

TOWN OF CLARKSTOWN

OFFICE OF THE TOWN ATTORNEY

MARSHA F. COOPERSMITH First Deputy Town Attorney

HAROLD Y. MACCARTNEY, JR. Senior Deputy Town Attorney

JEFFREY T. MILLMAN Deputy Town Attorney Zoning Administrator

RONALD A. LONGO Assistant Town Attorney

Deputy Town Attorneys RICHARD A. GLICKEL PAUL K. SCHOFFIELD DANIEL N. KRAUSHAAR JESSICA A. HAUSER

September 29, 2009

Michael Lesser, Esq.

Legal Coordinator of Voluntary Cleanup Program

New York State Department

of Environmental Conservation

625 Broadway - 14th floor

Albany, New York 12233-1500

RECEIVED

OCT 02 2009

Re: Clarkstown Landfill - Site ID No. 344001 Riverso Property Investigation Report OFFICE OF GENERAL COUNSEL

Dear Mr. Lesser:

AM

Enclosed please find the Town's investigative report with respect to the above-referenced property, along with related tables, appendices and one complete set of data books. A complete set of data books was previously provided to Mr. Riverso's engineer. If the NYSDEC requires additional sets, kindly so advise and I will promptly forward them.

After you and your staff have had the opportunity to review the report, I respectfully request that we arrange a meeting or a conference call to discuss next steps. Thank you for your attention to this matter.

Very truly yours,

Amy Me

Town Actorney

Cc: Randy Whitcher, NYSDEC - via fax (518) 402-9679
Ram Pergadia, NYSDEC - via fax (845) 255-3414
Robert Davis, Esq. - via fax (914) 666-6267
Joseph Barbagallo, P.E. - via fax 914-448-0147



Engineers | Architects | Scientists | Planners | Surveyors

Holzmacher, McLendon & Murrell, P.C. I H2M Associates, Inc. H2M Labs, Inc. I H2M Architects & Engineers, Inc.

575 Broad Hollow Road Melville, New York 11747 v 631.756.8000 f 631.694.4122 www.h2m.com

September 25, 2009

Supervisor Alexander J. Gromack Town of Clarkstown 10 Maple Avenue New City, New York 10956

Re: Clarkstown Landfill/Riverso Property Site Investigation Summary Report

> NYSDEC Site No. 344001 H2M Project No.: CLKT 09-07

Dear Supervisor Gromack:

Holzmacher, McLendon, and Murrell, P.C. (H2M) was retained by the Town of Clarkstown (Town) to conduct a site investigation in preparation for completion of the remediation of a portion of the above referenced Riverso property, located at the northeast corner of the Clarkstown Landfill site in the hamlet of West Nyack, Town of Clarkstown. The property location is depicted on Figure 1 (Site Location Map). The site investigation field work was conducted on April 27, April 28, and May 7, 2009 in accordance with the scope of work outlined in the H2M proposal dated March 9, 2009. The scope of work and protocol was carried out based upon the Site Specific Investigation Work Plan prepared by our office dated December 2007 and as approved by the New York State Department of Environmental Conservation (NYSDEC) on January 17, 2008. Results of our investigation are summarized below.

PROJECT BACKGROUND

The Record of Decision (ROD), Issued by NYSDEC on November 28, 1995, prescribed the remedial action required for the Clarkstown Landfill, Site 344001. The ROD included the Clarkstown Landfill property (consisting of 152 acres) owned by the Town of Clarkstown (Town), and two other small adjacent properties to the northwest and northeast of Townowned property.

The property referred to in the ROD as the "northeast portion" is the Riverso property. It is owned by Raphael Riverso of Scarsdale, New York. The entire Riverso property, identified in the Rockland County Tax Maps as Section 065-Subsection 006-Block 0001-Lot 053, is approximately 7.06 acres in size. However, based upon previous investigative field work conducted by others, the horizontal extent of municipal solid waste (msw) on the Riverso property was estimated at approximately 1.0 to 1.5 acres. Soil borings conducted in 1994 documented the presence of debris on the Riverso property to a depth of 20' to 22' feet below grade. Debris identified included paper, plastic, wood, glass, and carpet.

The Northern boundary of the Riverso property is adjacent to Route 59; its Eastern border runs along the former Eckleco property, and its Southern and Western borders are immediately adjacent to the Town-owned property. Much or all of the Southern and Western borders of the Riverso property are located in New York State and Federal Wetlands. The rear yard of the Riverso property along Route 59 is currently utilized for







Town of Clarkstown September 25, 2009 Page 2 of 12

storage of construction equipment and construction materials. The H2M field investigation was conducted in order to document current site conditions on the Riverso property and delineate the horizontal and vertical extent of msw attributable to Town landfilling operations in order to implement the remedy required by the ROD.

FIELD INVESTIGATION

The H2M site investigation field work was conducted on April 27, April 28, and May 7, 2009 in accordance with the scope of work outlined in the H2M December 2007 Site Specific Investigative Work Plan for the subject property. The work plan was reviewed and approved by the Town and the NYSDEC prior to implementation. H2M provided full time inspection services for the duration of the project and collected soll samples for laboratory analyses. All samples collected by H2M were submitted to H2M Labs, Inc. (NYSDOH ID No. 10428) of Melville, NY for laboratory analyses. Representatives of Woodard and Curran (White Plains, NY) were present for the duration of the project to document site conditions on behalf of the Owner and collect split samples for lab analyses. Also present at various times on the site were representatives of the Town Department of Environmental Control and NYSDEC Central Office in Albany.

Investigation Objectives

The overall field investigation objectives were to determine the extent of msw remaining on the Riverso property. The investigation results will be utilized to quantify the volume of waste remaining on the property, characterize the waste material, and evaluate available remedial measures to facilitate completion of the remedy required by the ROD.

Previous investigations have been conducted by the Town to document groundwater impacts attributable to landfilling operations. Therefore, the H2M field investigation results will not be utilized for the analysis of groundwater contamination issues.

Field Sampling Scope of Work

Based upon the site history and documented presence of buried msw on and immediately adjacent to the landfill, a field sampling program consisting of test pits, surface soll samples, and soil borings was conducted on the portion of the Riverso property where landfilling was alleged to have occurred.

The test pits and soil borings were utilized to characterize the type of waste material present on site and determine the vertical and horizontal extent of the waste material. The surface soil sample analyses were utilized to more accurately assess the surface conditions within the Riverso property that had been encroached upon by landfilling operations. Prior to commencement of the field investigation work, all existing significant appurtenances (i.e. property lines, slurry walls, landfill cap system, power cables, leachate and drainage pipes, etc.) were located and staked by a H2M field survey crew. The site and property lines are depicted on the attached Figure 1 (Property Line Stakeout-West Nyack Landfill).



Town of Clarkstown September 25, 2009 Page 3 of 12

Test Pits

A total of eight test pits (i.e., TP-1 through TP-8) were excavated at select locations on the subject property utilizing standard excavating equipment (i.e. track hoe). All excavation work was conducted by Victor B. Zugibe, Inc. (Gamerville, New York) under the direction of H2M. The test pit excavation work was conducted on April 27 and 28, 2009. Weather conditions during the test pit excavation work generally consisted of mostly clear skies with high humidity and temperatures in the high 80's. Test pit locations are depicted on the attached Figure 1 (Location Map-Test Pits, Surface Soil Samples, and Soil Borings).

At each individual test pit location, soil samples were collected from the excavation at select depth intervals and composited to form one single sample for lab analyses. The soil samples were visually inspected by H2M and field screened utilizing a photoionization detector (PID) for evidence of organic contamination. Soil excavation proceeded until the groundwater table was encountered. Each composite sample was analyzed for TCL (Target Compound List) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), TCL metals, PCBs and pesticides.

For waste classification purposes (i.e., non-hazardous vs. hazardous waste), the buried debris was analyzed for toxicity characteristics leaching procedure (TCLP) VOCs, SVOCS, pesticides, metals, and RCRA characteristics (ignitability, corrosivity and reactivity).

Surface Soil Sampling

A total of six surface soil samples (i.e., SS-1 through SS-6) were collected by H2M for TCL SVOC, metals, and PCB/pesticide analyses. The soil samples were collected at depths ranging from site grade to approximately 6-inches below grade utilizing hand tools. The surface soil samples were collected on April 27, 2009 In order to assess surface conditions on the subject property. Weather conditions during the site work generally consisted of mostly clear skies, high humidity, and temperatures in the high 80's. The surface soil sample locations are depicted on the attached Figure 1.

Soil Borings

A total of four soil borings (SB-1 through SB-4) were installed under the direction of H2M on May 7, 2009. Drilling services were provided by Soil Testing, Inc. of Oxford, Connecticut. Weather conditions during the soil boring work generally consisted of overcast to cloudy skies, periods of light rain and temperatures ranging from the high 50's to low 60's. At each location, soil borings were advanced from approximately 3'-4' below grade to approximately 20'-22' feet below grade and visually inspected for evidence of municipal debris. Soil boring locations are shown on the attached Figure 1.

SITE INVESTIGATION RESULTS

Test Pit Excavations-Field Observations

A total of eight test pits (TP-1 through TP-8) were excavated under H2M direction in conjunction with our field investigation. Test pit locations are depicted on the attached Figure 1. Results of our test pit excavation work are summarized below.



Town of Clarkstown September 25, 2009 Page 4 of 12

TP-1

Results of our test pit excavation and field observations at TP-1 indicated that msw-type debris was encountered from approximately 3 feet to 9.5 feet below grade. Material encountered consisted mainly of plastic debris. Groundwater was encountered at approximately 8 feet below grade. Continued excavation beyond approximately 9.5 feet below grade was not practical due to the presence of groundwater. A composite sample consisting of soils excavated from 3 feet to 9.5 feet below grade was collected by H2M for laboratory analyses. The test pit log for TP-1 as compiled by H2M is presented in Appendix A (Test Pit Logs).

<u>TP-2</u>

Results of our test pit excavation and field observations at TP-2 indicated that msw-type debris was encountered from approximately 3 feet to 12 feet below grade. Material encountered included glass, plastic, paper, and wood debris. Groundwater was encountered at approximately 12 feet below grade. Continued excavation beyond 12 feet below grade was not practical due to the presence of groundwater. A composite sample consisting of soils excavated from 3 feet to 12 feet below grade was collected by H2M for laboratory analyses. The H2M test pit log for TP-2 is presented in Appendix A.

TP-3

Results of our test pit excavation and field observations at TP-3 indicated that waste was encountered from approximately 3 feet to 9 feet below grade. Material encountered included brick, wood, and plastic. Groundwater was encountered at approximately 8.5 feet below grade. Continued excavation beyond 9 feet below grade was not practical due to the presence of groundwater. A composite sample consisting of soils excavated from 3 feet to 9 feet below grade was collected by H2M for laboratory analyses. The H2M test pit log for TP-3 is presented in Appendix A.

TP-4

Results of our test pit excavation and field observations at TP-4 indicated that msw-type debris was encountered from approximately 3 feet to 9.5 feet below grade. Material encountered included bottles, plastic, wood, and glass. Groundwater was encountered at approximately 8 feet below grade. Continued excavation beyond 9.5 feet was not practical due to the presence of groundwater. A composite sample consisting of soils excavated from 3 feet to 9.5 feet below grade was collected by H2M for laboratory analyses. The test pit log as compiled by H2M for TP-4 is presented in Appendix A.

TP-5

Results of our test pit excavation and field observations at TP-5 indicated that msw-type debris was encountered from site grade to approximately 9.5 feet below grade. Material encountered included metal debris, tires, plastic, glass, wood, and styrofoam. Groundwater was encountered at approximately 6.5 feet below grade. Continued excavation beyond 9.5 feet below grade was not practical due to the presence of groundwater. A composite sample consisting of soils excavated from 3 feet to 9.5 feet below grade was collected by H2M for lab analyses. The test pit log for TP-5 as compiled by H2M is presented in Appendix A.



Town of Clarkstown September 25, 2009 Page 5 of 12

TP-6

Results of our test pit excavation and field observations at TP-6 indicated that msw-type debris was encountered from approximately 2.5 feet to 11 feet below grade. Material encountered included plastic, glass, wood, metal, tires, bottles, and milk cartons. Groundwater was encountered at approximately 10.5 feet below grade. Continued excavation beyond 11 feet was not practical due to the presence of groundwater. A composite sample consisting of soils excavated from 2.5 feet to 11 feet below grade was collected by H2M for lab analyses. The test pit log for TP-6 as compiled by H2M is presented in Appendix A.

TP-7

Results of our test plt excavation and field observations at TP-7 indicated that msw-type debris was encountered from approximately 6.5 feet to 12.5 feet below grade. Material encountered included plastic, wood, metal debris, and wire. Groundwater was encountered at approximately 3.5 feet below grade. Continued excavation beyond 12.5 feet below grade was not practical due to the presence of groundwater. A composite sample consisting of soils excavated from 6.5 feet to 12.5 feet below grade was collected by H2M for lab analyses. The test pit log for TP -7 as compiled by H2M is presented in Appendix A.

<u>TP-8</u>

Results of our test pit excavation and field observations at TP-8 indicated that msw-type debris was encountered from approximately 6 feet to 12.5 feet below grade. Material encountered included cable, styrofoam, wood, plastic, crushed cans, and paper. Groundwater was encountered at approximately 6 feet below grade. Continued excavation beyond 12.5 feet below grade was not practical due to the presence of groundwater. A composite sample consisting of soils excavated from 6 feet to 12.5 feet below grade was collected by H2M for lab analyses. The test pit log for TP-8 as compiled by H2M is presented in Appendix A.

Test Pit Soil Samples-Laboratory Analyses Results

Composite soil samples collected from TP-1 through TP-8 were analyzed for TCL VOCs, SVOCs, metals, and PCBs/pesticides. In order to evaluate the analytical data, the lab results were compared to the Recommended Soil Cleanup Objectives (RSCOs) as presented in NYSDEC TAGM 4046 entitled "Determination of Soil Cleanup Objectives and Cleanup Levels".

In order to characterize the waste material as either non-hazardous or hazardous waste and provide analytical data for use in obtaining waste disposal approvals (if required by NYSDEC), each of the test pit samples was also analyzed for TCLP VOCs, SVOCs, PCBs/pesticides, metals, and RCRA characteristics (ignitability, corrosivity, and reactivity).

Results of our laboratory analyses are summarized below and presented on the attached Tables 1-6 (Soil Sample Results).



Town of Clarkstown September 25, 2009 Page 6 of 12

TCL VOCs

As presented on Table 1, results of our TCL VOC analyses indicated that all compounds were either non-detectable (ND) or present at concentrations below their respective RSCOs at all test pit sample locations, with the exception of TP-2. At TP-2, 1,2-dichloroethene (5,900 ug/kg) was detected at a concentration in excess of its respective NYSDEC RSCO of 400 ug/kg.

TCL SVOCs

As presented on Table 2, results of our TCL SVOC analyses indicated that all compounds were either ND or present at concentrations below their respective RSCOs at TP-2 through TP-4 and TP-6 through TP-8. With respect to TP-1, benzo(a) anthracene, benzo(b)flouranthene, and benzo(k)flouranthene were present at concentrations in excess of their respective RSCOs. With respect to TP-5, benzo(a) anthracene and benzo(a)pyrene were present at concentrations in excess of their respective NYSDEC RSCOs, as per TAGM 4046.

Metals

As presented on Table 3, results of our metals analyses indicated compounds were present at concentrations in excess of their respective RSCOs in all eight test pit soil samples, including mercury (TP-1, TP-2, and TP-5 through TP-7), copper (TP-1 and TP-3 through TP-7) and nickel (TP-1 and TP-3 through TP-7). Additional metals including calcium, iron, beryllium and zinc were detected at concentrations in excess of their respective RSCOs at TP-1 through TP-8.

PCBS/Pesticides

As presented on Table 3, all compounds were either ND or present at concentrations below their respective NYSDEC RSCOs at all test pit sample locations.

TCLP VOCS

As presented on Table 5, results of our TCLP VOC analyses indicated that all compounds were either ND or present at concentrations below their respective regulatory levels at all test pit sample locations.

TCLP SVOCS

As presented on Table 5, results of our TCLP SVOC analyses indicated that all compounds were ND at all test pit sample locations.

TCLP Pesticides

As presented on Table 5, results of our TCLP pesticide/PCB analyses indicated that all compounds were ND at all test pit sample locations.

TCLP Metals

As presented on Table 5, results of our TCLP metals analyses Indicated that barium, lead, and selenium were detected at concentrations above their respective regulatory levels in all 8 test pit soil samples.



Town of Clarkstown September 25, 2009 Page 7 of 12

In addition, cadmium was detected at a concentration above its regulatory level in the soil samples collected from TP-2 through TP-7. Therefore, each of the 8 test pit soil samples exhibit the toxicity characteristic for barium, lead, and selenium. The soil samples collected from TP-2 through TP-7 exhibit the toxicity characteristic for cadmium.

RCRA Characteristics

As presented on Table 6, the results of our analyses for RCRA characteristics (ignitability, corrosivity, reactivity) indicated that the samples collected from all 8 test pit locations were not ignitable, non-corrosive, and non-reactive.

Surface Soil Samples-Laboratory Analyses Results

Surface soil samples were collected at six locations on the subject property (i.e., SS-1 through SS-6) and analyzed for TCL SVOCs, metals, and PCBs/pesticides. In order to evaluate the analytical data, the lab results were compared to the NYSDEC RSCOs for each compound, as presented in TAGM 4046. Results of our laboratory analyses are summarized below and presented on the attached Tables 2 and 4 (Soil Sample Results).

TCL SVOCs

As presented on Table 2, results of our TCL SVOC analyses indicated that SVOCs were detected at concentrations in excess of their respective NYSDEC RSCOs in the samples collected at SS-1, SS-2, and SS-5. Specifically, benzo(a)anthracene, benzo(a)pyrene, and chrysene were present at concentrations in excess of their respective soil cleanup criteria in the samples collected at SS-1, SS-2, and SS-5. Benzo(b)flouranthene was also detected at a concentration in excess of its respective RSCO in SS-1. All other compounds in SS-1, SS-2, and SS-5 were either ND or present at concentrations below their respective NYSDEC RSCOs.

With respect to SS-3, SS-4, and SS-6, our analytical results indicated that all compounds were either ND or present at concentrations below their respective NYSDEC RSCOs.

Metals

As presented on Table 4, results of our metals analyses indicated that metals were detected at concentrations above their respective NYSDEC RSCOs in the samples collected at all 6 surface soil sample locations (SS-1 through SS-6).

Specifically, mercury was present at a concentration in excess of its respective RSCO in SS-1 and SS-5, nickel in SS-1, SS-2, SS-5, and SS-6, and copper in SS-1, SS-2, and SS-5.

Additional metals including calcium, iron, beryllium and zinc were present at concentrations in excess of their respective RSCOs in SS-1 through SS-6.

PCBs/Pesticides

As presented on Table 4, our analytical results indicated that all PCBs/pesticides were either ND or present at concentrations below their respective RSCOs, as per TAGM 4046.



Town of Clarkstown September 25, 2009 Page 8 of 12

Soil Boring Results

A total of four soil borings (i.e., SB-1 through SB-4) were installed on the subject property to a depth of approximately 20-22 feet below site grade and visually inspected for evidence of msw. Split spoon samples were collected and inspected until a historical layer consisting of peat material was encountered in order to more accurately determine the depth extent of the buried debris. Results of our visual observations are summarized below.

SB-1

SB-1 was installed in the northern section of the Riverso property, utilized by the Owner for storage of construction related vehicles and equipment. In order to determine whether buried msw was present on this sector of the subject property, split spoon soil samples were collected at depth intervals 8'-10', 10'-12', 15'-17', and 20'-22' and inspected for evidence of msw. Results of our visual inspection dld not indicate msw, but rather the presence of construction and demolition debris (i.e., brick, asphalt, and wood), encountered from 8 to 17 feet below grade. The soil boring was terminated at 22 feet below grade, a depth interval at which peat and silty material were encountered. In summary, results of our soil boring work at SB-1 did not indicate the presence of msw attributable to landfilling operations. The soil boring log for SB-1 as compiled by H2M is presented in Appendix A (Soil Boring Logs).

<u>SB-2</u>

SB-2 was installed in the northwest sector of the subject property in which it was suspected that buried msw is present. Split-spoon soil samples were collected from 3 feet to 22 feet below grade and inspected for evidence of msw. Debris consisting of plastic, wood, glass, and paper pulp was encountered from 14 feet to 18 feet below grade. Peat was encountered at approximately 21.5 feet below grade and the soil boring was terminated at this depth. The soll boring log for SB-2 as compiled by H2M is presented in Appendix A.

SB-3

SB-3 was installed in the east central sector of the subject property in which the presence of buried msw was suspected. Soil samples were collected from 3 to 23.5 feet below grade and inspected for evidence of msw. Debris consisting of plastic, newspaper, wire, and wood was encountered from 3 feet to 21.5 feet below grade. Peat was encountered at 23.5 feet below grade and the soil boring was terminated at this depth. The soil boring for SB-3 as compiled by H2M is presented in Appendix A.

SB-4

SB-4 was installed in the approximate southeast corner of the subject property. Soil samples were collected from 3 to 25 feet below grade and inspected for evidence of msw. Debris consisting of styrofoam, plastic, tile, glass, and metal were encountered from 3 to 24.5 feet below grade. Peat was encountered at 25 feet below grade and the soil boring was terminated at this depth. The soil boring log for SB-4 as compiled by H2M is presented in Appendix A.



Town of Clarkstown September 25, 2009 Page 9 of 12

SITE INVESTIGATION SUMMARY AND CONCLUSIONS

H2M directed the excavation of eight test pits and installation of four soil borings at select locations on the subject property in order to characterize the waste on site and accurately determine the depth and extent of the buried material. At each of the test pit locations, composite soil samples were retained for lab analyses to evaluate the soil quality. Soil samples were collected at select depth intervals at each of the soil boring locations and inspected for evidence of msw.

In order to assess the surface conditions at the subject property, H2M collected six surface soil samples at select locations across the face of the site. Each of the soil samples was retained for lab analyses in order to evaluate the surface soil quality.

