TANK CLOSURE SITE ASSESSMENT

AND

SITE REMEDIATION REPORT

For The Property Located At

91 North 12th Street Borough of Brooklyn Kings County, New York

NYSDEC Spill File: 9906462

Report Date: October 2009

ESI File: PB09025.55



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Prepared By:

Prepared For:

Ecosystems Strategies, Inc. 24 Davis Avenue Poughkeepsie, New York 12603

Elliot Prigozen 3109 Grand Avenue, PMB 298 Coconut Grove, FL. 33133

The undersigned has reviewed this <u>Tank Closure Site Assessment and Spill File Closure Report</u> and certifies to Elliot Prigozen that the information provided in this document is accurate as of the date of issuance by this office.

Any and all questions or comments, including requests for additional information, should be submitted to the undersigned.

Paul H hot

Paul H. Ciminello President



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Ecosystems Strategies, Inc.

1.0 INTRODUCTION

1.1 Purpose

This <u>Tank Closure Site Assessment and Site Remediation Report</u> (Report) summarizes all services (performed by Ecosystems Strategies, Inc. [ESI] personnel and/or designated subcontractors) associated with the excavation of previously identified contaminated soil near the northwest corner of the property (in the vicinity of monitoring well BK-10); contaminated soil beneath and southeast of the machine shop (in the vicinity of boring B-7); and, the closure in place of a previously unknown 3,000-gallon fuel-oil underground storage tank (UST) located on the property described in Section 1.2, below. This <u>Report</u> provides written documentation of all contaminated soil and tank closure procedures and documents the integrity of remaining on-site soils.

1.2 Site Location and Description

The subject property is located at 91 North 12th Street, Borough of Brooklyn, New York, and is occupied by a construction equipment rental business. The property is an approximately 1.8-acre, rectangular-shaped parcel having frontage on the northern side of North 12th Street, the southern side of North 13th Street, the southeastern side of Kent Avenue, and the northwestern side of Wythe Avenue. The property is located in a primarily industrial area east of the East River and is currently operated as a construction equipment rental business with on-site repair shops, warehouses/offices, and storage buildings. The facility formerly contained numerous aboveground tanks and twelve USTs, which have been removed with the exception of one 550-gallon gasoline UST which was closed in place. The specified portions of the property on which soil removal and tank closure activities were conducted (hereafter referred to as the "Site") consists of the northwest corner of the property in the vicinity of monitoring well BK-10 and the vicinity of the machine shop located in the central southern portion of the property. A Fieldwork Map indicating specific Site characteristics is located in Appendix A.

1.3 Limitations

This written analysis summarizes tank closure and soil removal activities conducted on specified portions of the above-referenced property and is not relevant to other portions of this property or any other property. This <u>Report</u> presents Site conditions as of the respective dates of tank closure and soil sampling/removal activities, and cannot be held accountable for activities or events resulting in contamination after the dates of fieldwork.

Services summarized in this <u>Report</u> were performed in accordance with generally accepted practices and established New York State Department of Environmental Conservation (NYSDEC) protocols. Unless specifically noted, the findings and conclusions contained herein must be considered not as scientific certainties, but as probabilities based on professional judgement.

1.4 Conditions of Concern

An ESI <u>Investigative Summary Report</u>, dated July 16, 2009 documented the following conditions of concern at the Site warranting remedial response:

- Localized free product present in monitoring well BK-10 (other monitoring wells in the immediate vicinity including BK-12, MW-3 and MW-4 had never been observed to contain free product);
- Elevated concentrations of volatile organic compounds (VOCs) present on-site in subsurface soils and groundwater to the southeast of the machine repair shop in the vicinity of boring B-7; and,



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• Free product (heavy oil) present in monitoring well MW-2 located inside the machine repair shop in the vicinity of a floor drain.

ESI subsequently prepared a <u>Remedial Action Work Plan</u> (<u>RAWP</u>) describing proposed remedial actions (see Section 1.5, below) to address these conditions of concern.

1.5 Objectives

The objectives of the fieldwork conducted by ESI were detailed in the <u>RAWP</u>, dated July 2009 and included:

- Excavation and off-site disposal of petroleum-contaminated soils southeast of the machine shop in the vicinity of boring B-7 and in the northwest corner of the Site in the vicinity of monitoring well BK-10;
- Post-excavation confirmatory endpoint sampling to document contaminant levels in remaining soils;
- Closure of any encountered underground tanks; and,
- Groundwater monitoring to document post-remedial VOC concentrations in wells downgradient of soil contamination southeast of the machine shop in the vicinity of B-7.

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2.0 SUMMARY OF FIELDWORK

2.1 Overview of Services

This <u>Report</u> documents the following fieldwork activities:

- Excavation and removal of contaminated soil in the northwestern corner of the Site in the vicinity of monitoring well BK-10;
- Excavation and removal of contaminated soil immediately southeast (in vicinity of B-7) and beneath the machine shop (in vicinity of MW-2);
- Closure in place of a previously unknown 3,000-gallon UST encountered in the machine shop, immediately southwest of MW-2;
- Inspection of soils surrounding the excavations and the UST for visual evidence of a petroleum release and screening of soils with a photoionization detector (PID);
- Collection of soil samples to document the presence or absence of remaining contamination in the vicinity of BK-10 and the UST; and,
- The collection of soil and groundwater samples in the vicinity of excavations conducted southeast of the machine shop around B-7.

Section 2.2 of this <u>Report</u> fully documents all tank closure activities and includes discussions on fieldwork methodology and observations. Section 2.3 documents the excavation of contaminated soil. Section 2.4 documents soil and groundwater sample collection procedures and Section 2.5 presents the findings of laboratory analysis of collected samples. Section 3.0 provides conclusions and recommendations for further actions based on these on-site activities.

2.2 Excavations in Machine Shop and Tank Closure

On August 21, 2009, during the excavation of a floor drain located immediately south of MW-2 (where free product had been previously identified), the north end of a 3,000-gallon UST was encountered. This section describes floor drain excavation and tank closure activities.

2.2.1 Site Preparation Services

A request for a complete utility markout of the property was submitted by ESI as required by New York State Department of Labor regulations. Confirmation of underground utility locations was secured and a field check of the utility markout was conducted prior to the initiation of fieldwork activities.

2.2.2 Subcontractors

Excavation services were provided by on-site personnel retained by the Client. Tank pump-out, cleaning and waste disposal services were provided by All State Power Vac, Inc. Laboratory services were subcontracted to York Analytical Laboratories, Inc. (York Laboratories), a New York State Environmental Laboratory Approval Program (ELAP) certified laboratory (ELAP Number 10854).

2.2.3 General Fieldwork Methodology

Excavation activities around the floor drain and closure of the tank were performed on August 21, 25 and 26, 2009 by ESI, and by designated subcontractors and Client's agents under ESI's overall supervision (see below). ESI personnel observed and documented all excavation



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activities and tank closure activities, and maintained independent field logs documenting fieldwork activities and observation (a Fieldwork Map is provided in Appendix A and relevant information from ESI logs is summarized in Table 1, Appendix E).

A MiniRAE 2000 (Model PGM 7600) PID was utilized by ESI personnel to screen all encountered material for the presence of any volatile organic vapors where appropriate. Prior to the initiation of fieldwork, this PID was properly calibrated to read parts per million calibration gas equivalents (ppm-cge) of isobutylene in accordance with protocols set forth by the equipment manufacturer.

2.2.4 Fieldwork Activities

Excavations of the area around a floor drain in the immediate vicinity of MW-2 in the machine shop encountered grossly contaminated soil between depths of 5 and 8 feet immediately below the floor drain. This material was excavated and stockpiled on 6 mil plastic sheeting pending off-site disposal. During these excavations MW-2 was destroyed and the northern end of a previously unknown UST was encountered at approximately 2 feet below surface grade (bsg). The tank was found to be located in a northeast-southwest orientation in the southern bay of the machine shop. Given the size of the tank, the presence of utility lines across the top of the tank, and the configuration of the machine shop walls, a determination was made that the UST could not be removed. After discussions with NYSDEC personnel, their approval was given to close the tank in place.

After the top of the tank had been cut open it was found to be full of #2 fuel oil. This liquid and residual sludge (3,000 gallons) was removed and the interior of the tank was steam cleaned (this process generated an additional 350 gallons of waste liquid that was pumped from the tank). Holes were cut in the bottom and sides of the tank to facilitate sample collection. Visual examination of the tank interior indicated no surface corrosion or pitting. Following the soil sampling described in Section 2.4 below, the tank was filled with concrete slurry.

Photographs of the tank closure process are included in Appendix B and liquid waste disposal documentation is provided in Appendix C.

2.3 Contaminated Soil Excavations in Vicinities of BK-10 and B-7

2.3.1 Subcontractors

Excavation services were provided by on-site personnel retained by the Client. Laboratory services were subcontracted to York Analytical Laboratories, Inc. (York Laboratories), a New York State Environmental Laboratory Approval Program (ELAP) certified laboratory (ELAP Number 10854).

2.3.2 General Fieldwork Methodology

Excavation activities were performed on August 21 and 25, 2009 by ESI, and by designated subcontractors and Client's agents under ESI's overall supervision (see below). ESI personnel observed and documented all excavation activities, and maintained independent field logs documenting fieldwork activities and observation (a Fieldwork Map is provided in Appendix A and relevant information from ESI logs is summarized in Table 1, Appendix E).

A MiniRAE 2000 (Model PGM 7600) PID was utilized by ESI personnel to screen all encountered material for the presence of any volatile organic vapors where appropriate. Prior to the initiation of fieldwork, this PID was properly calibrated to read parts per million calibration gas equivalents (ppm-cge) of isobutylene in accordance with protocols set forth by the equipment manufacturer.



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2.3.3 Fieldwork Activities

Excavations in Vicinity of Monitoring Well BK-10

Excavation of contaminated soils in the vicinity of BK-10 revealed the presence of a shallow (18") layer of dark-stained soil immediately beneath the asphalt. This material was excavated and stockpiled on 6 mil plastic for off-site disposal. Beneath the stained material, fill comprised of construction debris (predominantly bricks), was encountered to a depth of approximately seven bsg. This construction debris was free of field evidence of contamination and stockpiled beside the excavation to be used as backfill. Immediately beneath monitoring well BK-10, a brick lined channel was encountered at 10 feet below grade. Extending northwest-southeast for approximately 15 feet, the channel contained grossly contaminated sandy soil and debris (see Photographs 1 and 2, Appendix B). This material was excavated and stockpiled on 6-mil plastic pending off-site disposal. When all grossly contaminated material had been excavated, confirmatory endpoint samples were collected (see section 2.4, below). At the request of NYSDEC personnel present on-site, a sample of standing water from the base of the excavation was collected (sample BK-10-MW).

Excavations in Vicinity of Machine Shop

Excavation in the area immediately southeast of the machine shop found no field evidence of contamination until groundwater was encountered at approximately 7 feet bsg and in shallow soils at the far southeastern corner of the excavation where an area of heavy, bituminous material was encountered at between 2 and 3 feet bsg. Contaminated soil was excavated and stockpiled pending off-site disposal and confirmatory endpoint samples were collected prior to backfilling the excavation (see Section 2.4, below).

After soil sampling (see Section 2.4, below), excavations were backfilled with excavated material that exhibited no field evidence of contamination and crushed concrete imported to the Site by the client.

2.4 Sample Collection

2.4.1 Soil Sampling

Soil sampling conducted by ESI around the UST was performed consistent with NYSDEC's <u>Spill</u> <u>Prevention Operations Technology Series (SPOTS) Number 14 - Site Assessments at Bulk</u> <u>Storage Facilities</u>. Four soil samples TN, TS, TE, and TW were collected from the walls and two soil samples TBS and TBN were collected from soils beneath the base of the tank. Sample TN was also used to confirm the integrity of remaining soils after the completion of excavations beneath the floor drain in the machine shop. Four confirmatory endpoint samples BK-10-W, BK-10-E, BK-10-N, and BK-10-S were collected from the walls of the excavation at the location of former monitoring well BK-10 and two samples BK-10-NB and BK-10-SB were collected from the floor of the excavation. Four endpoint samples MSW, MSN, MSS, and MSE were collected from the walls of the excavation immediately southeast of the machine shop and two samples MSSB and MSNB were collected from the floor of the excavation.

2.4.2 Groundwater Sampling

The monitoring wells BK-4, BK-13, BK-14, BK-15, and MW-1 were purged prior to sample collection in order to restore the natural hydraulic connection between the well screen and surrounding soils, and to reduce turbidity and remove fines. Monitoring wells were purged (a minimum of three well volumes) using a peristaltic pump with dedicated tubing and were screened for the presence of any volatile vapors prior to sampling using the PID. At the request of NYSDEC personnel, a sample of ground water standing at the base of the BK-10 excavation (BK-10-MW) was collected directly into a 1 Liter amber jar and two 40 ml vials.

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All samples collected by ESI were obtained in a manner consistent with NYSDEC sample collection and decontamination protocols. All field personnel wore dedicated, disposable gloves, and all samples were placed into laboratory supplied glassware. The soil sample collection instrument was decontaminated, as warranted, prior to the collection of each material sample, to avoid cross-contamination between samples. Dedicated, disposable polyethylene bailers were used at each groundwater monitoring well to place water samples into laboratory supplied vials and jars (all vials used for the collection of water for VOC analysis contained hydrochloric acid as a preservative).

All sample containers were placed in a cooler immediately after sample collection and were maintained at cool temperatures. The soil samples were transported the following day via courier to the laboratory for chemical analyses. Appropriate chain-of-custody procedures were followed.

