309131

Remedial Investigation and Risk Assessment Report

for

Site 1 - Golf Course Landfill

Volume II of II

Appendices C, D, E, F, and G

Naval Station Great Lakes

Great Lakes, Illinois

Naval Facilities Engineering Command Midwest

Contract Number N62467-04-D-0055

Contract Task Order 13

March 2008

APPENDIX C

DATA VALIDATION PACKAGES AND ASSESSMENT

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **MR. B. DAVIS** **DATE:** **APRIL 20, 2007**

FROM: **EDWARD SEDLMYER** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION- VOA/SVOA/PEST/PCB/PAH/PCDD/PCDF**

CTO 0013, NTC GREAT LAKES
SDG C6L190179

SAMPLES: 6/Aqueous/VOA/SVOA/PEST/PCB/PAH/HERB/PCDD/PCDF

NTC01FD12170601	NTC01SW0100	NTC01SW0200
NTC01SW0300	NTC01TB12180101	NTC01TB12180602

24/Solid/VOA/PAH

NTC01FD12180601	NTC01FD12180602	NTC01SB0880708
NTC01SB0891112	NTC01SB0900812	NTC01SB0910812
NTC01SB0921516	NTC01SB0930810	NTC01SB0941416
NTC01SB0950810	NTC01SB0961012	NTC01SB1010406
NTC01SB1020408	NTC01SB1031919	NTC01SD0100
NTC01SD0101	NTC01SD0200	NTC01SD0201
NTC01SD0300	NTC01SD0301	NTC01SD0400
NTC01SD0401	NTC01SD0500	NTC01SD0501

9/Solid/SVOA/PEST/PCB/HERB/PCDD/PCDF

NTC01FD12180601	NTC01FD12180602	NTC01SB0900812
NTC01SB0950810	NTC01SB1020408	NTC01SD0100
NTC01SD0101	NTC01SD200	NTC01SD0400

OVERVIEW

The sample set for CTO 0013 NTC Great Lakes, SDG C6L210179 consists of two (2) trip blanks, four (4) aqueous environmental samples, and twenty-four (24) soil environmental samples. The samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOA), polynuclear aromatic hydrocarbons (PAH), pesticides (PEST), polychlorinated biphenyls (PCBs), and polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF) as listed above. Trip blanks were analyzed for VOAs only. Three field duplicate pairs were associated with this SDG: NTC01SW0300 / NTC01FD12170601, NTC01SD0400 / NTC01FD12180601, and NTC01SB0900812 / NTC01FD12180602.

The samples were collected by TetraTech NUS on December 17 and 18, 2006 and analyzed by Severn Trent Laboratories, Inc. All analyses were conducted in accordance with USEPA SW 846 Methods 8260B, 8270C, 8081A, 8082, 8310, 8151A, and 8290 analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

*
- Data Completeness
- Holding Times
- Initial and Continuing Calibration
- Laboratory Blank Analyses

- Field Duplicate Results
- * Detection Limits

In addition, samples NTC01SD0400, NTC01FD12180601, NTC01SB0900812, and NTC01FD12180602 were also validated with regard to the following parameters:

- Surrogate Recoveries
- * Blank Spike/Blank Spike Duplicate Results
- Matrix Spike/Matrix Spike Duplicate Results
- Internal Standard Recoveries
- * Compound Quantitation
- Compound Identification

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

Volatile

The following compound was detected in the soil method blanks:

Compound	Maximum Concentration	Blank Action Level
Methylene chloride	1.8 µg/kg	18 µg/kg

An action level of 10X the maximum contaminant concentration was established to evaluate laboratory contamination for methylene chloride. Dilution factors, sample aliquots, and percent solids were taken into consideration during the application of the action level. Positive results for methylene chloride were qualified as blank contaminants in samples NTC01SB0880708, NTC01SB0910812, NTC01SB0930810, NTC01SB0950810, and NTC01SB1031919.

Initial and continuing calibration relative response factors (RRFs) were less than the 0.05 quality control limit for bromomethane on instrument HP3. Only non-detected results were reported for the aforementioned compounds and these were rejected (UR) in all soil samples.

Continuing calibration percent differences (%Ds) were greater than the 25% quality control limit for acetone and 1,2-dibromo-3-chloropropane on instrument HP3, on 12/24/06 at 12:26. Only non-detected results were reported for acetone and 1,2-dibromo-3-chloropropane and these were qualified as estimated (UJ), in samples NTC01FD12180602 and NTC01SB0900812.

Continuing calibration percent differences (%Ds) were greater than the 25% quality control limit for 2-butanone and 4-methyl-2-pentanone on instrument HP3, on 12/26/06 at 07:41. No action was taken on this basis because the associated samples were for limited review only.

Continuing calibration percent differences (%Ds) were greater than the 25% quality control limit for dichlorodifluoromethane, isopropylbenzene, 1,2,4-trichlorobenzene, and cyclohexane on instrument HP4, on 12/27/06 at 16:41. No action was taken on this basis because the associated samples were for limited review only.