Results of our test pit excavation work confirmed the presence of msw-type debris on a portion of the subject property. Debris was generally initially encountered at approximately 2.5 to 3 feet below site grade in the majority of the test pit excavations. Msw-type debris was initially encountered at grade at TP-5, located on the west side of the study area, and at approximately 7 feet below grade in both TP-7 and TP-8, both located in the southern sector of the property. At both TP-7 and TP-8, large rocks are present from grade until approximately 7 feet below grade, suggesting the presence of a former haul road in this area of the property. At all of the test pit locations msw-type debris was encountered at depth intervals below the surface of the groundwater table in the study area. Therefore, the depth extent of each test pit excavation was limited due to the presence of groundwater in the excavation. The soll borings were utilized to determine the presence of debris at intervals below the depth extent of the test pit excavations. Results of our soil boring installations determined that buried msw-type debris is present to a depth ranging from approximately 20 feet to 24.5 feet below grade at SB-2, SB-3, and SB-4. Each of these borings was installed on the portion of the Riverso property where the presence of buried debris was previously suspected and then identified in two soil borings conducted by others. Results of our soll boring work at SB-1 confirmed the presence of construction and demolition debris on the portion of the property utilized by the Owner for storage of construction equipment and vehicles. Further, results of our soil boring work at SB-1 did not indicate the presence of buried msw-type debris that could be attributable to historical landfilling operations.

Laboratory analyses of composite soil samples collected at each of the test pit locations indicated the presence of VOCs, SVOCs, and metals at concentrations in excess of their respective Recommended Soil Cleanup Objectives (RSCOs), as presented in NYSDEC TAGM 4046 entitled "Determination of Soil Cleanup Objectives and Cleanup Levels". Laboratory analyses of the surface soil samples indicated that SVOCs and/or metals were present at concentrations in excess of their respective RSCOs.

With respect to the test pit soil samples, H2M conducted TCLP and RCRA characteristics laboratory analyses in order to determine whether the soils and waste on the subject property could be classified as hazardous for the purposes of off-site disposal (if required by NYSDEC). This analytical data confirmed that the soils and waste materials are non-hazardous, with the exception of the TCLP metals analyses, which indicates the toxicity characteristic for lead, barium and selenium only.



Town of Clarkstown September 25, 2009 Page 10 of 12

NYSDEC will evaluate the results of the above field investigations as it proceeds in directing implementation including design and construction of the final remedy set forth in the ROD. As supplemental information to NYSDEC, we provide the following discussions of not only the remedy required by the ROD (Part 360 capping) but also two alternatives. These are offered to aid the NYSDEC in its analysis of protection for health and the environment as well as a cost-benefit analysis, both of which are of course critical factors in considering a remedy selection. The alternatives include:

- No further action (evaluated in the ROD).
- Part 360 capping of the approximately 1.06 acre portion of the property at which
 msw is present, with institutional site controls (the remedy selected by the ROD
 and implemented for the landfill).
- Excavation and disposal of the soils/buried msw, and backfilling the excavated area to existing grade with clean material (not evaluated in the ROD).

DISCUSSION OF NO FURTHER ACTION

Given the fact that our investigation results have documented the presence of msw on a 1.06 acre portion of the subject property, and because No Further Action was rejected as a viable alternative in the ROD, it is unlikely that NYSDEC would consider this as a viable option at this time.

DISCUSSION OF THE PART 360 CAP OPTION

The ROD selected a Part 360 cap, with leachate collection and related institutional controls, as the chosen remedial alternative. That remedial option remains viable and the best alternative for remediation of the 1.06 portion of the Riverso property. The Part 360 cap is the presumptive remedy for all remedial actions under the Part 375 program, due to its proven effectiveness in reducing the mobility of subsurface contaminants by isolating them from rain and snow infiltration. Quarterly landfill post-closure monitoring results of groundwater demonstrate decreasing (or no increases in) contaminant levels in down gradient monitoring wells, a clear indication that the chosen remedy at the landfill is achieving regulatory objectives of protecting health and the environment.

Table 7 enclosed provides a summary estimate of the total project costs to install an Part 360 impermeable cap on the approximately 1.06 acre area of the Riverso property. These costs include the construction, legal/administrative/engineering and a contingency allowance of fifteen percent (15%). The construction cost element includes the regrading and installation of the geosynthetic cap along with the installation of a continuous slurry wall and leachate collection system along the northern boundary of the 1.06 acre area (approximately 250 linear feet).

As shown in Table 7 the estimated construction cost of the impermeable cap is estimated at \$845,000 and the total project cost is estimated at \$1,141,000.



Town of Clarkstown September 25, 2009 Page 11 of 12

DISCUSSION OF EXCAVATE AND BACKFILL OPTION

Excavation and off-site disposal of waste was not considered by the ROD as a remedial option. However, because of the relatively small size of the effected Riverso property (approximately 1.06 acres versus the 152 acre remedy implemented on the Town-owned landfill), we have nonetheless projected costs in an effort to determine a cost-benefit analysis. These costs have been projected based upon excavation of all the buried msw. Since msw has been documented below the water table, de-watering of the excavated area may need to be implemented in conjunction with this remedial option. This would add an additional design element that would require separate consideration. Depending upon that design, its construction would also add a significant cost component.

Off-site disposal of soils and wastes is another major cost component. Data collected and analyzed to date by H2M, reflects that solls and buried debris in all 8 test pits of the study area exhibit the toxicity characteristic for lead, barium, and selenium. Therefore, a "worst case" scenario would be appropriate for projecting disposal costs of those soils and wastes as hazardous. Projecting costs to dispose of the entire volume of excavated materials as hazardous wastes is the only way to derive a conservative figures to budget adequate funds. However, in order to reduce the actual project costs, we offer the following alternative approach.

The excavated material could be stockpiled on site or placed into roll-off containers in conjunction with the remedial work and then re-sampled and retained for lab analyses in order to determine whether the total volume of material would still be classified as hazardous waste (after it has been subjected to re-mixing and potential dilution following excavation and staging). The sampling frequency and analytical requirements would be based upon the designated permitted facility requirements to be provided to H2M/Town by the selected contractor. The contractor would also provide unit costs for non-hazardous waste disposal and labor/equipment costs. A separate cost for de-watering the excavated area would also be provided by the selected contractor.

Table 8 enclosed provides a summary cost estimate of the total project cost to excavate to the ground water table (average of 11' deep) and remove the waste as a non-hazardous material and to then backfill the excavated 1.06 acre area with clean material. It is further assumed that the estimated 30,000 yd³ of excavated soils and waste material would be transported to the adjacent RCSWMA transfer station (formerly the Town Solid Waste Management facility), for ultimate disposal offsite to a permitted municipal landfill. It is also assumed that the backfill material to be utilized for filling the excavated area back in will be recycled material from multiple local sources such as the adjacent RCSWMA concrete crushing operations, Tilcon quarry or construction operations in Clarkstown. Any material to be considered as backfill would be subject to the testing protocol and regulatory approval of the NYSDEC.

As shown in Table 8 the estimated construction cost of the excavate/dispose/backfill option --based upon disposal of the entire volume of waste as "non hazardous" -- is estimated at \$1,340,000. The total project cost for this excavate/dispose/backfill option is estimated at \$1,809,000, which includes construction, legal/administrative/engineering and contingency costs. If the waste is required to be disposed of as a hazardous waste, the tipping fees and additional transportation cost at the out of state disposal site would likely increase the



Town of Clarkstown September 25, 2009 Page 12 of 12

construction-phase costs by approximately \$600,000 and therefore increase the total project cost by approximately \$810,000.

CONCLUSIONS

The excavation and disposal option is not a viable alternative and cannot be justified because it cannot be shown to be more protective of human health and the environment than placement of a Part 360 cap, leachate collection and the implementation of site controls. Moreover, due to its significantly higher cost, it cannot pass a cost-benefit analysis. We anticipate that NYSDEC will order capping of the 1.06 acre portion of the Riverso site, with institutional site controls, in accordance with the remedial alternative selected in the ROD.

RECOMMENDATIONS

It is recommended that this report be immediately submitted to NYSDEC, with a copy to the Rockland County Solid Waste Management Authority and the property owner. As soon as NYSDEC has reviewed this report, we can look forward to receiving directions on any supplemental field work that may be required, such as updating the wetlands delineations, and to receiving direction for implementation of the final remedy.

Should you have any questions or comments, please contact either Mr. George Desmarais at (631) 756-8000, Extension 1610 or Mr. Christopher I. Flynn at extension 1484.

Christopher J. Flynn 349

Sr. Project Manager

HOLZMACHER, McLENDON & MURRELL, P.C.

George W. Desmarais, P.E.

Vice President

GWD:CJF/jlp2

Enclosures

cc: Town Board

Amy Mele, Esq. (w/encl)

K. Luke Kalarickal, P.E., P.L.S. (w/encl)

Ralph A. Lauria (w/encl)

X/CLKT (Town of Clarkstown) - 10195/2009/0907 (West Nyeck Landfill_Riverso)/CORRESPONDENCE/Riverso property summary report.docx

SAMPLE DATA SUMMARY PACKAGE TABLE OF CONTENTS

H₂M PC

CLARKSTOWN LANDFILL RIVERSO PROPERTY SITE INVESTIGATION SAMPLES RECEIVED: 4/27/09, 4/28/09 & 4/29/09 SDG NO.: PCCSW010

- 1. NYS DEC SUMMARY FORMS
- 2. CHAIN OF CUSTODY DOCUMENTATION
- 3. SDG NARRATIVES
- 4. SAMPLE REPORTS
 - 4.1 TCLP VOLATILES
 - 4.2 TCLP SEMIVOLATILES
 - 4.3 TCLP PESTICIDES
 - 4.4 TCLP METALS
 - 4.5 WET CHEMISTRY
- 5. SURROGATE SPIKE ANALYSIS RESULTS
 - 5.1 TCLP VOLATILES
 - 5.2 TCLP SEMIVOLATILES
 - 5.3 TCLP PESTICIDES
- 6. MATRIX SPIKE / MATRIX SPIKE DUPLICATE SUMMARY
 - 6.1 TCLP VOLATILES
 - 6.2 TCLP SEMIVOLATILES
 - 6.3 TCLP PESTICIDES
- 7. DUPLICATE SUMMARY RESULTS
 - 7.1 TCLP METALS
 - 7.2 WET CHEMISTRY
- 8. SPIKE SAMPLE RESULTS
 - 8.1 TCLP METALS
 - 8.2 WET CHEMISTRY
- 9. BLANK SUMMARY DATA AND RESULTS
 - 9.1 TCLP VOLATILES
 - 9.2 TCLP SEMIVOLATILES
 - 9.3 TCLP PESTICIDES
 - 9.4 TCLP METALS
 - 9.5 WET CHEMISTRY
- 10. INTERNAL STANDARD AREA DATA
 - 10.1 TCLP VOLATILES
 - 10.2 TCLP SEMIVOLATILES

1. NYS DEC SUMMARY FORMS

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

SDG: PCCSW010 Analytical Requirements

<u> </u>	_	7 11.01) 11.00 11.00 11.00								
Customer Sample Code	Laboratory Sample Code	GCSEMI	ME	MSSEMI	MSVOA	wc				
TP-1	0905085-001	X	X	X	Х	x				
TP-2	0905085-002	X	X	X	Х	Х				
TP-3	0905125-001	X	Х	Х	X	Х				
TP-4	0905125-002	X	X	X	X	Х				
TP-5	0905125-003	X	Х	Х	Х	Х				
TP-6	0905125-004	X	X	Х	Х	Х				
TP-7	0905125-005	X	Х	Х	Х	Х				
TP-8	0905184-001	X	X	X	X	X				

SAMPLE PREPARATION AND ANALYSIS SUMMARY VOLATILE (VOA) ANALYSES

SDG: PCCSW010

Laboratory Samp ID	Client Sample ID	Matrix	Analytical Protocol	Date Collected	DateRecd at Lab	Date Extracted	Date Analyzed	Extraction Method	DF	Level	Aux Cleanup
0905085-001A	TP-1	Leachate	SW1311/8260	27-Apr-09	27-Apr-09	29-Apr-09	04-May-09		ī	LOW	
0905085-002A	TP-2	Leachate	SW1311/8260	27-Apr-09	27-Apr-09	29-Apr-09	04-May-09		1	LOW	
0905125-001A	TP-3	Leachate	SW1311/8260	27-Apr-09	28-Apr-09	29-Apr-09	04-May-09		i	LOW	
0905125-002A	TP-4	Leachate	SW1311/8260	28-Apr-09	28-Apr-09	29-Apr-09	04-May-09		1	LOW	
0905125-002AMS	TP-4MS	Leachate	SW1311/8260	28-Apr-09	28-Apr-09	29-Apr-09	04-May-09		1	LOW	_
0905125-002AMSD	TP-4MSD	Leachate	SW1311/8260	28-Apr-09	28-Apr-09	29-Apr-09	04-May-09		1	LOW	
0905125-003A	TP-5	Leachate	SW1311/8260	28-Apr-09	28-Apr-09	29-Apr-09	04-May-09		1	LOW	
0905125-004A	TP-6	Leachate	SW1311/8260	28-Apr-09	28-Apr-09	29-Apr-09	04-May-09		1	LOW	
0905125-005A	TP-7	Leachate	SW1311/8260	28-Apr-09	28-Apr-09	29-Apr-09	04-May-09		1	LOW	
0905184-001A	TP-8	Leachate	SW1311/8260	28-Apr-09	29-Apr-09	29-Apr-09	04-May-09		1	LOW	

SAMPLE PREPARATION AND ANALYSIS SUMMARY SEMIVOLATILE (BNA)

SDG: PCCSW010

ANALYSES

Laboratory Samp ID	Client Sample ID	Matrix	Analytical Protocol	Date Collected	DateRecd at Lab	Date Extracted	Date Analyzed	Extraction Method	DF	Level	Aux Cleanup
0905085-001B	TP-1	Leachate	APSB 1311	27-Apr-09	28-Apr-09	30-Apr-09	01-May-09	SEPF	1	LOW	-
0905085-002B	TP-2	Leachate	APSB 1311	27-Apr-09	28-Apr-09	30-Apr-09	01-May-09	SEPF	1	LOW	
0905125-001B	TP-3	Leachate	APSB 1311	27-Apr-09	28-Apr-09	30-Apr-09	01-May-09	SEPF	i	LOW	
0905125-002B	TP-4	Leachate	APSB 1311	28-Apr-09	28-Apr-09	30-Apr-09	01-May-09	SEPF	1	LOW	_
0905125-002BMS	TP-4MS	Leachate	APSB 1311	28-Apr-09	28-Apr-09	30-Apr-09	01-May-09	SEPF	1	LOW	
0905125-002BMSD	TP-4MS	Leachate	APSB 1311	28-Apr-09	28-Apr-09	30-Apr-09	01-May-09	SEPF	1	LOW	
0905125-003B	TP-5	Leachate	APSB 1311	28-Apr-09	28-Арт-09	30-Apr-09	01-May-09	SEPF	1	LOW	
0905125-004B	TP-6	Leachate	APSB 1311	28-Apr-09	28-Apr-09	30-Apr-09	01-May-09	SEPF	1	LOW	
0905125-005B	TP-7	Leachate	APSB 1311	28-Apr-09	28-Apr-09	30-Apr-09	01-May-09	SEPF	1	LOW	
0905184-001B	TP-8	Leachate	APSB 1311	28-Apr-09	29-Арг-09	30-Apr-09	01-May-09	SEPF	1	LOW	

SAMPLE PREPARATION AND ANALYSIS SUMMARY PESTICIDE/PCB/HERB

SDG: PCCSW010

ANALYSES

Laboratory Samp ID	Client Sample ID	Matrix	Analytical Protocol	Date Collected	DateRecd at Lab	Date Extracted	Date Analyzed	Extraction Method	DF	Level	Aux Cleanup
0905085-001B	TP-1	Leachate	SW1311/8081	27-Apr-09	27-Арг-09	01-May-09	07-May-09	SEPF	1	LOW	
0905085-002B	TP-2	Leachate	SW1311/8081	27-Apr-09	27-Apr-09	01-May-09	07-May-09	SEPF	1	LOW	
0905125-001B	TP-3	Leachate	SW1311/8081	27-Apr-09	28-Apr-09	01-May-09	07-May-09	SEPF	1	LOW	
0905125-002B	TP-4	Leachate	SW1311/8081	28-Apr-09	28-Apr-09	01-May-09	07-May-09	SEPF	1	LOW	
0905125-002Bms	TP-4MS	Leachate	SW1311/8081	28-Apr-09	28-Apr-09	01-May-09	07-May-09	SEPF	1	LOW	
0905125-002Bmsd	TP-4MSD	Leachate	SW1311/8081	28-Apr-09	28-Apr-09	01-May-09	07-May-09	SEPF	1	LOW	
0905125-003B	TP-5	Leachate	SW1311/8081	28-Apr-09	28-Apr-09	01-May-09	07-May-09	SEPF	1	LOW	
0905125-004B	TP-6	Leachate	SW1311/8081	28-Apr-09	28-Apr-09	01-May-09	07-May-09	SEPF	1	LOW	
0905125-005B	TP-7	Leachate	SW1311/8081	28-Apr-09	28-Apr-09	01-May-09	07-May-09	SEPF	1	LOW	
0905184-001B	TP-8	Leachate	SW1311/8081	28-Apr-09	29-Apr-09	01-May-09	07-May-09	SEPF	1	LOW	

SAMPLE PREPARATION AND ANALYSIS SUMMARY INORGANIC ANALYSIS

SDG: PCCSW010

Laboratory Samp ID	Client Sample ID	Matrix	Metals Requested	DateRecd at Lab	Date Analyzed
0905085-001	TP-1	WATER	Ag,AS,Ba,Cd,Cr,HG,Pb,Se,	27-Apr-09	05/09
0905085-002	TP-2	WATER	Ag,AS,Ba,Cd,Cr,HG,Pb,Se,	27-Арг-09	05/09
0905125-001	TP-3	WATER	Ag,AS,Ba,Cd,Cr,HG,Pb,Se,	28-Арг-09	05/09
0905125-002	TP-4	WATER	Ag,AS,Ba,Cd,Cr,HG,Pb,Se,	28-Apr-09	05/09
0905125-002DUP	TP-4D	WATER	Ag,AS,Ba,Cd,Cr,HG,Pb,Se,	28-Apr-09	05/09
0905125-002MS	TP-4S	WATER	Ag,AS,Ba,Cd,Cr,HG,Pb,Se,	28-Apr-09	05/09
0905125-003	TP-5	WATER	Ag,AS,Ba,Cd,Cr,HG,Pb,Se,	28-Apr-09	05/09
0905125-004	TP-6	WATER	Ag,AS,Ba,Cd,Cr,HG,Pb,Se.	28-Apr-09	05/09
0905125-005	TP-7	WATER	Ag,AS,Ba,Cd,Cr,HG,Pb,Se,	28-Apr-09	05/09
0905184-001	TP-8	WATER	Ag,AS,Ba,Cd,Cr,HG,Pb,Se,	29-Apr-09	05/09

SAMPLE PREPARATION AND ANALYSIS SUMMARY INORGANIC ANALYSIS

SDG: PCCSW010

Laboratory Samp ID	Client Sample ID	Matrix	Tests	DateRecd at Lab	Date Analyzed	
0905085-001	TP-1	Soil	SELECT WET CHEMISTRY **	04/27/09	04/09 - 05/09	
0905085-002	TP-2	Soil	SELECT WET CHEMISTRY **	04/27/09	04/09 - 05/09	
0905125-001	TP-3	Soil	SELECT WET CHEMISTRY **	04/28/09	04/09 - 05/09	
0905125-002	TP-4	Soil	SELECT WET CHEMISTRY **	04/28/09	04/09 - 05/09	
0905125-002DUP	TP-4DUP	Soil	SELECT WET CHEMISTRY **	04/28/09	04/09 - 05/09	
0905125-003	TP-5	Soil	SELECT WET CHEMISTRY **	04/28/09	04/09 - 05/09	
0905125-004	TP-6	Soil	SELECT WET CHEMISTRY **	04/28/09	04/09 - 05/09	
0905125-005	TP-7	Soil	SELECT WET CHEMISTRY **	04/28/09	04/09 - 05/09	
0905184-001	TP-8	Soil	SELECT WET CHEMISTRY **	04/29/09	04/09 - 05/09	

^{**} Corrosivity PH; Ignitability; Reactive Cyanide; Reactive Sulfide;

2. CHAIN OF CUSTODY DOCUMENTATION





EXTERNAL CHAIN OF CUSTODY



Tel: (631) 694-3040 Fax: (631) 420-8436	CLIE	NT:										H2M SDG	NO: ACCS WOOG / OID
PROJECT NAME/NUMBER						74.1					NOTES:	EST PITS	NO: PCSW009 010 Project Contact: Phone Number:
alkT 0907	alner N				9	1/60	7.	\ .			TIL	VBCs	
CLARISTOWN LANDING RIVERSO PROBLETY SAMPLERS: (signature)/Client	Sample Container Description				-02 jr		2 6				TIL	SVOCS	Phone Number:
SAMPLERS: (signature)/Client		!			1	2-62 (ja	1	7			781 m	1-7/4	1
	\ \varphi					5					Port	postilida	PIS/Quote #
101/1/201)				•	TUR	1/14	
DELIVERABLES	1								<u> </u>		TILA	cuic in	shids, characteristic
TURNAROUND TIME:	No. o		AN	ALY:	SIS F	REQI	UEST	LED	<u> </u>		and la	8-0-	1 1 . 5
TORNAROUND TIME.	Total No. of Containers		GANI	Ç					INO	_			Ch watershir
DATE, TIME MATRIX FIELD I.D.	↓	Ş	8NA NA	PCB					Metal	S	TOTAL /	I.D. NO.	✓ REMARKS:
4/2/0/0:49 J'bil 1P-1	ラ				/	3	3				0905078	0905085-001	F REMARKS:
1 12:45 Nil TF-2	7				1	3	ζ				1 - 200		
150												<i>[</i>	
		_								_			
					<u> </u>								
	-									<u> </u>			
	<u> </u>									_			
Relinquieted by: (Signature) Date Time Recitived by: (Signature)	ature)	لِـــا	,	!	D:	ate	Tir	me			1.00	DATODY HOT OF	<u> </u>
	10MM	NEW)		4/	27/0	12	1;45	Poise	crepa	ncies Between	RATORY USE OF Samples were:	dend Delivered Airbit#
Refuguestied by (Signature) Date Time Received by (Sig				7	//P	ate	TII	me	Sar	nple l	abels and cord? Y or N	1. Shippedor-	ech Temp
Reinquished by: (Signature) Date Time Received by: (Signature)	natkre)	1	_		/// D	lu Ç		() ()		c na daln:	JOIGT TOTAL	Received in goo A. Property present	d condition. Yor N red: () or N
	,		ン		~		'"	.,	—			COC Tape was:	
Refinquished by: (Signature) Date Time Received by: (Signature)	nature)				Di	ate	Tu	me				_ 2. Unbroken on ou	r package: YokN ^D ter package: Yor N
									_			Y or N	sent & complete upon sample receipt:



Sample Receipt Checklist

Client Name PCCSW			Date and	Time Received:	4/27/2009 3:03:00 PM
Work Order Number 0905085			Received	by dmc	
Checklist completed by	Date Carrier name	75 09 Hand Delive	Reviewed	by Initials	469(09
Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Applicable	
Custody seals intact on shippping container/co	poler?	Yes 🗌	No 🗌	Not Applicable 🗹	
Custody seals intact on sample bottles?		Yes 🗌	No 🗌	Not Applicable 🗹	
Chain of custody present?		Yes 🗹	No 🗌		
Chain of custody signed when relinquished an	d received?	Yes 🗹	No 🗌		
Chain of custody agrees with sample labels?		Yes 🗹	No 🗌		
Samples in proper container/bottle?		Yes 🗹	No 🗌		
Sample containers intact?		Yes 🗹	No 🗌		
Sufficient sample volume for indicated test?		Yes 🗹	No 🗌		
samples received within holding time?		Yes 🗹	No 🗌		
container/Temp Blank temperature in complia	nce?	Yes 🗹	No 🗌		
Water - VOA vials have zero headspace?	No VOA vials subr	mitted 🗹	Yes [□ No □	
Water - pH acceptable upon receipt?		Yes 🗹	No 🗀		
	Adjusted?		Checked by		
Any No and/or NA (not applicable) response m	nust be detailed in the o	comments sec	ition below.		
Client contacted	Date contacted:		Pe	erson contacted	
Contacted by:	Regarding				
Comments:					
Corrective Action					

INTERNAL CHAIN OF CUSTODY

CLIENT: PCCSW	DELIVERABLES: B	- 70 TURN AROU	ND TIME TO DAYS
SDG# ACCSINOC	CASE #:	MATRIX: Sil	PH CHĒCK Y OF (M)
REMARKS: 016	RCS~ 09		
RECEIVED BY:	SIGNATURE:	DA	те: <u>4/21/0</u> 9томе: <u>/\$</u> :0:3

				<u> </u>	77
	H2M LAB	DATE	BOTTLE	#OF	TESTS .
CLIENT ID	H	COLLECTED	TYPE	BOTTLES	REQUESTED
· 7P·1	0905085 004	4/27/09	A	l	TCLP VOA
· V -Z	J -002A		<u></u>	V	V
>			_		
,					
•					
•					
•					
•				1	mc.
) h					112909
17					71 0/
•					
*					
1					
7					
•		, i			

VOLATILE

P 0208

CLIENT: PCCSWOID

INTERNAL CHAIN OF CUSTODY

. []	SAMPLE		<u> </u>	PURPOSE OF	
			RELINQUISHED	SAMPLE	BOTTLE TYPE	CUSTODY	TINI
'	DATE	TIME	BY BY	RECEIVED BY	TIPE -	4	
1	1/23/01	lic -	/d/6/	DIM	4	ANAUISIS	
	4/29/0	1000	"Palmare	SICN	A	Prep	
	u nha	шаа	eral C	STON Show	VICLE	Analus	
ľ	424114	ngou	#100k	5100	11.124		
	.		# I COJ	9108			
T			9] (Dat	310H			
\mid			510H	210H		- 3 -	
			8]ON	PION			
<u></u>			510M	310N			
-			310M	31CH .			
15			SION	SICN			
			SION	SICH			
_			. KOIC	SICH	· .		
_			ROIR	SICN			
			Alon	SICH			
			NOIE	SICH			
	1		210M	310N			
			NOTE	SION			
			э1ои	SICH			
			310N	SION	- ·	·	
			3108	SION			
			31 OR	910N			
			SION	SICH			
			, NOIS	SICN			
-			ноте	SICH			
			SION	SICN			
_		<u>L</u>			L	J	

VOLATILE

INTERNAL CHAIN OF CUSTODY

CLIENT: PCCSW	_DELIVERA	BLES: <u>755-</u>)	<u>o</u> tur	n around	TIME: ZI DAYS	
SDG#: PCSWOID	CASE #:		MATRIX: _	Soc	pH CHECK Y or 🕥	
REMARKS: 016	PCCSW	09				
RECEIVED BY: DMC			ALL	DATE	: 4/27/09 TIME 15:05	
	<u> </u>) (+ IN COSTION
	H2M LAB	DATE	BOTTLE	# OF	TESTS	OF MS
CLIENT ID	#	COLLECTED	TYPE	BOTTLES	REQUESTED	
· 7P-1	0905085-0014	4/27/09	4	*	TOLP WOA	
. 1 4	-015		C	1	TOUP METALS TOUPHINA TOUPHEST	
	NOIC		В	1	1GN.5	
· V - Z	1,8,C	V	As ABOVE	15 Aprile	As ABOVE	
,				1217		
,	.					
,						
10					DW/	
13					JUL	
1)					479.03	
13					1-4-1	
н						
13						
				 		
17			[-		
ir .			 _	 -	-	-
17			ţ	I		J

CSW010

MARS, INC.

CLIENT: PCCS W

SDG #: PCCSWOIG

INTERNAL CHAIN OF CUSTODY

	J	SAMPLE		nowni P	PURPOSE OF CHANGE OF	
	m	RBLINQUISHED	SAMPLE	BOTTLE	CUSTODY	INIT
DATE	TIME	BY	RECRIVED BY	f	1/4/50	
4/28/09	11:05			* B.C	16N-SPREA	
4/30/09	96	3104	0104/1	MTCLP	Analysis	
5/1/09	11:00	2000	Churche Oel	Trup	Analysis	
14/09	12.0	5100	M. Rower	PICES	Analysis	
., .,		SI COM	alon		.)	
	1	/\$1 CM	aton			
		SICH	9109			
		BION	ноте			
		SICOR	31CM			
		31 COI	aica			
		HOIE	SICH			
		3108	SICN			
		SION	SICN			
		SION	SIGN			
		SION	SIGN			
		NOIE	SIGN			
		310M	310N			
		SION	SION			
		SION	SICH			
	L	NOIS	SION			
	L	HOIE	SION			
		HOIE	SION			
		SION	alch			
		SIOR	SIGN			
		SION	SICH			
		SIGN	SICH			

* A IN COSTONY OF MS

INTERNAL CHAIN OF CUSTODY

CLIENT: PCCSW DELIVERABLES: 35	TURN AROUND TIME: Z. DAYS
SDG#: PCCSWOID CASE#:	MATRIX: Scil PH CHECK Y OR
REMARKS: 016 PCCSW 09	
RECEIVED BY: SIGNATURE-	DATE: 1/2/03 TIME: 15:03

					
	H2M LAB	DATE	BOTTLE	# OF	TESTS
CLIENT ID	H	COLLECTED	TYPE	BOTTLES	REQUESTED
· 7P-1	0905035-001B	4/27/04	C	*	TCLP METALS
· 1-2	b cois	4	Į.	V	
,					
,					
	-				
1					
•	$\overline{}$				
•			<u> </u>		
19					
"					4/28/04
11					
14			-	 	
n				 	
п		-			
17					
»					

* IN CUELDY OF SP

METALS

SDG #: PCCSWOID

INTERNAL CHAIN OF CUSTODY

		SAMPLE	SAMPLE.	BOTTLE	PURPOSE OF CHANGE OF	
DATE	TIME	RELINQUISHED BY	RECEIVED BY	TYPE	COSTODY	INIT
4/28/09		BION	SIGN	*	ANALYSIS	
Hodel		SIGN -	310M			
	-	2764	910N M		3 1	
4/30/09	1000	50		EN	Vigestran	
y loka	1250	AC AC	9100	EN/Dry	stovage Analysis	
4/2/09	1100	310H 3-	3100	BN _	Ma dist	
4/2/09	1300	STON CO	510M - 15-	me/Dus	Frank 1 Angles	
5/109	1100	ston Sec	SION	BCI)	My Analysis	
5/1kg	1330	17(SION	13237	Serve o	
P 11/01	122	SION /	STON E		1.76	
		3100	SICH	/		
		3109	SIGN			-
		MOIE	SICH			
		3108	SIGN (S)			
		alon	SIGN			
		SION	SICH)			
		HOIE	SICH			
		STON	310N			
		SION	SION			
		MOIE	SICH			
		HOIE	SION			
	•	STON	SION			
		SION	SION			<u> </u>
		NOIS	alcu			
		310H	SIGN			
		MOIE	SICH			
		9100	SICN			
					·	

* IN CUSTED 1 OF SP

METALS

INTERNAL CHAIN OF CUSTODY

CLIENT: PCC	sw	_DELIVERABLE	s: <u>85 - 7</u>	<u>0 </u> Turi	N AROUND T	TIME: 21 DAYS
SDG #: PCCS	weic	CASE #:		AATRIX: _	Sol	pH CHECK Y 0(N)
REMARKS:						
RECEIVED BY:	DMC	SIGN	IATURE:		DATE:	1/27/04 TIME: 15 . 3

	UESTED FAC-5 PH-CORR-5
· V - Z V cozo V V V	PAC-5 PM-CERR-S
. 1-2 1 0000 1	PH-CORR-S
· V - 2 V 0020 V V	<i>.</i>
	(
•	
,	
" DAK	
" uhalog	
"	
"	
и	
13	
14	
17	
17	
36	

WET CHEMISTRY

CLIENT: PCCSW

SDG #: PCSW010

INTERNAL CHAIN OF CUSTODY

	T	T	T		PURPOSE OF	J
ł	ļ	SAMPLE	CAMOTE	BOTTLE	CHANGE OF	
DATE	TIME	RELINQUISHED BY	SAMPLE RECEIVED BY	TYPE	CUSTODY	INIT
4/24/05	11.10	STON- BI	SION	3	ANACYSIS	
1120101	11,110	100	310N V 1			
Y-29-09	9:00		Herry	B	PH COAN /SEP	age_
5/1/09	1000	on Jan	" And ///	В	React	
slilog	1300	· 100 42/11/11	9100	В	Storas-/ ANAL	1273
	-	810M	91000			
		BION	SION			
		BION	SION			
		BIOM	310A			
		SIOM	MOIG			
 		SION	SICH .			
		SION	SIGN			
 		AIOM	SIGN			
		SION	SIGN			
		SION	SIGN			
		9108	31CH			
		HOIE	SIC			
		STON	NOIE			
		Noie	SION			
 		MOIE	SICN			
		SION	SION			
		SION	3108			
		SION	SION			
· -		SION	alch			
		MOIE	SICH			
t		SION	SIGN			
 		SION	SICN		·	
			L	<u> </u>	J	

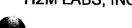
WET CHEMISTRY

575 Broad Hollow Rd, Melville, NY 11747-5076



EXTERNAL CHAIN OF CUSTODY

Tel: (631) 694-1 30 Fax: (631) 420-8436	CLIENT: PCCSW					H2M SDG NO: PUSWO			NO: PUSWOOL/NO				
PROJECT NAME/NUMBER		4			7	7	3	<u>.</u>			NOTES:	_	Project Contact:
CLKT 6907: Clarks town Landfill:	ě	46ml vials			7-62.	4-02.	8-02.	1-11h	1		* TCL	CUBCS	GWD
Riverso Property	Sample Container Description	14	. !		2.				11.7		THE	dela	Phone Number:
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	2 B	18			jars	jars	jirs	3	,		ashzil	chils	
SAMPLERS: (signature)/Client	-				<u>ئ</u> ر	₹	۱ ۲	64	Hop		-Isnitabi	1th	
	l °								3		- CATINSIUI	75,	PIS/Quote #
DELIVERABLES	1										- reaching		
DELIVERABLES:	1 _										TCLP VO	CS BC.	- 1 - 1 - TO TO 1
NEDEC ASP B	0.0		AN	ALYS	SIS F	REQU	JEST	ED	·		TELP SU TELP PE TELP M	A/PCRI	** MS/NO @ TP4
TURNAROUND TIME:	Total No. of Containers	00	GANIC	_		-			INOF	20	TLLP IM	e tals	
	Set 1			\neg			-						
DATE TIME MATRIX FIELD I.D.	}	VOA	看	2 2					Metal	S	LAB I.		REMARKS:
4/21/0 2:42 soil TP-3	7				3	Ŋ	1				090512L	10401525 - 101 A-1	REMARKS:
4/28 7:56 soil TP-4	25				8	16	/				-002)	11-0021	andyses TP-4
4/26, 9:10 Soil TP-5	フ				શ	S	,				1-663	1 -003	17.5/MSD
4/28 10:41 Soil TP6	17				3	3	1				· - 24	-04	
4/28 12:00 Soil TP-7	8		Ī			8					- 700	1 - 105	
4/28 Doil IPS COF 1/28/09						Ť						1 2 3 3 4	
						-							
													
4/28 1:04 Kiven Field Black	6	2						3	7		- 006 A-L		VOLS, SVILS, TAL mobils, post
havon Trip Blank	Z	Z									-007A		
Relinquished by: (Signature) Date / Time Required by: (Signature)	(nature)				Di	ate	Tir	me				ATORY USE C	DNLY
ATTACO MANUELLA	reoniu	laur			4/2	8/07	1:0	7PM			ncles Between	Samples were:	Hand Delivered Airbill#
Relinquished by: (Signature) Date Time Regimed by: (Signature)	onature)		,		, Di	ate,	Tir	me	Sam	•	abels and cord? Yor N	Snipped or chi Ambient or chi	Hand Delivered Airbilit
Restricting and by: (Skingsure) Date Time Received by: (Skingsure)	mah (m)	\rightarrow	<u>. </u>			3/0G		レフ me	Expl		SUIDE FORN.	3. Received in go 4. Properly prese	od coydition (y or N rved; (Y or N
	uns		_)	I I	j	· · ·					COC Tape was:	\mathcal{C} .
Relinquished by: (Signature) Date Time Received by: (Signature)	·		$\overline{\ }$			/69		me				1. Present on out	er package: Y or N uter package: Y or N
The state of the s	-		6	>			` "	.,,,				3. COC record pr	esent & complete upon sample receipt:
												YorN	ļ



Sample Receipt Checklist 7005w010

Client Name PCCSW		Date and Time Received:	4/28/2009
Work Order Number 0905125		Received by: EM	
Checklist completed by Signature	Date 2,/2,7/65	Reviewed by	4/29/b9
Matrix:	Carrier name: Hand Deliver	<u>ed</u>	
Shipping container/cooler in good condition?	Yes 🗹	No Not Applicable	
Custody seals intact on shippping container/cod	oler? Yes	No 🗌 Not Applicable 🗹	
Custody seals intact on sample bottles?	Yes 🗌	No Not Applicable	
Chain of custody present?	Yes 🗹	No 🗌	
Chain of custody signed when relinquished and	received? Yes ✓	No 🗌	
Chain of custody agrees with sample labels?	Yes 🗹	No 🗌	
Samples in proper container/bottle?	Yes 🗹	No 🗌	
Sample containers intact?	Yes 🗹	No 🗆	
Sufficient sample volume for indicated test?	Yes 🗹	No 🗌	
All samples received within holding time?	Yes 🗹	No 🗌	
container/Temp Blank temperature in complian	ce? Yes ✓	No 🗌	
Water - VOA vials have zero headspace?	No VOA vials submitted	Yes 🗌 No 🗌	
Water - pH acceptable upon receipt?	Yes 🗹	No 🗌	
	Adjusted?	Checked by	
Any No and/or NA (not applicable) response mu	st be detailed in the comments secti	on below.	
Client contacted	Date contacted:	Person contacted	
Contacted by:	Regarding:		
Comments:			
·			
	 _	_	
Corrective Action			
· · · · · · · · · · · · · · · · · · ·			

INTERNAL CHAIN OF CUSTODY

CLIENT: PCCSWDELIVERA	ABLES: 35-700 TURN AROUND TIME: 21 DAYS	
SDG# 7005-VOID CASE#	MATRIX: SUIL PHICHECK YOUN	
REMARKS: Which #	1462	UK TWO 2-02 years
DECEMEN BY:	SIGNATURE: 142)	ent the start xx

	VED 61		IOIVATORE.		2	1501	1
		H2M LAB	DATE	BOTTLE	# OF	TESTS	
	CLIENT ID	, #	COLLECTED	TYPE	BOTTLES	REQUESTED	
	TP-3	0405125 -001A	04.27.09	Α	1	TOLY WOR	
,	4	-00-A	est. 28.261	A,B**	3		*ms/mox
,	5	- نان A		A	1		
	0	-Ct. A		\downarrow			<u> </u>
,	\ 7	1-605A	<u> </u>	3	↓	<u> </u>	
,							
•				•			_
,				0	h_/		_
,,				9.0			
		. <u> </u>					
13			0//				_
13	٠.	N					_
ы						_	_
13			•				_
u							-
17							_
10					-		
n-							_
- /				<u> </u>			

VOLATILE

P 0217

PCCSW010 S22

SDG #: PECSIVION

INTERNAL CHAIN OF CUSTODY

3							
			SAMPLE			PURPOSE OF	
.53	ĺ		RELINQUISHED	Sample	BOTTLE	CHANGE OF	
	DATE	TIME	BY ,	RÉCÉLIVED BY	TYPE	CUSTODY	INIT
	4/28/55	1340	SION IN WIN	31CH DIM	A, B	Andizin	
蜀		1000	The man	91CN	AB	APrep	
	4/201	1400	810M	oton Janva	Allviag	Andyn	
29 0	751		*10	alon	·		
			# I COM	SIGN			
			SION	310%			
			8104	91014			
			8101	NOIE			
			810M	SION			
			91 COM	31CM			
			alon	SICN			
		1	310H	SICH			
			910M	SIGN			
			alon	SICH			
			alon	SICH			
•	 +		310%	9101			
			HOIE	STON			
•			этон	21CH			
			310M	SION			
1	t		31 ON	SION			
			3109	HOIE			
			SION	SICH		•	
			910H	SICH			
			HOIE	SICH			
		. [SION	SICH			<u> </u>
-							

VOLATILE

INTERNAL CHAIN OF CUSTODY

CLIENT: PUSW	_DELIVERAE	BLES: <u>85 - 7</u> 0	O TUR	N AROUND	TIME: 21 D4y)	
SDG#: PLCSWOID	CASE #:	1	MATRIX: _	SOIL	ph Check Y or N	
REMARKS:	Chot # 1	462		·		
RECEIVED BY: EN	s	IGNATURE:	Juny-	DATE	:: 4/28/04TIME: 1427	
	H2M LAB	DATE	BOTTLE	# OF	TESTS	
CLIENT ID	#	COLLECTED	TYPE	BOTTLES		
· TP-3	0905125A,	04 27 04	C	\	TILF BNA TILF ARKING	4/23/041
. , ,	ا - ن در د	04.28.09	B	ı	16, N-S	
, 4	-002BC		6,3 300=1	7,3	Ax Azore	+ms/msd+
. 5	-003		4/23/001 C, B	1,1		
, 6	~ oc+			\rightarrow		
. \ 7	1-05	>	\$ B	2,1	\ <u>\</u>]
,		_	(Den 1/28/01			
•						<u> </u>
,			<u> </u>			
19				O]
ท						
13			1/			
σ .						1
н	- N					
ъ .						
16						
"						

PCCSW010 S24

CLIENT: PCCSWLIC

INTERNAL CHAIN OF CUSTODY

		SAMPLE RELINQUISHED	SAMPLE	BOTTLE	PURPOSE OF CHANGE OF	*\\\
DATE	TIME	BY	RECEIVED BY	TYPE	CUSTODY	INIT
4/25/09	1830	stow (W)	gray lone	C13	1.42	
4/24/69	4-0	Angualana I	5108	(GN.5	Por	
4/30/09	(ů. č	STON 5	3100	mrcyp	Analysij	
5/109	12:00	9748	Chupe Del	stup	Analyjis	
54/09	12.0	SION S	mning	PICLP	Anglysis	
		BIOM	SION			
	7	STON	3108			
		BION	SION			
		BICON	SIGH			
		3100	SIGN			
		HOIE	SIGH			
		ADION	SIGN			
		910H	SIGN			
		91 CM	SIGH			
		SION	91CH			
		SION	SIGN			
		910H	310M			
		alon	STON			
		SION	SICH			
		910H	SIGN			
		SIOM	SION			
<u> </u>		моте	STON			
		SION	BICH			
		SION	SICH			
		910M	SICH			
		SION	SIGN			i
			· · · · · · · · · · · · · · · · · · ·			

INTERNAL CHAIN OF CUSTODY

CLIENT: PCCSW	_DELIVERAL	BLES: 35 - 70	<u>i)</u> Tur	N AROUND	TIME: 2 DAYS	
SDG#: PCCSWOID	CASE #:	1	MATRIX:	SUIL	pH CHECK Y ∝ N	
REMARKS: Q	10t # 146	۲				time white of
RECEIVED BY: EM		SIGNATURE:	VW-	DATE	:4/23/07 TIME: 1467	si t
	H2M LAB	DATE	BOTTLE	# OF	TESTS	
CLIENT ID	,,	COLLECTED	TYPE	BOTTLES		
, TP-3	0905125	24.27.09	C	X	TELP WETALS	
, 1-4	- 0.32 3	04.28 04				tymi/minxx
5	027 8		C-			
6	004 B					
, , 7	- 005 B	J J	B	<u> </u>	· · · · · · · · · · · · · · · · · · ·	_
						1
,						
•				9		
			(
10			9:			
31			2			
13						
в .						
18	< N	/				
13	W					
"						
"						
"						
n			<u> </u>			

METALS

CLIENT: PCCSW

INTERNAL CHAIN OF CUSTODY

	γ	SAMPLE	1	1	PURPOSE OF	
	-	RELINQUISHED	SAMPLE	BOTTLE	CHANGE OF	i i
DATE	TIME	BY	RECEIVED BY	TYPE	CUSTODY	INIT
4/20/09	15:00	SION 5	9101	FN	STORAGE	
4/2/09	140	100	310H	BY	171965 from	
11/2	-	93 CON 12	SION STORY		1,	
4/3/109	120	SION TO	9100	ENIDAS	5 long / Avaly55	
9/349	1100	200	MOIE	en	Ily digs	
4/3/109	140	\$10g	910M	124 Dis	Steven And Ash	
5/11/4	1100	Sicus 3	9100	by	tla Analysis	
5/1/18	1530	NC	310	Lisco	Small	
- Contract		BION	310M	7.7		
		stox	alon		,	
		31 COM	эіси			
		SION	SIGN			
		noie	SICN \U	60		
		SION	SIGN 5			
		a i con	SIGN			
		SION	SIGN .			
		ROIE	91CN			
		alon	SION			
		SIOM	SION			
		HOIE	SIEN			
		MOTE	SION			
	·	210%	SION			
		SION	SION			
		alon	91CN			
		STON	SICN			
		31001	SICH			
		SION	SICH		,	
				<u> </u>		J