2.4.3 Observations

Excavations in Vicinity of Monitoring Well BK-10

Excavation wall soil samples collected from the groundwater interface were comprised of reddish brown sand mixed with fill (brick, asphalt, wood, and concrete fragments). Base soil samples were comprised of saturated, light brown/yellow sand. No field evidence of contamination and very low PID readings (between 0.1 and 7.0 ppm) were encountered in the excavation wall samples. Possible slight odor and staining and PID readings of 0.0-0.1 ppm were encountered in the base samples from the excavation.

Excavations in Vicinity of Machine Shop

Excavation wall and floor soil samples were comprised of slightly moist reddish brown sand with traces of fill and no odor or positive PID readings.

Excavation in Machine Shop and Closure in place of 3,000-gallon fuel oil UST

Tank wall and floor samples and the sample collected from beneath the floor drain were comprised of slightly moist reddish brown sand with traces of fill including concrete, brick, and asphalt fragments and no odor or positive PID readings.

2.5 Laboratory Analysis and Discussion

A discussion of the results of laboratory analysis of soil and water samples is presented below. Data Summary Tables are provided in Appendix F and complete laboratory data are provided in Appendix G.

2.5.1 Guidance Levels

The term "guidance level", as defined in this <u>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 soils and groundwater relative to conditions that are likely to present a threat to public health or the environment, given the existing and probable future uses of the Site. On-site soils or groundwater with contaminant concentrations exceeding these guidance levels are considered more likely to warrant remediation. No independent risk assessment was performed as part of this investigation.

The guidance levels identified in this <u>Report</u> for organic compounds in soils are based on "recommended cleanup objectives" contained in the NYSDEC's <u>Technical and Administrative</u> <u>Guidance Memorandum #4046</u> (<u>TAGM</u>), dated January 24, 1994, as modified by subsequent NYSDEC memoranda. Guidance levels for organic compounds in groundwater are based on NYSDEC <u>Division of Water Technical & Operational Guidance Series 1.1.1 Ambient Water</u>



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<u>Quality Standards and Guidance Values and Groundwater Effluent Limitations</u>, June 1998, as modified through June 2004 (<u>TOGS 1.1.1</u>). All data presented in this <u>Report</u> have been analyzed in accordance with applicable guidance levels and all detected compounds with their respective guidance levels are provided in the data summary tables.

2.5.2 Soil Samples

Samples TN, TS, TE, TW, TBS, TBN, BK-10-W, BK-10-E, BK-10-N, BK-10-S, BK-10-WB, BK-10-EB, MSW, MSN, MSS, MSE, MSSB, MSNB were submitted for analysis of polycyclic aromatic hydrocarbons (PAHs) using USEPA Method 8270. Samples TN, TBS, TBN, BK-10-W, BK-10-E, BK-10-N, BK-10-S, BK-10-W, BK-10-E, BK-10-WB, BK-10-EB, MSW, MSN, MSS, MSE, MSSB, and MSNB were submitted for analysis of VOCs using USEPA Method 8260 (STARS List only).

Vicinity of Monitoring Well BK-10

Samples BK-10-W, BK-10-E, BK-10-N, BK-10-S, BK-10-NB, and BK-10-SB

PAHs

Wall samples BK-10-W, BK-10-E, BK-10-N, and BK-10-S all contained the same four PAHs at concentrations above their respective guidance levels. Peak concentrations detected were in sample BK-10-S where benzo(a)anthracene was detected at a concentration of 1,000 μ g/Kg (guidance level 224 μ g/Kg); benzo(a)pyrene was detected at a concentration of 810 μ g/Kg (guidance level 61 μ g/Kg); chrysene was detected at 940 μ g/Kg (guidance level 400 μ g/Kg); and, dibenzo(a,h)anthracene was detected at 380 μ g/Kg (guidance level 14 μ g/Kg). Nine other PAH compounds were detected at concentrations below their respective guidance levels in the wall samples. No PAHs were detected at concentrations above laboratory minimum detection limits in the excavation bottom samples BK-10-NB and BK-10-SB.

VOCs

A very low estimated concentration of 2 µg/Kg p-& m-xylenes (guidance level 1,200 µg/Kg) was detected in sample BK-10-W. No other VOCs were detected above minimum detection limits in this sample nor in any of the other samples collected from the excavation in the vicinity of BK-10.

Vicinity of Machine Shop

Samples MSW, MSN, MSS, MSE, MSSB, and MSNB

PAHs

Sample MSE contained one PAH at a concentration above its guidance level. Benzo(a)pyrene was detected at an estimated concentration of 140 μ g/Kg (guidance level 61 μ g/Kg). Seven other PAHs were detected at concentrations below their respective guidance levels in the same sample. No PAHs were detected above minimum detection limits in samples MSW, MSN, MSS, MSSB, and MSNB.

VOCs

No VOCs were detected above laboratory minimum detection limits in any of these samples.

Machine Shop and Closure in Place of 3,000-gallon Fuel Oil UST

Samples TN, TS, TE, TW, TBS, TBN



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PAHs

One PAH was detected above the guidance level in sample TW. Benzo(a)pyrene was detected at a concentration of 130 μ g/Kg. Seven other PAHs were detected below their respective guidance levels in the same sample. Other samples from the tank grave including TS, TE, and TBS contained PAH compounds below their respective guidance levels. No PAHs were detected above laboratory minimum detection limits in samples TN and TBN.

VOCs

Several VOCs were detected above laboratory minimum detection limits in samples TBS and TBN, but none were detected above their respective guidance levels.

2.5.3 Groundwater Samples

Groundwater samples BK-10-MW (taken from base of BK-10 excavation), MW-1, BK-4, BK-13, BK-14, and BK-15 were submitted for analysis of VOCs using USEPA Method 8260. Sample BK-10-MW was also analyzed for PAHs using USEPA Method 8270.

PAHs

No PAH compounds were detected above laboratory minimum detection limits in sample BK-10-MW.

VOCS

Sixteen VOCs (primarily BTEX compounds) were detected at concentrations above their respective guidance levels and one VOC was detected below its guidance level in sample BK-13. Peak VOC concentrations of 1,2,4 trimethylbenzene at 1,400 μ g/L (guidance level 5 μ g/L); benzene at 570 μ g/L (guidance level 1 μ g/L); and, ethylbenzene at 530 μ g/L (guidance level 5 μ g/L) were detected in this sample. Five VOCs were detected above their respective guidance level s in sample BK-4 with a peak concentration of methyl tert-butyl ether (MTBE) detected at 69 μ g/L (guidance level10 μ g/L). Lower concentrations of five VOCs above guidance levels were detected in BK-14 with a peak VOC concentration of sec-butylbenzene detected at 41 μ g/L (guidance level 5 μ g/L).

Very low estimated concentrations of two VOCs were detected in samples from monitoring wells MW-1 and BK-15 1,3,5 trimethylbenzene and isopropylbenzene were both detected at 1 μ g/L (guidance levels for both compounds 5 μ g/L) in BK-15. MTBE was detected at an estimated concentration 3 μ g/L and tert-butylbenzene was detected at an estimated concentration of 1 μ g/L in BK-1. No VOCs were detected above minimum detection limits in sample BK-10-MW.

2.5.4 Discussion

Vicinity of Monitoring Well BK-10

Bottom samples from the excavation (BK-10-NB and BK-10 SB) contained no PAHs or VOCs above minimum detection limits. The sample of groundwater standing at the bottom of the excavation (BK-10-MW) similarly contained no VOCs or PAHs above minimum detection limits. Wall samples from the same excavation (BK-10-E, BK-10-W, BK-10-S, and BK-10-N) contained four PAHs above their respective guidance levels. No field evidence of contamination was noted during the collection of the wall samples (see Table 1, Appendix E), supporting the conclusion that the PAHs above guidance levels in the four wall samples are likely to be indicative of poor quality urban fill. These results support the conclusion that all grossly contaminated material from the vicinity of former monitoring well BK-10 has been removed.



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Vicinity of Machine Shop

One PAH was detected above guidance levels in one of the west wall sample (TW). No field evidence of contamination was noted during the collection of the samples (see Table 1, Appendix E), supporting the conclusion that the PAH above the guidance level is likely to be indicative of poor quality urban fill.

Machine Shop and Closure in Place of 3,000-gallon Fuel Oil UST

No field evidence of contamination was encountered during the collection of UST samples. PAHs detected in wall samples are likely to be indicative of poor quality urban fill.

Groundwater Samples

Laboratory analysis of groundwater samples collected hydrologically down gradient of the excavations performed southeast of the machine shop indicate the continued presence of VOCs at concentrations above guidance levels in wells BK-4, BK-13, and BK-14 and traces of very low concentrations of VOCs (below guidance levels) in samples BK-15 and MW-1. Peak total VOC concentrations of 3,966 μ g/L were detected in BK-13. Other total VOC concentrations include 210 μ g/L at BK-4, 133 μ g/L at BK-14, 4 μ g/L at MW-1, and 2 μ g/L at BK-15. A comparison of most recent data with that collected in May 2009 indicates that concentrations of VOCs have remained relatively stable. Data for wells BK-13 and BK-14 indicate that concentrations of VOCs in BK-14 have significantly reduced; however, concentrations have risen in BK-13. Additional rounds of groundwater sampling will be required in this vicinity to document post-remedial groundwater conditions.

2.6 Off-Site Disposal of Stockpiled Soil

All petroleum contaminated soil generated during on-site excavations has been properly disposed of off-site. A total of 85.5 tons of non-hazardous petroleum contaminated soil was removed from the Site on September 22, 2009. Soil removal was performed by PEI Disposal Group, Inc. and delivered to the Walter R. Earle Corp. repository in Jackson, New Jersey on the same day. Soil disposal manifests are included as Appendix D.



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3.0 CONCLUSIONS AND RECOMMENDATIONS

This office has completed the services summarized in Section 2.0 of this <u>Report</u> on specified portions of the property, located at 91 North 12th Street, Borough of Brooklyn, New York. Services included: excavation of petroleum contaminated soils from three locations; closure of one, 3,000-gallon fuel oil underground storage tank (UST); off-site disposal of petroleum-contaminated soils and tank closure related waste materials; the collection and laboratory analysis of eighteen confirmatory endpoint samples to document the integrity of remaining soils; and, the collection of six groundwater samples to document post-remedial groundwater quality.

Based on the services provided by this office and analytical data generated, the following conclusions and recommendations (shown in **bold**) are provided below.

1. One 3,000-gallon UST has been satisfactorily closed in place according to all New York State Department of Environmental Conservation (NYSDEC) regulations. The tank was properly drained of all remaining product, cleaned, and filled with concrete slurry. Contaminated soil encountered beneath a floor drain that had been the source of free product in monitoring well MW-2 has also been completely removed. Sampling of soils from beneath the walls and floor of the UST and at the base of the floor drain excavation indicated no field evidence of contamination. Laboratory results indicate the absence of petroleum contaminants at concentrations above guidance levels in all samples with one exception that is likely to be due to poor quality urban fill.

No further investigation recommended. It is recommended that this document be submitted to the NYSDEC for review and documentation purposes in conjunction with a revised NYSDEC Petroleum Bulk Storage Registration form.

2. Six confirmatory endpoint soil samples were collected from the walls and floor the excavation performed at the location of former monitoring well BK-10. Gross petroleum contamination was encountered in a brick-lined trench immediately below the former monitoring well. All such material was stockpiled and disposed of off -site. Laboratory analysis of the endpoint soil samples indicated no detectable concentrations of VOCs above minimum detection limits. PAHs were detected above guidance levels in wall samples, however, in the absence of field evidence of petroleum contamination, these PAHs exceedances are likely to be indicative of poor quality urban fill.

No further investigation or remediation of area around former monitoring well BK-10 is recommended. It is recommended that all monitoring wells at the western end of the Site (MW-3, MW-4, BK-7, BK-11, and BK-12) be closed in accordance with NYSDEC regulations. Information summarized in this <u>Report</u> is considered by this office to be adequate documentation of Site condition at this location.

3. Gross petroleum contamination was encountered in soils at the groundwater interface in excavations performed southeast of the machine shop. All such material was stockpiled and disposed of off-site. Six confirmatory endpoint soil samples were collected from the walls and floor the excavation. A low exceedance of one PAH is likely to be due be indicative of poor quality urban fill.

No further investigation or remediation of this area is recommended. Information summarized in this <u>Report</u> is considered by this office to be adequate documentation of Site conditions at this location.



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4. Sample analysis results of groundwater monitoring wells hydrologically downgradient of the machine shop excavation document the continued presence of concentrations of VOCs above guidance levels in wells BK-13, BK-14, and BK-4. Results from BK-15 and MW-1 indicate that off-site groundwater has not been impacted.

It is recommended that wells BK-13, BK-14, BK-4, BK-15, and MW-1 be monitored quarterly for one year to document groundwater conditions in this portion of the Site. After the fourth round of sampling, the NYSDEC will be petitioned for closure of Spill File # 9906462.

