Not detected | 5.0 |
| n-Butylbenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| n-Propylbenzene | , | ļ | Not detected | 5.0 | Not detected | 5.0 |
| o-Xylene | | | Not detected | 5.0 | Not detected | 5.0 |
| p- & m-Xylenes | | | Not detected Not detected | 5.0 | Not detected | 5.0 |
| p-K ni-Xylenes p-Isopropyltoluene | | | Not detected | 5.0 | Not detected | 5.0 |
| sec-Butylbenzene | | | Not detected Not detected | 5.0 | Not detected Not detected | 5.0 |
| Styrene | · · · · · · · · · · · · · · · · · · · | | Not detected Not detected | 5.0 | Not detected Not detected | 5.0 |
| tert-Butylbenzene | | | Not detected Not detected | | Not detected Not detected | |
| | , | | | 5.0 | | 5.0 |
| Tetrachloroethylene Toluene | | | Not detected | 5.0 | Not detected | 5.0 |
| | ļ | | Not detected | 5.0 | Not detected | 5.0 |
| trans-1,3-Dichloropropylene | | | Not detected | 5.0 | Not detected | 5.0 |
| Trichloroethylene | | | Not detected | 5.0 | Not detected | 5.0 |
| Trichlorofluoromethane | | | Not detected | 5.0 | Not detected | 5.0 |
| Vinyl chloride | 037046 60105 | /\ | Not detected | 5.0 | Not detected | 5.0 |
| Metals, Total RCRA List | SW846-6010B | mg/L | 31-4 1 4 4 1 | 0.004 | 3T-4 1 4 1 1 | 0.004 |
| Arsenic, total | | | Not detected | 0.004 | Not detected | 0.004 |
| Barium, total | | | 0.084 | 0.005 | 0.090 | 0.005 |
| Cadmium, total | | | Not detected | 0.005 | Not detected | 0.005 |
| Chromium, total | | | 0.006 | 0.005 | 0.008 | 0.005 |
| Lead, total | | | 0.006 | 0.003 | 0.006 | 0.003 |
| Selenium, total | | | Not detected | 0.005 | Not detected | 0.005 |
| Silver, total | | | Not detected | 0.005 | Not detected | 0.005 |



| Client Sample ID | | | MW-2R-2 | | MW-3 | |
|-----------------------------------|-------------|-------|--------------|--------|--------------|--------|
| York Sample ID | | | 08050101-01 | | 08050101-02 | |
| Matrix | | | WATER | | WATER | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Metals, Total RCRA List Dissolved | SW846 | mg/L | | | | |
| Arsenic, dissolved | | | Not detected | 0.010 | Not detected | 0.010 |
| Barium, dissolved | | | 0.069 | 0.005 | 0.081 | 0.005 |
| Cadmium, dissolved | | | Not detected | 0.005 | Not detected | 0.005 |
| Chromium, dissolved | | | 0.007 | 0.005 | 0.007 | 0.005 |
| Lead, dissolved | | | Not detected | 0.005 | Not detected | 0.005 |
| Selenium, dissolved | | | Not detected | 0.010 | Not detected | 0.010 |
| Silver, dissolved | | | Not detected | 0.005 | Not detected | 0.005 |
| Mercury, Dissolved | SW-846-7470 | mg/L | Not detected | 0.0002 | Not detected | 0.0002 |
| Mercury | SW846-7470 | mg/L | Not detected | 0.0002 | Not detected | 0.0002 |