METALS

INTERNAL CHAIN OF CUSTODY

CLIENT: PCC	SW	DELIVERAB	LES: 35-70D	TURN A	ROUND TI	ME: 21 D445
SDG #: PCCS	WCIO	CASE #:	MA	TRIX: _5º	- i L	pH CHECK Y or N
REMARKS:						
RECEIVED BY: _	EM	S1	GNATURE	M	DATE:4	28/6: TIME: 1427

				<u> </u>			
		H2M LAB	DATE	BOTTLE	# OF	TESTS	
	CLIENT ID	#	COLLECTED	TYPE	BOTTLES		ļ
Ŀ	TP-3	-0010	04.27.09	B	١	CN-FEAC.S S-BEAC.S TH-(UZ.S.	<u>.</u>
L.	TP 41	- 302 D	4.23.59)	3	1	4 w2/w2) 4
,	-5	- 003 D	1		ì		
•	_ 6	001 D]
,	J - 7	V 062 D	J	1	Ĵ	,	
			-				
,							}
,							
,					27	,	
36				13	-]
íτ			. 1	1			1
13			D/				1
",			5				1
14		Ź					1
15							
16							1
17							1
18							
n							1
,				·	 		
		[1	i	1	L	J

WET CHEMISTRY

CLIENT: PCCSW CID

2

INTERNAL CHAIN OF CUSTODY

DATE TIME RELINQUISHED BY RECEIVED BY TYPE CUSTODY IN STON WILL CALLE CALLE OF THE CUSTODY IN WILL CALLE CALLE CALLED OF THE CUSTODY IN WILL CALLE CALLED OF THE CUSTODY IN WILL CALLED OF	<u></u>		CANONI D	1	T	PURPOSE OF	
DATE TIME BY RECEIVED BY TYPE CUSTODY IN		ł		CAMPLE	BOTTLE		ļ ,
	שייו ביו	TOTAGE			1		INIT
							
Stop			alon X	SION AND CALL		3 .	192
	Sular		9109	3104			X
SION	6,64		2 hallis.	9100		steragelana	JY57 3
SIGN			er od	9100			
			BICON	BIGN			
SIGM SIGN			SICM	910M	/		
SION SICN		-	91 CM	HOIE			
SION SICN			SION	/			
SION SICN SICN SICN SION SICN			KDIE	12/80	,		
SION SICN SICN SION SICN SION SICN SION				3104			
SION SICN			·	_ <u> </u>			
310N 51CN							
SION SICN							
SIOM							
SIOM							
SION		ļ	/	3108			
SION		1	NOIS	SION			
910M			SION	SICN			
SION		}					
SIGN SIGN SIGN		_ 1	/1				
SIGN SIGN							
SIGN SIGN		_]	_ /				
			_ /				
		i					
SIGN			SION	SICH			

WET CHEMISTRY

575 Broad Hollow Rd. Melville, NY 11747-5076



EXTERNAL CHAIN OF CUSTODY

Tel: (631) 694-3040 Fax: (631) 420-8436	CLIENT:									H2M SDG NO: PCCSW009 110			
Tel: (631) 694-3040 Fax: (631) 420-8436 PROJECT NAME/NUMBER LLK T 09- 67: Clarkshum Landfill Kivers, Proaty S; k. mostisatim SAMPLERS: (signature) Client	e Container ecription				46.1 vids	Graz. jos					NOTES:	OCs	Project Contact: Phone Number:
DELIVERABLES: TURNARQUND TIME:	Sample				t l						TAL M Plas / f -Isniphibit -Unresivity - reaching - Teap V	3 5 75	PIS/Quote #
NISDEC ACPR	2 5			AI V	SIS E	REQU	IEST	ED.	زا		1- TCLP SV	1865	
TURNARQUND TIME:	fotal No. of Containers	OR	GANI		313 F	LEGIC)EQ I	ED	INOF	RG.	-Telp pe	TCLP	Upmedds
DAYE, TIME MATRIX FIELD I.D.	J U	V O∧	BNA	Peet/					Metal	S	7074L/	TCLP D. NO.	REMARKS:
4/20/0 2:08 Soil TP-8	8					8						0905184-001	X se ndes.
											sinc		
											पाछ		
											. <u>-</u>		
4/28/01 Kewax Tr. > Book	2				Z								
Relinquished by (Signature) Date Time Received by: (Sign	ature)	_			42	ate.		TIE 7			LABORA	ATORY USE OF	NLY
Relinquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature) Date Time Received by: (Signature) Relinquished by: (Signature)		5	_	•	े. पीय	מע	Tir 10 : 2	35 The	Sam CO0	iple L	ncies Between abels and cord? Y or N	2. Ambient or chille	d condition: (Por N
Relinquished by: (Signature) Date Time Received by: (Sign	ature)				Da	ate	Tir	THE		· ·		2. Unbroken on out	r package: Y or N ter package: Y or N sent & compleje upon sample receipt:



Sample Receipt Checklist

Client Name PCCSW			Date and	Time Received:	4/29	9/2009
Work Order Number 0905184			Received	by dmc		
Checklist completed by Signature	1/74 Date	1/09	Reviewed	l by Musis	5/109 Date	Makanya maharakayan d
Matrix:	Carrier name	Hand Delive	<u>ered</u>			
Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Applicabl	le 🗌	
Custody seals intact on shippping container/co	oler?	Yes 🗌	No 🗌	Not Applicabl	le 🗹	
Custody seals intact on sample bottles?		Yes 🗌	No 🗌	Not Applicabl	e 🗹	
Chain of custody present?		Yes 🗹	No 🗌			
Chain of custody signed when relinquished and	I received?	Yes 🗹	No 🗌			
Chain of custody agrees with sample labels?		Yes 🗹	No 🗌			
Samples in proper container/bottle?		Yes 🗹	No 🗌			
Sample containers intact?		Yes 🗹	No 🗀			
Sufficient sample volume for indicated test?		Yes 🗹	No 🗌			
Il samples received within holding time?		Yes 🗹	No 🗌			
Container/Temp Blank temperature in complian	nce?	Yes 🗹	No 🗌			
Water - VOA vials have zero headspace?	No VOA vials subn	nitted 🔽	Yes	□ No □]	
Water - pH acceptable upon receipt?		Yes 🗹	No 🗆			
	Adjusted?		Checked by			
Any No and/or NA (not applicable) response mi	ust be detailed in the c	omments sec	ction below.	na water space and species of		
Client contacted	Date contacted:		P	erson contacted	I	
Contacted by:	Regarding					
Comments:						
Corrective Action						
	-					

INTERNAL CHAIN OF CUSTODY

CLIENT: PCCSW	DELIVERABLES: 35	- 70 TURN AROUND T	IME: ZI DAYS
SDG#: PCCSW010	CASE #:	MATRIX: SOIL	pH CHECK Y or 🛈
REMARKS: 016	PCCSW 09		
RECEIVED BY: DMC	SIGNATURE:	72 Chate: 4	29/09 TOME: 10:35

		(<i></i>		
į	H2M LAB	DATE	BOTTLE	# OF	TESTS
CLIENT ID	И.	COLLECTED	TYPE	BOTTLES	REQUESTED
· 7P-8	0905184-001A	4/28/09	R	j	TCLP VOA
,					
,					
					-
<u>'</u>					
		·			
1					
•					
•				7	
10	_			0	nc
н					MC 4/29/09
12					
1)	-				
70					
13	`				
м					
17					
19					
э					

VOLATILE

10-12M LABS, INC.

SDG #: PCCSW010

INTERNAL CHAIN OF CUSTODY

	, D) W.	myyer	SAMPLE RBLINQUISHED	SAMPLE RECRIVED BY	BOTTLE	PURPOSE OF CHANGE OF CUSTODY	TINI
•	DATE 4/29/04	TIME	BY	SION ON	ß_	STORAGE	
	1. 1		SIGN S	MS CLP FRIOGE		2020	
	4/4/07	19:30	MS CO PATOGE WAS	9510M	vicup	0	
- [4/30/09	400	*148	alon (Orlum ~	VICLE	Hneign:	
1			sice	910ы			
•							
			SICM	3] 0%			
			BIOM	210B		- >.~	
•			SIQU	91 ON			
		f	81QM	HOIE			
-			510M	SICH			
_			NOIS	SICH			
<i>r</i>			SION	SICH			
`			9DOI	SICH			
-			31094	SICH			
-	-	 	910N	SICH			
_			моте	SICH			
-			3108	3104			
_			HOIE	STON			
_			SION	SICH			
_	[_						
_			3104	3108			
			310R	SION			
			9108	HOIE			
			310M	91CH			
_			SION	SICH			
_			ноте	SICH			
_			KO18	SICH			
	<u>_</u>					L	L

PCCSW010 S33



INTERNAL CHAIN OF CUSTODY

CLIENT: PCC5W	_DELIVERAL	BLES: <u>55°.</u>	<u>10 TUR</u>	N AROUNL	TIME: 21 DAYS	
SDG#: PCCSWOIO	CASE #:		MATRIX:	Soic_	pH CHECK Y on(s)	
REMARKS: 016	PCCSW	09				
RECEIVED BY:	14	SIGNATURE:		DATI	:: 4/29/09TOME: 10:55	
	H2M LAB	DATE	BOTTLE	# OF	TESTS	* IN CUSTOD
CLIENT ID		COLLECTED	TYPE	BOTTLES	REQUESTED	
· TP-8	U905184-001A	4/28/09	B	*	TCLP VOA	
,	-00/13	1		2_	TCLP METALS TCLP BNA, TCLP PEST	
. •	V .001C	V	V	(1GN-5	
`						
,						
,						
•						
,						
10	`			-		
n					DM C 4/12/09	
n					4/19/09	
n .						
н						1
15						1
16						1
17						1
18						1
10						1
		-	 	┼	 	1

PCCSW010 S34

CLIENT: ACSW

SDG #: ACCSWOID

INTERNAL CHAIN OF CUSTODY

		SAMPLE	22227	BOTTLE	PURPOSE OF CHANGE OF],
DATE	TIMB	RELINQUISHED	SAMPLE	TYPE	CUSTODY	TINI	1
4/29/09		SION BY	RECEIVED BY	<u> </u>	STORAGE		1
70101	19:30	Lacon	WALKIN PRIPGE - SP	3*			1
14/37/1	9.30	SIdy U	SICH LATERIAMENTE	15 *	Trevia	4/27/04	
7 29/69	19.51	WALK IN TRINE	910H 5	16N. 5	Pixo	_	
4/30/20	10.0	Tax Tax	Nois	MICH	Analysis	-	1
5/1/09		3500 /3	STON WAS	A11 (F)			1
711161	12:00	was a	Sharp Out	stop	Analysii		1
5/4/09	12:00		Minor	MI OP	AnalyjiT		-
1		SIGN S	olon				
		BIOM	HOIG				
		91024	21CH				
		910M	SICN]
		SION	SICH				1
		MOIE	SICH (OX				
		PION	SICH				
		SICH	SIGN				
		3100	SICN D				
		HOIE	SICH				
		MOIE	910H				
		alon	NCIS				
		HOIE	SIGN				
		HOIE	SION				
	-	310M	SYON	-			
		HOIE	SION				
		WOIE	SICN				
		3108	SICH				
		MOIE	SICH		_		-
	-	SION	SICH				i
				 _			

* BATTICE FOR TCLP VUA IN CUSTODY OF MS

INTERNAL CHAIN OF CUSTODY

CLIENT: PCCSW	_DELIVERABLES: _	B5-70 TURN AROUND T	IME: 21 DAYS
SDG #: <u>PCSNO10</u>	CASE #:	MATRIX: Soic	pH CHECK Y or (N)
REMARKS: 016			
RECEIVED BY:	SIGNATU	RE: SATE:	TIME: 10:35

	_					
	H2M LAB	DATE	BOTTLE	# OF	TESTS	* IN CUSTODY OF
CLIENT ID	#	COLLECTED	TYPE	BOTTLES	REQUESTED	
· 7P.8	0905184-0013	4/28/09	В	*	TCLP MCTALS	
,						
,						
,						
,			1			
1				D/	n (
•				V.	129/09	
10				4	·	
п						
ц						
н						
14						
15						1
14						
17						1
12						
15						9
39						\$38

PCCSW010 S36

METALS

SDG #: ACSWOID

INTERNAL CHAIN OF CUSTODY

* IN CUSTODY OF SP

		SAMPLE			PURPOSE OF	ł
72.000		RELINQUISHED	SAMPLE	BOTTLE	CHANGE OF CUSTODY	TINIT
DATE	TIME	BY	RECEIVED BY			
4/29/04	19:30		T	*	STORAGE	
413669	1	STON	STON			
4/3/69	100/	The Local of	910N 125	В	Diastron	
414/09	1110	STOM 17C	\$100 / TES	Blows	Herage Analysi)	
4/2/09	1100	old the De	31000	B /	Ma digs	
4/2/09	1300	Tay Or	9100)	13/1800	Steray & Analysis	
3/1/09	1100	8104	STON 12C	bed	Ma Analysis	
5/169	1330	BION ALC	2015	BUD	Blogare	
		SICW /	SIGN			
		31 CM	SICN			
		alon	SICH			
		alon	SICN		/	
		NOIE	SICH			
		MOLE	SIGN (V)			
		ROIE	SICH	/		
		NOIE	SIGN			
		alon	NOIE			
		SION	SION			
		SION	SICH			
		PION	SIGN			
		5] ON	SIGN			
	.	Note	SION			
•		MOIE	SIGN			
		210%	SIGN			
		SION	SIGN			
		HOIE	SIGN			
					·	

METALS

CCSW010 S38

H2M LA	BS.	NC.
--------	-----	-----

INTERNAL CHAIN OF CUSTODY

CLIENT: PCCSW	DELIVERAE	BLES: <u>85-70</u>	TUR	N AROUND	TIME: 21 DAYS	
SDG#: PCCSWOID	CASE #:	1	MATRIX:	Soil	pH CHECK Y or(N)	
REMARKS:O16	PCCSW	09		. 7		
RECEIVED BY:	RECEIVED BY: SIGNATURE: SIGNATURE: 40:35					
	H2M LAB	DATE	BOTTLE	#OF	TESTS	
CLIENT ID	#	COLLECTED	TYPE	BOTTLES		
· 7P.8	0905184-0010	4/24/09	B	1	CN-REAC-S S-REAC.S, PH-CORD-S	
1						
,						
,						
,						
		·				
•				- OM	f	
18						
н					4/19/09	
13						
- n		·				
14						
ıs						
14						
17		•				
11						
17						
א						

SDG #: PCCSWOID

INTERNAL CHAIN OF CUSTODY

RELINQUISHED BY RECEIVED BY TYPE CUSTODY INI PLANE OF CUSTODY STOWN WHICK IN FRICING OF CUSTODY INI PLANE OF CUSTO	Γ	T	SAMPLE		T	PURPOSE OF	
DATE TIME BY RECRIVED PAPER STORE 19:50 3100 100	1	l		SAMPLE	BOTTLE		
19:50 19:50 10:5	DATE	TIME	I .		1	CUSTODY	INIT
	4/20/09	19:30	910M	SION (4/29)	B	STORAGE	
				SIGN H		PHEOM / SHOW	
	5/1/09	10.00	9100 A	3108 B / W/			le
	Silon	1	OTOM Shift	SION		Store / ANAL	1855
SION	7	7	SION TO	SION			
SION			SICN	alon			
SION			SION	SIOR			
SIOM SICM SICM SIOM SICM SIOM SICM SIOM SICM SIOM			BION	SIOR			
SION SICN			SION	alon			
SIOM SICH			310H .	SICN SICN			
310M S1CM			SICH				
SION SICN SICN SION SICN SION SICN SION SICN SION			3101	SICN S			
310M 21CM 21CM 310M 31CM 310M 31CM 310M 31CM 310M			310N	SIGN			
310M 21CM 21CM 310M				SIGN			
SIOM SICM SICM SIOM							
310M S10M				SICH			
SION				/			
SION			alon	SION			
SIOM SION			ANDIA	SICH			
310M 31CM 31CM 31CM 31CM							
SION SICN				<u> </u>			
310M S1CM							
310N SIGN				<u> </u>			
SIGN SIGN	31 1		SION	SICN			

WET CHEMISTRY

3. SDG NARRATIVES

SDG NARRATIVE FOR TCLP VOLATILE ANALYSES SAMPLE RECEIVED: 4/27/09, 4/28/09 & 4/29/09 SDG#: PCCSW010

For Sample(s):

TP-1	TP-5
TP-2	TP-6
TP-3	TP-7
TP-4	TP-8

The above sample(s) was/were leached via ZHE method 1311 and analyzed for a select list of volatile organic analytes by EPA method 8260B in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the method. The following should be noted:

Sample TP-4 was analyzed as the matrix spike/matrix spike duplicate.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: May 18, 2009

Joann M. Slavin Senior Vice President

SDG NARRATIVE FOR TCLP SEMIVOLATILE ANALYSES SAMPLE(S) RECEIVED: 4/27/09, 4/28/09 & 4/29/09 SDG #: PCCSW010

For Sample(s):

TP-1 TP-5 TP-2 TP-6 TP-3 TP-7 TP-4 TP-8

The above sample(s) was/were leached using EPA TCLP method 1311 and analyzed for the TCLP list of semivolatile organic analytes by EPA method 8270C. Data are reported according to the requirements of the NYSDECASP 2005 category B deliverables.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Sample TP-4 was analyzed as the matrix spike sample. All percent recoveries except for a 9% recovery for pentachlorophenol in the matrix spike were within QC limits. 2-methylphenol, 3/4-methylphenol, 2,4,5-trichlorophenol and pentachlorophenol had high RPD's. Sample TP-4 MS had a low internal standard area count for d12 perylene.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: May 12, 2009

Joann M. Slavin Senior Vice President

SDG NARRATIVE FOR TCLP PESTICIDES ANALYSES SAMPLES RECEIVED: 4/27/09, 4/28/09 & 4/29/09 SDG #: PCCSW010

For Samples:

TP-1 TP-5 TP-2 TP-6 TP-3 TP-7 TP-4 TP-8

The above samples were leached according to EPA method 1311 and analyzed for TCLP pesticides by EPA method 8081A.

All QC data and calibrations met the requirements of the method unless discussed below. The following should be noted:

Sample TP-4 was analyzed as matrix spike (MS)/matrix spike duplicate (MSD). Heptachlor and gamma chlordane had a slightly high recovery in the matrix spike duplicate.

A lab fortified blank was analyzed and indicates good method efficiency.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: May 19, 2009

Joann M. Slavin

Senior Vice President

SDG NARRATIVE FOR TCLP METALS SAMPLE(S) RECEIVED: 4/27/09, 4/28/09 & 4/29/09 SDG #: PCCSW010

For Sample(s):

TP-1	TP-5
TP-2	TP-6
TP-3	TP-7
TP-4	TP-8

Sample(s) was/were received by H2M Labs, for TCLP metals analysis.

Samples were prepared using EPA method 1311 and analyzed using EPA methods 6010B with a TJA 61E Trace ICP instrument and 7470A with a Leeman HYDRA mercury analyzer.

Sample TP-4 was utilized for QC analysis and reporting.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: May 12, 2009

Vindent Stancampiano

Vice President

SDG NARRATIVE FOR WET CHEMISTRY SAMPLE(S) RECEIVED: 4/27/09, 4/28/09 & 4/29/09 SDG #: PCCSW010

For Sample(s):

TP-1	TP-5
TP-2	TP-6
TP-3	TP-7
TP-4	TP-8

Sample(s) was/were received by H2M Labs, Inc. for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Reactive Cyanide	EPA SW846 7.3.3.2
Ignitability	EPA SW846 1010
Corrosivity pH	EPA SW846 9045
Reactive Sulfide	EPA SW846 7.3.4.2

Samples utilized for QC analysis were listed on the QC summary report.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: May 21, 2009

Vincent Stancampiano

Vice President

SAMPLE REPORTS 4.

- 4.1
- TCLP VOLATILES
 TCLP SEMIVOLATILES
 TCLP PESTICIDES 4.2 4.3
- 4.4
- TCLP METALS WET CHEMISTRY 4.5

QUALIFIERS FOR REPORTING ORGANICS DATA

Value - If the result is a value greater than or equal to the quantification limit, report the value

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For example, 10U for phenol in water if the sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the sample quantitation limit for phenol (130 U) would be corrected to:

$$\frac{(300 \text{ U})}{D} \times \text{df where } D = \frac{100\% moisture}{100}$$
and df - dilution factor

For example, at 24% moisture,
$$D = \frac{100 - 24}{100} = 0.76$$

$$\frac{(300 \text{ U})}{.76}$$
 x 10 - 4300 U rounded to the appropriate number of significant figures

For semivolatile soil samples, the extract must be concentrated to 0.5 mL, and the sensitivity of the analysis is not compromised by the cleanup procedures. Similarly, pesticide samples subjected to GPC are concentrated to 5.0 mL. Therefore, the CRQL values in Exhibit C will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume (see Exhibit C), this fact must be accounted for in reporting the sample quantitation limit.

- I Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified quantification limit but greater than zero. (e.g.: If limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, report as 31.) The sample quantitation limit must be adjusted for dilution as discussed for the U flag.
- N Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- P This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported of Form I with a "P".
- C This flag applies to pesticide results when the identification has been confirmed by GC/MS.. If GC/MS confirmation was attempted but was unsuccessful, do not apply this flag, instead use a Laboratory defined flag, discussed below.
- B This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible probable blank contamination and warms the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound.