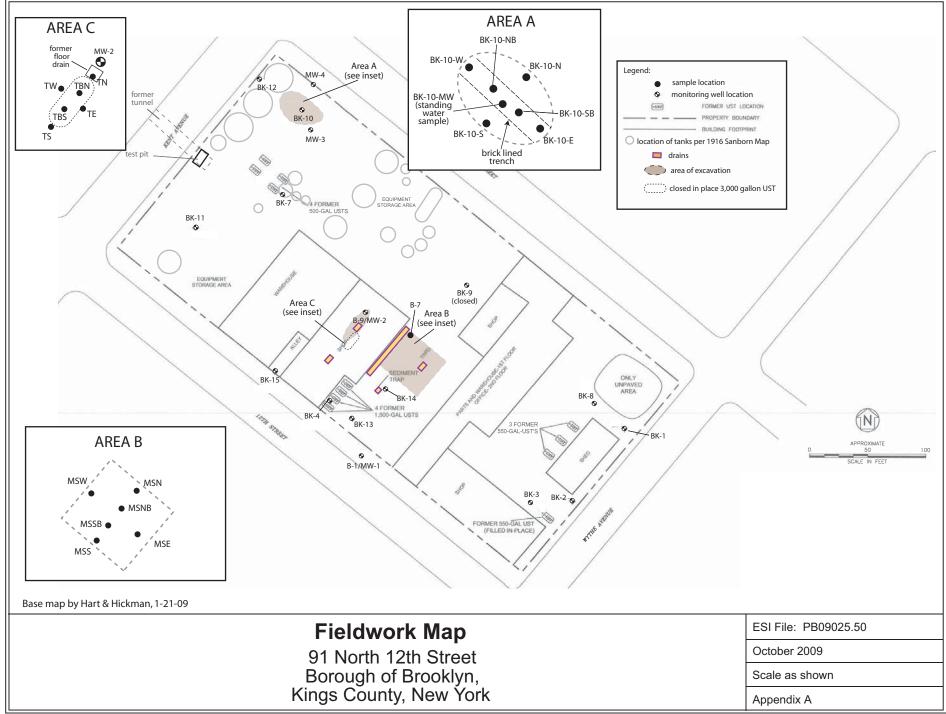
It is further recommended that all other on-site wells in eastern and southeastern portions of the Site including: BK-1, BK-2, BK-3, BK-7, BK-8, BK-11, BK, 12, MW-3, and MW-4 be closed in accordance with NYSDEC regulations.



APPENDIX A

Fieldwork Map







APPENDIX B

Photographs





1. Excavations immediately beneath monitoring well BK-10 revealed the presence of a brick-lined channel containing grossly contaminated soil at 7 feet below surface grade.



2. Brick-lined channel beneath BK-10





3. Excavation of contaminated soil immediately east of machine shop.



4. Drain excavated from floor of machine shop





5. Top of 3,000-gallon UST exposed beneath floor of machine shop.



6. Interior of 3,000-gallon tank after pump out and cleaning





7. 3,000-gallon UST being filled with concrete slurry



8. 3,000-gallon UST being filled with concrete slurry



APPENDIX C

Liquid-Waste Disposal Documentation

Straight Bill of Lading/ Nonhazardous Waste Manifest

• •

No.	1. Generator EPA ID # (if applicable)	2. Page 1 of	3. Emergen	ıg Number	umber				
A A A A A A A	N/A	and and an		-876-96		APV	0429	78	
AN AND	5. Generator Name and Mailing Address STIVAN HALANNA A.L.C. 58-64 HANNE AVA		Generator's	Site Address	(if different)				
ANNA AN	58-64 MANSVE AVA MASSON, N. 7. 11372				1150				
North Start	Generator Phone: (417) 750 · 4113		APV Job N	imber: (75)	-01213				
No.N	6. Transporter 1 Company Name	<u></u>	1		ber (if applicable 0.3812 (
AN AN	6. Transporter 1 Company Name				CC3 & 10) (Iber (if applicable				
						1			
1 1	B. Designated Facility Name and Mailing Address (Juma WAART OF Blues York) 2247 Richt-Agend Terrace Statem Island N.Y. Designated Facility Phone: (718)981-4600	v.			iber (If applicable) 0.09685				
ratoi	-			10. Conta	liners			12. U	Init
Generator	9a. 9b. Material Description HM (Proper shipping name required if DOT Hazard Material Content of State of the Network of Content of the Network of t	dous Material)		No.	Type	- 11. Tota	al Quantity	(Wt/V	
		y Water (.01			•	G	
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100 × 10	14. Special Handling Instructions and Additional Information				unite Care	(+ 3)	<u> </u>		
ANN -	14. Special Handling Instructions and Additional Information 96.16 - 90% 13 $A4cc$, $13 - 90%$	a Col) n Mi	940 H (3))		
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A A A A A	16. Generator/ Offeror's Certification: I hereby declare that the co	ntents of this consid	nment are fully	and accurately	described above	by the proper st	nice and ane and	are classi	iled.
AN THE	packaged, marked and laboled/placarded and are in all respects in	n proper condition fo	r transport acc	ording to appli	cable internation	al and national go	overnmental regul	ations.	
A A A A	CLLIDT 121607EA) Sig	nature				Month	Lay 1211	Year C
	17. Transporter 1 Acknowledgement of Receipt of Materials			مع منور. • مر	1		· ···		<u>I</u>
Transporter	Printed/ Typed Name	Sig المعلم المنسرة المؤتمين Sig	nature 💭	م معنی است کنی می از مسین ارتباط است می است می مسین ارتباط است است می می مسین ارتباط است است می می			Month	Day Z 🍏	Year (2]
rans	18. Transporter 2 Acknowledgement of Receipt of Materials					· · · · · ·			
1	Printed/ Typed Name	Sig	nature				Month	Day	Year
	19. Discrepancy Indication Space (to be completed by Designated	l Facility)	n	· · · · · · · · · · · · · · · · · · ·					<u> </u>
ïty									
Facility	20. Designated Facility: Certification of receipt of the materials co	overed by this shipple	- ng paper exceo	as noted in Ite	em 19				
-	Printed/ Typed Name		natura				Month	Day	Year
<u> </u>	۰ <u>ــــــــــــــــــــــــــــــــــــ</u>	I					<u>l</u>	i	<u> </u>

Straight Bill of Lading/ Nonhazardous Waste Manifest

		1. Generator EPA ID # (if applicable)	2. Page 1 of	3. Emergency Response #	4. Document Tracking	4. Document Tracking Number						
	•			800-876-9699	APV	0430	58					
1111111	Generate	TVAN Holding LLC 1/AN Holding LLC 64 Marrise Are 50eth NY 11378 tor Phones 117 150-4113		$ \begin{array}{c} Generator's Site Address (If differ for the second seco$	01212							
		porter 1 Company Name STCCTCS FOLUTEF V& C sporter 2 Company Name		US EPA ID Number (if a US EPA ID Number (if a	pplicable), pplicable),							
Generator CVVV	B. Design		1600		pplicable) 09685							
3ene	НМ	9b. Material Descriptic (Proper shipping name required if DOT Haz	ardous Material)	10. Containers No. T	ype 11. Total	Quantity	12. Unit (Wt/Vol)					
		Non Regulated Materia Non DOT / Non RC	COTH GREE	NT N		350	(****) (****					
2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	· · · · ·						;					
	-											
	14 Spac	cial Handling Instructions and Additional Information			-							
	GL.	10-90% Water, $10-90= 3% Sediment$	77; Ol		TRUCK J	£ 338))					
	• •	erator/ Offeror's Cortification: I hereby declare that the c ed, marked and labeled/placarded and are in all respects	ontents of this consignm In proper condition for tr Signat	ransport according to applicable inte	d above by the proper ship mational and national gove	romental regula	tions.					
V	6.	LLIOI TR GOZEN		8-17LL	مىيىتى يەرىپى يەرىپىغىنىيە بەيرىپى بەرچەر يەرىپى يەرىپى بەر يەرىپى بەر يەرىپى بەر يەرىپى يەرىپى	Month	Day Year					
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	Printed/	Typed Name repancy Indication Space (to be completed by Designate	Signat	ure		Month	Day Year					
cility			•	:								
Ë.		gnated Facility: Certification of receipt of the materials o Typed Name	overed by this shipping p			Month	Day Year					
			I	······			<u>ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا </u>					



APPENDIX D

Soil Disposal Documentation

PEI DISPOSAL GROUP, INC.

Log Number 19352

CCRéceipt Date

NON-HAZARDOUS	MATERIAL MANIFEST
GENE	RATOR
Generator Name SUNDELT REUTALS. Address 91 N. 1284. RKLYN, WY	Shipping Location
Address 91 N. 1284	AddressSAME.
RIKLYN, WY	
Description of Material	GROSS
Approval Kloud MARADOUS	Ś. TARE
2909011 PEPROLEUM. C.	NET
Number 0909011 PETROLEUM. CONTAMITATED SOIC NON DOT /RCES PER	, CORE, D. TONNAGE
any applicable state law, is not a hazardous waste as is not a DOT hazardous substance as defined by 49 0	to contain free liquid as defined by 40 CFR Part 260.10 or defined by 40 CFR Part 261 or any applicable state law, CFR Part 172 or any applicable state law, has been fully and is in proper condition for transportation according 1/22/69 mature Shipment Date
Transporter Name <u>WENCA</u> (DRONEL. Address <u>275 N·12 SF</u> . <u>VENDEL NJ</u> .	PORTER FAGIAN Mino. Driver Name (Print) FAGIAN Mino. Vehicle License No./State AM798F Truck Number 24.
I hereby certify that the above named material was picked up at the generator site listed above.	I hereby certify that the above named material was delivered without incident to the destination listed below. $09/22/09,$
Driver Signature Shipment Date	Driver Signature Delivery Date
DESTI	NATION
Site Name WALTER EARLE. COND. Address COUNTY RT. 547.	Phone No
Address COUNTY KT. DAI.	State Permit #
I hereby certify that the above named material has been ad -is-true-and accurate.	ccepted and to the best of my knowledge the foregoing
F > 1	7

GENERATOR

Name of Authorized Agent

2		$\hat{S}_{ij}^{(1)} = \hat{s}_{ij} \hat{s}_{ij}^{(1)} \hat{s}_{ij}^{(2)} $
PEID	DISPOSAL GROUP	, INC.
	NON-HAZARDOUS	MATERIAL MANIFEST
	1 A	ERATOR
Generator Name	unbelt Rentals	Shipping Location <u>59me</u>
ddress <u>91</u>	H 121H ST	Address
		Address
Bro	oklyn My	. <u> </u>
		CROSS
Approval	Description of Material	GROS
Approval Number	Non-Hazardovs Patrola	TARI
0909011	Contominated soil	
	Non DOTIRCRA Regula	NE NE
· · · · · · · · · · · · · · · · · · ·	-	TONNAGE
ienerator Authorized	Agent Name	gnature Shipment Date
μ. L		SPORTER
ransporter Name		Driver Name (Print) <u>Horae</u> Coronol Vehicle License No./State <u>AM</u> 535 A
ddress B	elleville MJ	Vehicle License No /State AH 535 A
·) · · · ·		
i —	······	Truck Number
hereby certify that/th icked up at the gene	he above named material was erator site listed above.	I hereby certify that the above named material was delivered without incident to the destination listed below. $9/22/2^{\circ}$
	OIQZIII4	$1/301 \times / 9/22/0$
river Signature	9/22/09 Shipmont Data	
	Shipment Date	Driversignature Delivery Date
1	Shipment Date DEST	Driver Signature Delivery Date
iite Name <u>Wal</u>	Shipment Date DEST	Driver Signature Delivery Date
ite Name <u>Wal</u>	Shipment Date DEST	Driver Signature Delivery Date
tite Name $\frac{W_a}{C_{VUN}}$	Shipment Date DEST	Driversignature Delivery Date
hereby certify that	Shipment Date DEST <u>t+F R Eorle Corp</u> Ty RT 547 K500 NJ 08527 the above named material has been a	Driver Signature Delivery Date
hereby certify that	Shipment Date DEST tit R Earle Corp. ty Rt 547 Koon NJ 08527 the above named material has been a	Driver Signature Delivery Date INATION Phone No State Permit #
hereby certify that	Shipment Date DEST tit R Earle Corp. ty Rt 547 Koon NJ 08527 the above named material has been a	Driver Signature Delivery Date INATION Phone No State Permit #
1	Shipment Date DEST $t_{4} + R = E_{0} r / e = C_{0} r \rho$ $t_{7} + R + 5 + 7$ $K_{50} + N + 5 - 0.8 + 5 + 7$ the above named material has been a	Driver Signature Delivery Date INATION Phone No State Permit #

Log Number 20555 PEI DISPOSAL GROUP, INC. NON-HAZARDOUS MATERIAL MANIFEST GENERATOR Generator Name SUBELT RENTHS Shipping Location SAME BROOKLYN NU Address _____ Address__ ------GROSS Description of Material NON. HAZAA DOOUS Approval Number TARE PETROJEUM 0909011 MTAMINATEDSOLL. NET WOW DOT /RCRA REGULATE TONNAGE I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to applicable regulations. 09/22/09 Shipment Date Generator Authorized Agent Name Signature TRANSPORTER Transporter Name SENCA COLONG SACOTO Driver Name (Print) Address 275N 12ST Vehicle License No./State 142 219 R NEWARK N Truck Number I hereby certify that the above named material was I hereby certify that the above named material was picked up at the generator site listed above. delivered without incident to the destination listed below. Aul SACOTO ACOTO 9/22/2Delivery Date **Driver Signature** Driver Signature DESTINATION Site Name WALTER REARDE CORPORATION Phone No. Address OUNIY KOUTE SYJ SACKSON State Permit # _ I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate. Name of Authorized Agent -Signature



