APPENDIX A.7

USEPA AND TtNUS FIELD LOG SHEET DATA

SAMPLE LOG SHEETS

SEDIMENT/FLOODPLAIN SURFACE SOIL 2004

Soil and Sediment Sampling for the Industri-Plex (OU-2) and Wells G&H (OU-3) Superfund Sites
Woburn, Massachusetts

Collection of Surface Soil and Sediment Samples from Various Locations in and Adjacent to the Aberjona River in Winchester for Analysis of Metals and TOC

Quality Assurance Project Plan (QAPP)

February, 2004

U.S. Environmental Protection Agency
EPA New England
Office of Environmental Measurement & Evaluation
Investigations & Analysis Unit

Project Officer: Joseph F. LeMay, Remedial Project Manager

Project Officer Signature: Joseph F. LeMay

Office of Quality Assurance Acceptance:

Signature: _____

Date: _____

1. **Project Name:** Soil & Sediment Sampling for the Industri-Plex and Wells G&H Superfund Sites

2. **Site No:** 0107 - (Industri-Plex OU-2); 0146 - (Wells G&H OU-3)

3. **Project Requested By:** Joseph F. LeMay (OSRR)

4. **Date of Request:** January 7, 2004

5. **Date of Project Initiation:** January 7, 2004

6. **Project Officer:** Joseph F. LeMay (OSRR)

7. **Quality Assurance Officer:** See Performance Coordinator

8. **Project Description:** Collection of Surface Soil and Sediment Samples from Various Locations for Analysis of Metals and TOC. The area to be sampled is between Bacon Street and the Mystic Valley Parkway in Winchester, MA

A. Objective and Scope Statement:

Please note the 2004 sampling requested by the site RPM is a continuation of a previously approved EIA sampling project, (please see QAPP dated July 2002, attached).

Updates:
The purpose of this field study is for EPA's Investigations & Analysis Unit (EIA) to gather surface sediment and soil from designated locations for analysis in support of the Industri-Plex Superfund Site, Operable Unit 2 (OU-2), Remedial Investigation and Feasibility Study (RI/FS). The comprehensive OU-2 RI/FS will incorporate the Wells G&H Superfund Site, Operable Unit 3 (OU-3), Aberjona River Study - Baseline Risk Assessment because the Industri-Plex Site is hydraulically connected to Wells G&H by the Aberjona River, the river serves as a historical and current migration pathway for contamination, and the Industri-Plex Site and the river share the same contaminants of concern, metals. Surface soils and sediment samples are necessary to fill in some human health risk assessment data gaps along the Aberjona River in Winchester, MA between Bacon Street and Mystic Valley Parkway.

The "study area" of this project consists of designated sampling locations as determined by the Remedial Project Manager. Six sediment depositional sample will be collected from the "ponded" areas of the river. Ten sediment samples along the edge of the river at the water line and 10 corresponding soil samples at the top of the river bank at the high water line will be collected. See the attached figure for approximate sample locations. All samples will be collected at a depth of 0-6 inches and analyzed for total metals and TOC. Sampling locations will be identified and flagged in the field, located by GPS, and ~~also~~ digitally photographed. A field log book will be maintained describing the collection procedures, samples, approximate depth of surface water (if any), and any pertinent field observations. EPA's Investigations &

Analysis Unit (EIA) will collect samples according to Section 9 - Sampling Procedures and Requirements of the April, 2002 Quality Assurance Project Plan (QAPP), Revision 1, Industri-Plex MSGRP Remedial Investigation/Feasibility Study by TtNUS, Inc. The soil and sediment samples will be analyzed for total metals and will be analyzed for Total Organic Carbon (TOC) at the EPA New England Regional Laboratory in North Chelmsford, MA. EPA

B. Data Usage
Data from analysis samples collected will be used by the EPA as follows:

- Surface soil and surface sediment analysis is required to supplement gaps in human health risk assessment along the Aberjona River. The primary contaminants of concern in this field study are metals, (specifically arsenic, lead, and chromium).

C. Monitoring Event Design:
The Project Officer will provide EPA-EIA with GIS or areal maps of the major sampling areas, along with the proposed sampling locations in each area labeled on the map. The Project Officer will also provide the minimum number of samples needed for each sample type (surface soil, surface sediment) and the sampling depth range (such as 0" - 6"). Please refer to the memos from Joseph F. LeMay, Remedial Project Manager, dated January 7, 2004 for further information and instruction. There will be a QA/QC field duplicate collected for the 6 river sediments, 10 river edge sediments, and 10 soil samples for a total of 3 QA/QC samples.