| Client Sample ID | | | MW-4 | | MW-5R | |
|------------------------------|------------|-------|--------------|-----|--------------|-----|
| York Sample ID | | | 08050101-03 | | 08050101-04 | |
| Matrix | | | WATER | | WATER | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Volatiles, 8021+MTBE | SW846-8260 | ug/L | | | | |
| 1,1,1,2-Tetrachloroethane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,1,2-Trichloroethane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,1-Dichloroethane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,1-Dichloroethylene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,1-Dichloropropylene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2,3-Trichlorobenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2,3-Trichloropropane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2,4-Trichlorobenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2,4-Trimethylbenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2-Dibromo-3-chloropropane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2-Dibromoethane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2-Dichlorobenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2-Dichloroethane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2-Dichloroethylene (Total) | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,2-Dichloropropane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,3,5-Trimethylbenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,3-Dichloropropane | | | Not detected | 5.0 | Not detected | 5.0 |
| 1,4-Dichlorobenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| 2,2-Dichloropropane | | | Not detected | 5.0 | Not detected | 5.0 |
| 2-Chlorotoluene | | | Not detected | 5.0 | Not detected | 5.0 |
| 4-Chlorotoluene | | | Not detected | 5.0 | Not detected | 5.0 |
| Benzene | | | Not detected | 5.0 | Not detected | 5.0 |
| Bromobenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| Bromochloromethane | | | Not detected | 5.0 | Not detected | 5.0 |
| Bromodichloromethane | | | Not detected | 5.0 | Not detected | 5.0 |
| Bromoform | | | Not detected | 5.0 | Not detected | 5.0 |
| Bromomethane | | | Not detected | 5.0 | Not detected | 5.0 |
| Carbon tetrachloride | | | Not detected | 5.0 | Not detected | 5.0 |
| Chlorobenzene | | | Not detected | 5.0 | Not detected | 5.0 |
| Chloroethane | | | Not detected | 5.0 | Not detected | 5.0 |



| Client Sample ID | <u> </u> | | MW-4 | | MW-5R | |
|-----------------------------------|--|--|----------------------------|--------------|----------------------------|------------|
| York Sample ID | | + | 08050101-03 | | | <u> </u> |
| Matrix | <u> </u> | - | WATER | | 08050101-04 WATER | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Chloroform | Method | Units | Not detected | 5.0 | Not detected | 5.0 |
| Chloromethane | | | Not detected | 5.0 | Not detected | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | 5.0 | Not detected | 5.0 |
| Dibromochloromethane | | | Not detected | 5.0 | Not detected | 5.0 |
| Dibromomethane | | | Not detected | 5.0 | Not detected | 5.0 |
| Dichlorodifluoromethane | | | Not detected | 5.0 | Not detected | 5.0 |
| Ethylbenzene | | | Not detected | 5.0 | Not detected Not detected | 5.0 |
| Hexachlorobutadiene | | | Not detected | 5.0 | Not detected Not detected | 5.0 |
| Isopropylbenzene | | - | Not detected | 5.0 | Not detected Not detected | 5.0 |
| Methyl tert-butyl ether (MTBE) | | | Not detected | 5.0 | Not detected | 5.0 |
| Methylene chloride | | ļ | Not detected Not detected | | | |
| Naphthalene | | - | Not detected Not detected | 5.0 | Not detected Not detected | 5.0 |
| n-Butylbenzene | | | Not detected Not detected | 5.0 | Not detected Not detected | 5.0 |
| n-Propylbenzene | | | Not detected | 5.0 | Not detected Not detected | 5.0 |
| o-Xylene | | | Not detected Not detected | 5.0 | | |
| p- & m-Xylenes | + | | Not detected | 5.0 | Not detected | 5.0 |
| p-Isopropyltoluene | | ļ | Not detected Not detected | | Not detected | 5.0 |
| sec-Butylbenzene | | ļ | Not detected | 5.0 | Not detected | 5.0 |
| Styrene | | | | <u> </u> | Not detected | 5.0 |
| tert-Butylbenzene | | | Not detected Not detected | 5.0 | Not detected | 5.0 |
| Tetrachloroethylene | | ļ <u>.</u> | Not detected Not detected | | Not detected | 5.0 |
| Toluene | | | Not detected Not detected | 5.0 | Not detected Not detected | 5.0 5.0 |
| trans-1,3-Dichloropropylene | | | Not detected | 5.0 | Not detected Not detected | 5.0 |
| Trichloroethylene | | | Not detected | 5.0 | Not detected Not detected | 5.0 |
| Trichlorofluoromethane | | - | Not detected | 5.0 | Not detected Not detected | 5.0 |
| Vinyl chloride | | <u> </u> | Not detected | 5.0 | Not detected Not detected | 5.0 |
| Metals, Total RCRA List | SW846-6010B | mg/L | | 3.0 | Not detected | 3.0 |
| Arsenic, total | 5 W 040-0010B | IIIg/L | Not detected | 0.004 | Not detected | 0.004 |
| Barium, total | <u> </u> | - | 0.284 | 0.004 | 0.189 | 0.004 |
| Cadmium, total | | | Not detected | 0.005 | Not detected | |
| Chromium, total | | | 0.009 | 0.005 | 0.018 | 0.005 |
| Lead, total | | | 0.051 | 0.003 | 0.006 | 0.003 |
| Selenium, total | | | Not detected | 0.005 | Not detected | |
| Silver, total | | | | | | 0.005 |
| Metals, Total RCRA List Dissolved | SW846 | mg/I | Not detected | 0.005 | Not detected | 0.005 |
| Arsenic, dissolved | D W 040 | mg/L | Not detected | 0.010 | Not detected | 0.010 |
| Barium, dissolved | | | | 0.010 | Not detected | 0.010 |
| Cadmium, dissolved | | · | 0.138 | 0.005 | 0.182 | 0.005 |
| Chromium, dissolved | | | Not detected | 0.005 | Not detected | 0.005 |
| Lead, dissolved | | | 0.007 | 0.005 | 0.017 | 0.005 |
| Selenium, dissolved | | | Not detected | 0.005 | Not detected | 0.005 |
| | | | Not detected | 0.010 | Not detected | 0.010 |
| Silver, dissolved | CM 046 7470 | 17 | Not detected | 0.005 | Not detected | 0.005 |
| Mercury, Dissolved | SW-846-7470 | mg/L | Not detected | 0.0002 | Not detected | 0.0002 |
| Mercury | SW846-7470 | mg/L | 0.0002 | 0.0002 | Not detected | 0.0002 |