APPENDIX E

Fieldwork Observation Table



Table 1: Field Observations

Sample	Location	Depth of	Soil	Groundwater	PID	Field
ID BK-10-N	Location Vicinity of BK-10. North wall of	Sample 7'	Characteristics Light brown sand mixed with fill, brick and asphalt	Encountered Interface at approximately	Reading 0.1	Observations No evidence of contamination
BK-10-S	excavation . Vicinity of BK-10.	7'	fragments Light brown sand mixed with	7'	7.0	No evidence of contamination
BK-10-3	South wall of excavation .	1	fill, brick and asphalt fragments	approximately 7'	7.0	
BK-10-W	Vicinity of BK-10. West wall of excavation .	7'	Light brown sand mixed with fill, brick and asphalt fragments	Interface at approximately 7'	0.3	No evidence of contamination
BK-10-E	Vicinity of BK-10. East wall of excavation .	7'	Sand mixed with fill, brick and asphalt fragments	Interface at approximately 7'	0.9	No evidence of contamination
BK-10- EB	Vicinity of BK-10. Eastern end of excavation base.	10'	Fine yellowish brown sand	Yes- saturated	0.0	Slight odor and possible staining
BK-10- WB	Vicinity of BK-10. Western end of excavation base.	10'	Fine yellowish brown sand	Yes- saturated	0.1	Slight odor and possible staining
MSN	North wall of excavation east of machine shop.	9'	Coarse reddish brown sand with concrete, brick and asphalt fragments	Interface at approximately 7'	0.0	No evidence of contamination
MSS	South wall of excavation east of machine shop.	9'	Coarse reddish brown sand with concrete, brick and asphalt fragments	Interface at approximately 7'	0.0	No evidence of contamination
MSE	East wall of excavation east of machine shop.	9'	Coarse reddish brown sand with concrete, brick and asphalt fragments	Interface at approximately 7'	0.0	No evidence of contamination
MSW	West wall of excavation east of machine shop.	9'	Coarse reddish brown sand with concrete, brick and asphalt fragments	Interface at approximately 7'	0.0	No evidence of contamination
MSNB	North base of excavation east of machine shop.	10'	Coarse reddish brown sand with concrete, brick and asphalt fragments	Moist	0.0	No evidence of contamination
MSSB	South base of excavation east of machine shop.	10'	Coarse reddish brown sand with concrete, brick and asphalt fragments	Moist	6.0	No evidence of contamination
TS	South wall of UST	6'	Coarse reddish brown sand with concrete, brick and asphalt fragments	No	0.0	No evidence of contamination
TN	North wall of UST and beneath drain	6'	Coarse reddish brown sand with concrete, brick and asphalt fragments	No	0.0	No evidence of contamination
TW	West wall of UST	6'	Coarse reddish brown sand with concrete, brick and asphalt fragments	No	0.0	No evidence of contamination
TE	East wall of UST	6'	Coarse reddish brown sand with concrete, brick and asphalt fragments	No	0.0	No evidence of contamination
TBN	North base of UST	8'	Coarse reddish brown sand with concrete, brick and asphalt fragments	Slightly moist	0.0	No evidence of contamination
TBS	South base of UST	8'	Coarse reddish brown sand with concrete, brick and asphalt fragments	Slightly moist	0.0	No evidence of contamination



APPENDIX F

Data Summary Tables



Table 1: PAHs in Soils

Results provided in µg/kg (parts per billion). Results shown in **bold** exceed guidance levels.

Compound	Guidance	suidance Sample Identification																	
(USEPA Method 8270)	Level	BK-10-N	BK-10-S	BK-10-E	BK-10-W	BK-10-NB	BK-10-SB	MSN	MSS	MSE	MSW	MSNB	MSSB	TS	TE	TW	TN	TBN	TBS
2-Methylnaphthalene	36,400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	41,000	ND	ND	130J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	50,000	210	200	250	250	ND	ND	ND	ND	ND	ND	ND	ND	90	ND	ND	ND	ND	ND
Benzo(a)anthracene	224*	770	1,000	740	860	ND	ND	ND	ND	140J	ND	ND	ND	220	120	210	ND	ND	120
Benzo(a)pyrene	61*	670	810	700	710	ND	ND	ND	ND	140J	ND	ND	ND	ND	ND	130	ND	ND	ND
Benzo(b)fluoranthene	1,100	690	890	890	940	ND	ND	ND	ND	170	ND	ND	ND	190	80	120	ND	ND	ND
Benzo(ghi)perylene	50,000	500	690	ND	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	1,100	600	870	840	920	ND	ND	ND	ND	170	ND	ND	ND	180	90	140	ND	ND	ND
Chrysene	400	720	940	690	800	ND	ND	ND	ND	120J	ND	ND	ND	170	160	230	ND	ND	140
Dibenzo(a h)anthracene	14*	320	380	250	290	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	50,000	1,300	1,400	1,300	1,400	ND	ND	ND	ND	130J	ND	ND	ND	380	160	270	ND	ND	350
Fluorene	50,000	ND	ND	90	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1 2 3-cd)pyrene	3,200	450	550	420	420	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	13,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50,000	650	800	830	830	ND	ND	ND	ND	80J	ND	ND	ND	190	90	200	ND	ND	81
Pyrene	50,000	1,200	1,300	1,100	1,300	ND	ND	ND	ND	120J	ND	ND	ND	390	140	260	ND	ND	340
Notes:																			
Guidance levels based on NYSDEC	TAGM 4046 R	ecommende	d Soil Cleanu	D Objectives	(RSCOs).														
* = Guidance level equals RSCO OR					(

ND = Not Detected



Table 2: VOCs in Soils (STARS List)Results provided in μ g/kg (parts per billion). Results shown in **bold** exceed guidance levels.

Compound	Guidance		Sample Identification													
(USEPA Method 8021)	Level	TBS	TBN	TN	BK-10-N	BK-10-S	BK-10-E	BK-10-W	BK-10 NB	BK-10 SB	MSN	MSS	MSE	MSW	MSSB	MSNB
1,2,4-Trimethylbenzene	10,000	230	40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	3,300	78	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5,500	150	65	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	2,300	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	13,000	30	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	10,000	23	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3,700	18	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	1,200	360	150	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-&m-Xylenes	1,200	770	470	ND	ND	ND	ND	2	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	10,000	39	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	10,000	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	10,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,500	17	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
otes:																
uidance levels based on NYSD	EC <u>TAGM 404</u>	<u>-6</u> .														
D = Not Detected																



Table 3: VOCs in Water

All results provided in μ g/L. Results in **bold** exceed designated guidance levels.

Compound Quidence		DI	/ 4			(40	DI			45	MW-1		
Compound (USEPA Method 8260)	Guidance Level	May-09	(-4 Sep-09	BK-10-MW* Aug-09	May-09	(-13 Sep-09	May-09	C-14 Sep-09	Mav-09	-15 Sep-09	May-09	V-1 Sep-09	
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1.1.1-Trichloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-Dichloroethane	5	ND	ND	ND	ND	8J	11J	ND	ND	ND	ND	ND	
1,1-Dichloroethylene	5	ND	ND	ND	ND	ND	81 (cis-)	ND	ND	ND	ND	ND	
1,1-Dichloropropylene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2,3-Trichloropropane	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2,3-Trimethylbenzene 1,2,4-Trichlorobenzene	5 5	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	
1,2,4-Trimethylbenzene	5	39	ND	ND	5	1.400	1.900	8	ND	ND	ND	ND	
1,2,4- Trimethylbenzene 1,2-Dibromo-3-chloropropane	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dibromoethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichloroethane	0.6	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	
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	26	76	2J	ND	1J	ND	ND	
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1-Chlorohexane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2,2-Dichloropropane	5 5	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	
2-Chlorotoluene 4-Chlorotoluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Benzene	1	9	5	ND	2J	570	740	2J	ND	ND	ND	ND	
Bromobenzene	5	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	
Bromochloromethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Bromodichloromethane	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Bromoform	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Bromomethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chloromethane	5	ND ND	ND ND	ND ND	ND ND	ND 44	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	
Cis-1,2-Dichloroethylene Cis-1,3-Dichloropropylene	5 0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Dibromomethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Ethylbenzene	5	ND	ND	ND	ND	530	ND	1J	ND	ND	ND	ND	
Hexachlorobutadiene	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Isopropylbenzene	5	29	36	ND	ND	99	85	ND	ND	1J	ND	ND	
Methylene chloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methyl tert-butyl ether (MTBE)	10	99	69	ND	8	87	130	5	ND	ND	2J	3J	
Naphthalene	10	3	3J	ND	39	430	260	5	ND	ND	4J	ND	
n-Butylbenzene	5 5	16 31	23 40	ND ND	15 43	78 150	32J 140	22 35	ND ND	ND ND	ND ND	ND ND	
n-Propylbenzene o-Xylene	5	31 ND	40 1J	ND	43 ND	29	140	ND	ND	ND	ND	ND	
p-&m-Xylenes	5	ND	ND	ND	1J	29	210	2J	ND	ND	ND	ND	
p-lsopropyltoluene	5	ND	ND	ND	1J	160	96	2J	ND	ND	18	ND	
sec-Butylbenzene	5	23	29	ND	32	60	46J	41	ND	ND	ND	ND	
Styrene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tert-Butylbenzene	5	ND	4J	ND	5	ND	ND	8	ND	ND	ND	1J	
Tetrachloroethylene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Toluene	5	ND	ND	ND	ND	86	50	ND	ND	ND	ND	ND	
trans-1,3-Dichloropropylene	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Trichloroethylene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Vinyl chloride	2 NE	ND	ND 210	ND 0	ND	7J	ND 3875	ND	ND	ND 2	ND 24	ND	
Total VOCs	NE	249	210	0	151	3966	3875	133	0	2	∠4	4	

Notes:

Notes. * Sample collected from groundwater standing in base of excavation at location of former monitoring well BK-10. Guidance levels based on NYSDEC Division of Water TOGS 1.1.1 (June 1998) and subsequent NYSDEC Memoranda NE = Not Established ND = Not Detected



APPENDIX G

Laboratory Data Reports



Technical Report

prepared for:

Ecosystems Strategies, Inc. 24 Davis Avenue Poughkeepsie, NY 12603 Attention: Richard Hooker

Report Date: 8/31/2009 *Re: Client Project ID: PB09025.55* York Project No.: 09080847

CT License No. PH-0723

New Jersey License No. CT-005

New York License No. 10854

PA Reg. 68-04440





Report Date: 8/31/2009 Client Project ID: PB09025.55 York Project No.: 09080847

Ecosystems Strategies, Inc.

24 Davis Avenue Poughkeepsie, NY 12603 Attention: Richard Hooker

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-ofcustody received in our laboratory on 08/24/09. The project was identified as your project "PB09025.55".

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).

Client Sample ID			BK-10-MW		
York Sample ID			09080847-01		
Matrix			WATER	-	
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, 8260 List	SW846-8260	ug/L			
1,1,1,2-Tetrachloroethane	_		Not detected		5.0
1,1,1-Trichloroethane			Not detected		5.0
1,1,2,2-Tetrachloroethane			Not detected		5.0
1,1,2-Trichloroethane			Not detected		5.0
1,1-Dichloroethane			Not detected		5.0
1,1-Dichloroethylene			Not detected		5.0
1,1-Dichloropropylene			Not detected		5.0
1,2,3-Trichlorobenzene			Not detected		5.0
1,2,3-Trichloropropane		_	Not detected		5.0
1,2,4-Trichlorobenzene			Not detected		5.0
1,2,4-Trimethylbenzene			Not detected		5.0
1,2-Dibromo-3-chloropropane			Not detected		5.0

Analysis Results



Client Sample ID	· · · · · · · · · · · · · · · · · · ·	1	BK-10-MW		<u>r</u>
York Sample ID			09080847-01	-	
Matrix			WATER		
Parameter	Method	Units	Result	Qualifier	RL
1,2-Dibromoethane			Not detected	Quuinter	5.0
1,2-Dichlorobenzene			Not detected	1	5.0
1,2-Dichloroethane			Not detected		5.0
1,2-Dichloroethylene (Total)		+	Not detected	<u> </u>	5.0
1,2-Dichloropropane			Not detected		5.0
1,3,5-Trimethylbenzene			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	1	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			Not detected		5.0
Isopropylbenzene			Not detected		5.0
Methylene chloride			Not detected		5.0
MTBE			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
sec-Butylbenzene			Not detected		5.0
Styrene			Not detected		5.0
tert-Butylbenzene			Not detected		5.0
Tetrachloroethylene			Not detected		5.0
Toluene		1	Not detected	· ····· · · · · · · · · · · · · · · ·	5.0
trans-1,3-Dichloropropylene			Not detected		5.0
Trichloroethylene			Not detected		5.0
Trichlorofluoromethane			Not detected		5.0
Vinyl chloride	1		Not detected		5.0



Client Sample ID			BK-10-MW		
York Sample ID			09080847-01	· · · · ·	1
Matrix			WATER		
Parameter	Method	Units	Result	Qualifier	RL
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/L			
Acenaphthene			Not detected		5.7
Acenaphthylene			Not detected		5.7
Anthracene			Not detected		5.7
Benzo[a]anthracene			Not detected		5.7
Benzo[a]pyrene		-	Not detected		5.7
Benzo[b]fluoranthene			Not detected		5.7
Benzo[g,h,i]perylene			Not detected		5.7
Benzo[k]fluoranthene			Not detected		5.7
Chyrsene			Not detected		5.7
Dibenz[a,h]anthracene			Not detected		5.7
Fluoranthene			Not detected		5.7
Fluorene			Not detected		5.7
Indeno[1,2,3-cd]pyrene			Not detected		5.7
Naphthalene			Not detected		5.7
Phenanthrene		1	Not detected		5.7
Pyrene			Not detected		5.7

Client Sample ID			BK-10-N		
York Sample ID		1	09080847-02	1	
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			Not detected		10.0
1,3,5-Trimethylbenzene			Not detected		10.0
Benzene			Not detected		2.00
Ethylbenzene			Not detected		10.0
Isopropylbenzene			Not detected		10.0
Methyl-tert-butyl ether			Not detected		10.0
Naphthalene			Not detected		10.0
n-Butylbenzene			Not detected		10.0
n-Propylbenzene			Not detected		10.0
o-Xylene			Not detected		10.0
p- & m- Xylenes			Not detected		10.0
p-Isopropyltoluene			Not detected		10.0
sec-Butylbenzene			Not detected		10.0
tert-Butylbenzene			Not detected		10.0
Toluene			Not detected		10.0
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected		165
Acenaphthylene			Not detected		165
Anthracene			210		165
Benzo[a]anthracene			770		165
Benzo[a]pyrene			670		165
Benzo[b]fluoranthene			690		165