The internal standard 1,4-dichlorobenzene-d4 had a low area count for sample NTC01SB0900812. No action was taken on this basis because the re-analysis was used for validation.

The surrogates toluene-d8 and dibromofluoromethane were greater than the quality control limits for sample NTC01SB0900812. The sample was reanalyzed within the hold time with similar surrogate recoveries. The re-analysis was used for validation because it had internal standards that met control limits. The non-detected results for sample NTC01SB0900812 have been qualified as estimated (UJ).

The matrix spike / matrix spike duplicate (MS/MSD) performed on sample NTC01SW0300 had a percent recovery less than the quality control limit for 1,2,4-trichlorobenzene. In addition, the relative percent difference (RPD) was outside the quality control limit for 1,2,4-trichlorobenzene. No action was taken on this basis because this is a limited review.

The laboratory control sample (LCS) associated with batch 6360049 had a percent recovery greater than the quality control limit for chloroethane. No action was taken on this business because chloroethane was not detected in any associated samples.

Semivolatile

A %D was greater than the 25% quality control limit for hexachlorocyclopentadiene on instrument 722, on 01/06/07 at 04:28. Only non-detected results were reported for hexachlorocyclopentadiene and these were qualified as estimated (UJ), in samples NTC01SD0400, NTC01FD12180601, NTC01FD12180602 and NTC01SB0900812.

A %D was greater than the 25% quality control limit for hexachlorocyclopentadiene on instrument 722, on 01/08/07 at 04:10. No action was taken on this basis because this is a limited review.

The surrogate terphenyl-d14 had a percent recovery less than the quality control limit for sample NTC01FD12180602. No action was taken on this basis because only one surrogate per fraction was outside of control limits.

The MS/MSD performed on sample NTC01SW0300 had percent recoveries less than 10% for hexachlorocyclopentadiene and 3,3'-dichlorobenzidine in the MS and MSD. The non-detected hexachlorocyclopentadiene and 3,3'-dichlorobenzidine results for sample NTC01SW0300 have been rejected (UR).

The MS/MSD performed on sample NTC01SD0400 had percent recoveries less than 10% for hexachlorocyclopentadiene and 3,3'-dichlorobenzidine in the MS and MSD. The non-detected hexachlorocyclopentadiene and 3,3'-dichlorobenzidine results for sample NTC01SD0400 have been rejected (UR).

Hexachlorophene was not calibrated for in the initial or continuing calibrations. The compound was searched for as a TIC. Hexachlorophene was not found in any samples.

The PAHs were reported in both the semivolatile fraction and the PAH fraction. No action was taken on this basis.

Pesticides

The MS/MSD performed on sample NTC01SW0300 had a percent recovery less than 10% for endrin aldehyde in the MSD. The MS had an acceptable recovery. No action was taken because this is a limited review.

The MS/MSD performed on sample NTC01SD0400 had percent recoveries greater than the quality control limit for aldrin in the MS and MSD. No action was taken on this basis because aldrin was not detected samples NTC01SD0400.

Continuing verification %Ds exceeded the 15% quality control limit for 4,4'-DDD and 4,4'-DDE on 01/05/07 at 11:09 on the RTX-50 column. The compound 4,4'-DDT exceeded the 15% quality control limit for the RTX-1701 column. The positive results for 4,4'-DDE in sample NTC01FD12180601 and 4,4'-DDD and 4,4'-DDE in sample NTC01SD0400 have been qualified as estimated (J), because they were reported from the RTX-50 column. The positive results for 4,4'-DDT in samples NTC01FD12180601, NTC01SB0900812, and NTC01SD0400 have been qualified as estimated (J), because they were reported from the RTX-1701 column.

Continuing verification %Ds exceeded the 15% quality control limit for beta-BHC and 4,4'-DDE on 01/05/07 at 11:09 on the RTX-1701 column. All compounds met the 15% quality control limit for the RTX-50 column. The positive results for 4,4'-DDE in samples NTC01FD12180602 and NTC01SB0900812 have been qualified as estimated (J), because they were reported from the RTX-1701 column.

The relative percent difference (RPD) between columns exceeded 100% for the following compounds. The positive results were rejected (R) for the compounds below:

Sample	Compound	%D
NTC01FD12180601	4,4'-DDT	148.0%
NTC01FD12180602	Dieldrin	999.9%
NTC01SB0900812	Endosulfan II	255.6%
	Endrin aldehyde	556.4%

The relative percent difference (RPD) between columns exceeded 25% for the following compounds. The positive results were reported as estimated, (J) for the compounds below:

Sample	Compound	%D
NTC01FD12180601	4,4'-DDE	59.0%
	Endrin	86.2%
	Endosulfan II	87.9%
	alpha-Chlordane	82.7%
NTC01FD12180602	4,4'-DDE	29.3%
NTC01SB0900812	Endrin	35.1%
	4,4'-DDT	73.9%
	Endrin ketone	170.1%
	alpha-Chlordane	28.0%
NTC01SD0400	Dieldrin	34.0%
	4,4'-DDE	73.7%
	Endrin	27.1%
	Endosulfan II	93.5%
	4,4'-DDT	86.5%

PCBs

The surrogate tetrachloro-m-xylene had a percent recovery less than the quality control limit for sample NTC01FD12180602. The non-detected reusults for sample NTC01FD12180602 have been qualified as estimated (UJ).