D. Monitoring Parameters and Frequency of Collection:

Parameter	Number of Samples	SampleMatrix	Analytical Method Reference	Sample Container	Sample Preservation	Holding Time
Metals	26 + 3 QC samples	Soil sediment	6010B, 6020, 7000 series	8 oz. clear wide mouth	Ice	6 mos.
TOC	26 + 3 QC samples	Soil sediment	9060	4 oz. amber wide mouth	Ice	Analyze ASAP

9. Schedule of Tasks and Products:

Date	Activity
January 7, 2004	Request OEME lab support
January 13, 2004	Sampling team and RPM conduct reconnaissance
March 16-17, 2004	Conduct field sampling (tentative–frost must be gone)
March 18, 2004	Deliver samples to Chelmsford laboratory
March/April, 2004	Laboratory analyses
May, 2004	Data QA/QC'd and provided to Sampling Leader

10. Project Organization and Responsibility:
The following is a list of key project personnel and their responsibilities:

Responsibility	Contact
Project Manager	Joseph LeMay (OSRR)
Sampling Leader	Dan Granz (EIA)
Sampling QC	Dan Granz (EIA)
Laboratory Analysis	Bill Andrade (EIA)
Laboratory QC	Bill Andrade (EIA)
Performance Auditing	QA Office (EQA)
Overall Performance Coordination	Jerry Keefe (EIA)

11. Data Quality Requirements and Assessments
Accuracy and Precision values are for method internal QA/QC. The values are to be considered as goals because some specific compounds are know outside these goals.

Parameter	Sample Matrix	Quant. Limit (ppb/vol)	Accuracy (%)	Precision (%)	Field Precision
Metals	Soil sediment	As, Cr, and Pb: (See Note below)	75 - 125%	20%	50%
TOC	Soil sediment	**	75 - 125%	35%	50%

*Samples that are above the calibration range, will be diluted and re-analyzed to within an acceptable calibration range.
** See referenced SOP's for specific analyte reporting limits.
***Accuracy determined with matrix spike (MS) samples and precision determined with either matrix spike duplicate (MSD) samples or laboratory fortified blanks.

12. Data Representativeness:
In general the data obtained from the sample analysis will be used for risk assessments, determining extent of contamination (Remedial Investigation), and evaluating potential remedial alternatives under the Feasibility Study. At least 85% of data must be valid. If data are incomplete, the project manager and OEME personnel will determine if additional sampling is needed.

13. Sampling Procedures:
Samples will be collected according to Section 9 - Sampling Procedures and Requirements of the April, 2002 Quality Assurance Project Plan (QAPP), Revision 1, Industri-Plex MSGRP

Remedial Investigation/Feasibility Study by TtNUS, Inc.

14. Sample Custody Procedures:
Samples will be handled in accordance with EPA investigations & Analyses SOP for Chain of Custody. Each sample will be given a unique number and recorded in the field logbook and/or site map.

15. Calibration Procedures and Preventative Maintenance:
Equipment to be directly used during the field sampling event does not require calibration or preventative maintenance. EPA-NE lab procedures and preventive maintenance are documented in the lab QA plan.

16. Documentation, Data Reduction, and Reporting:
A. Documentation: All information will be recorded on the Sampling Team's field data sheets. In addition, the completion of chain of custody (COC) forms, labels, etc. is required for all samples. Laboratory documentation is maintained in their respective QA plans.

B. Data Reduction and Reporting: The data will be tabulated and reported to the project manager.

17. Data Validation:
The metals and TOC data will be reviewed as specified in the NERL QAP including a review by a peer chemist and by the Chemistry Team Leader.