Client Sample ID			BK-10-N		
York Sample ID			09080847-02		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Benzo[g,h,i]perylene			500		165
Benzo[k]fluoranthene			600		165
Chrysene			720		165
Dibenz[a,h]anthracene			320		165
Fluoranthene			1300		165
Fluorene			Not detected		165
Indeno[1,2,3-cd]pyrene			450		165
Naphthalene			Not detected		165
Phenanthrene			650		165
Pyrene			1200		165

Client Sample ID			BK-10-S		<u>}</u>
York Sample ID			09080847-03		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			Not detected		10.0
1,3,5-Trimethylbenzene			Not detected		10.0
Benzene			Not detected		2.00
Ethylbenzene			Not detected		10.0
Isopropylbenzene			Not detected		10.0
Methyl-tert-butyl ether			Not detected		10.0
Naphthalene			Not detected		10.0
n-Butylbenzene			Not detected		10.0
n-Propylbenzene			Not detected		10.0
o-Xylene			Not detected		10.0
p- & m- Xylenes			Not detected		10.0
p-Isopropyltoluene			Not detected		10.0
sec-Butylbenzene			Not detected		10.0
tert-Butylbenzene			Not detected		10.0
Toluene			Not detected		10.0
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected		165
Acenaphthylene			Not detected		165
Anthracene			200		165
Benzo[a]anthracene			1000		165
Benzo[a]pyrene			810		165
Benzo[b]fluoranthene			890		165
Benzo[g,h,i]perylene			690		165
Benzo[k]fluoranthene			870		165
Chrysene			940		165
Dibenz[a,h]anthracene			380	·····	165

Client Sample ID			BK-10-S		
York Sample ID			09080847-03		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Fluoranthene			1400		165
Fluorene			Not detected		165
Indeno[1,2,3-cd]pyrene			550		165
Naphthalene			Not detected		165
Phenanthrene			800		165
Pyrene			1300		165

Client Sample ID			ВК-10-Е		[.
York Sample ID			09080847-04		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			Not detected		10.0
1,3,5-Trimethylbenzene			Not detected		10.0
Benzene			Not detected		2.00
Ethylbenzene			Not detected		10.0
Isopropylbenzene			Not detected		10.0
Methyl-tert-butyl ether			Not detected		10.0
Naphthalene			Not detected		10.0
n-Butylbenzene			Not detected		10.0
n-Propylbenzene			Not detected		10.0
o-Xylene			Not detected		10.0
p- & m- Xylenes			Not detected		10.0
p-Isopropyltoluene			Not detected		10.0
sec-Butylbenzene			Not detected		10.0
tert-Butylbenzene			Not detected		10.0
Toluene			Not detected		10.0
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected		165
Acenaphthylene			130	J	165
Anthracene			250		165
Benzo[a]anthracene			740		165
Benzo[a]pyrene			700		165
Benzo[b]fluoranthene			890		165
Benzo[g,h,i]perylene			Not detected		165
Benzo[k]fluoranthene			840		165
Chrysene			690		165
Dibenz[a,h]anthracene			250		165
Fluoranthene			1300		165
Fluorene			90	J	165
Indeno[1,2,3-cd]pyrene			420		165
Naphthalene			Not detected		165
Phenanthrene			830		165
Pyrene			1100		165

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Client Sample ID	1		BK-10-W		
York Sample ID			09080847-05		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			Not detected		10.0
1,3,5-Trimethylbenzene			Not detected		10.0
Benzene			Not detected		2.00
Ethylbenzene			Not detected		10.0
Isopropylbenzene			Not detected		10.0
Methyl-tert-butyl ether			Not detected		10.0
Naphthalene			Not detected		10.0
n-Butylbenzene			Not detected		10.0
n-Propylbenzene			Not detected		10.0
o-Xylene			Not detected		10.0
p- & m- Xylenes			2	J	10.0
p-Isopropyltoluene			Not detected		10.0
sec-Butylbenzene			Not detected		10.0
tert-Butylbenzene			Not detected		10.0
Toluene			Not detected		10.0
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene		_	Not detected		165
Acenaphthylene			Not detected	-	165
Anthracene			250		165
Benzo[a]anthracene			860		165
Benzo[a]pyrene			710		165
Benzo[b]fluoranthene			940		165
Benzo[g,h,i]perylene			500		165
Benzo[k]fluoranthene			920		165
Chrysene			800		165
Dibenz[a,h]anthracene			290		165
Fluoranthene			1400		165
Fluorene			Not detected		165
Indeno[1,2,3-cd]pyrene			420		165
Naphthalene			Not detected		165
Phenanthrene			830		165
Pyrene			1300		165

Client Sample ID			MSN		
York Sample ID			09080847-06		_
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			Not detected		10.0
1,3,5-Trimethylbenzene			Not detected		10.0
Benzene			Not detected		2.00
Ethylbenzene			Not detected		10.0
Isopropylbenzene			Not detected		10.0
Methyl-tert-butyl ether			Not detected		10.0



Client Sample ID			MSN		
York Sample ID			09080847-06		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Naphthalene			Not detected		10.0
n-Butylbenzene			Not detected		10.0
n-Propylbenzene			Not detected		10.0
o-Xylene			Not detected		10.0
p- & m- Xylenes			Not detected		10.0
p-Isopropyltoluene			Not detected		10.0
sec-Butylbenzene			Not detected		10.0
tert-Butylbenzene			Not detected		10.0
Toluene			Not detected		10.0
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected		165
Acenaphthylene			Not detected		165
Anthracene			Not detected		165
Benzo[a]anthracene			Not detected		165
Benzo[a]pyrene			Not detected		165
Benzo[b]fluoranthene			Not detected		165
Benzo[g,h,i]perylene			Not detected		165
Benzo[k]fluoranthene			Not detected		165
Chrysene			Not detected		165
Dibenz[a,h]anthracene			Not detected		165
Fluoranthene			Not detected		165
Fluorene			Not detected		165
Indeno[1,2,3-cd]pyrene			Not detected		165
Naphthalene			Not detected		165
Phenanthrene			Not detected		165
Pyrene			Not detected		165

Client Sample ID			MSS		
York Sample ID			09080847-07		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			Not detected		10.0
1,3,5-Trimethylbenzene			Not detected		10.0
Benzene			Not detected		2.00
Ethylbenzene			Not detected		10.0
Isopropylbenzene			Not detected		10.0
Methyl-tert-butyl ether			Not detected		10.0
Naphthalene			Not detected		10.0
n-Butylbenzene			Not detected		10.0
n-Propylbenzene			Not detected		10.0
o-Xylene			Not detected		10.0
p- & m- Xylenes			Not detected		10.0
p-Isopropyltoluene			Not detected		10.0
sec-Butylbenzene			Not detected		10.0
tert-Butylbenzene			Not detected		10.0



Client Sample ID			MSS		
York Sample ID			09080847-07		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Toluene			Not detected		10.0
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected		165
Acenaphthylene			Not detected		165
Anthracene			Not detected		165
Benzo[a]anthracene			Not detected		165
Benzo[a]pyrene			Not detected		165
Benzo[b]fluoranthene			Not detected		165
Benzo[g,h,i]perylene			Not detected		165
Benzo[k]fluoranthene			Not detected		165
Chrysene			Not detected		165
Dibenz[a,h]anthracene			Not detected		165
Fluoranthene			Not detected		165
Fluorene			Not detected		165
Indeno[1,2,3-cd]pyrene			Not detected		165
Naphthalene			Not detected		165
Phenanthrene			Not detected		165
Pyrene			Not detected		165

Client Sample ID			MSE		
York Sample ID			09080847-08		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			4	J	10.0
1,3,5-Trimethylbenzene			2	J	10.0
Benzene			Not detected		2.00
Ethylbenzene			2	J	10.0
Isopropylbenzene			Not detected		10.0
Methyl-tert-butyl ether			Not detected		10.0
Naphthalene			Not detected		10.0
n-Butylbenzene			Not detected		10.0
n-Propylbenzene			Not detected		10.0
o-Xylene			22		10.0
p- & m- Xylenes			27		10.0
p-Isopropyltoluene			Not detected		10.0
sec-Butylbenzene			Not detected		10.0
tert-Butylbenzene			Not detected		10.0
Toluene			Not detected		10.0
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected		165
Acenaphthylene			Not detected		165
Anthracene			Not detected		165
Benzo[a]anthracene			140	J	165
Benzo[a]pyrene			140	J	165



Client Sample ID			MSE		
York Sample ID			09080847-08		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Benzo[b]fluoranthene			170		165
Benzo[g,h,i]perylene			Not detected		165
Benzo[k]fluoranthene			170		165
Chrysene			120	J	165
Dibenz[a,h]anthracene			Not detected		165
Fluoranthene			130	J	165
Fluorene			Not detected		165
Indeno[1,2,3-cd]pyrene			Not detected		165
Naphthalene			Not detected		165
Phenanthrene			80	J	165
Pyrene			120	J	165

Client Sample ID			MSW		[
York Sample ID			09080847-09		
Matrix		 · · · · ·	SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			Not detected		10.0
1,3,5-Trimethylbenzene			Not detected		10.0
Benzene			Not detected		2.00
Ethylbenzene			Not detected		10.0
Isopropylbenzene			Not detected		10,0
Methyl-tert-butyl ether			Not detected		10.0
Naphthalene			Not detected		10.0
n-Butylbenzene			Not detected		10.0
n-Propylbenzene			Not detected		10.0
o-Xylene			Not detected		10.0
p- & m- Xylenes			Not detected		10.0
p-Isopropyltoluene			Not detected		10.0
sec-Butylbenzene			Not detected		10.0
tert-Butylbenzene			Not detected		10.0
Toluene			Not detected		10.0
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected		165
Acenaphthylene			Not detected		165
Anthracene			Not detected		165
Benzo[a]anthracene			Not detected		165
Benzo[a]pyrene			Not detected		165
Benzo[b]fluoranthene			Not detected		165
Benzo[g,h,i]perylene			Not detected		165
Benzo[k]fluoranthene			Not detected		165
Chrysene			Not detected		165

Client Sample ID			MSW		
York Sample ID			09080847-09		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Dibenz[a,h]anthracene			Not detected		165
Fluoranthene			Not detected		165
Fluorene		1	Not detected		165
Indeno[1,2,3-cd]pyrene			Not detected		165
Naphthalene			Not detected		165
Phenanthrene			Not detected		165
Pyrene			Not detected		165

Client Sample ID			TN		
York Sample ID			09080847-10		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			Not detected		10.0
1,3,5-Trimethylbenzene			Not detected		10.0
Benzene			Not detected		2.00
Ethylbenzene			Not detected		10.0
Isopropylbenzene			Not detected		10.0
Methyl-tert-butyl ether			Not detected		10.0
Naphthalene			Not detected		10.0
n-Butylbenzene			Not detected		10.0
n-Propylbenzene			Not detected		10.0
o-Xylene			Not detected		10.0
p- & m- Xylenes			Not detected		10.0
p-Isopropyltoluene			Not detected		10.0
sec-Butylbenzene			Not detected		10.0
tert-Butylbenzene			Not detected		10.0
Toluene			Not detected		10.0
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected		165
Acenaphthylene			Not detected		165
Anthracene			Not detected		165
Benzo[a]anthracene			Not detected		165
Benzo[a]pyrene			Not detected		165
Benzo[b]fluoranthene			Not detected		165
Benzo[g,h,i]perylene			Not detected		165
Benzo[k]fluoranthene			Not detected		165
Chrysene			Not detected		165
Dibenz[a,h]anthracene			Not detected		165
Fluoranthene			Not detected		165
Fluorene			Not detected		165
Indeno[1,2,3-cd]pyrene			Not detected		165
Naphthalene			Not detected	}	165
Phenanthrene			Not detected		165
Pyrene			Not detected		165



Client Sample ID			BK-10 EB		
York Sample ID			09080847-11		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			Not detected		10.0
1,3,5-Trimethylbenzene			Not detected		10.0
Benzene			Not detected		2.00
Ethylbenzene			Not detected		10.0
Isopropylbenzene			Not detected		10.0
Methyl-tert-butyl ether			Not detected		10.0
Naphthalene			Not detected		10.0
n-Butylbenzene			Not detected		10.0
n-Propylbenzene			Not detected		10.0
o-Xylene			Not detected		10.0
p- & m- Xylenes			Not detected		10.0
p-Isopropyltoluene			Not detected		10.0
sec-Butylbenzene			Not detected		10.0
tert-Butylbenzene			Not detected		10.0
Toluene			Not detected		10.0
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected		165
Acenaphthylene			Not detected		165
Anthracene			Not detected		165
Benzo[a]anthracene			Not detected		165
Benzo[a]pyrene			Not detected		165
Benzo[b]fluoranthene			Not detected		165
Benzo[g,h,i]perylene			Not detected		165
Benzo[k]fluoranthene			Not detected		165
Chrysene			Not detected		165
Dibenz[a,h]anthracene			Not detected		165
Fluoranthene			Not detected		165
Fluorene			Not detected		165
Indeno[1,2,3-cd]pyrene			Not detected		165
Naphthalene			Not detected		165
Phenanthrene			Not detected	<u> </u>	165
Pyrene			Not detected		165

Client Sample ID			BK-10 WB		
York Sample ID			09080847-12	-	
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			Not detected		10.0
1,3,5-Trimethylbenzene			Not detected		10.0
Benzene			Not detected		2.00
Ethylbenzene			Not detected		10.0
Isopropylbenzene			Not detected		10.0

Client Sample ID			BK-10 WB		
York Sample ID			09080847-12		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Methyl-tert-butyl ether			Not detected		10.0
Naphthalene			Not detected		10.0
n-Butylbenzene			Not detected		10.0
n-Propylbenzene			Not detected		10.0
o-Xylene			Not detected		10.0
p- & m- Xylenes			Not detected		10.0
p-Isopropyltoluene			Not detected		10.0
sec-Butylbenzene			Not detected		10.0
tert-Butylbenzene			Not detected		10.0
Toluene			Not detected		10.0
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected		165
Acenaphthylene			Not detected		165
Anthracene			Not detected		165
Benzo[a]anthracene			Not detected		165
Benzo[a]pyrene			Not detected		165
Benzo[b]fluoranthene			Not detected		165
Benzo[g,h,i]perylene			Not detected		165
Benzo[k]fluoranthene			Not detected		165
Chrysene			Not detected		165
Dibenz[a,h]anthracene			Not detected		165
Fluoranthene			Not detected		165
Fluorene			Not detected		165
Indeno[1,2,3-cd]pyrene			Not detected		165
Naphthalene			Not detected		165
Phenanthrene			Not detected		165
Pyrene			Not detected		165

.