PAHs

The surrogates benzo(a)pyrene and terphenyl-d14 had zero percent recoveries for sample NTC01FD12180602. The sample was re-extracted 4 days outside of the extraction hold time with low surrogate recoveries but greater than 10%. The re-extracted results were used for validation. The positive and non-detected results for sample NTC01FD12180602 have been qualified as estimated (J) and (UJ), respectively.

The surrogates benzo(a)pyrene and terphenyl-d14 had percent recoveries less than the quality control limits for sample NTC01SB0900812. The sample was re-extracted 4 days outside of the extraction hold time with a low benzo(a)pyrene recovery. The re-extracted results were used for validation. The positive and non-detected results for sample NTC01SB09000812 have been qualified as estimated (J) and (UJ), respectively.

The surrogates benzo(a)pyrene and terphenyl-d14 had percent recoveries less than the quality control limits for samples NTC01SB0910812 and NTC01SB0950810. Sample NTC01SB0910812 had surrogate recovery less than 10%. The samples were re-extracted 4 days outside of the extraction hold time with similar results. The original extract results were used for validation. No qualification action was performed on sample NTC01SB0950810 because this is a limited review. The non-detected results for sample NTC01SB0910812 were rejected (UR).

The relative percent difference (RPD) between columns exceeded 25% for the following compounds. The positive results were reported as estimated, (J) for the compounds below:

Sample	Compound	%D
NTC01FD12180601	Anthracene	87.0%
	Fluoranthene	25.5%
	Pyrene	89.5%
	Benzo(b)fluoranthene	64.2%
	Benzo(k)fluoranthene	71.6%
	Indeno(1,2,3-cd)Pyrene	49.7%
NTC01FD12180602	Naphthalene	999.9%
	Fluorene	93.3%
	Anthracene	26.9%
	Fluoranthene	557.2%
	Pyrene	753.1%
	Chrysene	999.9%
	Benzo(b)fluoranthene	999.9%
	Dibenz(a,h)anthracene	999.9%
	Benzo(g,h,i)perylene	999.9%
	Indeno(1,2,3-cd)pyrene	160.8%
NTC01SB0900812	Carbazole	178.0%
	Acenapthene	999.9%
	Fluorene	111.7%
	Fluoranthene	66.3%
	Pyrene	207.6%
	Benzo(b)fluoranthene	999.9%
	Benzo(k)fluoranthene	62.3%
	Benzo(g,h,i)perylene	40.0%
NTC01SD0400	Fluoranthene	36.5%
	Benzo(b)fluoranthene	42.8%
	Benzo(k)fluoranthene	87.8%

Dibenz(a,h)anthracene	523.4%
Indeno(1,2,3-cd)pyrene	49.5%

The matrix spikes performed on samples NTC01FD12180601 and NTC01SD0400 did not have percent recoveries calculated because the samples required 20X dilutions due to concentrations of PAHs greater than the linear calibration range of the instrument.

HERB

No qualification of the data was necessary.

PCDD/PCDF

The following compound was detected in the soil method blank:

Compound	Maximum Concentration	Blank Action Level
OCDD	7.2 pg/g	36 pg/g

An action level of 5X the maximum contaminant concentration was established to evaluate laboratory contamination for OCDD. Dilution factors, sample aliquots, and percent solids were taken into consideration during the application of the action level. No action was taken on the blank contamination because all soil results had concentrations greater than the action level.

The 2,3,7,8-TCDF result for NTC01FD12180602 was greater than the linear calibration range of the instrument. The sample was not analyzed at a higher dilution. The 2,3,7,8-TCDF result for sample NTC01FD12180602 has been qualified as estimated (J).

The OCDD result for NTC01SD0101 was greater than the linear calibration range of the instrument. The sample was not analyzed at a dilution. The OCDD result for sample NTC01SD0101 has been qualified as estimated (J).

The field duplicate precision exceeded the 50% relative percent difference (RPD) quality control limit for all PCDD/PCDFs in the field duplicate pair NTC01FD12180602 and NTC01SB0900812. Sample NTC01FD12180602 was analyzed at a 20X dilution and sample NTC01SB0900812 was analyzed undiluted. No laboratory error in the dilution could be determined. The most likely cause of the large difference is sample heterogeneity because both samples have detections for every PCDD/PCDF target congener a sample mix-up or mis-labeling is not likely. Positive results for all PCDDs and PCDFs in the duplicate samples NTC01FD12180602 and NTC01SB0900812 were qualified as estimated (J).