18. Performance and Systems Audits:
May be performed by the QA Office, as requesting by the Project Officer.

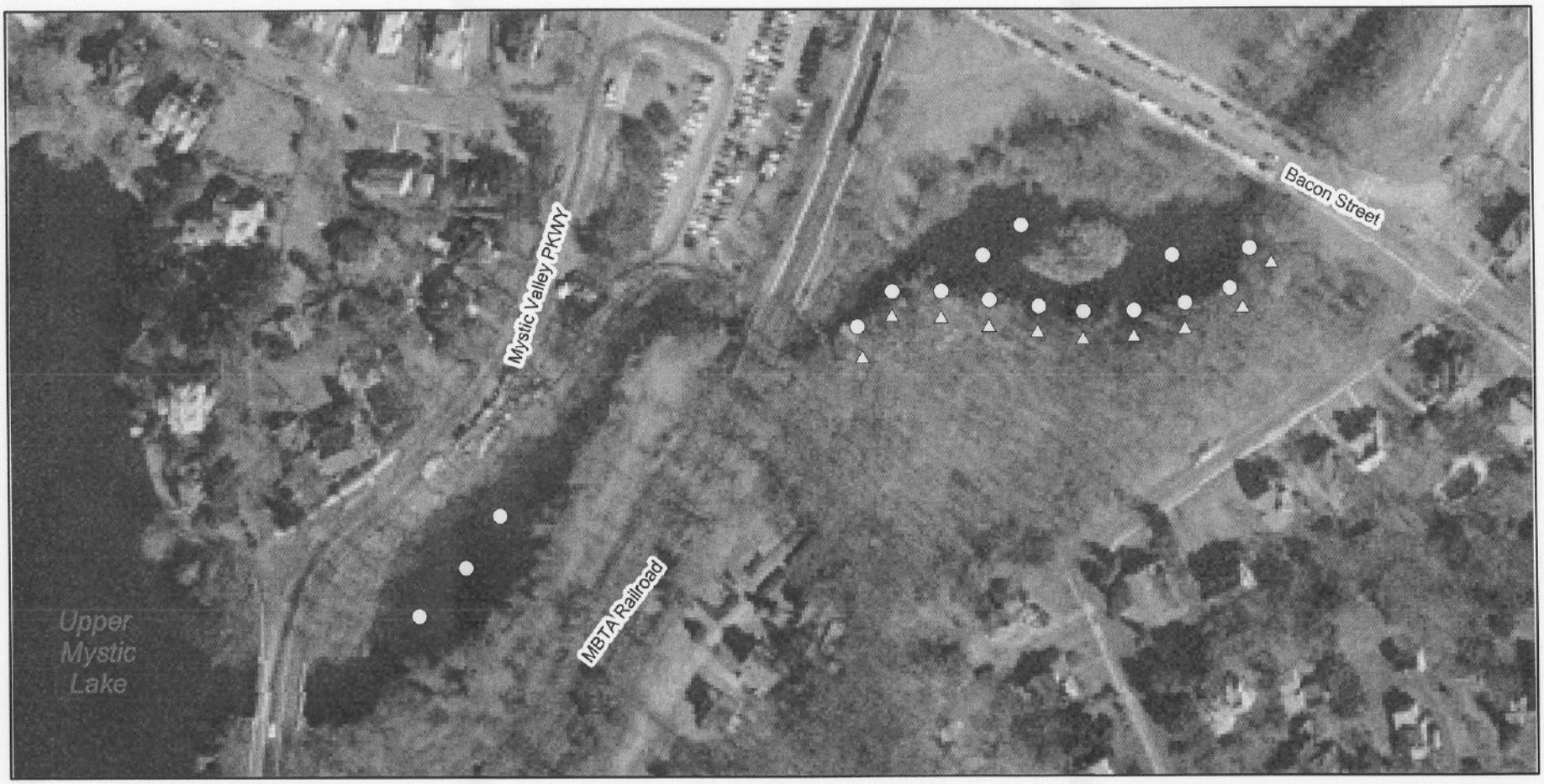
19. Corrective Action:
Any corrective action will be determined by the sampling operations leader and project manager, if necessary, and documented in a field data sheet and/or field logbook.

20. Reports will be sent to: Joseph F. LeMay, RPM
EPA Region 1 - New England
Industri-Plex (OU-2)/ Wells G&H (OU-3) Superfund Sites

Gordon Bullard, Project Manager
TTNUS
55 Jonspin Road
Wilmington, MA 01887

Note: Provide a hard copy of all field logs/ data sheets, GIS sample location coordinates, and photographs to the above personnel. In addition, the above information will be provided electronically, where possible.

Continue viewing Appendix A.7



Aberjona River Study
Winchester, MA
Proposed
Soil and Sediment Sample Location

Legend

- ○ Proposed sediment location
- △ Proposed soil location*

N

0 100 200 Feet

***Note:** The soil sample positions have been exaggerated for clarity. Soil sample locations should be collected along the top of the bank (approximately 10 feet from the corresponding sediment location).

EPA
New England

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