| CR and Committee ID | 1' | 1 | NAME OF | Γ |
|--|--|--------------|----------------------------|----------|
| Client Sample ID | | ļ | MW-6 | |
| York Sample ID | | | 08050101-05 | <u> </u> |
| Matrix | 75.65 - (1) - 1 | TY | WATER | NATOX |
| Parameter | Method SW846-8260 | Units | Results | MDL |
| Volatiles, 8021+MTBE | S W 840-8200 | ug/L | NT-+ d-++-d | 5.0 |
| 1,1,1,2-Tetrachloroethane | | | Not detected | 5.0 |
| 1,1,1-Trichloroethane | | | Not detected Not detected | 5.0 |
| 1,1,2,2-Tetrachloroethane | | | Not detected Not detected | 5.0 |
| 1,1,2-Trichloroethane 1,1-Dichloroethane | <u> </u> | | Not detected Not detected | 5.0 |
| 1,1-Dichloroethylene | | ļ . | Not detected Not detected | 5.0 |
| 1,1-Dichloropropylene | | | Not detected Not detected | 5.0 |
| 1,2,3-Trichlorobenzene | | | Not detected Not detected | 5.0 |
| 1,2,3-Trichloropropane | | | Not detected | 5.0 |
| 1,2,4-Trichlorobenzene | | | Not detected Not detected | 5.0 |
| 1,2,4-Trimethylbenzene | | | Not detected | 5.0 |
| 1,2-Dibromo-3-chloropropane | | | Not detected | 5.0 |
| 1,2-Dibromoethane | | | Not detected | 5.0 |
| 1,2-Dichlorobenzene | | | Not detected | 5.0 |
| 1,2-Dichloroethane | | | Not detected | 5.0 |
| 1,2-Dichloroethylene (Total) | | ļ | Not detected | 5.0 |
| 1,2-Dichloropropane | | - | Not detected | 5.0 |
| 1,3,5-Trimethylbenzene | | - | Not detected Not detected | 5.0 |
| 1,3-Dichlorobenzene | | | Not detected | 5.0 |
| 1,3-Dichloropropane | | - | Not detected | 5.0 |
| 1,4-Dichlorobenzene | | | Not detected | 5.0 |
| 2,2-Dichloropropane | | | Not detected | 5.0 |
| 2-Chlorotoluene | | | Not detected | 5.0 |
| 4-Chlorotoluene | | | Not detected | 5.0 |
| Benzene | | | Not detected | 5.0 |
| Bromobenzene | | | Not detected | 5.0 |
| Bromochloromethane | | | Not detected | 5.0 |
| Bromodichloromethane | | | Not detected | 5.0 |
| Bromoform | | | Not detected | 5.0 |
| Bromomethane | | | Not detected | 5.0 |
| Carbon tetrachloride | | | Not detected | 5.0 |
| Chlorobenzene | | | Not detected | 5.0 |
| Chloroethane | | | Not detected | 5.0 |
| Chloroform | | | Not detected | 5.0 |
| Chloromethane | | | Not detected | 5.0 |
| cis-1,3-Dichloropropylene | | | Not detected | 5.0 |
| Dibromochloromethane | | | Not detected | 5.0 |
| Dibromomethane | | | Not detected | 5.0 |
| Dichlorodifluoromethane | | | Not detected | 5.0 |
| Ethylbenzene | | | Not detected | 5.0 |
| Hexachlorobutadiene | 1 | | Not detected | 5.0 |
| Isopropylbenzene | | | Not detected | 5.0 |
| Methyl tert-butyl ether (MTBE) | | | Not detected | 5.0 |
| Methylene chloride | | | Not detected | 5.0 |
| Naphthalene | | | Not detected | 5.0 |
| n-Butylbenzene | | | Not detected | 5.0 |
| n-Propylbenzene | | | Not detected | 5.0 |
| o-Xylene | | | Not detected | 5.0 |
| p- & m-Xylenes | | · · · · · · | Not detected | 5.0 |
| p-Isopropyltoluene | | | Not detected | 5.0 |