Client Sample ID			MSBS		
York Sample ID			09080847-13		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			Not detected		10.0
1,3,5-Trimethylbenzene			Not detected		10.0
Benzene			Not detected		2.00
Ethylbenzene			Not detected		10.0
Isopropylbenzene			Not detected		10.0
Methyl-tert-butyl ether			Not detected		10.0
Naphthalene			Not detected		10.0
n-Butylbenzene			Not detected		10.0
n-Propylbenzene			Not detected		10.0
o-Xylene			Not detected		10.0
p- & m- Xylenes			Not detected		10.0
p-Isopropyltoluene			Not detected		10.0
sec-Butylbenzene		_	Not detected		10.0



Client Sample ID			MSBS		
York Sample ID			09080847-13		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
tert-Butylbenzene			Not detected		10.0
Toluene			Not detected		10.0
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected		165
Acenaphthylene			Not detected		165
Anthracene			Not detected		165
Benzo[a]anthracene			Not detected		165
Benzo[a]pyrene			Not detected		165
Benzo[b]fluoranthene			Not detected		165
Benzo[g,h,i]perylene			Not detected		165
Benzo[k]fluoranthene			Not detected		165
Chrysene			Not detected		165
Dibenz[a,h]anthracene			Not detected		165
Fluoranthene			Not detected		165
Fluorene			Not detected		165
Indeno[1,2,3-cd]pyrene			Not detected		165
Naphthalene			Not detected		165
Phenanthrene			Not detected		165
Pyrene			Not detected		165

Client Sample ID			MSBN		
York Sample ID			09080847-14		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			Not detected		10.0
1,3,5-Trimethylbenzene			Not detected		10.0
Benzene			Not detected		2.00
Ethylbenzene			Not detected		10.0
Isopropylbenzene			Not detected		10.0
Methyl-tert-butyl ether			Not detected		10.0
Naphthalene			Not detected		10.0
n-Butylbenzene			Not detected		10.0
n-Propylbenzene			Not detected		10.0
o-Xylene			Not detected		10.0
p- & m- Xylenes			Not detected		10.0
p-Isopropyltoluene			Not detected		10.0
sec-Butylbenzene			Not detected		10.0
tert-Butylbenzene			Not detected		10.0
Toluene			Not detected		10.0
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected		165
Acenaphthylene			Not detected		165
Anthracene			Not detected		165
Benzo[a]anthracene			Not detected		165



Client Sample ID			MSBN		
York Sample ID			09080847-14		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Benzo[a]pyrene			Not detected		165
Benzo[b]fluoranthene			Not detected		165
Benzo[g,h,i]perylene			Not detected		165
Benzo[k]fluoranthene			Not detected		165
Chrysene			Not detected		165
Dibenz[a,h]anthracene			Not detected		165
Fluoranthene			Not detected		165
Fluorene			Not detected		165
Indeno[1,2,3-cd]pyrene			Not detected		165
Naphthalene			Not detected		165
Phenanthrene			Not detected		165
Pyrene			Not detected		165

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. 09080847

- 1. The "RL" is the <u>REPORTING LIMIT</u> and is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This <u>REPORTING LIMIT</u> 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.
- 8. Other attachments to this report, including Chain-of-custody documentation and Case narratives are hereby made a part of this report.

Approved By: Month Robert Q. Bradley Managing Director

Date: 8/31/2009



Definitions for FLAGS used as a Results Suffix

Flags are sometimes used on results to indicate certain occurrences during the analysis process. The most common flags used by York are defined below.

<u>FLAG</u>

J

Е

A

DEFINITION

- J indicates an estimated value. This flag applies to Tentatively Identified Compounds or, when requested, for a target compound whose result is less than the reporting limit but whose mass spectral data meet identification criteria. For example if the reporting limit is listed as 10 ppb and the analysis shows 3 ppb, the result can be reported as 3 J. The client must request the use of J flags for the laboratory to report such flags.
- **B** B indicates that the analyte was also found in the associated batch method blank. This flag indicates possible/probable blank contamination and warns the data user to be aware. This mostly applies to the volatiles acetone and methylene chloride and the semi-volatiles bis-(2-ethylhexyl) phthalate and other phthalates.
 - This flag is used to indicate that the reported concentration of an analyte exceeded the calibration range of the analytical system. In this case the result reported is treated as a minimum value. This often applies where clients request an additional analyte after sample analysis, such as acetone, where the initial analysis did not require dilution since acetone was not a target compound. This flag will also apply if after numerous dilutions a specific target compound would significantly dilute out all other targets.
 - This flag indicates that the compound is a known artifact present in the sample. This flag typically refers to compounds detected in AIR samples taken into Tedlar bags. These compounds are either from the manufacturing process or, since Tedlar bags are somewhat permeable, they are subject to intrusion of common laboratory solvents such as acetone, methylene chloride, hexane and Freon-113.

120 RESEARCH DRIVE



phone 845.452.1658 | fax 845.485.7083 | ecosystemsstrategies.com

TRANSMITTAL COVER SHEET

TO: Phil Murphy PAGES: 3 (including cover sheet)

FAX: 203 357-0166

FROM: Richard Hooker, Project Manager; Ecosystems Strategies

DATE: August 27, 2009

RE: ESI Job # PB09025.55

COMMENTS:

Please run the following analysis on sample "W Stock Comp", collected 8/21/09 (original chain follows)

TPH DRO (Method 8015) Flash point Ph Peactivity TCLP Metals VOCs (8260) PCBs Paint filter

Please run sample "BK-10-MW", collected 8/21/09 for PAHs and VOCs (original chain follows)

If you do not receive all transmitted pages, please contact us immediately at (845) 452-1658.

This transmission is confidential and intended solely for the individual or entity to which it is addressed. This transmittal may contain information which is privileged. If the reader is not the intended recipient, please destroy this communication. You are hereby notified that any disclosure, dissemination or distribution of this communication is strictly prohibited.

Environmental Investigations | Environmental Remediation | Management Services

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120 NEECANCH DAWE (203) 325-1371	STRATTORD, CT 06615 Fax (203) 357-0166	186 186							
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Sharefue	Jues .	Predravel	<u> </u>	Brende	PB09025.55	25.S-		Apples Collected By (Ste - I- Let Onley Manual Barrier	Collected By (Signature)
Sample No.	Location/ID		Date Sampled	Wate	Sample Matrix	ANAI	ANALYSES REQUESTED		Container Descriminn(s)
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Thategies	gier	Fichard	ž	brend	مار	7 6040 LS.55	55.57	I <u></u>	R. Harne (Printed)	Herohov Name (Printed)
Sample No.		Location/ID	Date Sampled		San Water S	Sample Matrix r Soil Air DTHER		ANALYSES REQUESTED		Container Description(s)
	BKHO - WM	38	8/21/09		×		VOC (10° (Erro)		1 Lember 7x Gent Viels
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								RUSH(define)	
						20h°S			



Technical Report

prepared for:

Ecosystems Strategies, Inc. 24 Davis Avenue Poughkeepsie, NY 12603 Attention: Richard Hooker

Report Date: 9/1/2009 *Re: Client Project ID: PB09025.55* York Project No.: 09080920

CT License No. PH-0723

New Jersey License No. CT-005

New York License No. 10854

PA Reg. 68-04440



nelap

Report Date: 9/1/2009 Client Project ID: PB09025.55 York Project No.: 09080920

Ecosystems Strategies, Inc.

24 Davis Avenue Poughkeepsie, NY 12603 Attention: Richard Hooker

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-ofcustody received in our laboratory on 08/26/09. The project was identified as your project "PB09025.55".

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).

Client Sample ID			TS		
York Sample ID			09080920-01		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		330
Acenaphthene			Not detected		330
Acenaphthylene			Not detected		330
Anthracene			90	J	330
Benzo[a]anthracene			220	J	330
Benzo[a]pyrene			Not detected		330
Benzo[b]fluoranthene			190	J	330
Benzo[g,h,i]perylene			Not detected		330
Benzo[k]fluoranthene			180	J	330
Chrysene			170	J	330
Dibenz[a,h]anthracene			Not detected	· · · · · · ·	330
Fluoranthene			380		330

Analysis Results



Client Sample ID			TS		_
York Sample ID			09080920-01		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Fluorene			Not detected		330
Indeno[1,2,3-cd]pyrene			Not detected		330
Naphthalene			Not detected		330
Phenanthrene			190	Ĵ	330
Pyrene			390		330

Client Sample ID			TE		
York Sample ID			09080920-02		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected		165
Acenaphthylene			Not detected		165
Anthracene			Not detected		165
Benzo[a]anthracene			120	J	165
Benzo[a]pyrene			Not detected		165
Benzo[b]fluoranthene			80	J	165
Benzo[g,h,i]perylene			Not detected		165
Benzo[k]fluoranthene			90	J	165
Chrysene			160	J	165
Dibenz[a,h]anthracene			Not detected		165
Fluoranthene			160	J	165
Fluorene			Not detected	·····	165
Indeno[1,2,3-cd]pyrene			Not detected		165
Naphthalene			Not detected		165
Phenanthrene			90	J	165
Pyrene			140	J	165

Client Sample ID			TW		
York Sample ID			09080920-03		<u> </u>
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected		165
Acenaphthylene			Not detected		165
Anthracene			Not detected		165
Benzo[a]anthracene			210		165
Benzo[a]pyrene			130	J	165
Benzo[b]fluoranthene			120	J	165
Benzo[g,h,i]perylene			Not detected		165
Benzo[k]fluoranthene			140	J	165
Chrysene			230		165
Dibenz[a,h]anthracene			Not detected		165
Fluoranthene			270		165



.

Client Sample ID			TW		
York Sample ID			09080920-03		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Fluorene			Not detected		165
Indeno[1,2,3-cd]pyrene			Not detected		165
Naphthalene			Not detected		165
Phenanthrene			200		165
Pyrene			260		165

Client Sample ID			TBN	<u>"</u>	T
York Sample ID			09080920-04		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			40		5
1,3,5-Trimethylbenzene			14		5
Benzene			Not detected		1
Ethylbenzene			65		5
Isopropylbenzene			Not detected	· · · · - · -	5
Methyl-tert-butyl ether			Not detected		5
Naphthalene			5	J	5
n-Butylbenzene			3	J	5
n-Propylbenzene			3	J	5
o-Xylene			150		5
p- & m- Xylenes			470		5
p-Isopropyltoluene			6	J	5
sec-Butylbenzene			Not detected		5
tert-Butylbenzene			Not detected		5
Toluene			7	J	5
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		3300
Acenaphthene			Not detected		3300
Acenaphthylene			Not detected		3300
Anthracene			Not detected		3300
Benzo[a]anthracene			Not detected		3300
Benzo[a]pyrene			Not detected		3300
Benzo[b]fluoranthene			Not detected		3300
Benzo[g,h,i]perylene			Not detected		3300
Benzo[k]fluoranthene			Not detected		3300
Chrysene			Not detected		3300
Dibenz[a,h]anthracene			Not detected		3300
Fluoranthene			Not detected		3300
Fluorene			Not detected		3300
Indeno[1,2,3-cd]pyrene			Not detected		3300
Naphthalene			Not detected		3300
Phenanthrene			Not detected		3300
Pyrene			Not detected		3300



Client Sample ID	1	ſ	TBS	Γ	
York Sample ID			09080920-05		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, STARS List	SW846-8260	ug/Kg			
1,2,4-Trimethylbenzene			230		10.0
1,3,5-Trimethylbenzene			78		10.0
Benzene			Not detected		2.00
Ethylbenzene			150		10.0
Isopropylbenzene			9	J	10.0
Methyl-tert-butyl ether			Not detected		10.0
Naphthalene			30		10.0
n-Butylbenzene			23		10.0
n-Propylbenzene			18		10.0
o-Xylene			360		10.0
p- & m- Xylenes			770		10.0
p-Isopropyltoluene			39		10.0
sec-Butylbenzene			10		10.0
tert-Butylbenzene			Not detected		10.0
Toluene			17		10.0
Polynuclear Aromatic Hydrocarbons (BN)	SW846-8270	ug/kG			
2-Methyl naphthalene			Not detected		165
Acenaphthene			Not detected	_	165
Acenaphthylene			Not detected		165
Anthracene			Not detected		165
Benzo[a]anthracene			120	J	165
Benzo[a]pyrene			Not detected		165
Benzo[b]fluoranthene			Not detected		165
Benzo[g,h,i]perylene			Not detected		165
Benzo[k]fluoranthene			Not detected		165
Chrysene			140	J	165
Dibenz[a,h]anthracene			Not detected		165
Fluoranthene			350		165
Fluorene			Not detected		165
Indeno[1,2,3-cd]pyrene			Not detected		165
Naphthalene			Not detected		165
Phenanthrene			81	J	165
Pyrene			340		165

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

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

Report Date: 9/1/2009 Client Project ID: PB09025.55 York Project No.: 09080920

Notes for York Project No. 09080920

- 1. The "RL" is the <u>REPORTING LIMIT</u> and is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This <u>REPORTING LIMIT</u> 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.
- 8. Other attachments to this report, including Chain-of-custody documentation and Case narratives are hereby made a part of this report.