The MS/MSD performed on sample NTC01SD0400 had a percent recovery in the MS greater than the quality control limit for OCDD. No action was taken on this basis because the OCDD concentration in the sample was greater than 4X the spike amount.

The bracketing continuing calibration analyzed on 1/06/07 at 17:21 had a percent difference that exceeded the 20% quality control limit. No action was taken on this basis and the average response factor between the opening and ending continuing calibrations was used to quantitate OCDF for the associated samples.

Samples NTC01FD12180602 and NTC01SB1020408 required dilutions because of PCDD/PCDF concentrations greater than the linear calibration range of the instrument.

Several internal standards associated with a method blank and LCS had recoveries less than 40%. No action was taken on this basis because all the signal to noise ratios were greater than 10% and QC data does not get qualified.

All samples with positive detections for 2,3,7,8-TCDF were confirmed on different column and the confirmation results were reported by the laboratory.

Additional Comments:

Positive results less than the reporting limit (RL) were qualified as estimated, J, due to uncertainty near the detection limit.

EXECUTIVE SUMMARY

Laboratory Performance Issues: The VOA and PCDD/PCDF fractions each had one compound detected in the method blanks. Qualifications were made on initial or continuing calibration of several VOA, SVOA, and PEST compounds that failed to comply with quality control criteria (%RSDs, %Ds, and RRFs). Two PCDD/PCDF congeners were qualified because of concentrations greater then the calibration range.

Other factors affecting data quality: Field duplicate imprecision resulted in qualification of PCDD/PCDF samples NTC01FD12180602 and NTC01SB0900812. Qualifications were made based on percent difference between columns non-compliances for the PEST and PAH fractions. Surrogate non-compliances in the SVOA, PCB, and PAH fractions resulted in qualification of the data. SVOA MS/MSD non-compliances resulted in qualification of samples NTC01SW0300 and NTC01SD0400.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (October 1999) and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006). The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the DoD QSM."

Edward Sedlmyer
Tetra Tech NUS

Edward Sedlmyer
Chemist/Data Validator

TetraTech NUS

Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01FD12170601
samp_date	12/17/2006
lab_id	C6L190179001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	NTC01SW0300

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1.2		
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01FD12170601
samp_date	12/17/2006
lab_id	C6L190179001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	NTC01SW0300

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	0.25	J	P

nsample	NTC01SW0100
samp_date	12/17/2006
lab_id	C6L190179002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.99	J	P
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01SW0100
samp_date	12/17/2006
lab_id	C6L190179002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

nsample	NTC01SW0200
samp_date	12/17/2006
lab_id	C6L190179003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1.1		
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01SW0200
samp_date	12/17/2006
lab_id	C6L190179003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01SW0300
samp_date	12/17/2006
lab_id	C6L190179004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	0.25	J	P
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1		
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01SW0300
samp_date	12/17/2006
lab_id	C6L190179004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

nsample	NTC01TB12180101
samp_date	12/18/2006
lab_id	C6L190179029
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01TB12180101
samp_date	12/18/2006
lab_id	C6L190179029
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

nsample	NTC01TB12180602
samp_date	12/18/2006
lab_id	C6L190179030
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01TB12180602
samp_date	12/18/2006
lab_id	C6L190179030
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	0.51	J	P
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: OS

nsample	NTC01FD12170601DL	nsample	NTC01FD12170601DL	nsample	NTC01FD12170601DL
samp_date	12/17/2006	samp_date	12/17/2006	samp_date	12/17/2006
lab_id	C6L190179001	lab_id	C6L190179001	lab_id	C6L190179001
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:	NTC01SW0300	DUP_OF:	NTC01SW0300	DUP_OF:	NTC01SW0300