- B This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound.
- This flag identified compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. If one or more compounds have a response greater than full scale, except as noted in Exhibit D, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration ranges in the second analysis, then the results of both analyses shall be reported on separate copies of Form I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: For total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered separately, e.g. a diluted analysis is not required for total xylenes unless the concentration of the peak representing the single isomer exceed 200 ug/L or the peak representing the two coeluting isomers on that GC column exceed 400 ug/L. Similarly, if the two 1,2-Dichloroethene isomers coelute, a diluted analysis is not required unless the concentration exceed 400 ug/L.
- D This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- X This flag indicates suspected column bleed.
- This flag denotes concentration of tentatively identified compounds (TICs) to be biased low due to matrix interference with internal standard.
- Z Other specific flags may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the SDG narrative. Begin by using "X". If more than one flag is required use "Y" and "Z" as needed. If more than five qualifiers are required for a sample result, used the "X" flag to combine several flags as needed. For instance, the "X" flag might combine "A", "B", and "D" flags for some samples. The laboratory defined flags limited to the letters "X", "Y" and "Z".

The combination of flags "BU" or "UB" is expressly prohibited. Blank contaminants are flagged "B" only when they are detected in the sample.

QUALIFIERS FOR METALS ANALYSIS

Q (Quality Control) Qualifiers

- E The reported value is estimated because of the presence of interference. An explanatory note is included in the SDG narrative.
- M Duplicate injection precision not met.
- N Matrix spike sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Additions (MSA).
- + Correlation coefficient for the MSA is less than 0.995
- W Post digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.
- * Duplicate analysis is not within control limits.

C (Concentration) Qualifiers

- B Entered if the reported value is less than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).
- U Entered if the analyte was analyzed for but not detected, i.e., less than the IDL.

M (Method) Qualifiers

- P Analyzed by ICP.
- M Analyzed by ICP-MS
- A Analyzed by Flame AA.
- F Analyzed by Furnace AA.
- CV Analyzed by Manual Cold Vapor techniques.
- AV Analyzed by Automated Cold Vapor techniques.
- C Analyzed by Manual Spectrophotometric Method.
- CA- Analyzed by Midi-distillation Spectrophotometric Method.
- NR Analyte not Required.

HZM Labs. Inc.

CODES FOR MANUAL CORRECTIONS

T: Transcription error.

CE: Calculation error

CC: Changed per client request

SC: Sample cancelled

LB: Wrong spot in logbook

The following codes are specific to chromatography:

GC/IC:

MS (Match standard): The integration of the continuous calibration or the sample was different from that used for the initial calibration, e.g. more or less of the tail was included.

BL (Baseline): Incorrect integration due to changing baseline (rise or fall).

<u>NP (Negative peak)</u>: Due to a negative displacement in the baseline, wrong areas were integrated, which usually are too high.

<u>FP (Fused peak)</u>: A contamination is not resolved from the peak that is eluting in the retention time window and is included in the area. Areas are allocated for the two (or more) unresolved peaks in the manual integration.

WB (Wrong basepoint): The start or finish of the peak ("basepoint") was put too high or too low, and the basepoint is corrected to match to projected baseline.

R (Rider): The peak is riding on a larger contamination, and is reintegrated as a rider.

GC-MS:

MP: Missed peak

MIP: Misintegrated peak

WI: Wrong isomer

TI: Total of isomers

4.1 TCLP VOLATILES

Lab Name:

H2M LABS, INC.

Contract:

Lab Code:

10478

Case No.:

PCCSW

Lab Sample ID:

SAS No.: SDG No.: PCCSW010

Matrix: (soil/water) Sample wt/vol:

Leachate

(g/mL) ML

0905085-001A

Lab File ID:

A\A64704.D

Level: (low/med)

LOW

5

Date Received:

4/27/2009

% Moisture: not dec.

leached Date Extracted:

4/29/2009

GC Column: ZB-624

ID: .18 (mm)

Date Analyzed:

5/4/2009

Extract Volume:

(µ1)

Dilution Factor:

1.00

Injection Volume:

(µl)

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/L	Q
75-01-4	Vinyl chloride		0.01	Ū
75-35-4	1,1-Dichloroethene		0.01	U
78-93-3	2-Butanone	!	0.01	U
67-66-3	Chloroform	-	0.01	U
107-06-2	1,2-Dichloroethane	:	0.01	บ
56-23-5	Carbon tetrachloride		0.01	Ü
71-43-2	Benzene		0.01	Ü
79-01-6	Trichloroethene		0.01	U
127-18-4	Tetrachloroethene		0.01	U
108-90-7	Chlorobenzene		0.01	U

Lab Name:

H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.: Leachate

PCCSW

SAS No.: _____

SDG No.: PCCSW010

Matrix: (soil/water)

Lab Sample ID:

0905085-002A

Sample wt/vol:

(g/mL) ML Lab File ID:

A\A64705.D

Level: (low/med)

LOW

Date Received:

4/27/2009

% Moisture: not dec.

Date Extracted:

4/29/2009 Jus

GC Column: ZB-624

ID: .18 (mm)

Date Analyzed:

5/4/2009

Extract Volume:

(µ1)

Dilution Factor:

1.00

Injection Volume:

(µ1)

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/L	Q
75-01-4	Vinyl chloride	1	0.017	
75-35-4	1,1-Dichloroethene	?	0.01	U
78-93-3	2-Butanone		0.01	U
67-66-3	Chloroform	· · · · · · · · · · · · · · · · · · ·	0.01	U
107-06-2	1,2-Dichloroethane		0.01	Ū
56-23-5	Carbon tetrachloride		0.01	U
71-43-2	Benzene		0.01	U
79-01-6	Trichloroethene		0.01	U
127-18-4	Tetrachloroethene		0.01	U
108-90-7	Chlorobenzene		0.01	U

Lab Name: H2M LABS. INC. Contract: SAS No.: _____SDG No.: PCCSW010 Case No.: Lab Code: 10478 PCCSW Lab Sample ID: 0905125-001A Matrix: (soil/water) Leachate Lab File ID: A\A64706.D Sample wt/vol: <u>5</u> (g/mL) ML LOW Level: (low/med) Date Received: 4/28/2009 Date Extracted: 4/29/2009 % Moisture: not dec. ID: .18 (mm) Date Analyzed: 5/4/2009 GC Column: ZB-624 1.00 Dilution Factor: Extract Volume: (µl)

Injection Volume:

(µ1)

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/L	Q
75-01-4	Vinyl chloride	an and processing a property of the first community for the second	0.01	ับ
75-35-4	1,1-Dichloroethene		0.01	U
78-93-3	2-Butanone		0.01	υ
67-66-3	Chloroform		0.01	บ
107-06-2	1,2-Dichloroethane		0.01	U
56-23-5	Carbon tetrachloride		0.01	U
71-43-2	Benzene		0.01	U
79-01-6	Trichloroethene	-	0.01	υ
127-18-4	Tetrachloroethene		0.01	ָט
108-90-7	Chlorobenzene		0.01	U

4/29/2009

Lab Name: H2M LABS, INC. Contract:

Matrix: (soil/water) Leachate Lab Sample ID: 0905125-002A

Sample wt/vol: $\underline{5}$ (g/mL) \underline{ML} Lab File ID: $\underline{A} \setminus A64707.D$

Level: (low/med) LOW Date Received: 4/28/2009

leached 8 Moisture: not dec. Date Extracted:

5/18/0
GC Column: ZB-624 ID: 18 (mm) Date Analyzed: 5/4/2009

Extract Volume: (µl) Dilution Factor: 1.00

Injection Volume: (µl)

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/L	Q
75-01-	Vinyl chloride		0.01	ט
75-35-	1 , 1,1-Dichloroethene		0.01	ט
78-93-	3 2-Butanone		0.01	υ
67-66-	Chloroform		0.01	Ü
107-06-	2 1,2-Dichloroethane		0.01	Ü
56-23-	Carbon tetrachloride		0.01	U
71-43-	Benzene		0.01	υ
79-01-	Trichloroethene		0.01	บ
127-18-	Tetrachloroethene	The second secon	0.01	υ
108-90-	Chlorobenzene		0.01	[]

Lab Name: H2M LABS, INC. Contract:

Matrix: (soil/water) Leachate Lab Sample ID: 0905125-003A

Sample wt/vol: $\underline{5}$ (g/mL) \underline{ML} Lab File ID: $\underline{A \setminus A64710.D}$

Level: (low/med) LOW Date Received: $\frac{4/28/2009}{}$

8 Moisture: not dec. | leached | 1/29/2009 | 5/18/09

GC Column: ZB-624 ID: <u>.18</u> (mm) Date Analyzed: <u>5/4/2009</u>

Extract Volume: . (µl) Dilution Factor: 1.00

Injection Volume: (µl)

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/L	Q
75-01	-4 Vinyl chloride		0.01	ט
75-35	-4 1,1-Dichloroethene		0.01	บ
78-93	-3 2-Butanone		0.01	U
67-66	-3 Chloroform		0.01	Ü
107-06	-2 1,2-Dichloroethane		0.01	U
56~23	-5 Carbon tetrachlorid	e	0.01	Ü
71-43	-2 Benzene	,	0.01	Ŭ
79-01	-6 Trichloroethene	:	0.01	Ü
127-18	-4 Tetrachloroethene		0.01	U
108-90	-7 Chlorobenzene	:	0.01	U

A\A64711.D

Lab Name: H2M LABS, INC. Contract:

<u>5</u>

Matrix: (soil/water) Leachate Lab Sample ID: 0905125-004A

ML

(g/mL)

Level: (low/med) LOW Date Received: 4/28/2009

% Moisture: not dec. | Date Extracted: 4/29/2009

GC Column: ZB-624 ID: .18 (mm) Date Analyzed: 5/4/2009

Extract Volume: (μ 1) Dilution Factor: $\underline{1.00}$

Injection Volume: (µ1)

Sample wt/vol:

CONCENTRATION UNITS:

Lab File ID:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/L	Q
75-01-4	Vinyl chloride		0.01	U
75-35-4	1,1-Dichloroethene		0.01	U
78-93-3	2-Butanone		0.01	U
67-66-3	Chloroform		0.01	ับ
107-06-2	1,2-Dichloroethane		0.01	U
56-23-5	Carbon tetrachloride	A STATE OF THE STA	0.01	U
71-43-2	Benzene		0.01	U
79-01-6	Trichloroethene		0.01	U
127-18-4	Tetrachloroethene		0.01	Ü
108-90-7	Chlorobenzene	Section and the second section of the section of th	0.001	J

Lab Name: Contract: H2M LABS, INC.

SAS No.: _____ 10478 SDG No.: PCCSW010 Lab Code: Case No.: PCCSW

0905125-005A Matrix: (soil/water) Leachate Lab Sample ID:

Sample wt/vol: (g/mL) Lab File ID: A\A64712.D ML

LOW Level: (low/med) Date Received: 4/28/2009

4/29/09 Date Extracted:

ID: .18 (mm) 5/4/2009 GC Column: ZB-624 Date Analyzed:

Extract Volume: Dilution Factor: 1.00 (µl)

Injection Volume: (µ1)

% Moisture: not dec.

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/L	Q
75-01-4	Vinyl chloride		0.01	υ
75-35-4	1,1-Dichloroethene		0.01	υ
78-93-3	2-Butanone		0.005	J
67-66-3	Chloroform	1	0.01	ט
107-06-2	1,2-Dichloroethane		0.01	υ
56-23-5	Carbon tetrachloride		0.01	Ū
71-43-2	Benzene		0.01	U
79-01-6	Trichloroethene		0.01	U
127-18-4	Tetrachloroethene		0.01	U
108-90-7	Chlorobenzene		0,01	υ

A\A64713.D

Lab Name: H2M LABS, INC. Contract:

<u>5</u>

Matrix: (soil/water) Leachate Lab Sample ID: 0905184-001A

ML

Level: (low/med) <u>LOW</u> Date Received: <u>4/29/2009</u>

8 Moisture: not dec. Date Extracted: 4/29/2009 Jans

(g/mL)

GC Column: ZB-624 ID: .18 (mm) Date Analyzed: 5/4/2009

GC COTCHIN. <u>28-024</u> 1D. <u>.16</u> (MM) Date Mary 264. <u>57472009</u>

Extract Volume: (µ1) Dilution Factor: 1.00

Injection Volume: (µl)

Sample wt/vol:

CONCENTRATION UNITS:

Lab File ID:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/L	Q
75-01-4	Vinyl chloride		0.01	ט
75-35-4	1,1-Dichloroethene		0.01	ט
78-93-3	2-Butanone		0.01	U
67-66-3	Chloroform		0.01	Ü
107-06-2	1,2-Dichloroethane		0.01	U
56-23-5	Carbon tetrachloride		0.01	U
71-43-2	Benzene		0.01	U
79-01-6	Trichloroethene		0.01	U
127-18-4	Tetrachloroethene		0.01	U
108-90-7	Chlorobenzene	The second secon	0.01	U

4.2 TCLP SEMIVOLATILES

- TP-1

Lab Name: H2M LABS, INC. Contract:

Matrix: (soil/water) Leachate Lab Sample ID: 0905085-001B

Sample wt/vol: 500 (g/mL) ML Lab File ID: A\C46684.D

Level: (1ow/med) Low Date Received: 4/28/09

% Moisture: not dec.

Date Extracted: 4/30/09

GC Column: R-5SILMS ID: .25 (mm) Date Analyzed: 5/1/09

Extract Volume: 500 (μ 1) Dilution Factor: 1.00

Injection Volume: 2 (μ 1)

CAS NO.		COMPOUND	(ug/L or ug/Kg)	mg/L	Q
	110-86-1	Pyridine		0.01	U
	106-46-7	1,4-Dichlorobenzene		0.01	U
	95-48-7	2-Methylphenol		0.01	บ
	12-03-3	3-Methylphenol/4-Methyl	phenol	0.01	U
	67-72-1	Hexachloroethane		0.01	U
	98-95-3	Nitrobenzene		0.01	U
	87-68-3	Hexachlorobutadiene		0.01	U
	88-06-2	2,4,6-Trichlorophenol		0.01	U
	95-95-4	2,4,5-Trichlorophenol	1	0.03	U
The second second second	121-14-2	2,4-Dinitrotoluene		0.01	U
	118-74-1	Hexachlorobenzene		0.01	U
J. 1	87-86-5	Pentachlorophenol		0.03	Ü

Lab Name: H2M LABS, INC. Contract:

Matrix: (soil/water) Leachate Lab Sample ID: 0905085-002B

Sample wt/vol: 500 (g/mL) ML Lab File ID: A\C46685.D

Level: (low/med) LOW Date Received: 4/28/09

% Moisture: not dec. Date Extracted: 4/30/09

GC Column: R-5SILMS ID: .25 (mm) Date Analyzed: 5/1/09

Extract Volume: 500 (μ 1) Dilution Factor: 1.00

Injection Volume: 2 (μ 1)

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/L	Q
110-86-1	Pyridine	, ;	0.01	ט
106-46-7	1,4-Dichlorobenzen	e	0.01	ซ
95-48-7	2-Methylphenol		0.01	U
12-03-3	3-Methylphenol/4-M	ethylphenol	0.01	บ
67-72-1	Hexachloroethane		0.01	บ
98-95-3	Nitrobenzene		0.01	ט
87-68-3	Hexachlorobutadien	e	0.01	U
88-06-2	2,4,6-Trichlorophe	nol	0.01	บ
95-95-4	2,4,5-Trichlorophe	nol	0.03	Ü
121-14-2	2,4-Dinitrotoluene		0.01	U
118-74-1	Hexachlorobenzene		0.01	U
87-86-5	Pentachlorophenol		0.03	U

Lab Name:

H2M LABS, INC.

Contract:

Lab Code:

10478

Case No.:

PCCSW

SAS No.:

SDG No.: PCCSW010

Matrix: (soil/water)

Leachate

Lab Sample ID:

0905125-001B

Sample wt/vol:

500

(g/mL) ML Lab File ID:

A\C46686.D

Level: (low/med)

LOW

Date Received:

4/28/09

% Moisture: not dec.

Date Extracted:

4/30/09

GC Column: R-5SILMS

ID: <u>.25</u> (mm)

Date Analyzed:

5/1/09

Extract Volume:

. 500

2

 $(\mu 1)$

Dilution Factor:

1.00

Injection Volume:

 $(\mu 1)$

CAS NO.	COMPOUND (u	g/L or ug/Kg)	mg/L	Q
110-86-1	Pyridine	:	0.01	ט
106-46-7	1,4-Dichlorobenzene		0.01	ΰ
95-48-7	2-Methylphenol	:	0.01	ט
12-03-3	3-Methylphenol/4-Methylphe	nol	0.01	U
67-72-1	Hexachloroethane		0.01	Ü
98-95-3	Nitrobenzene		0.01	ซ
87-68-3	Hexachlorobutadiene	;	0.01	ט
88-06-2	2,4,6-Trichlorophenol		0.01	Ú
95-95-4	2,4,5-Trichlorophenol		0.03	Ü
121-14-2	2,4-Dinitrotoluene		0.01	U
118-74-1	Hexachlorobenzene		0.01	U
87 - 86 - 5	Pentachlorophenol		0.03	U

Lab Name: H2M LABS, INC. Contract:

Matrix: (soil/water) Leachate Lab Sample ID: 0905125-002B

Sample wt/vol: $\underline{500}$ (g/mL) $\underline{\text{ML}}$ Lab File ID: $\underline{\text{A}\text{C46687.D}}$

Level: (low/med) Date Received: 4/28/09

% Moisture: not dec. Date Extracted: 4/30/09

GC Column: R-5SILMS ID: .25 (mm) Date Analyzed: .25

Extract Volume: 500 (μ 1) Dilution Factor: $\underline{1.00}$

Injection Volume: 2 (μ 1)

CAS NO.	COMPOUND (ug/L or	ug/Kg)	mg/L	Q
110-86-1	Pyridine	į	0.01	บ
106-46-7	1,4-Dichlorobenzene	1	0.01	ט
95-48-7	2-Methylphenol		0.01	U
12-03-3	3-Methylphenol/4-Methylphenol		0.01	ָ <u>'</u>
67-72-1	Hexachloroethane		0.01	ΰ
98-95-3	Nitrobenzene		0.01	บ
87-68-3	Hexachlorobutadiene		0.01	U
88-06-2	2,4,6-Trichlorophenol	[0.01	Ū
95-95-4	2,4,5-Trichlorophenol		0.03	Ū
121-14-2	2,4-Dinitrotoluene		0.01	U
118-74-1	Hexachlorobenzene	1	0.01	U
87-86-5	Pentachlorophenol	1	0.03	U

Lab Name:

H2M LABS, INC.

Contract:

Lab Code:

10478

Case No.:

PCCSW

SAS No.: SDG No.: PCCSW010

Matrix: (soil/water)

Leachate

(g/mL)

0905125-003B

Sample wt/vol:

500

ML .

Lab File ID:

A\C46690.D

Level: (low/med)

LOW

Date Received:

Lab Sample ID:

4/28/09

% Moisture: not dec.

GC Column: R-5SILMS

ID: <u>.25</u> (mm)

Date Extracted: Date Analyzed:

4/30/09 5/1/09

500

 $(\mu 1)$

Dilution Factor:

1.00

Injection Volume:

Extract Volume:

2 $(\mu 1)$

CAS NO.	COMPOUND (ug/L or ug/Kg)	mg/L	Q
110-86-1	Pyridine	0.01	U
106-46-7	1,4-Dichlorobenzene	0.01	บ
95-48-7	2-Methylphenol	0.01	บ
12-03-3	3-Methylphenol/4-Methylphenol	0.01	ט
67-72-1	Hexachloroethane	0.01	ប
98-95-3	Nitrobenzene	0.01	ប
87 - 68 - 3	Hexachlorobutadiene	0.01	U
88-06-2	2,4,6-Trichlorophenol	0.01	υ
95-95-4	2,4,5-Trichlorophenol	0.03	Ū
121-14-2	2,4-Dinitrotoluene	0.01	U
118-74-1	Hexachlorobenzene	0.01	U
87-86-5	Pentachlorophenol	0.03	U

Lab Name: H2M LABS, INC. Contract:

Matrix: (soil/water) Leachate Lab Sample ID: 0905125-004B

Sample wt/vol: 500 (g/mL) ML Lab File ID: A\C46691.D

Level: (low/med) LOW Date Received: 4/28/09

% Moisture: not dec. Date Extracted: 4/30/09

GC Column: R-5SILMS ID: .25 (mm) Date Analyzed: 5/1/09

Extract Volume: 500 (μ 1) Dilution Factor: 1.00

Injection Volume: 2 (μ 1)

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/L	Q
110-86-	1 Pyridine	!	0.01	Ŭ
106-46-	7 1,4-Dichlorobenzene		0.01	U
95-48-	7 2-Methylphenol		0.01	U
12-03-	3 3-Methylphenol/4-Methylp	henol	0.01	ט
67-72-	1 Hexachloroethane		0.01	ט
98-95-	3 Nitrobenzene		0.01	U
87-68-	3 Hexachlorobutadiene		0.01	U
88-06-	2 2,4,6-Trichlorophenol		0.01	Ŭ
95-95-	4 2,4,5-Trichlorophenol		0.03	U
121-14-	2 2,4-Dinitrotoluene		0.01	U
118-74-	1 Hexachlorobenzene		0.01	U
87-86-	5 Pentachlorophenol		0.03	U

A\C46692.D

Lab Name: **H2M LABS, INC.** Contract:

<u>500</u> (g/mL)

SAS No.: SDG No.: PCCSW010 Lab Code: 10478 Case No.: PCCSW

Matrix: (soil/water) Leachate Lab Sample ID: 0905125-005B

ML

Level: (low/med) LOW Date Received: 4/28/09

ID: <u>.25</u> (mm) GC Column: R-5SILMS Date Analyzed: 5/1/09

Extract Volume: 500 $(\mu 1)$ Dilution Factor: 1.00

Injection Volume: 2 (μ 1)

Sample wt/vol:

% Moisture: not dec.