| Client Sample ID | | | MW-6 | |
|-----------------------------------|-------------|-------|--------------|--------|
| York Sample ID | | | 08050101-05 | |
| Matrix | | | WATER | _ |
| Parameter | Method | Units | Results | MDL |
| sec-Butylbenzene | | | Not detected | 5.0 |
| Styrene | | | Not detected | 5.0 |
| tert-Butylbenzene | | | Not detected | 5.0 |
| Tetrachloroethylene | | | Not detected | 5.0 |
| Toluene | | | Not detected | 5.0 |
| trans-1,3-Dichloropropylene | | | Not detected | 5.0 |
| Trichloroethylene | | | Not detected | 5.0 |
| Trichlorofluoromethane | | | Not detected | 5.0 |
| Vinyl chloride | | | Not detected | 5.0 |
| Metals, Total RCRA List | SW846-6010B | mg/L | | |
| Arsenic, total | | | Not detected | 0.004 |
| Barium, total | · | | 0.112 | 0.005 |
| Cadmium, total | | | Not detected | 0.005 |
| Chromium, total | | | 0.008 | 0.005 |
| Lead, total | | | 0.007 | 0.003 |
| Selenium, total | | | Not detected | 0.005 |
| Silver, total | | | Not detected | 0.005 |
| Mercury | SW846-7470 | mg/L | Not detected | 0.0002 |
| Metals, Total RCRA List Dissolved | SW846 | mg/L | | |
| Arsenic, dissolved | | | Not detected | 0.010 |
| Barium, dissolved | | | 0.096 | 0.005 |
| Cadmium, dissolved | | | Not detected | 0.005 |
| Chromium, dissolved | | | 0.009 | 0.005 |
| Lead, dissolved | | | Not detected | 0.005 |
| Selenium, dissolved | | | Not detected | 0.010 |
| Silver, dissolved | | | Not detected | 0.005 |
| Mercury, Dissolved | SW-846-7470 | mg/L | Not detected | 0.0002 |