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	10	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	10	U	
2,4,5-TRICHLOROPHENOL	10	U	
2,4,6-TRICHLOROPHENOL	10	U	
2,4-DICHLOROPHENOL	10	U	
2,4-DIMETHYLPHENOL	10	U	
2,4-DINITROPHENOL	51	U	
2,4-DINITROTOLUENE	10	U	
2,6-DINITROTOLUENE	10	U	
2-CHLORONAPHTHALENE	10	U	
2-CHLOROPHENOL	10	U	
2-METHYLNAPHTHALENE	10	U	
2-METHYLPHENOL	10	U	
2-NITROANILINE	51	U	
2-NITROPHENOL	10	U	
3,3'-DICHLOROBENZIDINE	51	U	
3-NITROANILINE	51	U	
4,6-DINITRO-2-METHYLPHENOL	51	U	
4-BROMOPHENYL PHENYL ETHER	10	U	
4-CHLORO-3-METHYLPHENOL	10	U	
4-CHLOROANILINE	10	U	
4-CHLOROPHENYL PHENYL ETHER	10	U	
4-METHYLPHENOL	10	U	
4-NITROANILINE	51	U	
4-NITROPHENOL	51	U	
ACENAPHTHENE	10	U	
ACENAPHTHYLENE	10	U	
ACETOPHENONE	10	U	
ANTHRACENE	10	U	
ATRAZINE	10	U	
BENZALDEHYDE	10	U	
BENZO(A)ANTHRACENE	10	U	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	10	U	
BENZO(B)FLUORANTHENE	10	U	
BENZO(G,H,I)PERYLENE	10	U	
BENZO(K)FLUORANTHENE	10	U	
BIS(2-CHLOROETHOXY)METHANE	10	U	
BIS(2-CHLOROETHYL)ETHER	10	U	
BIS(2-ETHYLHEXYL)PHTHALATE	10	U	
BUTYL BENZYL PHTHALATE	10	U	
CAPROLACTAM	10	U	
CARBAZOLE	10	U	
CHRYSENE	10	U	
DIBENZO(A,H)ANTHRACENE	10	U	
DIBENZOFURAN	10	U	
DIETHYL PHTHALATE	10	U	
DIMETHYL PHTHALATE	10	U	
DI-N-BUTYL PHTHALATE	10	U	
DI-N-OCTYL PHTHALATE	10	U	
FLUORANTHENE	10	U	
FLUORENE	10	U	
HEXACHLOROBENZENE	10	U	
HEXACHLOROBUTADIENE	10	U	
HEXACHLOROCYCLOPENTADIENE	51	U	
HEXACHLOROETHANE	10	U	
INDENO(1,2,3-CD)PYRENE	10	U	
ISOPHORONE	10	U	
NAPHTHALENE	10	U	
NITROBENZENE	10	U	
N-NITROSO-DI-N-PROPYLAMINE	10	U	
N-NITROSODIPHENYLAMINE	10	U	
PENTACHLOROPHENOL	51	U	
PHENANTHRENE	10	U	
PHENOL	10	U	

Parameter	Result	Val Qual	Qual Code
PYRENE	10	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: OS

nsample	NTC01SW0100DL
samp_date	12/17/2006
lab_id	C6L190179002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	9.6	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	9.6	U	
2,4,5-TRICHLOROPHENOL	9.6	U	
2,4,6-TRICHLOROPHENOL	9.6	U	
2,4-DICHLOROPHENOL	9.6	U	
2,4-DIMETHYLPHENOL	9.6	U	
2,4-DINITROPHENOL	48	U	
2,4-DINITROTOLUENE	9.6	U	
2,6-DINITROTOLUENE	9.6	U	
2-CHLORONAPHTHALENE	9.6	U	
2-CHLOROPHENOL	9.6	U	
2-METHYLNAPHTHALENE	9.6	U	
2-METHYLPHENOL	9.6	U	
2-NITROANILINE	48	U	
2-NITROPHENOL	9.6	U	
3,3'-DICHLOROBENZIDINE	48	U	
3-NITROANILINE	48	U	
4,6-DINITRO-2-METHYLPHENOL	48	U	
4-BROMOPHENYL PHENYL ETHER	9.6	U	
4-CHLORO-3-METHYLPHENOL	9.6	U	
4-CHLOROANILINE	9.6	U	
4-CHLOROPHENYL PHENYL ETHER	9.6	U	
4-METHYLPHENOL	9.6	U	
4-NITROANILINE	48	U	
4-NITROPHENOL	48	U	
ACENAPHTHENE	9.6	U	
ACENAPHTHYLENE	9.6	U	
ACETOPHENONE	9.6	U	
ANTHRACENE	9.6	U	
ATRAZINE	9.6	U	
BENZALDEHYDE	9.6	U	
BENZO(A)ANTHRACENE	9.6	U	

nsample	NTC01SW0100DL
samp_date	12/17/2006
lab_id	C6L190179002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	9.6	U	
BENZO(B)FLUORANTHENE	9.6	U	
BENZO(G,H,I)PERYLENE	9.6	U	
BENZO(K)FLUORANTHENE	9.6	U	
BIS(2-CHLOROETHOXY)METHANE	9.6	U	
BIS(2-CHLOROETHYL)ETHER	9.6	U	
BIS(2-ETHYLHEXYL)PHTHALATE	9.6	U	
BUTYL BENZYL PHTHALATE	9.6	U	
CAPROLACTAM	9.6	U	
CARBAZOLE	9.6	U	
CHRYSENE	9.6	U	
DIBENZO(A,H)ANTHRACENE	9.6	U	
DIBENZOFURAN	9.6	U	
DIETHYL PHTHALATE	9.6	U	
DIMETHYL PHTHALATE	9.6	U	
DI-N-BUTYL PHTHALATE	9.6	U	
DI-N-OCTYL PHTHALATE	9.6	U	
FLUORANTHENE	9.6	U	
FLUORENE	9.6	U	
HEXACHLOROBENZENE	9.6	U	
HEXACHLOROBUTADIENE	9.6	U	
HEXACHLOROCYCLOPENTADIENE	48	U	
HEXACHLOROETHANE	9.6	U	
INDENO(1,2,3-CD)PYRENE	9.6	U	
ISOPHORONE	9.6	U	
NAPHTHALENE	9.6	U	
NITROBENZENE	9.6	U	
N-NITROSO-DI-N-PROPYLAMINE	9.6	U	
N-NITROSODIPHENYLAMINE	9.6	U	
PENTACHLOROPHENOL	48	U	
PHENANTHRENE	9.6	U	
PHENOL	9.6	U	