Approved By: MWH4LMM Robert Q. Bradley Managing Director

Date: 9/1/2009





Definitions for FLAGS used as a Results Suffix

Flags are sometimes used on results to indicate certain occurrences during the analysis process. The most common flags used by York are defined below.

<u>FLAG</u>

DEFINITION

J

Е

J indicates an estimated value. This flag applies to Tentatively Identified Compounds or, when requested, for a target compound whose result is less than the reporting limit but whose mass spectral data meet identification criteria. For example if the reporting limit is listed as 10 ppb and the analysis shows 3 ppb, the result can be reported as 3 J. The client must request the use of J flags for the laboratory to report such flags.

- **B** B indicates that the analyte was also found in the associated batch method blank. This flag indicates possible/probable blank contamination and warns the data user to be aware. This mostly applies to the volatiles acetone and methylene chloride and the semi-volatiles bis-(2-ethylhexyl) phthalate and other phthalates.
 - This flag is used to indicate that the reported concentration of an analyte exceeded the calibration range of the analytical system. In this case the result reported is treated as a minimum value. This often applies where clients request an additional analyte after sample analysis, such as acetone, where the initial analysis did not require dilution since acetone was not a target compound. This flag will also apply if after numerous dilutions a specific target compound would significantly dilute out all other targets.
- A This flag indicates that the compound is a known artifact present in the sample. This flag typically refers to compounds detected in AIR samples taken into Tedlar bags. These compounds are either from the manufacturing process or, since Tedlar bags are somewhat permeable, they are subject to intrusion of common laboratory solvents such as acetone, methylene chloride, hexane and Freon-113.

YORK ANALYTIGAL LABORATORIES	a, Inc.		Field	Chain-	Field Chain-of-Custody Record	Record	Page 🕂 of 두
120 REBEARCH DRIVE STRATFORD, CT 06 (203) 325-1371 FAX (203) 357-0166	STRATFORD, CT 06615 AX (203) 357-0166				· ·	- - -	09080920
Company Name	Report To:		Invoice To:	Proj	Project ID/No	R. Hortu	
Ecosystem	Rithmed		neuda	PBO9(55. 22020 24	Samples Collected By (Signature)	l By (Signature)
Sample No. Loca	Location/ID	Date Sampled	Wate	Sample Matrix r Soil Air DTHER	ANALYSES REQUESTED		rinted) Container Description(s)
Ś		8/25/09		× -	Parts		Son Rlass Jar
Ш Н					Prates		D
34					Pro-11s		
78N					AAH, Vous	Vous (STAR, and)	
TBS		R		×		(How (22) 220/	-6
				-			
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Chain-of-Custody Record)U	Y	7-76-09	Charl	TLLL'S	r-26-29.
Bottles Relinquished from Lab by	y Date/Time		Sample Relinquished by	Date/Time	Samp	ample Received by S 20	X 26 05 Date/Time
Bottles Received in Field by	Date/Time	 	Sample Relinquished by	Date/Time			Date/Time
Comments/Special Instructions	ions				Z G Tum.	S G X Xandard Time	RUSH(define)
							//



Technical Report

prepared for:

Ecosystems Strategies, Inc. 24 Davis Avenue Poughkeepsie, NY 12603 Attention: Richard Hooker

Report Date: 9/1/2009 *Re: Client Project ID: PB09025.55* York Project No.: 09080921

CT License No. PH-0723

New Jersey License No. CT-005

New York License No. 10854

PA Reg. 68-04440





Report Date: 9/1/2009 Client Project ID: PB09025.55 York Project No.: 09080921

Ecosystems Strategies, Inc.

24 Davis Avenue Poughkeepsie, NY 12603 Attention: Richard Hooker

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-ofcustody received in our laboratory on 08/26/09. The project was identified as your project "PB09025.55".

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).

Client Sample ID			W Stock Comp.		
York Sample ID			09080921-01		····
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, 8260 List	SW846-8260	ug/Kg			
1,1,1,2-Tetrachloroethane			Not detected		50
1,1,1-Trichloroethane			Not detected		50
1,1,2,2-Tetrachloroethane			Not detected		50
1,1,2-Trichloroethane			Not detected		50
1,1-Dichloroethane			Not detected		50
1,1-Dichloroethylene			Not detected		50
1,1-Dichloropropylene			Not detected		50
1,2,3-Trichlorobenzene			Not detected		50
1,2,3-Trichloropropane	· · · · · · · · · · · · · · · · · · ·		Not detected		50
1,2,4-Trichlorobenzene			Not detected		50
1,2,4-Trimethylbenzene			11	J	50
1,2-Dibromo-3-chloropropane		·····	Not detected		50

Analysis Results



Client Sample ID	·····		W Stock Comp.		·· ··
York Sample ID			09080921-01		
Matrix			SOIL	r	
Parameter	Method	Units	Result	Qualifier	RL
1,2-Dibromoethane			Not detected	Zuumiei	50
1,2-Dichlorobenzene			Not detected		50
1,2-Dichloroethane			Not detected		50
1,2-Dichloroethylene (Total)			Not detected		50
1,2-Dichloropropane	· · · · · · · · · · · · · · · · · · ·		Not detected		50
1,3,5-Trimethylbenzene	· · · · · · · · · · · · · · · · · · ·		35	J	50
1,3-Dichlorobenzene			Not detected		50
1,3-Dichloropropane	·	-	Not detected		50
1,4-Dichlorobenzene	····		Not detected		50
2,2-Dichloropropane			Not detected		50
2-Chlorotoluene	· · · · · · · · · · · · · · · · · · ·		Not detected		50
4-Chlorotoluene			Not detected		50
Benzene			Not detected		50
Bromobenzene			Not detected		50
Bromochloromethane			Not detected		50
Bromodichloromethane	·		Not detected		50
Bromoform			Not detected		50
Bromomethane			Not detected		50
Carbon tetrachloride			Not detected		50
Chlorobenzene			Not detected		50
Chloroethane			Not detected		50
Chloroform			Not detected		50
Chloromethane			Not detected		50
cis-1,3-Dichloropropylene			Not detected		50
Dibromochloromethane			Not detected		50
Dibromomethane			Not detected		50
Dichlorodifluoromethane			Not detected		50
Ethylbenzene			Not detected		50
Hexachlorobutadiene			Not detected		50
Isopropylbenzene			15	J	50
Methylene chloride			Not detected	J	50
MTBE			Not detected		50
Naphthalene			41	J	50
n-Butylbenzene			51	J	50
n-Propylbenzene			21	J	50
o-Xylene			15	J	50
p- & m-Xylenes	· · · · · · · · · · · · · · · · · · ·		26	J	50
p-Isopropyltoluene			Not detected	J	50
sec-Butylbenzene			67		50
Styrene			Not detected		50
tert-Butylbenzene			Not detected		50
Tetrachloroethylene			Not detected		50
Toluene			10	J	
trans-1,3-Dichloropropylene		+		·	50
Trichloroethylene			Not detected		50
Trichlorofluoromethane	·····		Not detected		50
			Not detected		50
Vinyl chloride			Not detected		50



Client Sample ID			W Stock Comp.		
York Sample ID			09080921-01		
Matrix			SOIL		
Parameter	Method	Units	Result	Qualifier	RL
РСВ	SW846-3550B/8082	mg/Kg			
PCB 1016			Not detected		0.017
PCB 1221			Not detected		0.017
PCB 1232			Not detected		0.017
PCB 1242			Not detected		0.017
PCB 1248			Not detected		0.017
PCB 1254			Not detected		0.017
PCB 1260			Not detected		0.017
TCLP Metals, RCRA List	SW846-1311/6010	mg/L			
TCLP Arsenic			Not detected		0.010
TCLP Barium			1.28		0.010
TCLP Cadmium			Not detected		0.005
TCLP Chromium			Not detected		0.005
TCLP Lead			0.238		0.005
TCLP Selenium			Not detected		0.010
TCLP Silver			Not detected		0.005
TCLP Mercury	SW846-1311/7470	mg/L	Not detected		0.0005
Reactivity-Cyanide	SW846 Ch. 7.3.3	mg/kg	Not detected		0.25
Reactivity-Sulfide	SW846 Ch. 7.3.4	mg/kg	Not detected		15
Flash Point	EPA 1010M	Degrees F	>200		
Paint Filter Test	SW846-9095A		No free liquid		
рН	EPA 150.1	units	8.43		
Total Petroleum Hydrocarbons- DRO	SW846-8015B	mg/kg	1100	-	10.0

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. 09080921

- 1. The "RL" is the <u>REPORTING LIMIT</u> and is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This <u>REPORTING LIMIT</u> 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.
- 8. Other attachments to this report, including Chain-of-custody documentation and Case narratives are hereby made a part of this report.

Approved By: Robert Q. Bradley Managing Director

Date: 9/1/2009



Definitions for FLAGS used as a Results Suffix

ANALYTICAL LABORATORIES, INC.

Flags are sometimes used on results to indicate certain occurrences during the analysis process. The most common flags used by York are defined below.

FLAG

DEFINITION

J

J indicates an estimated value. This flag applies to Tentatively Identified Compounds or, when requested, for a target compound whose result is less than the reporting limit but whose mass spectral data meet identification criteria. For example if the reporting limit is listed as 10 ppb and the analysis shows 3 ppb, the result can be reported as 3 J. The client must request the use of J flags for the laboratory to report such flags.

B

B indicates that the analyte was also found in the associated batch method blank. This flag indicates possible/probable blank contamination and warns the data user to be aware. This mostly applies to the volatiles acetone and methylene chloride and the semi-volatiles bis-(2-ethylhexyl) phthalate and other phthalates.

E

This flag is used to indicate that the reported concentration of an analyte exceeded the calibration range of the analytical system. In this case the result reported is treated as a minimum value. This often applies where clients request an additional analyte after sample analysis, such as acetone, where the initial analysis did not require dilution since acetone was not a target compound. This flag will also apply if after numerous dilutions a specific target compound would significantly dilute out all other targets.

A

This flag indicates that the compound is a known artifact present in the sample. This flag typically refers to compounds detected in AIR samples taken into Tedlar bags. These compounds are either from the manufacturing process or, since Tedlar bags are somewhat permeable, they are subject to intrusion of common laboratory solvents such as acetone, methylene chloride, hexane and Freon-113.

YC ANALYTICAL L	YOKK DAL LABORATORIES, ING.	Inc.			ield	Chain	-of-C	Field Chain-of-Custody Record	ecord	Page 1_ of 1_
1 20 REBEA RCH DRIVE (203) 325-1371	<mark>Зткатго</mark> ко, СТ 0661 <u>5</u> Fax (203) 357-0166	cr 0661 <u>5</u> -0166								120080000
Company Name	Name	Report To:	To:	Invoic	Invoice To:	à	Project ID/No.		MA Her	
teosystems Stade	gatems Stradegres	Richard	e.	Brenda	ola	PBO9025.55	55.521		Read Collected By (Signature) RUA HOCU Name (Printed)	d By (Signature)
Sample No.		Location/ID	Date Sampled	1	Sar Water	Sample Matrix r Soil Air DTHER		ANALYSES REQUESTED		Container Description(s)
	W Steu	WSTOCK COMP	8 2	109		×	1 PSIO	(d)		2×80 Jay
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		с. 								
Chain-of-Custody Record	dy Record		Ľ	l n	\prec	1-8	X-76-05	Maril 22.2	L. Y	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Bottles Relinquished from Lab by	thed from Lab by	Date/Time		Sample Relinquished by	ished by	Date	Date/Time	Sample Received by		X 7 / 1/ Date/Time
Bottles Received in Field by	id in Field by	Date/Time		Sample Relinquished by	ished by	Date	Date/Time	Sample Received in LAB by		Date/Time
Comments/Special Instructions	cial Instructio	su					3905	Turi-Around Time		RUSH(define)
							-			



Technical Report

prepared for:

Ecosystems Strategies, Inc. 24 Davis Avenue Poughkeepsie, NY 12603 Attention: Richard Hooker

Report Date: 9/29/2009 *Re: Client Project ID: PB09025.55* York Project No.: 09090826

CT License No. PH-0723

New Jersey License No. CT-005

New York License No. 10854

PA Reg. 68-04440





Report Date: 9/29/2009 Client Project ID: PB09025.55 York Project No.: 09090826

Ecosystems Strategies, Inc.

24 Davis Avenue Poughkeepsie, NY 12603 Attention: Richard Hooker

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-ofcustody received in our laboratory on 09/23/09. The project was identified as your project "PB09025.55".

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).