CONCENTRATION UNITS:

Lab File ID:

Date Extracted: 4/30/09

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/L	Q
110-86	-l Pyridine		0.01	ט
106-46	-7 1,4-Dichlorobenzer	ie	0.01	υ
95-48	-7 2-Methylphenol		0.01	U
12-03	-3 3-Methylphenol/4-N	Methylphenol	0.01	υ
67-72	-1 Hexachloroethane		0.01	ט
98-95	-3 Nitrobenzene		0.01	'U
87-68	-3 Hexachlorobutadien	ie	0.01	ט
88-06	-2 2,4,6-Trichlorophe	enol	0.01	Ū
95-95	-4 2,4,5-Trichlorophe	enol	0.03	ט
121-14	-2 2,4-Dinitrotoluene		0.01	Ü
118-74	-1 Hexachlorobenzene		0.01	Ü
87-86	-5 Pentachlorophenol		0.03	U

Lab Name: H2M LABS, INC. Contract:

Matrix: (soil/water) Leachate Lab Sample ID: 0905184-001B

Sample wt/vol: 500 (g/mL) ML Lab File ID: A\C46693.D

Level: (low/med) Date Received: 4/29/09

% Moisture: not dec. Date Extracted: $\frac{4/30/09}{}$

GC Column: R-5SILMS ID: .25 (mm) Date Analyzed: 5/1/09

Extract Volume: 500 (μ 1) Dilution Factor: $\underline{1.00}$

Injection Volume: 2 (μ l)

CAS NO		COMPOUND (1	ug/L or ug/Kg)	mg/L	Q
y Produced Bay Papella Biompane a garage and the State of	110-86-1	Pyridine		0.01	U
	106-46-7	1,4-Dichlorobenzene	A STANDARD OF THE STANDARD OF	0.01	U
	95-48-7	2-Methylphenol		0.01	U
	12-03-3	3-Methylphenol/4-Methylphe	enol	0.01	U
	67-72-1	Hexachloroethane	1	0.01	Ū
	98-95-3	Nitrobenzene		0.01	U
	87-68-3	Hexachlorobutadiene		0.01	U
	88-06-2	2,4,6-Trichlorophenol		0.01	U
	95-95-4	2,4,5-Trichlorophenol		0.03	U
	121-14-2	2,4-Dinitrotoluene		0.01	U
	118-74-1	Hexachlorobenzene		0.01	U
	87-86-5	Pentachlorophenol		0.03	U

4.3 TCLP PESTICIDES

1E PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA	SAMPLE	NO.	
TP-1	L		

Lab	Name:	H2M	LABS,	INC.	Contract:		
-----	-------	-----	-------	------	-----------	--	--

Lab Code: 10478 Case No.: PCCSW SAS No.: SDG No.: PCCSW010

Matrix: (soil/water) WATER Lab Sample ID: 0905085-001B

Sample wt/vol: 500 (g/mL) ML Lab File ID: a00124.raw

% Moisture: Decanted: (Y/N) N Date Received: 04/27/09

Extraction: (Type) SEPF Date Extracted: 05/01/09

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/07/09

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO	COMPOUND	(μ g/L or μ g/Kg) $\underline{ t UG/L}$	Q
58-89-9	gamma-BHC	0.00020	<u>u</u> -
76-44-8	Heptachlor	0.00020	U
1024-57-3	Heptachlor epoxide	0.00020	<u> </u>
72-20-8	Endrin	0.00040	U
72-43-5	Methoxychlor	0.0020	U
8001-35-2	Toxaphene	0.020	ับ
57-74-9	Chlordane	0.0040	Ū
5103-71-9	alpha-Chlordane	0.00020	บ
5103-74-2	gamma-Chlordane	0.00020	U

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA	SAMPLE	NO.	
TP-2	2		

Lab	Name:	H2M LABS,	INC.	Contract:		
Lab	Code:	10478	Case No.: PCCSW	SAS No.:	SDG No.:	PCCSW010

Matrix: (soil/water) WATER Lab Sample ID: 0905085-002B

Sample wt/vol: 500 (g/mL) ML Lab File ID: a00125.raw

% Moisture: Decanted: (Y/N) N Date Received: 04/27/09

Extraction: (Type) SEPF Date Extracted: 05/01/09

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/07/09

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
58-89-9	gamma-BHC	0.00020	υ
76-44-8	Heptachlor	0.00020	Ŭ
1024-57-3	Heptachlor epoxide	0.00020	U
72-20-8	Endrin	0.00040	U
72-43-5	Methoxychlor	0.0020	ַ ט
8001-35-2	Toxaphene	0.020	U
57-74-9	Chlordane	0.0040	ַ
5103-71-9	alpha-Chlordane	0.00020	υ
5103-74-2	gamma-Chlordane	0.00020	U

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA	SAMPLE	NO.	
TP-3	3		

Lab	Name: H2M LABS,	INC.	Contract:		
Lab	Code: 10478	Case No.: PCCSW	SAS No.:	 SDG No.:	PCCSW010

Matrix: (soil/water) WATER Lab Sample ID: 0905125-001B

Sample wt/vol: 500 (g/mL) ML Lab File ID: a00126.raw

% Moisture: Decanted: (Y/N) N Date Received: 04/28/09

Extraction: (Type) SEPF Date Extracted: 05/01/09

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/07/09

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
58-89-9	gamma-BHC	0.00020	Ū
76-44-8	Heptachlor	0.00020	<u>"</u>
1024-57-3	Heptachlor epoxide	0.00020	Ū
72-20-8	Endrin	0.00040	Ū
72-43-5	Methoxychlor	0.0020	Ū
8001-35-2	Toxaphene	0.020	Ū
57-74-9	Chlordane	0.0040	U
5103-71-9	alpha-Chlordane	0.00020	U
5103-74-2	gamma-Chlordane	0.00020	Ū

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA	SAMPLE	NO.	
TP-4	1		

Lab Name: H2M LABS, INC.	Contract:
Lab Code: 10478 Case No.: PCCSW	SAS No.: SDG No.: PCCSW010
Matrix: (soil/water) WATER	Lab Sample ID: 0905125-002B
Sample wt/vol: 500 (g/mL) ML	Lab File ID: a00127.raw
% Moisture: Decanted: (Y/N)	N Date Received: 04/28/09
Extraction: (Type) SEPF	Date Extracted: 05/01/09
Concentrated Extract Volume: 10000 (uL	Date Analyzed: 05/07/09

CONCENTRATION UNITS:

Dilution Factor: 1.00

CAS NO COMPOUND (ug/L or ug/Kg) UG/L Q

Injection Volume: 0.5 (uL)

w	OOIT 0011D	(pg/2 or pg/10g/ oc/2	*
58-89-9	gamma-BHC	0.00020	<u>ט</u>
76-44-8	Heptachlor	0.00020	U
1024-57-3	Heptachlor epoxide	0.00020	υ
72-20-8	Endrin	0.00040	Ū
72-43-5	Methoxychlor	0.0020	Ū
8001-35-2	Toxaphene	0.020	Ū
57-74-9	Chlordane	0.0040	U
5103-71-9	alpha-Chlordane	0.00020	U
5103-74-2	gamma-Chlordane	0.00020	<u> </u>

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA	SAMPLE	NO.	
TP-5	5		

Lab Name: H2M LABS, INC. Contract:

Matrix: (soil/water) WATER Lab Sample ID: 0905125-003B

Sample wt/vol: 500 (g/mL) ML Lab File ID: a00130.raw

% Moisture: Decanted: (Y/N) N Date Received: 04/28/09

Extraction: (Type) SEPF Date Extracted: 05/01/09

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/07/09

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) \underline{N} pH: ____ Sulfur Cleanup: (Y/N) \underline{N}

CAS NO	COMPOUND	(µg/L or µg/Kg) UG/L	Q
58-89-9	gamma-BHC	0.00020	ט
76-44-8	Heptachlor	0.00020	บ
1024-57-3	Heptachlor epoxide	0.00020	ប
72-20-8	Endrin	0.00040	ប
72-43-5	Methoxychlor	0.0020	บ
8001-35-2	Toxaphene	0.020	U
57-74-9	Chlordane	0.0040	บ
5103-71-9	alpha-Chlordane	0.00020	ប
5103-74-2	gamma-Chlordane	0.00020	IJ

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA	SAMPLE	NO.	
TP-6	5		

Lab Name: H2M LABS, INC.	Contract:
Lab Code: 10478 Case No.: PCCSW	SAS No.: SDG No.: PCCSW010
Matrix: (soil/water) WATER	Lab Sample ID: 0905125-004B
Sample wt/vol: 500 (g/mL) ML	Lab File ID: a00131.raw
Moisture: Decanted: (Y/N)	N Date Received: 04/28/09
Extraction: (Type) SEPF	Date Extracted: 05/01/09
Concentrated Extract Volume: 10000 (ul	Date Analyzed: 05/07/09
Injection Volume: 0.5 (uL)	Dilution Factor: 1.00
SPC Cleanup: (Y/N) N pH:	Sulfur Cleanup: (Y/N) N

CAS NO	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
58-89-9	gamma-BHC	0.00020	U
76-44-8	Heptachlor	0.00020	Ū
1024-57-3	Heptachlor epoxide	0.00020	Ū
72-20-8	Endrin	0.00040	Ū
72-43-5	Methoxychlor	0.0020	Ū
8001-35-2	Toxaphene	0.020	U
57-74-9	Chlordane	0.0040	U
5103-71-9	alpha-Chlordane	0.00020	U
5103-74-2	gamma-Chlordane	0.00020	U

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA	SAMPLE	NO.
mD_5		

Lab Name: H2M LABS, INC.	Contract:
Lab Code: 10478 Case No.: PCCSW	SAS No.: SDG No.: PCCSW010
Matrix: (soil/water) WATER	Lab Sample ID: 0905125-005B
Sample wt/vol: 500 (g/mL) ML	Lab File ID: a00132.raw
% Moisture: Decanted: (Y/N)	N Date Received: 04/28/09
Extraction: (Type) SEPF	Date Extracted: 05/01/09
Concentrated Extract Volume: 10000 (ul	Date Analyzed: 05/07/09
Injection Volume: 0.5 (uL)	Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH:	Sulfur Cleanup: (Y/N) N

CAS NO	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
58-89-9	gamma-BHC	0.00020	U
76-44-8	Heptachlor	0.00020	บ
1024-57-3	Heptachlor epoxide	0.00020	Ū
72-20-8	Endrin	0.00040	Ū
72-43-5	Methoxychlor	0.0020	Ū
8001-35-2	Toxaphene	0.020	<u> </u>
57-74-9	Chlordane	0.0040	<u>ט</u>
5103-71-9	alpha-Chlordane	0.00020	Ū
5103-74-2	gamma-Chlordane	0.00020	Ü

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA	SAMPLE	NO.	
TP-8	3		

Lab Name: <u>H2M LABS, INC.</u>	Contract:
Lab Code: 10478 Case No.: PCCSW	SAS No.: SDG No.: PCCSW010
Matrix: (soil/water) WATER	Lab Sample ID: 0905184-001B
Sample wt/vol: 500 (g/mL) ML	Lab File ID: a00133.raw
% Moisture: Decanted: (Y/N)	N Date Received: 04/29/09
Extraction: (Type) SEPF	Date Extracted: 05/01/09
Concentrated Extract Volume: 10000 (ul	Date Analyzed: 05/07/09
Injection Volume: 0.5 (uL)	Dilution Factor: 1.00
GPC Cleanup: (Y/N) M pH:	Sulfur Cleanup: (Y/N) N

CAS NO	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
58-89-9	gamma-BHC	0.00020	U
76-44-8	Heptachlor	0.00020	U
1024-57-3	Heptachlor epoxide	0.00020	<u> </u>
72-20-8	Endrin	0.00040	<u>U</u>
72-43-5	Methoxychlor	0.0020	ַ
8001-35-2	Toxaphene	0.020	บ
57-74-9	Chlordane	0.0040	ַ
5103-71-9	alpha-Chlordane	0.00020	ับ
5103-74-2	gamma-Chlordane	0.00020	U

4.4 TCLP METALS

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

TP-1

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.:

SDG No.: PCCSW010

Matrix (soil/water): WATER

Lab Sample ID: 0905085-001

Level (low/med):

LOW

Date Received: 4/27/2009

% Solids:

0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Concentration	С	Q	М
Arsenic	2.8	บ		P
Barium	474	В		P
Cadmium	0.84	В		P
Chromium	0.44	U		P
Lead	25.8	В		P
Mercury	0.10	υ		CV
Selenium	2.7	υ		P
Silver	1.6	В		P
	Arsenic Barium Cadmium Chromium Lead Mercury Selenium	Arsenic 2.8 Barium 474 Cadmium 0.84 Chromium 0.44 Lead 25.8 Mercury 0.10 Selenium 2.7	Arsenic 2.8 U Barium 474 B Cadmium 0.84 B Chromium 0.44 U Lead 25.8 B Mercury 0.10 U Selenium 2.7 U	Arsenic 2.8 U Barium 474 B Cadmium 0.84 B Chromium 0.44 U Lead 25.8 B Mercury 0.10 U Selenium 2.7 U

Color Before: COLORLESS Clarity Before:

CLEAR

Texture:

Color After: COLORLESS Clarity After:

CLEAR

Artifacts:

Comments:	:
-----------	---

Date Reported:5/14/09

TCLP Metals

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

TP-2

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.:

SDG No.: PCCSW010

Matrix (soil/water): WATER

Lab Sample ID: 0905085-002

Level (low/med):

LOW

Date Received: 4/27/2009

% Solids:

0.0

Concentration Units (ug/L or mg/kg dry weight): $\underline{UG/L}$

CAS No.	Analyte	Concentration	С	Q	М
7440-38-2	Arsenic	2.8	U	<u> </u>	P
7440-39-3	Barium	1000	В		P
7440-43-9	Cadmium	6.7	В		P
7440-47-3	Chromium	0.44	U		P
7439-92-1	Lead	177	В		P
7439-97-6	Mercury	0.10	U		CV
7782-49-2	Selenium	2.7	U		P
7440-22-4	Silver	2.0	В		P

Color	Before:	COLORLESS	Clarity	Before:	CLEAR	Texture:
Color	After:	COLORLESS	Clarity	After:	CLEAR	Artifacts:

Comments:

Date	Reported:5/14/0	9				
TCLP	Metals					

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

TP-3

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.: SDG No.: PCCSW010

Matrix (soil/water): WATER

Lab Sample ID: 0905125-001

Level (low/med):

LOW

Date Received: 4/28/2009

% Solids:

0.0

CAS No.	Analyte	Concentration	С	Q	М
7440-38-2	Arsenic	2.8	Ū		P
7440-39-3	Barium	713	В		P
7440-43-9	Cadmium	3.2	В		P
7440-47-3	Chromium	0.89	В		P
7439-92-1	Lead	83.9	В		P
7439-97-6	Mercury	0.10	ט		CV
7782-49-2	Selenium	2.7	ט		P
7440-22-4	Silver	1.8	В		P
,				I	

Color	Before:	COLORLESS	Clarity	Before:	CLEAR	Texture:	
Color	After:	COLORLESS	Clarity	After:	CLEAR	Artifacts:	

Comments:	
-----------	--

Date	Reported: 5	/14/09				
TCLP	Metals					

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

TP-4

Lab Name: <u>H2M LABS, INC.</u>

Lab Code: 10478

Case No.

SAS No.:

SDG No.: PCCSW010

Matrix (soil/water): WATER

Lab Sample ID: 0905125-002

Level (low/med):

LOW

Date Received: 4/28/2009

% Solids:

0.0

CAS No.	Analyte	Concentration	С	Q	М
7440-38-2	Arsenic	2.8	U		P
7440-39-3	Barium	775	В		P
7440-43-9	Cadmium	2.6	В		P
7440-47-3	Chromium	0.44	υ		P
7439-92-1	Lead	254	В		P
7439-97-6	Mercury	0.10	ŭ		CΫ
7782-49-2	Selenium	2.7	U		P
7440-22-4	Silver	2.2	В		P

Color	Before:	COLORLESS	Clarity	Before:	CLEAR	Texture:	
Color	After:	COLORLESS	Clarity	After:	CLEAR _	Artifacts:	

Comments:	:					
Date	Reported:5/1	4/09_				
TCLP	Metals			_		
<u>—</u>		<u> </u>				

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

TP-5

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.:

SDG No.: PCCSW010

Matrix (soil/water): WATER

Lab Sample ID: 0905125-003

Level (low/med):

LOW

Date Received: 4/28/2009

% Solids:

0.0

CAS No.	Analyte	Concentration	С	Q	М
7440-38-2	Arsenic	2.8	Ū		P
7440-39-3	Barium	589	В		P
7440-43-9	Cadmium	2.7	В		P
7440-47-3	Chromium	0.44	ט		P
7439-92-1	Lead	84.2	В		P
7439-97-6	Mercury	0.10	U		CV
7782-49-2	Selenium	2.7	ט		P
7440-22-4	Silver	1.8	В		P

Color	Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color	After.	COLORLESS	Clarity After:	CLEAR	Artifacts:	

Date Reported	1:5/14/09			
TCLP Metals			 	
				

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

TP-6

Lab Name: <u>H2M LABS, INC.</u>

Lab Code: 10478

Case No.

SAS No.:

SDG No.: PCCSW010

Matrix (soil/water): WATER

Lab Sample ID: 0905125-004

Level (low/med):

POM

Date Received: 4/28/2009

% Solids:

0.0

CAS No.	Analyte	Concentration	С	Q	М
7440-38-2	Arsenic	2.8	U		P
7440-39-3	Barium	514	В		P
7440-43-9	Cadmium	3.3	В		P
7440-47-3	Chromium	0.44	Ŭ		P
7439-92-1	Lead	111	В		P
7439-97-6	Mercury	0.10	ם		CV
7782-49-2	Selenium	2.7	ט		P
7440-22-4	Silver	2.1	В		P
					1 -

							•
Color	Before:	COLORLESS	Clarity	Before:	CLEAR	Texture:	
Color	After.	COLORLESS	Clarity	After.	CLEAR	Artifacts:	
COIOI .	rar wer .	COLORDEC	Crurrel	· · · · · · · · · · · · · · · · · · ·	<u> </u>		

Comments:					
Date	Reported: 5/14/09)	_		_
TCLP	Metals		 		
					

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

TP-7

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.:

SDG No.: PCCSW010

Matrix (soil/water): WATER

Lab Sample ID: 0905125-005

Level (low/med):

LOW

Date Received: 4/28/2009

% Solids:

0.0

CAS No.	Analyte	Concentration	С	Q	М
7440-38-2	Arsenic	2.8	υ		P
7440-39-3	Barium	517	В		P
7440-43-9	Cadmium	1.1	В		P
7440-47-3	Chromium	0.44	U		P
7439-92-1	Lead	22.1	В	_	P
7439-97-6	Mercury	0.10	U		cv
7782-49-2	Selenium	2.7	U		P
7440-22-4	Silver	2.3	В		P
		_			

Color	Before:	COLORLESS	Clarity Before:	CLEAR	Texture:	
Color	After:	COLORLESS	Clarity After:	CLEAR	Artifacts:	

Comments	:
----------	---

Date	Reported:5/1	.4/09				_
TCLP	Metals		 	 		
					_	
			 	 		

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

TP-8

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.:

SDG No.: PCCSW010

Matrix (soil/water): WATER

Lab Sample ID: 0905184-001

Level (low/med):

LOM

Date Received: 4/29/2009

% Solids:

0.0

CAS No.	Analyte	Concentration	С	Q	М
7440-38-2	Arsenic	2.8	U		P
7440-39-3	Barium	591	В		P
7440-43-9	Cadmium	0.41	В		P
7440-47-3	Chromium	0.44	U		P
7439-92-1	Lead	40.3	В		P
7439-97-6	Mercury	0.10	υ		CV
7782-49-2	Selenium	2.7	υ		P
7440-22-4	Silver	2.1	В		P
	ŀ		l i		1

Color	Before:	COLORLESS	Clarity	Before:	CLEAR	Texture:	
Color	After:	COLORLESS	Clarity	After:	CLEAR	Artifacts:	

Comments:									
Date	Reported	1 5/11/20	009		_				
TCLP	Metals								
-							_		<u> </u>
					 _			_	

4.5 WET CHEMISTRY

575 Broad Hollow Road, Melville NY 11747 (631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID#10478

LABORATORY RESULTS

Clarkstown Landfill

Lab No. : 0905085-001

Sample Information...

Type: Soil

Origin:

Attn To: Original

Client ID. : TP-1

Collected Received

:4/27/2009 10:49:00 AM : 4/27/2009 3:03:00 PM

Collected By H2MPC

CC

Copies To :Original

Parameter(s)	Results	Qualifier D.F.	<u>Units</u>	Method Number	Analyzed
Reactive Cyanide	< 100	1	mg/Kg	SW7.3.3,2	05/04/2009 6:02 PM
Ignitability	>60	1	°C	SW1010	04/30/2009 9:50 AM
Corrosivity PH	6.2	1	pH Units	SW9045	04/29/2009 9:00 AM
Reactive Sulfide	< 100	1	mg/Kg	SW7.3.4.2	05/01/2009 3:32 PM

Qualifiers:

E - Value above quantitation range

D - Results for Dilution

D.F. = Dilution Factor

Date Reported:

5/22/2009

Joann M. Slavin

575 Broad Hollow Road, Melville NY 11747 (631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID#10478

LABORATORY RESULTS

Clarkstown Landfill

Lab No.: 0905085-002

Sample Information...

Type: Soil

Origin:

Attn To:

Original

Client ID. : TP-2

Collected Received

: 4/27/2009 12:45:00 PM : 4/27/2009 3:03:00 PM

Collected By H2MPC Copies To : Original

. 4/2/1/2005 3.03.00 F

CC

Parameter(s)	Results	Qualifier D.F.	<u>Unitş</u>	Method Number	Analyzed
Reactive Cyanide	< 100	1	mg/Kg	SW7.3.3.2	05/04/2009 6:03 PM
Ignitability	>60	1	°C	SW1010	04/30/2009 9:54 AM
Corrosivity PH	6.7	1	pH Units	SW9045	04/29/2009 9:02 AM
Reactive Sulfide	< 100	1	mg/Kg	SW7.3.4.2	05/01/2009 3:34 PM

Quahfiers.

E - Value above quantitation range

D - Results for Dilution

D.F. = Dilution Factor

Date Reported :

5/22/2009

Joann M. Slavin



575 Broad Hollow Road, Metville NY 11747 (631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Clarkstown Landfill

Lab No.: 0905125-001

Sample Information...

Type: Soil

Origin:

Attn To : Original

Client ID. : TP-3

Collected : 4/27/2009 2:42:00 PM Received : 4/28/2009 2:27:00 PM

Copies To :Original

CC

Parameter(s)	Results	Qualifier D.F.	Units	Method Number	Analyzed
Reactive Cyanide	< 100	1	mg/Kg	SW7.3.3.2	05/04/2009 6:04 PM
Ignitability	>60	1	°C	SW1010	04/30/2009 9:58 AM
Corrosivity PH	6.5	1	pH Units	SW9045	04/29/2009 9:04 AM
Reactive Sulfide	< 100	1	mg/Kg	SW7.3.4.2	05/01/2009 3:36 PM

Qualifiers:

E - Value above quantitation range

D - Results for Ditution

D.F. = Dilution Factor

Date Reported: 5/22/2009

Joann M. Slavin

575 Broad Hollow Road, Melville NY 11747 (631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Clarkstown Landfill

Lab No. : 0905125-002

Sample Information...