nsample	NTC01SW0100DL
samp_date	12/17/2006
lab_id	C6L190179002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
PYRENE	9.6	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: OS

nsample	NTC01SW0200DL
samp_date	12/17/2006
lab_id	C6L190179003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	9.6	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	9.6	U	
2,4,5-TRICHLOROPHENOL	9.6	U	
2,4,6-TRICHLOROPHENOL	9.6	U	
2,4-DICHLOROPHENOL	9.6	U	
2,4-DIMETHYLPHENOL	9.6	U	
2,4-DINITROPHENOL	48	U	
2,4-DINITROTOLUENE	9.6	U	
2,6-DINITROTOLUENE	9.6	U	
2-CHLORONAPHTHALENE	9.6	U	
2-CHLOROPHENOL	9.6	U	
2-METHYLNAPHTHALENE	9.6	U	
2-METHYLPHENOL	9.6	U	
2-NITROANILINE	48	U	
2-NITROPHENOL	9.6	U	
3,3'-DICHLOROBENZIDINE	48	U	
3-NITROANILINE	48	U	
4,6-DINITRO-2-METHYLPHENOL	48	U	
4-BROMOPHENYL PHENYL ETHER	9.6	U	
4-CHLORO-3-METHYLPHENOL	9.6	U	
4-CHLOROANILINE	9.6	U	
4-CHLOROPHENYL PHENYL ETHER	9.6	U	
4-METHYLPHENOL	9.6	U	
4-NITROANILINE	48	U	
4-NITROPHENOL	48	U	
ACENAPHTHENE	9.6	U	
ACENAPHTHYLENE	9.6	U	
ACETOPHENONE	9.6	U	
ANTHRACENE	9.6	U	
ATRAZINE	9.6	U	
BENZALDEHYDE	9.6	U	
BENZO(A)ANTHRACENE	9.6	U	

nsample	NTC01SW0200DL
samp_date	12/17/2006
lab_id	C6L190179003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	9.6	U	
BENZO(B)FLUORANTHENE	9.6	U	
BENZO(G,H,I)PERYLENE	9.6	U	
BENZO(K)FLUORANTHENE	9.6	U	
BIS(2-CHLOROETHOXY)METHANE	9.6	U	
BIS(2-CHLOROETHYL)ETHER	9.6	U	
BIS(2-ETHYLHEXYL)PHTHALATE	9.6	U	
BUTYL BENZYL PHTHALATE	9.6	U	
CAPROLACTAM	9.6	U	
CARBAZOLE	9.6	U	
CHRYSENE	9.6	U	
DIBENZO(A,H)ANTHRACENE	9.6	U	
DIBENZOFURAN	9.6	U	
DIETHYL PHTHALATE	9.6	U	
DIMETHYL PHTHALATE	9.6	U	
DI-N-BUTYL PHTHALATE	9.6	U	
DI-N-OCTYL PHTHALATE	9.6	U	
FLUORANTHENE	9.6	U	
FLUORENE	9.6	U	
HEXACHLOROBENZENE	9.6	U	
HEXACHLOROBUTADIENE	9.6	U	
HEXACHLOROCYCLOPENTADIENE	48	U	
HEXACHLOROETHANE	9.6	U	
INDENO(1,2,3-CD)PYRENE	9.6	U	
ISOPHORONE	9.6	U	
NAPHTHALENE	9.6	U	
NITROBENZENE	9.6	U	
N-NITROSO-DI-N-PROPYLAMINE	9.6	U	
N-NITROSODIPHENYLAMINE	9.6	U	
PENTACHLOROPHENOL	48	U	
PHENANTHRENE	9.6	U	
PHENOL	9.6	U	

nsample	NTC01SW0200DL
samp_date	12/17/2006
lab_id	C6L190179003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
PYRENE	9.6	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: OS

nsample	NTC01SW0300DL
samp_date	12/17/2006
lab_id	C6L190179004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	9.9	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	9.9	U	
2,4,5-TRICHLOROPHENOL	9.9	U	
2,4,6-TRICHLOROPHENOL	9.9	U	
2,4-DICHLOROPHENOL	9.9	U	
2,4-DIMETHYLPHENOL	9.9	U	
2,4-DINITROPHENOL	50	U	
2,4-DINITROTOLUENE	9.9	U	
2,6-DINITROTOLUENE	9.9	U	
2-CHLORONAPHTHALENE	9.9	U	
2-CHLOROPHENOL	9.9	U	
2-METHYLNAPHTHALENE	9.9	U	
2-METHYLPHENOL	9.9	U	
2-NITROANILINE	50	U	
2-NITROPHENOL	9.9	U	
3,3'-DICHLOROBENZIDINE	50	UR	D
3-NITROANILINE	50	U	
4,6-DINITRO-2-METHYLPHENOL	50	U	
4-BROMOPHENYL PHENYL ETHER	9.9	U	
4-CHLORO-3-METHYLPHENOL	9.9	U	
4-CHLOROANILINE	9.9	U	
4-CHLOROPHENYL PHENYL ETHER	9.9	U	
4-METHYLPHENOL	9.9	U	
4-NITROANILINE	50	U	
4-NITROPHENOL	50	U	
ACENAPHTHENE	9.9	U	
ACENAPHTHYLENE	9.9	U	
ACETOPHENONE	9.9	U	
ANTHRACENE	9.9	U	
ATRAZINE	9.9	U	
BENZALDEHYDE	9.9	U	
BENZO(A)ANTHRACENE	9.9	U	