Units Key:

For Waters/Liquids: mg/L = ppm; ug/L = ppb

For Soils/Solids: mg/kg = ppm; ug/kg = ppb

Notes for York Project No. 08050101

- 1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the <u>REPORTING LIMIT</u> and is based upon the lowest standard utilized for calibration where applicable.
- 2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
- 3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
- 4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
- 5. All samples were received in proper condition for analysis with proper documentation.
- 6. All analyses conducted met method or Laboratory SOP requirements.
- 7. It is noted that no analyses reported herein were subcontracted to another laboratory.

Approved By

Robert Q. Bradley Managing Director Date: 5/8/2008

YORK

Analytical Laboratories, Inc.

120 Research Drive

Stratford, CT 06615 203.325.1371 FAX 203.357-0166

Page__1__ of __1__ 08050101 Field Chain-of-Custody Record

| 203.325.1371 FAX | FAX 203.357-0166 | | | | | | 1 2 1 | |
|----------------------------------|------------------|-----------|--------------|-------------------------|--------------------------------|----------------------|--|-------------------------------------|
| Company Name | v Name | Rec | Report to: | Invoice to: | e to: | Project ID/No. | J.X.W | 7 |
| Ecosystems Strategies Inc. | trategies Inc. | Ada | Adam Lee | BRE | RENDA | CP9920.81 | Samples Collected by (signature) | d by (signature) |
| į | | | | - | | | Adam Lee Name (printed) | Lee inted) |
| Sample No. | Location/ID | | Date Sampled | Sam Water S | ample Matrix Soil Air Other | | Analyses Requested | Container Desc. |
| | MW-2R-2 | | 5/1/2008 | × | | VOCs (8021) + MTBE , | VOCs (8021) + MTBE , Total and Dissolved RCRA Metals | 40 mL vial (x2), 1 L Amber jar (x3) |
| | MW-3 | | 5/1/2008 | × | | VOCs (8021) + MTBE , | VOCs (8021) + MTBE , Total and Dissolved RCRA Metals | 40 mL vial (x2), 1 L Amber jar (x3) |
| | AW-4 | | 5/1/2008 | × | | VOCs (8021) + MTBE , | VOCs (8021) + MTBE , Total and Dissolved RCRA Metals | 40 mL vial (x2), 1 L Amber jar (x3) |
| | MW-5R | | 5/1/2008 | × | | VOCs (8021) + MTBE , | VOCs (8021) + MTBE , Total and Dissolved RCRA Metals | 40 mL vial (x2), 1 L Amber jar (x3) |
| | MW-6 | | 5/1/2008 | × | : | VOCs (8021) + MTBE, | VOCs (8021) + MTBE , Total and Dissolved RCRA Metals | 40 mL vial (x2), 1 L Amber jar (x3) |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Chain-of-Custody Record | Record | | 26 | 7 | | 5-1-us Xa | 1. 4. K.J | Stilla me |
| Bottles Relinquished from Lab by | ed from Lab by | Date/Time | Sample | Samples Relinquished by | ed by | Date/Time | Samples received by | Date/Time |
| Bottles received in field by | | Date/Time | Sample | Samples Relinquished by | ed by | Date/Time S | Samples received in LAB by | Date/Time |
| Comments/Special Instructions | | | | | | 7.0.h | Turn-Around Time Requested-Specify Date Expected if RUSH Requested: DATE DUE FOR RUSH: | 4-Specify Date Expected |
| | | | | | | | X STANDARD | RUSH(Define) |