Type: Soil

Origin:

Clarkstown Landin

Attn To: Original

Client ID. : TP-4

Collected Received : 4/28/2009 7:56:00 AM : 4/28/2009 2:27:00 PM

Collected By H2MPC

Copies To :Original

CC

Parameter(s)	Results	Qualifier D.F.	<u>Units</u>	Method Number	Analyzed
Reactive Cyanide	< 100	1	mg/Kg	SW7.3.3.2	05/04/2009 6:05 PM
Ignitability	>60	1	°C	SW1010	04/30/2009 10:02 AM
Corrosivity PH	6.4	1	pH Units	SW9045	04/29/2009 9:06 AM
Reactive Sulfide	< 100	1	mg/Kg	SW7.3.4.2	05/01/2009 3:38 PM

Qualifiers:

E - Value above quantilation range

O - Results for Dilution

D.F. = Dilution Factor

Date Reported: 5/22/2009

Joann M. Slavin

575 Broad Hollow Road, Metville NY 11747 (631) 694-3040 . FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

Clarkstown Landfill

Lab No.: 0905125-003

Sample Information...

Type: Soil

Origin:

Attn To:

Original

Client ID. : TP-5

Collected Received :4/28/2009 9:10:00 AM

Collected By H2MPC

: 4/28/2009 2:27:00 PM

Copies To : Original

CC

Parameter(s)	Results	Qualifier D.F.	<u>Units</u>	Method Number	Analyzed
Reactive Cyanide	< 100	1	mg/Kg	\$W7.3.3.2	05/04/2009 6:07 PM
Ignitability	>60	1	°C	SW1010	04/30/2009 10:06 AM
Corrosivity PH	7.1	1	pH Units	\$W9045	04/29/2009 9:10 AM
Reactive Sulfide	< 100	1	mg/Kg	SW7.3.4.2	05/01/2009 3:42 PM

Qualifiers:

E - Value above quantitation range

D - Results for Dilution

D.F. = Dilution Factor

Date Reported :

5/22/2009

Joann M. Slavin



575 Broad Hollow Road, Melville NY 11747 (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478

LABORATORY RESULTS

Clarkstown Landfill

Lab No.: 0905125-004

Sample Information...

Type: Soil

Attn To:

Origin:

Original

Client ID. : TP-6

Collected Received :4/28/2009 10:41:00 AM

Collected By H2MPC

:4/28/2009 2:27:00 PM

CC

Copies To :Original

Parameter(s)	Results	Qualifier D.F.	<u>Units</u>	Method Number	<u>Analyzed</u>
Reactive Cyanide	< 100	1	mg/Kg	SW7.3.3.2	05/04/2009 6:08 PM
Ignitability	>60	1	°C	SW1010	04/30/2009 10:10 AM
Corrosivity PH	7.0	1	pH Units	SW9045	04/29/2009 9:12 AM
Reactive Sulfide	< 100	1	mg/Kg	SW7.3.4.2	05/01/2009 3:44 PM

Qualifiers:

E - Value above quantilation range

D - Results for Dilution

D.F. = Dilution Factor

Date Reported :

5/22/2009

Joann M. Slavin

575 Broad Hollow Road, Melville NY 11747 (631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Clarkstown Landfill

Lab No. : 0905125-005

Sample Information...

Type: Soil

Attn To:

Origin:

Original

:4/28/2009 12:00:00 PM

Collected Received

:4/28/2009 2:27:00 PM

Collected By H2MPC

Copies To :Original

СС

Parameter(s)	Results	Qualifier D.F.	Units	Method Number	Analyzed
Reactive Cyanide	< 100	1	mg/Kg	SW7.3.3.2	05/04/2009 6:09 PM
Ignitability	>60	1	°C	SW1010	04/30/2009 10:14 AM
Corrosivity PH	7.3	1	pH Units	SW9045	04/29/2009 9:14 AM
Reactive Sulfide	< 100	1	mg/Kg	SW7.3.4.2	05/01/2009 3:46 PM

Client ID. : TP-7

Qualifiers:

E - Value above quantitation range

D - Results for Dilution

D.F. = Dilution Factor

Date Reported :

5/22/2009

Joann M. Slavin

575 Broad Hollow Road, Melville NY 11747 (631) 694-3040 . FAX: (631) 420-8436 NYSDOHID#10478

LABORATORY RESULTS

Clarkstown Landfill

Lab No. : 0905184-001

Sample Information...

Type: Soil

Attn To:

Original

Origin:

: 4/28/2009 2:08:00 PM

Collected Received

: 4/29/2009 10:35:00 AM

Collected By H2MPC Copies To :Original

CC

Parameter(s)	Results	Qualifier [D.F.	<u>Units</u>	Method Number	Analyzed
Reactive Cyanide	< 100		1	mg/Kg	SW7.3.3.2	05/04/2009 6:10 PM
Ignitability	>60		1	°C	SW1010	04/30/2009 10:22 AM
Corrosivity PH	6.6		1	pH Units	SW9045	04/30/2009 9:00 AM
Reactive Sulfide	< 100		1	mg/Kg	SW7.3.4.2	05/01/2009 3:48 PM

Client ID. : TP-8

Qualifiers:

E - Value above quantitation range

D - Results for Dilution

D.F. = Dilution Factor

Date Reported :

5/22/2009

Joann M. Slavin

- 5. **SURROGATE SPIKE ANALYSIS RESULTS**

 - TCLP VOLATILES
 TCLP SEMIVOLATILES
 TCLP PESTICIDES 5.2
 - 5.3

2A WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	H2M LABS,	INC.		Contract:	-	
Lab Code:	10478	Case No.:	PCCSW	SAS No.:	SDG No.:	PCCSW010

EPA	SMC1	SMC2	SMC3	OTHER	TOT
SAMPLE NO.	DCA#	BFB#	TOL#		OUT
01 VBLK050409	92	84	88		0
12 LFB050409	89	83	85		0
3 VTCLPBLANK4/29	89	86	87		0
14 TP-1	91	86	88		0
5 TP-2	72	86	88		0
6 TP-3	92	86	87		0
7 TP-4	91	85	87		0
8 TP-4MS	86	84	87		0
9 TP-4MSD	85	84	87		0
0 TP-5	88	86	88		0
1 TP-6	76	86	88		0
2 TP-7	94	86	87		0
3 TP-8	93	86	87	1112 1111	0

QC Limit

SMC1 DCA = 1,2-dichloroethane-d4 (53-183) SMC2 BFB = 4-Bromofluorobenzene (52-124) SMC3 TOL = Toluene-d8 (60-135)

Column to be used to flag recovery values

* Values outside of contract required QC limits

page 1 of 1

FORM II VOA-1

OLM04.2

2C WATER SEMIVOLATILE SURROGATE RECOVERY

 Lab Name:
 H2M LABS, INC.
 Contract:

 Lab Code:
 10478
 Case No.:
 PCCSW
 SAS No.:

 SDG No.:
 PCCSW010

EPA	S1	S2	S3	S4 ·	S 5	S6	S7	S8	TOT
SAMPLE NO.	2FP# ;	NBZ#	PD5#	TBP#	FBP#	TPH#	2CP#	DCB#	OUT
01 MB-31127	51	75	38	81	73	93	71	60	0
02 LFB-31127	45	72	32	75	71	87	65	54	0
03 TP-1	52	75	38	90	75	86	72	62	0
04 TP-2	57	80	42	88	76	86	76	62	0
05 TP-3	52	72	39	87	75	84	71	64	0
06 TP-4	46	70	34	74	72	56	67	61	0
07 TP-4MS	23	73	16	59	80	97	38	66	0
08 TP-4MS	45	68	32	86	69	74	65	60	0
09 TP-5	55	74	42	92	79	86	73	67	0
10 TP-6	56	77	42	95	78	86	75	69	0
11,TP-7	50	72	34	89	75	83	70	66	0
12 TP-8	49	60	37	75	72	79	67	60	0

			QC LIMITS	
S 1	2FP	= 2-Fluorophenol	(21-110)	
S2	NBZ	= Nitrobenzene-d5	(35-114)	
S3	PD5	= Phenol-d5	(10-110)	
S 4	TBP	= 2,4,6-Tribromophenol	(10-123)	
S 5	FBP	= 2-Fluorobiphenyl	(43-116)	
S6	TPH	= 4-Terphenyl-d14	(33-141)	
S7	2CP	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8	DCB	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

Column to be used to flag recovery values

D Surrogate diluted out

^{*} Values outside of contract required QC limits

2E WATER PESTICIDE SURROGATE RECOVERY

Lab Name: H2M LABS, INC. Contract:

GC Column (1): CLP ID: .32 (mm) GC Column (2): CLP2 ID: .32 (mm)

	EPA	TCX 1	TCX 2	DCB 1	DCB 2	Other	Other	TOT
	SAMPLE NO.	%REC #	%REC #	%REC #	%REC #	(1)	(2)	OUT
01	MB-31148	76	81	83	87			0
2	LFB-31148	87	91	99	102			0
3	TP-1	78	83	92	94			0
04	TP-2	70	72	87	87			0
05	TP-3	76	80	88	87			0
)6	TP-4	90	96	101	114			0
07	TP-4MS	92	110	99	113			0
80	TP-4MSD	81	93	90	103			0
9	TP-5	82	87	96	112			0
LO	TP-6	86	118	98	105			0
լլ	TP-7	84	92	97	99			0
12	TP-8	75	89	96	97			0

QC Limits

TCX = Tetrachloro-m-xylene (30-150)
DCB = Decachlorobiphenyl (30-150)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

Page 1 of 1

FORM II PEST-1

OLM04.2

6. MATRIX SPIKE / MATRIX SPIKE DUPLICATE SUMMARY

6.1 6.2 6.3 TCLP VOLATILES
TCLP SEMIVOLATILES
TCLP PESTICIDES

SYSTEM MONITORING SPIKE/DUPLICATE RECOVERY

Lab Name: H2M LABS, INC. Contract:

Matrix Spike - Sample No.: TP-4 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC#	QC LIMITS REC
Vinyl chloride	0.05	0	0.046	91	14-152
1,1-Dichloroethene	0.05	0	0.051	101	58-112
2-Butanone	0.05	0	0.059	117	14-166
Chloroform	0.05	0	0.052	103	75-119
1,2-Dichloroethane	0.05	0	0.05	99	52-133
Carbon tetrachloride	0.05	0	0.045	90	64-126
Benzene	0.05	0	0.048	96	50-127
Trichloroethene	0.05	0	0.048	97	57-115
Tetrachloroethene	0.05	0	0.046	93	59-133
Chlorobenzene	0.05	0	0.046	92	72-124

	SPIKE	MSD	MSD			
	ADDED	CONCENTRATION	%	%	QC	LIMITS
COMPOUND	(mg/L)	(mg/L)	REC#	RPD#	RPD	REC.
Vinyl chloride	0.05	0.043	86	5	20	14-152
1,1-Dichloroethene	0.05	0.051	103	1	20	58-112
2-Butanone	0.05	0.056	112	4	20	14-166
Chloroform	0.05	0.052	104	1	20	75-119
1,2-Dichloroethane	0.05	0.048	96	3	20	52-133
Carbon tetrachloride	0.05	0.043	86	4	20	64-126
Benzene	0.05	0.047	94	2	20	50-127
Trichloroethene	0.05	0.048	96	1	20	57-115
Tetrachloroethene	0.05	0.045	90	3	20	59-133
Chlorobenzene	0.05	0.045	91	1	20	72-124

# Column to be used to flag recovery and RPD values with an	Ŧ	#	Column to be used	ĽΟ	rlag	recovery	ana	RPD	values	with	an	asteris
---	---	---	-------------------	----	------	----------	-----	-----	--------	------	----	---------

*	Values	outside	Ωf	OC	limits
	varues	Outside	\circ	\sim	7711176

RPD:	0	out	of	10	outside	limits

Spike	Recovery:	0	out of	20	outside	limits

COMMENTS:					
		•			

PCCSW010 S102

3A SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC.

Contract:

SDG No.: PCCSW010

Sample ID

LFB050409

Level: (low/med) LOW

Column ID

ZB-624

Column Diam .18

Inst. ID

HP5971

Init. Calib. Date(s):04/26/09 20:05

Analysis Date: 05/04/09 11:49

04/26/09 22:50

74142 7515 Bacc. 05701	7 05 11.45		-		
	SPIKE	SAMPLE	SPIKE	SPIKE	QC.
	ADDED	CONCENTRATION	CONCENTRATION	%	LIMITS
COMPOUND	(mg/L)	(mg/L)	(mg/L)	REC#	REC.
Vinyl chloride	0.05	0	0.038	75	14-152
1,1-Dichloroethene	0.05	0	0.041	81	58-112
2-Butanone	0.05	0	0.052	105	14-166
Chloroform	0.05	0	0.048	95	75-119
1,2-Dichloroethane	0.05	0	0.05	100	52-133
Carbon tetrachloride	0.05	0	0.042	85	64-126
Benzene	0.05	0	0.046	92	50-127
Trichloroethene	0.05	0	0.044	88	57-115
Tetrachloroethene	0.05	0	0.04	80	59-133
Chlorobenzene	0.05	0	0.044	88	72-124

Spike	Recovery:	0	out of	10	outside	limits

COMMENTS:	

[#] Column to be used to flag recovery and RPD values with an asterisk

^{*} Values outside of QC limits

Lab	Name:	H2M	LABS,	INC.	 Contract:	 	

Lab Code: 10478 Case No.: PCCSW SAS No.: SDG No.: PCCSW010

Matrix Spike - EPA Sample No.: TP-4

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC#	QC. LIMITS REC.
Pyridine	0.05	0	0.02	40	12-81.6
1,4-Dichlorobenzene	0.05	0	0.03	63	38-116
2-Methylphenol	0.05	0	0.01	29	27-141
3-Methylphenol/4-Methylphenol	0.1	0	0.01	15	15-141
Hexachloroethane	0.05	O	0.03	67	39-111
Nitrobenzene	0.05	0	0.04	82	39-129
Hexachlorobutadiene	0.05	0	0.03	64	49-115
2,4,6-Trichlorophenol	0.05	0	0.04	83	37-133
2,4,5-Trichlorophenol	0.05	0	0.02	47	16-148
2,4-Dinitrotoluene	0.05	0	0.03	65	46-118
Hexachlorobenzene	0.05	0	0.04	80	55-127
Pentachlorophenol	0.05	0	0.005	9-	13-123

	SPIKE	MSD	MSD		in the second	
	ADDED	CONCENTRATION	%	%	ac	LIMITS
COMPOUND	(mg/L)	(mg/L)	REC#	RPD#	RPD	REC.
Pyridine	0.05	0.0203	41	2	30	12-81.6
1,4-Dichlorobenzene	0.05	0.0284	57	10	30	38-116
2-Methylphenol	0.05	0.03	60	70 °	30	27-141
3-Methylphenol/4-Methylphenol	0.1	0.0459	46	102*	30	15-141
Hexachloroethane	0.05	0.0279	56	18	30	39-111
Nitrobenzene	0.05	0.0331	66	22	30	39-129
Hexachlorobutadiene	0.05	0.0299	60	6	30	49-115
2,4,6-Trichlorophenol	0.05	0.037	74	11	30	37-133
2,4,5-Trichlorophenol	0.05	0.0379	76	47*	30	16-148
2,4-Dinitrotoluene	0.05	0.033	66	2	30	46-118
Hexachlorobenzene	0.05	0.0364	73	9	30	55-127
Pentachlorophenol	0.05	0.0258	52	141*	30	13-123

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 4 out of 12 outside limits

Spike Recovery: 1 out of 24 outside limits

COMMENTS:	 	_	 	 	 	 	 	 	

3A SYSTEM MONITORING SPIKE RECOVERY

Lab Nam	ne:	H2M LAF	BS, INC.	**************	Contract:	and the state of t	
Lab Cod	le: :	10478	Case No.:	PCCSW	SAS No.:	SDG No.:	PCCSW01
Sample	ID	LFB-311	127			Level:(low/med)	LOW
Column	ID	R-5SILM	1S			Column Diam	. 25
Inct	TD	מהפסקט			Init Calib	Date(s): 04/28/09	12.26

Analysis Date: 05/01/09 14:17 04/28/09 15:01

	SPIKE	SAMPLE	SPIKE	SPIKE	QC.
	ADDED	CONCENTRATION	CONCENTRATION	%	LIMITS
COMPOUND	(mg/L)	(mg/L)	(mg/L)	REC#	REC.
Pyridine	0.05	0	0.0204	41	12-81.6
1,4-Dichlorobenzene	0.05	0	0.0252	50	38-116
2-Methylphenol	0.05	0	0.028	56	27-141
3-Methylphenol/4-Methylphenol	0.1	0	0.0406	41	15-141
Hexachloroethane	0.05	0	0.0252	50	39-111
Nitrobenzene	0.05	0	0.035	70	39-129
Hexachlorobutadiene	0.05	0	0.0244	49	49-115
2,4,6-Trichlorophenol	0.05	0	0.0351	70	37-133
2,4,5-Trichlorophenol	0.05	0	0.0362	72	16-148
2,4-Dinitrotoluene	0.05	0	0.035	70	46-118
Hexachlorobenzene	0.05	0	0.0343	69	55-127
Pentachlorophenol	0.05	0	0.027	54	13-123

#	Column	to	be	used	to	flag	recovery	and	RPD	values	with	an	asterisk
---	--------	----	----	------	----	------	----------	-----	-----	--------	------	----	----------

* Values outside o	of QC	limits	
Spike Recovery:	0	out of	12 outside limits
COMMENTS:			

PCCSW010 S104

3E WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: H2M LAN	s, INC.	Contract:		
Lab Code: 10478	Case No.: PCCSW	SAS No.:	SDG No.:	PCCSW010
Matrix Spike - EPA	Sample No.: TP-4			

	SPIKE	SAMPLE	MS	MS	QC.
	ADDED	CONCENTRATION	CONCENTRATION	%	LIMITS
COMPOUND	(mg/L)	(mg/L)	(mg/L)	REC#	REC.
gamma-BHC	0.001	0	0.00092	92	58-124
Heptachlor	0.001	0	0.0011	109	61-110
Heptachlor epoxide	0.001	0	0.00097	97	52-131
Endrin	0.001	0	0.001	101	57-147
Methoxychlor	0.01	0	0.01	100	51-124
alpha-Chlordane	0.001	0	0.001	100	49-134
gamma-Chlordane	0.001	0	0.0011	109	61-110

	SPIKE	MSD	MSD					
	ADDED	CONCENTRATION	%	%	QC LIMITS			
COMPOUND	(mg/L)	(mg/L)	REC#	RPD#	RPD	REC.		
gamma-BHC	0.001	0.00097	97	5	20	58-124		
Heptachlor	0.001	0.0012	119*	9	20	61-110		
Heptachlor epoxide	0.001	0.001	100	3	20	52-131		
Endrin	0.001	0.00096	96	5	20	57-147		
Methoxychlor	0.01	0.011	108	8	20	51-124		
alpha-Chlordane	0.001	0.0011	110	10	20	49-134		
gamma-Chlordane	0.001	0.0012	119*	9	20	61-110		

	#	Column	to	be	used	to	flaq	recovery	and	RPD	values	with	an	asterisk
--	---	--------	----	----	------	----	------	----------	-----	-----	--------	------	----	----------

*	Value	outside	of OC	limits

RPD: 0 out of 7 outside limits	
Spike Recovery: 2 out of 14 outside limits	
COMMENTS:	

3A SYSTEM MONITORING SPIKE RECOVERY

Lab Name:	H2M LABS, INC.	Contract:	
Lab Code:	10478 Case No.: PCCSW	SAS No.:	SDG No.: PCCSW010
Sample ID	LFB-31148		Level: (low/med) LOW
Column ID	CLP		Column Diam .32
Inst. ID	HP6890-2		

Analysis Date: 05/07/09 17:56

	SPIKE	SAMPLE	SPIKE	SPIKE	QC.
	ADDED	CONCENTRATION	CONCENTRATION	%	LIMITS
COMPOUND	(mg/L)	(mg/L)	(mg/L)	REC#	REC.
gamma-BHC	0.001	0	0.00095	95	58-124
Heptachlor	0.001	0	0.001	104	61-110
Heptachlor epoxide	0.001	0	0.00099	99	52-131
Endrin	0.001	0	0.001	101	57-147
Methoxychlor	0.01	0	0.01	105	51-124
alpha-Chlordane	0.001	0	0.001	104	49-134
gamma-Chlordane	0.001	0	0.0011	105	32-144

# Column to be used to flag recovery and RPD values with an asterisk	
* Values outside of QC limits	
Spike Recovery:out ofoutside limits	
COMMENTS:	

DUPLICATE SUMMARY RESULTS7.1 TCLP METALS7.2 WET CHEMISTRY 7.