nsample	NTC01SW0300DL
samp_date	12/17/2006
lab_id	C6L190179004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	9.9	U	
BENZO(B)FLUORANTHENE	9.9	U	
BENZO(G,H,I)PERYLENE	9.9	U	
BENZO(K)FLUORANTHENE	9.9	U	
BIS(2-CHLOROETHOXY)METHANE	9.9	U	
BIS(2-CHLOROETHYL)ETHER	9.9	U	
BIS(2-ETHYLHEXYL)PHTHALATE	9.9	U	
BUTYL BENZYL PHTHALATE	9.9	U	
CAPROLACTAM	9.9	U	
CARBAZOLE	9.9	U	
CHRYSENE	9.9	U	
DIBENZO(A,H)ANTHRACENE	9.9	U	
DIBENZOFURAN	9.9	U	
DIETHYL PHTHALATE	9.9	U	
DIMETHYL PHTHALATE	9.9	U	
DI-N-BUTYL PHTHALATE	9.9	U	
DI-N-OCTYL PHTHALATE	9.9	U	
FLUORANTHENE	9.9	U	
FLUORENE	9.9	U	
HEXACHLOROBENZENE	9.9	U	
HEXACHLOROBUTADIENE	9.9	U	
HEXACHLOROCYCLOPENTADIENE	50	UR	D
HEXACHLOROETHANE	9.9	U	
INDENO(1,2,3-CD)PYRENE	9.9	U	
ISOPHORONE	9.9	U	
NAPHTHALENE	9.9	U	
NITROBENZENE	9.9	U	
N-NITROSO-DI-N-PROPYLAMINE	9.9	U	
N-NITROSODIPHENYLAMINE	9.9	U	
PENTACHLOROPHENOL	50	U	
PHENANTHRENE	9.9	U	
PHENOL	9.9	U	

nsample	NTC01SW0300DL
samp_date	12/17/2006
lab_id	C6L190179004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
PYRENE	9.9	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: PEST/PCB

nsample	NTC01FD12170601DL	nsample	NTC01SW0100DL	nsample	NTC01SW0200DL
samp_date	12/17/2006	samp_date	12/17/2006	samp_date	12/17/2006
lab_id	C6L190179001	lab_id	C6L190179002	lab_id	C6L190179003
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:	NTC01SW0300	DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	0.049	U	
4,4'-DDE	0.049	U	
4,4'-DDT	0.049	U	
ALDRIN	0.049	U	
ALPHA-BHC	0.049	U	
ALPHA-CHLORDANE	0.049	U	
AROCLOR-1016	0.98	U	
AROCLOR-1221	0.98	U	
AROCLOR-1232	0.98	U	
AROCLOR-1242	0.98	U	
AROCLOR-1248	0.98	U	
AROCLOR-1254	0.98	U	
AROCLOR-1260	0.98	U	
BETA-BHC	0.049	U	
DELTA-BHC	0.049	U	
DIELDRIN	0.049	U	
ENDOSULFAN I	0.049	U	
ENDOSULFAN II	0.049	U	
ENDOSULFAN SULFATE	0.049	U	
ENDRIN	0.049	U	
ENDRIN ALDEHYDE	0.049	U	
ENDRIN KETONE	0.049	U	
GAMMA-BHC (LINDANE)	0.049	U	
GAMMA-CHLORDANE	0.049	U	
HEPTACHLOR	0.049	U	
HEPTACHLOR EPOXIDE	0.049	U	
METHOXYCHLOR	0.098	U	
TOXAPHENE	2	U	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	0.048	U	
4,4'-DDE	0.048	U	
4,4'-DDT	0.048	U	
ALDRIN	0.048	U	
ALPHA-BHC	0.048	U	
ALPHA-CHLORDANE	0.048	U	
AROCLOR-1016	0.97	U	
AROCLOR-1221	0.97	U	
AROCLOR-1232	0.97	U	
AROCLOR-1242	0.97	U	
AROCLOR-1248	0.97	U	
AROCLOR-1254	0.97	U	
AROCLOR-1260	0.97	U	
BETA-BHC	0.048	U	
DELTA-BHC	0.048	U	
DIELDRIN	0.048	U	
ENDOSULFAN I	0.048	U	
ENDOSULFAN II	0.048	U	
ENDOSULFAN SULFATE	0.048	U	
ENDRIN	0.048	U	
ENDRIN ALDEHYDE	0.048	U	
ENDRIN KETONE	0.048	U	
GAMMA-BHC (LINDANE)	0.048	U	
GAMMA-CHLORDANE	0.048	U	
HEPTACHLOR	0.048	U	
HEPTACHLOR EPOXIDE	0.048	U	
METHOXYCHLOR	0.097	U	
TOXAPHENE	1.9	U	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	0.048	U	
4,4'-DDE	0.048	U	
4,4'-DDT	0.048	U	
ALDRIN	0.048	U	
ALPHA-BHC	0.048	U	
ALPHA-CHLORDANE	0.048	U	
AROCLOR-1016	0.97	U	
AROCLOR-1221	0.97	U	
AROCLOR-1232	0.97	U	
AROCLOR-1242	0.97	U	
AROCLOR-1248	0.97	U	
AROCLOR-1254	0.97	U	
AROCLOR-1260	0.97	U	
BETA-BHC	0.048	U	
DELTA-BHC	0.048	U	
DIELDRIN	0.048	U	
ENDOSULFAN I	0.048	U	
ENDOSULFAN II	0.048	U	
ENDOSULFAN SULFATE	0.048	U	
ENDRIN	0.048	U	
ENDRIN ALDEHYDE	0.048	U	
ENDRIN KETONE	0.048	U	
GAMMA-BHC (LINDANE)	0.048	U	
GAMMA-CHLORDANE	0.048	U	
HEPTACHLOR	0.048	U	
HEPTACHLOR EPOXIDE	0.048	U	
METHOXYCHLOR	0.097	U	
TOXAPHENE	1.9	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: PEST/PCB