Client Sample ID			MW-1		
York Sample ID			09090826-01		
Matrix			WATER		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, 8260 List	SW846-8260	ug/L			
1,1,1,2-Tetrachloroethane			Not detected		5.0
1,1,1-Trichloroethane			Not detected		5.0
1,1,2,2-Tetrachloroethane			Not detected		5.0
1,1,2-Trichloroethane			Not detected		5.0
1,1-Dichloroethane			Not detected		5.0
1,1-Dichloroethylene			Not detected		5.0
1,1-Dichloropropylene			Not detected		5.0
1,2,3-Trichlorobenzene			Not detected		5.0
1,2,3-Trichloropropane			Not detected		5.0
1,2,4-Trichlorobenzene			Not detected		5.0
1,2,4-Trimethylbenzene			Not detected		5.0
1,2-Dibromo-3-chloropropane			Not detected		5.0

Analysis Results

Client Sample ID			MW-1		I
York Sample ID			09090826-01		
Matrix	· · ·		WATER		
Parameter	Method	Units	Result	Qualifier	RL
1,2-Dibromoethane		0 1110	Not detected	Quanner	5.0
1,2-Dichlorobenzene		-	Not detected		5.0
1,2-Dichloroethane		1	Not detected	· · · —	5.0
1,2-Dichloropropane			Not detected		5.0
1,3,5-Trimethylbenzene	· · · · · ·	-	Not detected		5.0
1,3-Dichlorobenzene			Not detected		5.0
1,3-Dichloropropane	. <u> </u>		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		1	Not detected	· · · · · · · · · · · · · · · · · · ·	5.0
Chloroethane			Not detected		5.0
Chloroform			Not detected		5.0
Chloromethane			Not detected		5.0
cis-1,2-Dichloroethylene			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			Not detected		5.0
Isopropylbenzene			Not detected		5.0
Methylene chloride			Not detected		5.0
MTBE			3	J	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
sec-Butylbenzene			Not detected		5.0
Styrene	······································		Not detected		5.0
tert-Butylbenzene		†	1	J	5.0
Tetrachloroethylene		††	Not detected		5.0
Toluene		<u>├ </u>	Not detected		5.0
trans-1,2-Dichloroethylene			Not detected		5.0
trans-1,3-Dichloropropylene		<u> </u>	Not detected		5.0
Trichloroethylene	······		Not detected		5.0
Trichlorofluoromethane		<u>├</u>	Not detected		5.0
Vinyl chloride		<u>†</u>	Not detected		5.0



Client Sample ID	1	[BK-4		T
York Sample ID	<u> </u>		09090826-02		
Matrix			WATER	<u> </u>	
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, 8260 List	SW846-8260	ug/L			
1,1,1,2-Tetrachloroethane			Not detected	· · ··	5.0
1,1,1-Trichloroethane	· · · · · · · · · · · · · · · · · · ·		Not detected	<u> </u>	5.0
1,1,2,2-Tetrachloroethane			Not detected		5.0
1,1,2-Trichloroethane			Not detected	· · · · · ·	5.0
1,1-Dichloroethane			Not detected		5.0
1,1-Dichloroethylene			Not detected		5.0
1,1-Dichloropropylene			Not detected		5.0
1,2,3-Trichlorobenzene	· · · · · · · · · · · ·		Not detected		5.0
1,2,3-Trichloropropane			Not detected		5.0
1,2,4-Trichlorobenzene			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-Dichloropropane			Not detected		5.0
1,3,5-Trimethylbenzene			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			5		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-1,2-Dichloroethylene	·		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			Not detected		5.0
Isopropylbenzene			36		5.0
Methylene chloride			Not detected		5.0
MTBE			69		5.0
Naphthalene			3	J	5.0



Client Sample ID			BK-4		
York Sample ID			09090826-02		
Matrix			WATER		t
Parameter	Method	Units	Result	Qualifier	1
n-Butylbenzene			23		
n-Propylbenzene			40		Γ
o-Xylene			1	J	ŀ
p- & m-Xylenes			Not detected		1
p-Isopropyltoluene			Not detected		
sec-Butylbenzene			29		
Styrene			Not detected		
tert-Butylbenzene			4	J	Γ
Tetrachloroethylene			Not detected		T
Toluene			Not detected		Γ
trans-1,2-Dichloroethylene			Not detected		
trans-1,3-Dichloropropylene			Not detected		
Trichloroethylene			Not detected		Γ
Trichlorofluoromethane			Not detected		
Vinyl chloride	·		Not detected		1-

Client Sample ID			BK-13		
York Sample ID			09090826-03		
Matrix			WATER		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, 8260 List	SW846-8260	ug/L			
1,1,1,2-Tetrachloroethane			Not detected		25
1,1,1-Trichloroethane			Not detected		25
1,1,2,2-Tetrachloroethane			Not detected		25
1,1,2-Trichloroethane			Not detected		25
1,1-Dichloroethane			8	J	25
1,1-Dichloroethylene			Not detected		25
1,1-Dichloropropylene			Not detected		25
1,2,3-Trichlorobenzene			Not detected		25
1,2,3-Trichloropropane			Not detected		25
1,2,4-Trichlorobenzene			Not detected		25
1,2,4-Trimethylbenzene			1400		25
1,2-Dibromo-3-chloropropane			Not detected		25
1,2-Dibromoethane	•		Not detected		25
1,2-Dichlorobenzene			Not detected		25
1,2-Dichloroethane			Not detected		25
1,2-Dichloropropane			Not detected		25
1,3,5-Trimethylbenzene			26		25
1,3-Dichlorobenzene			Not detected		25
1,3-Dichloropropane			Not detected		25
1,4-Dichlorobenzene			Not detected		25
2,2-Dichloropropane			Not detected		25
2-Chlorotoluene			Not detected		25
4-Chlorotoluene			Not detected		25
Benzene			570		25
Bromobenzene			Not detected		25
Bromochloromethane			Not detected		25



Client Sample ID			BK-13		T
York Sample ID			09090826-03		
Matrix		-	WATER	· · · · · · · · · · · · · · · · · · ·	
Parameter	Method	Units	Result	Qualifier	RL
Bromodichloromethane		1	Not detected		25
Bromoform			Not detected		25
Bromomethane			Not detected		25
Carbon tetrachloride			Not detected		25
Chlorobenzene			Not detected		25
Chloroethane	_		Not detected		25
Chloroform			Not detected		25
Chloromethane			Not detected		25
cis-1,2-Dichloroethylene			44		25
cis-1,3-Dichloropropylene			Not detected		25
Dibromochloromethane			Not detected		25
Dibromomethane			Not detected		25
Dichlorodifluoromethane			Not detected		25
Ethylbenzene			530		25
Hexachlorobutadiene			Not detected		25
Isopropylbenzene			99		25
Methylene chloride			Not detected		25
MTBE			87		25
Naphthalene			430		25
n-Butylbenzene			78		25
n-Propylbenzene			150		25
o-Xylene			29		25
p- & m-Xylenes			210		25
p-Isopropyltoluene			160		25
sec-Butylbenzene			60		25
Styrene		1	Not detected		25
tert-Butylbenzene			Not detected		25
Tetrachloroethylene			Not detected		25
Toluene			86		25
trans-1,2-Dichloroethylene			Not detected		25
trans-1,3-Dichloropropylene			Not detected		25
Trichloroethylene			Not detected		25
Trichlorofluoromethane			Not detected		25
Vinyl chloride			7	J	25

Client Sample ID			BK-14		
York Sample ID			09090826-04		
Matrix			WATER		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, 8260 List	SW846-8260	ug/L			
1,1,1,2-Tetrachloroethane			Not detected		5.0
1,1,1-Trichloroethane			Not detected		5.0
1,1,2,2-Tetrachloroethane			Not detected		5.0
1,1,2-Trichloroethane			Not detected		5.0
1,1-Dichloroethane			Not detected		5.0
1,1-Dichloroethylene			Not detected		5.0
1,1-Dichloropropylene	•		Not detected		5.0

Client Sample ID	······································		BK-14		1
York Sample ID			09090826-04		
Matrix		-	WATER		1
Parameter	Method	Units	Result	Qualifier	RL
1,2,3-Trichlorobenzene			Not detected	Quanner	5.0
1,2,3-Trichloropropane		· •	Not detected		5.0
1,2,4-Trichlorobenzene			Not detected		5.0
1,2,4-Trimethylbenzene		-	8		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-Dichloropropane			Not detected	· · · · · · · · · · · · · · · · · · ·	5.0
1,3,5-Trimethylbenzene			2	J	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			2	J	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-1,2-Dichloroethylene			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			1	J	5.0
Hexachlorobutadiene			Not detected		5.0
Isopropylbenzene			Not detected		5.0
Methylene chloride			Not detected		5.0
MTBE			5		5.0
Naphthalene			5		5.0
n-Butylbenzene			22		5.0
n-Propylbenzene			35		5.0
o-Xylene			Not detected		5.0
p- & m-Xylenes			2	J	5.0
p-Isopropyltoluene			2	J	5.0
sec-Butylbenzene			41		5.0
Styrene			Not detected		5.0
tert-Butylbenzene			8		5.0
Tetrachloroethylene		<u> </u>	Not detected		5.0
Toluene		<u> </u>	Not detected		5.0



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Client Sample ID			BK-14		
York Sample ID			09090826-04		[
Matrix			WATER		
Parameter	Method	Units	Result	Qualifier	RL
trans-1,2-Dichloroethylene			Not detected		5.0
trans-1,3-Dichloropropylene			Not detected		5.0
Trichloroethylene			Not detected		5.0
Trichlorofluoromethane			Not detected		5.0
Vinyl chloride		1	Not detected		5.0

Client Sample ID		Î	BK-15		
York Sample ID			09090826-05		
Matrix			WATER		
Parameter	Method	Units	Result	Qualifier	RL
Volatiles, 8260 List	SW846-8260	ug/L			
1,1,1,2-Tetrachloroethane			Not detected		5.0
1,1,1-Trichloroethane		····	Not detected		5.0
1,1,2,2-Tetrachloroethane			Not detected		5.0
1,1,2-Trichloroethane			Not detected		5.0
1,1-Dichloroethane			Not detected		5.0
1,1-Dichloroethylene			Not detected		5.0
1,1-Dichloropropylene			Not detected		5.0
1,2,3-Trichlorobenzene			Not detected		5.0
1,2,3-Trichloropropane			Not detected		5.0
1,2,4-Trichlorobenzene			Not detected		5.0
1,2,4-Trimethylbenzene			1	J	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-Dichloropropane			Not detected		5.0
1,3,5-Trimethylbenzene			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-1,2-Dichloroethylene			Not detected		5.0
cis-1,3-Dichloropropylene		_	Not detected		5.0

Client Sample ID			BK-15		
York Sample ID			09090826-05		
Matrix	· · · · · · · · · · · · · · · · · · ·		WATER		
Parameter	Method	Units	Result	Qualifier	RL
Dibromochloromethane			Not detected		5.0
Dibromomethane			Not detected		5.0
Dichlorodifluoromethane			Not detected		5.0
Ethylbenzene			Not detected		5.0
Hexachlorobutadiene			Not detected		5.0
Isopropylbenzene			1	J	5.0
Methylene chloride			Not detected		5.0
MTBE			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
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-1,2-Dichloroethylene			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

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. 09090826

- 1. The "RL" is the <u>REPORTING LIMIT</u> and is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This <u>REPORTING LIMIT</u> 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.
- 8. Other attachments to this report, including Chain-of-custody documentation and Case narratives are hereby made a part of this report.

Approved By: Robert Q. Bragley

Managing Director

Date: 9/29/2009



Definitions for FLAGS used as a Results Suffix

Flags are sometimes used on results to indicate certain occurrences during the analysis process. The most common flags used by York are defined below.

<u>FLAG</u>

DEFINITION

J

J indicates an estimated value. This flag applies to Tentatively Identified Compounds or, when requested, for a target compound whose result is less than the reporting limit but whose mass spectral data meet identification criteria. For example if the reporting limit is listed as 10 ppb and the analysis shows 3 ppb, the result can be reported as 3 J. The client must request the use of J flags for the laboratory to report such flags.

B

E

A

B indicates that the analyte was also found in the associated batch method blank. This flag indicates possible/probable blank contamination and warns the data user to be aware. This mostly applies to the volatiles acetone and methylene chloride and the semi-volatiles bis-(2-ethylhexyl) phthalate and other phthalates.

- This flag is used to indicate that the reported concentration of an analyte exceeded the calibration range of the analytical system. In this case the result reported is treated as a minimum value. This often applies where clients request an additional analyte after sample analysis, such as acetone, where the initial analysis did not require dilution since acetone was not a target compound. This flag will also apply if after numerous dilutions a specific target compound would significantly dilute out all other targets.
- This flag indicates that the compound is a known artifact present in the sample. This flag typically refers to compounds detected in AIR samples taken into Tedlar bags. These compounds are either from the manufacturing process or, since Tedlar bags are somewhat permeable, they are subject to intrusion of common laboratory solvents such as acetone, methylene chloride, hexane and Freon-113.

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ANALYTICAL TANALYTICAL 1 20 RES 5 TRATECID	ALYTICAL LABORATORIES, INC. MURCHARTORIES. ANNUAL 120 RESEARCH DRIVE STRATFOOD FT DEATE		Field Chain-of-Custody Record	Custody	Record	
1-526 (202)	(203) 325-1371 FAX (203)357-0166					79090826
J J	Company Name	Report to:	Invoice to:	Project ID/No.	144 Han	1×1
2005ystems Strick	Stems Strates ies	Richard	Brenda	PB09025.55	Ramples Collected by (sig R .H 00 h.	samples collected by (signature)
Sample No.	Location/ID	Date Sampled	Sample Matrix Water Soil Air Other	Analy	J Name (p Analyses Requested	orinted) Container Desc.
	I-MW	9/22/09		VOCS (82	(8260)	2x to my vials
	315-4			·		
	BK-13					
	BK-14					
	BK-15-	*				X
Temperatur	Temperature upon receipt at Lab	Metr C	4	Chain-of-Custody Record	CLLL.	9-23-4
		Samples Relinquished by Samples Relinquished hy		\rightarrow	Samples received by	9/23/19 - 16/0
Comments/S	Comments/Special Instructions				eque DATI	d- <u>Specify Date Expected</u> UE FOR RUSH:
					STANDARD	RUSH(Define)