DUPLICATES

EPA SAMPLE NO

TP-4

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: PCCSW010

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

% Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	С	Duplicate (D)	С		RPD	Q	м
Arsenic		2.8099	U	2.8099	Ü				P
Barium	0000.0000	774.8700	В	767.7800	В	П	0.9		Р
Cadmium	100.0000	2.5500	В	2.6800	В		5.0		P
Chromium		0.4357	U	0.4357	Ū				P
Lead	1000.0000	254.0000	В	251.0000	В	T	1.2		P
Mercury		0.1000	U	0.1000	Ü	T			CV
Selenium		2.6720	U	2.6720	Ü	П			P
Silver	1000.0000	2.2304	В	2.3314	В		4.4		P
Silver	1000.0000	2.2304	В	2.3314	B	-	4.4		

Date: 20-May-09

QC SUMMARY REPORT

SDG:

PCCSW010

Sample ID:	Client Sample ID:	Analyte	Result	Units	Spike Amount	Sample Result			overy nits	RPDRef Value	%RPD	%RP UCI
0905125-002Ddup	TP-4DUP	Corrosivity PH	6.4	pH_units						6.4	0.63	20
MB-R100770	MB-R100770	Ignitability	>60	DEG C	1		ļ	1]	i	!
LCS-R100770	LCS-R100770	Ignitability	29.3	DEG C	29	0	101	99	118			
0905125-002CDUP	0905125-002CDUP	Ignitability	>60	DEG C					<u> </u>	0	0	6.7
	,	- 12/2										
0905125-002DDUP	TP-4DUP	Reactive Cyanide	< 100	mg/kg				T		< 100	T	20
		- 	<u></u>									
MB-050109	MB-050109	Reactive Sulfide	< 100	mg/kg	Γ				T			
0905125-002Ddup	TP-4DUP	Reactive Sulfide	< 100	mg/kg				1	1	< 100	1	20

8. SPIKE SAMPLE RESULTS
8.1 TCLP METALS
8.2 WET CHEMISTRY

5A SPIKE SAMPLE RECOVERY EPA SAMPLE NO

TP-4S

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: PCCSW010

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

	Control Limit	Spiked Sample		Sample		Spike		<u> </u>	
Analyte	%R	Result (SSR)	С	Result (SR)	С	Added (SA)	%R	Q	M
Arsenic	75-125	1040.0000		2.8099	Ū	1000.00	104.0		P
Barium	75-125	1688.9900	В	774.8700	В	1000.00	91.4		P
Cadmium_	75-125	961.8800		2.5500	В	1000.00	95.9		Р
Chromium	75-125	949.8800	В	0.4357	U	1000.00	95.0		P
Lead	75-125	1130.0000		254.0000	В	1000.00	87.6		P
Mercury	75-125	0.9310		0.1000	Ü	1.00	93.1		CV
Selenium	75-125	972.0000		2.6720	υ	1000.00	97.2		P
Silver	75-125	803.4818	В	2.2304	В	1000.00	80.1		P

COmmi	ents:								
			 		_			 	

Date: 20-May-09

QC SUMMARY REPORT

SDG:

PCCSW010

Sample ID:	Client Sample ID:	Analyte	Result	Units	Spike Amount	Sample Result			overy nits	RPDRef Value	%RPD	%RF UC
0905125-002Ddup	TP-4DUP	Corrosivity PH	6.4	pH_units	1					6.4	0.63	20
MB-R100770	MB-R100770	Ignitability	>60	DEG C	i					1	1	l
LCS-R100770	LCS-R100770	Ignitability	29.3	DEG C	29	0	101	99	118			
0905125-002CDUP	0905125-002CDUP	Ignitability	>60	DEG C						0	0	6.7
0905125-002DDUP	TP-4DUP	Reactive Cyanide	< 100	mg/kg	<u></u>	<u> </u>	L		<u>L</u>	< 100	<u></u>	20
	:											
MB-050109	MB-050109	Reactive Sulfide	< 100	mg/kg								
0905125-002Ddup	TP-4DUP	Reactive Sulfide	< 100	mg/kg						< 100		20

- 9. **BLANK SUMMARY DATA AND RESULTS**
 - 9.1
 - TCLP VOLATILES
 TCLP SEMIVOLATILES 9.2
 - 9.3 TCLP PESTICIDES
 - 9.4
 - TCLP METALS WET CHEMISTRY 9.5

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK050409

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No.: PCCSW SAS No.: SDG No.: PCCSW010

Lab File ID: A\A64695.D Lab Sample ID: VBLK050409

Date Analyzed: 05/04/09 Time Analyzed: 11:19

GC Column: ZB-624 ID: .18 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA	LAB	LAB	TIME
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
01	LFB050409	LFB050409	AVA64696.D	11:49
02	VTCLPBLANK4/29	VTCLPBLANK4/29	AVA64703.D	16:58
03	TP-1	0905085-001A	AVA64704.D	17:27
04	TP-2	0905085-002A	AVA64705.D	17:56
05	TP-3	0905125-001A	AVA64706.D	18:25
06	TP-4	0905125-002A	AVA64707.D	18:54
07	TP-4MS	0905125-002AMS	A\A64708.D	19:23
08	TP-4MSD	0905125-002AMSD	AVA64709.D	19:52
09	TP-5	0905125-003A	AVA64710.D	20:21
10	TP-6	0905125-004A	AVA64711.D	20:50
11	TP-7	0905125-005A	A\A64712.D	21:20
12	TP-8	0905184-001A	A\A64713.D	21:49

COMMENTS:	

page $\underline{1}$ of $\underline{1}$

Form 1

CLIENT SAMPLE NO.

VBLK050409

Lab Name: H2M LABS, INC.

Contract:

Case No.: PCCSW

SAS No.: SDG No.: PCCSW010

Matrix: (soil/water)

Leachate

ML

Lab File ID:

Lab Sample ID:

VBLK050409

Sample wt/vol:

Lab Code:

10478

(g/mL)

A\A64695.D

Level: (low/med)

LOW

5

Date Received:

% Moisture: not dec.

GC Column: ZB-624

ID: .18 (mm)

Date Analyzed:

Date Extracted:

5/4/2009

Extract Volume:

(µ1)

Dilution Factor:

1.00

Injection Volume:

(µ1)

CONCENTRATION UNITS:

COMPOUND CAS NO. (ug/L or ug/Kg) mg/L Q 75-01-4 Vinyl chloride 0.01 75-35-4 1,1-Dichloroethene 0.01 υ 78-93-3 2-Butanone 0.01 U 67-66-3 Chloroform 0.01 U 107-06-2 1,2-Dichloroethane 0.01 υ Carbon tetrachloride 0.01 56-23-5 Ŭ 71-43-2 Benzene 0.01 U 79-01-6 Trichloroethene 0.01 U 127-18-4 Tetrachloroethene 0.01 U 108-90-7 Chlorobenzene 0.01

VTCLPBLANK4/29

Lab Name:

H2M LABS, INC.

Contract:

Lab Code:

10478

Case No.:

PCCSW

SAS No.: ____ SDG No.: PCCSW010

Matrix: (soil/water)

Leachate <u>5</u>

Lab Sample ID:

VTCLPBLANK4/29

Sample wt/vol:

(g/mL) ML Lab File ID:

A\A64703.D

Level: (low/med)

LOW

Date Received:

% Moisture: not dec.

Date Extracted:

GC Column: ZB-624

ID: <u>.18</u> (mm)

Date Analyzed:

4/29/09 Jano 5/18/09

Extract Volume:

(µl)

Dilution Factor:

1.00

Injection Volume: (µ1)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/L	Q
75-01-4	Vinyl chloride		0.01	U
75-35-4	1,1-Dichloroethene		0.01	ט
78-93-3	2-Butanone		0.01	U
67-66-3	Chloroform		0.01	บ
107-06-2	1,2-Dichloroethane		0.01	ט
56-23-5	Carbon tetrachloride		0.01	U
71-43-2	Benzene		0.01	Ü
79-01-6	Trichloroethene	i	0.01	Ū
127-18-4	Tetrachloroethene		0.01	U
108-90-7	Chlorobenzene		0.01	ש

48

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-31127

Lab Name:	H2M LABS, INC.	Contract:
-----------	----------------	-----------

Lab Code: 10478 Case No.: PCCSW SAS No.: SDG No.: PCCSW010

Lab File ID: A\C46679.D Lab Sample ID: MB-31127

Instrument ID: HP5972 Date Extracted: 04/30/09

Matrix: (soil/water) <u>WATER</u> Date Analyzed: <u>05/01/09</u>

Level:(low/med) LOW Time Analyzed: 13:46

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA	LAB	LAB	DATE
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
1.	LFB-31127	LFB-31127	A\C46680.D	5/1/09
2	TP-1	0905085-001B	A\C46684.D	5/1/09
3	TP-2	0905085-002B	A\C46685.D	5/1/09
4	TP-3	0905125-001B	A\C46686.D	5/1/09
5	TP-4	0905125-002B	A\C46687.D	5/1/09
6	TP-4MS	0905125-002BMS	A\C46688.D	5/1/09
7.	TP-4MSD	0905125-002BMSD	A\C46689.D	5/1/09
8	TP-5	0905125-003B	A\C46690.D	5/1/09
9	TP-6	0905125-004B	A\C46691.D	5/1/09
0	TP-7	0905125-005B	A\C46692.D	5/1/09
1	TP-8	0905184-001B	A\C46693.D	5/1/09

COMMENTS:				

MB-31127

Lab Name: H2M LABS, INC. Contract:

Lab Code:

10478

Case No.: PCCSW

SAS No.: ____ SDG No.: PCCSW010

Date Extracted: 4/30/09

Sample wt/vol:

Matrix: (soil/water)

Leachate

(g/mL) ML Lab File ID:

MB-31127 A\C46679.D

Level: (low/med)

500 LOW

Date Received:

Lab Sample ID:

% Moisture: not dec.

GC Column: R-5SILMS

ID: <u>.25</u> (mm)

Date Analyzed:

5/1/09

Extract Volume:

500

 (μl)

Dilution Factor:

1.00

Injection Volume:

 $(\mu 1)$

CONCENTRATION UNITS:

CAS NO.	COMPOUND (u	g/L or ug/Kg)	<u>mg/L</u>	Q
110-86-1	Pyridine		0.01	U
106-46-7	1,4-Dichlorobenzene		0.01	U
95-48-7	2-Methylphenol		0.01	U
12-03-3	3-Methylphenol/4-Methylphe	nol	0.01	U
67-72-1	Hexachloroethane		0.01	ซ
98-95-3	Nitrobenzene		0.01	U
87-68-3	Hexachlorobutadiene		0.01	U
88-06-2	2,4,6-Trichlorophenol	1	0.01	U
95-95-4	2,4,5-Trichlorophenol		0.03	Ü
121-14-2	2,4-Dinitrotoluene		0.01	U
118-74-1	Hexachlorobenzene		0.01	U
87-86-5	Pentachlorophenol		0.03	U

MB-31148

Lab Name: H2M LABS, INC. Contract:

Lab Sample ID: MB-31148 Lab File ID: a00122.raw

Matrix: (soil/water) W Extraction: (Type) SEPF

Sulfur Cleanup: (Y/N) N Date Extracted: 05/01/09

Date Analyzed (1): 05/07/09 Date Analyzed (2): 05/07/09

Time Analyzed (1): 17:41 Time Analyzed (2): 17:41

Instrument ID (1): HP6890-2 Instrument ID (2): HP6890-2

GC Column (1): <u>CLP</u> ID: <u>.32</u> (mm) GC Column (2): <u>CLP2</u> ID: <u>.32</u> (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

_				
	EPA	LAB	DATE	DATE
Ĺ	SAMPLE NO.	SAMPLE ID	ANALYZED 1	ANALYZED 2
1	LFB-31148	LFB-31148	5/7/2009	5/7/2009
2	TP-1	0905085-001B	5/7/2009	5/7/2009
3[TP-2	0905085-002B	5/7/2009	5/7/2009
4	TP-3	0905125-001B	5/7/2009	5/7/2009
5	TP-4	0905125-002B	5/7/2009	5/7/2009
6	TP-4MS	0905125-002Bms	5/7/2009	5/7/2009
7	TP-4MSD	0905125-002Bmsd	5/7/2009	5/7/2009
8	TP-5	0905125-003B	5/7/2009	5/7/2009
9	TP-6	0905125-004B	5/7/2009	5/7/2009
10	TP-7	0905125-005B	5/7/2009	5/7/2009
11	TP-8	0905184-001B	5/7/2009	5/7/2009

COMMENTS:						
	 	 _	 	 	-	

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

S	PA	SAME	ظيا	NO	•

MB-31148

Lab Name: H2M LABS, INC. Contract:

Matrix: (soil/water) WATER Lab Sample ID: MB-31148

Sample wt/vol: 500 (g/mL) ML Lab File ID: a00122.raw

% Moisture: Decanted: (Y/N) N Date Received:

Extraction: (Type) SEPF Date Extracted: 05/01/09

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/07/09

Injection Volume: 0.5 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
58-89-9	gamma-BHC	0.00020	U
76-44-8	Heptachlor	0.00020	บ
1024-57-3	Heptachlor epoxide	0.00020	ប
72-20-8	Endrin	0.00040	U
72-43-5	Methoxychlor	0.0020	U
8001-35-2	Toxaphene	0.020	ប
57-74-9	Chlordane	0.0040	บ
5103-71-9	alpha-Chlordane	0.00020	บ
5103-74-2	gamma-Chlordane	0.00020	U

3 BLANKS

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

78 Case No.

SAS No.:

SDG No.: PCCSW010

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank		Con		nuing Calib Blank (ug/I		tion			Prepa- ration		
Analyte	(ug/L)	С	1	С	2	С	3	C		Blank	С	М
Arsenic	2.8	U	2.8	U	2.8	U	2.8	U	\vdash	2.810	บ	P
Barium	1.4	U	1.4	Ū	1.4	U	1.4	U	П	1.428	U	P
Cadmium	0.2	Ū	0.2	Ū	0.3	В	0.6	В	Т	-0.360	В	P
Chromium	-2.6	В	-2.7	В	-2.7	В	-3.0	В		-2.780	В	P
Lead	1.5	Ū	1.5	U	1.5	U	-1.6	В		2.510	В	P
Selenium	2.7	U	2.7	Ų	2.7	U	3.6	В		2.672	U	P
Silver	0.6	U	0.7	В	1.3	В	1.8	В		0.599	Ū	P

3 BLANKS

Lab Name: H2M LABS, INC.

Contract:

Lab Code: <u>10478</u>

0478 Case No.

SAS No.:

SDG No.: PCCSW010

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): $\underline{UG/L}$

Initial Calib. Blank			Con	tinu Bl	Prepa- ration	1					
Analyte	(ug/L)	С	1	С	2	С	3	C	Blank	С	М
Arsenic			4.4	В						\top	P
Barium			1.4	U							P
Cadmium			0.5	В							P
Chromium			-2.5	В							P
Lead			1.5	U							P
Selenium		1 1	2.7	U						T T	P
Silver		1	0.6	U							P

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

MBLKTCLP

Lab Name: <u>H2M LABS, INC.</u>

Lab Code: 10478

Case No.

SAS No.:

SDG No.: PCCSW010

Matrix (soil/water):

WATER

Lab Sample ID: MB1-31131

Level (low/med):

FOM

Date Received:

% Solids:

0.0

Concentration Units (ug/L or mg/kg dry weight):

CAS No.	Analyte	Concentration	С	Q	M
7440-38-2	Arsenic	2.8	ŭ	_	P
7440-39-3	Barium	7.5	В		P
7440-43-9	Cadmium	0.23	Ū		P
7440-47-3	Chromium	0.44	U		P
7439-92-1	Lead	2.3	В	-	₽
7782-49-2	Selenium	7.1	В		₽
7440-22-4	Silver	1.4	В		₽

Commen	t	s	:
--------	---	---	---

Date Reported 5/11/2009 TCLP Metals

3 BLANKS

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: PCCSW010

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank		Co		nuing C Blank (tion			Prepa- ration			
Analyte	(ug/L)	С	1	С	2	С	3		С	Blank	С		М
Mercury	0.1	U	0.	1 U		0.1 U		0.1	υ	0.100	บ	C	ζV
		<u> </u>										П	

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

PBWT

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.:

SDG No.: PCCSW010

Matrix (soil/water): WATER

Lab Sample ID: MB1-31134

Level (low/med):

LOW

Date Received:

% Solids:

0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	С	Q	M
7439-97-6	Mercury	0.10	U		CV

Co	mme	nt	S	:

Date Reported 5/11/2009 TCLP Metals

PCCSW010 S125

Date: 20-May-09

QC SUMMARY REPORT

SDG:

PCCSW010

Sample ID:	Client Sample ID:	Analyte	Result	Units		Sample Result			overy nits	RPDRef Value	%RPD	%RP UC
0905125-002Ddup	TP-4DUP	Corrosivity PH	6.4	pH_units						6.4	0.63	20
MB-R100770	MB-R100770	Ignitability	>60	DEGC	f	!		1	ł	1	1	l
LCS-R100770	LCS-R100770	Ignitability	29.3	DEG C	29	0	101	99	118	<u> </u>		1
0905125-002CDUP	0905125-002CDUP	Ignitability	>60	DEG C					•	0	0	6.7
										T		
0905125-002DDUP	TP-4DUP	Reactive Cyanide	< 100	mg/kg	L					< 100	<u> </u>	20
	<u> </u>											
MB-050109	MB-050109	Reactive Sulfide	< 100	mg/kg								
0905125-002Ddup	TP-4DUP	Reactive Sulfide	< 100	mg/kg						< 100		20

10. INTERNAL STANDARD AREA DATA

10.1 TCLP VOLATILES
10.2 TCLP SEMIVOLATILES
10.3 TCLP PESTICIDES

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No.: PCCSW SAS No.: SDG No.: PCCSW010

Lab File ID (Standard): A\A64694.D Date Analyzed: 05/04/09

EPA Sample No.(VSTD050##): <u>VSTD050</u> Time Analyzed: <u>10:47</u>

Instrument ID: HP5971 Heated Purge: (Y/N) N

GC Column: ZB-624 ID: .18 (mm)

		IS1		IS2		IS3	The second section in the second seco
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	107367	8.04	657202	9.17	644105	12.93
	UPPER LIMIT	214734	8.54	1314404	9.67	1288210	13.43
	LOWER LIMIT	53684	7.54	328601	8.67	322053	12.43
	EPA SAMPLE						
01	VBLK050409	107563	8.04	659297	9.17	636736	12.93
02	LFB050409	109141	8.04	648805	9.17	644033	12.93
3	VTCLPBLANK4/29	102996	8.25	672476	9.38	657761	13.17
)4	TP-1	103499	8.25	668064	9.38	654040	13.17
)5	TP-2	131495	8.26	672726	9.39	657554	13.17
)6	TP-3	101747	8.26	663664	9.39	655191	13.18
7	TP-4	102729	8.27	664690	9.39	654012	13.18
8	TP-4MS	105739	8.27	670917	9.40	656003	13.19
9	TP-4MSD	106446	8.27	678797	9.40	663308	13.19
10	TP-5	103876	8.27	677076	9.40	652419	13.19
1	TP-6	121522	8.27	674647	9.40	653940	13.19
L 2	TP-7	98840	8.27	665871	9.40	653463	13.19
.3	TP-8	99968	8.27	663739	9.39	648429	13.19

IS1 = Bromochloromethane

IS2 = 1,4-difluorobenzene

IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

page 1 of 1

PCCSW010 S128

8B SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab	Name: <u>H2M L</u>	ABS, INC.		Contract:			
Lab	Code: <u>10478</u>	Case No	o.: <u>PCCS</u>	<u>W</u> SAS No.:		SDG No.:	PCCSW010
EPA Sample No.(SSTD050##): SSTD025 Date Analyzed:							
Lab I	File ID (Standard):		\\C46675.D	Time Anal	yzed:		<u>11:41</u>
Instr	ument ID:	HP5972		GC Colum	ın: <u>R-5SIL</u>	_MS ID:25	(mm)
	ı	IS1		IS2	**	IS3 ACE	•
	ř)	AREA#	RT #	AREA#	RT#	AREA#	RT#
	12 HOUR STD	47994	4.53	177176	6.09	84147	9.15
	UPPER LIMIT	95988	5.03	354352	6.59	168294	9.65
	LOWER LIMIT	23997	4.03	88588	5.59	42074	8.65
	EPA SAMPLE NO.						
01	MB-31127	41043	4.53	149112	6.09	68337	9.15
02	LFB-31127	43339	4.53	153258	6.08	71230	9.14
03	TP-1	39857	4.53	144900	6.09	65599	9.15
04	TP-2	40662	4.53	148592	6.09	68696	9.14
05	TP-3	42529	4.53	159686	6.09	71542	9.15
06	TP-4	44716	4.53	177342	6.09	77836	9.16
07	TP-4MS	49299	4.53	210798	6.10	87245	9.20
80	TP-4MSD	46598	4.53	168543	6.09	80757	9.15
09	TP-5	46986	4.53	173294	6.09	79067	9.15
10	TP-6	46711	4.53	172555	6.09	78692	9.15
11	TP-7	47937	4.53	173408	6.09	80757	9.15
12	TP-8	48164	4.53	205128	6.09	83736	9.16

IS1 = 1,4-Dichlorobenzene-d4

IS2 = Naphthalene-d8

IS3 ACE = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area AREA LOWER LIMIT = -50% of internal standard area RT UPPER LIMIT = +0.50 minutes of internal standard RT RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

page <u>1</u> of <u>1</u>

. OLM04.2

^{*} Values outside of QC limits.

8C SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab	Name: <u>H2M L</u>	ABS, INC.		Contract:		_	
Lab	Code: <u>10478</u>	Case No.:	PCCSW	SAS No.:		SDG No.:	PCCSW010
EPA	Sample No (SST	D0 5 0##):	SSTD025	Date Ana	lyzed:		05/01/09
Lab	File ID (Standard)	: <u>A</u>	A\C46675.D	Time Ana	lyzed:		<u>11:41</u>
Instr	ument ID:	HP5972		GC Colun	nn: <u>R-5SI</u>	LMS ID: .25	(mm)
		IS4		IS5		IS6	
		AREA#	RT #	AREA#	RT #	AREA#	RT #
	12 HOUR STD	119244	12.04	147276	15.09	128335	16.18
	UPPER LIMIT	238488	12.54	294552	15.59	256670	16.68
	LOWER LIMIT	59622	11.54	73638	14.59	64168	15.68
	EPA SAMPLE NO.		-	is it is to the worst territors in a second of the second			a New York Control
01	MB-31127	98547	12.03	101806	15.08	99808	16.17
02	LFB-31127	103851	12.02	103013	15.08	98902	16.18
03	TP-1	98597	12.03	104146	15.09	100097	16.17
04	TP-2	100417	12.02	104379	15.08	102320	16.17
05	TP-3	103424	12.02	108562	15.08	100820	16.17
06	TP-4	109934	12.04	122676	15.09	109625	16.20
07	TP-4MS	122430	12.07	93724	15.13	48466*	16.24
80	TP-4MSD	116659	12.03	119179	15.09	93919	16.17
09	TP-5	115271	12.03	118711	15.09	96343	16.17
10	TP-6	117951	12.03	119257	15.09	96528	16.17
11	TP-7	118231	12.03	123569	15.09	102035	16.17
12	TP-8	107475	12.03	125907	15.08	101702	16.16

IS4 = Phenanthrene-d10

ISS = Chrysene-d12

IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area AREA LOWER LIMIT = -50% of internal standard area RT UPPER LIMIT = +0.50 minutes of internal standard RT RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

page <u>1</u> of <u>1</u>

PCCSW010 S130

^{*} Values outside of QC limits.