nsample	NTC01SW0300DL
samp_date	12/17/2006
lab_id	C6L190179004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	0.05	U	
4,4'-DDE	0.05	U	
4,4'-DDT	0.05	U	
ALDRIN	0.05	U	
ALPHA-BHC	0.05	U	
ALPHA-CHLORDANE	0.05	U	
AROCLOR-1016	1	U	
AROCLOR-1221	1	U	
AROCLOR-1232	1	U	
AROCLOR-1242	1	U	
AROCLOR-1248	1	U	
AROCLOR-1254	1	U	
AROCLOR-1260	1	U	
BETA-BHC	0.05	U	
DELTA-BHC	0.05	U	
DIELDRIN	0.05	U	
ENDOSULFAN I	0.05	U	
ENDOSULFAN II	0.05	U	
ENDOSULFAN SULFATE	0.05	U	
ENDRIN	0.05	U	
ENDRIN ALDEHYDE	0.05	U	
ENDRIN KETONE	0.05	U	
GAMMA-BHC (LINDANE)	0.05	U	
GAMMA-CHLORDANE	0.05	U	
HEPTACHLOR	0.05	U	
HEPTACHLOR EPOXIDE	0.05	U	
METHOXYCHLOR	0.1	U	
TOXAPHENE	2	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: PAH

nsample	NTC01FD12170601DL	nsample	NTC01SW0100DL	nsample	NTC01SW0200DL
samp_date	12/17/2006	samp_date	12/17/2006	samp_date	12/17/2006
lab_id	C6L190179001	lab_id	C6L190179002	lab_id	C6L190179003
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:	NTC01SW0300	DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	0.97	U	
ACENAPHTHENE	0.97	U	
ACENAPHTHYLENE	0.97	U	
ANTHRACENE	0.19	U	
BENZO(A)ANTHRACENE	0.19	U	
BENZO(A)PYRENE	0.038	J	P
BENZO(B)FLUORANTHENE	0.065	J	P
BENZO(G,H,I)PERYLENE	0.065	J	P
BENZO(K)FLUORANTHENE	0.19	U	
CARBAZOLE	0.97	U	
CHRYSENE	0.041	J	P
DIBENZO(A,H)ANTHRACENE	0.19	U	
FLUORANTHENE	0.12	J	P
FLUORENE	0.036	J	P
INDENO(1,2,3-CD)PYRENE	0.056	J	P
NAPHTHALENE	0.97	U	
PHENANTHRENE	0.17	J	P
PYRENE	0.084	J	P

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	0.95	U	
ACENAPHTHENE	0.95	U	
ACENAPHTHYLENE	0.95	U	
ANTHRACENE	0.19	U	
BENZO(A)ANTHRACENE	0.19	U	
BENZO(A)PYRENE	0.039	J	P
BENZO(B)FLUORANTHENE	0.051	J	P
BENZO(G,H,I)PERYLENE	0.061	J	P
BENZO(K)FLUORANTHENE	0.19	U	
CARBAZOLE	0.95	U	
CHRYSENE	0.039	J	P
DIBENZO(A,H)ANTHRACENE	0.19	U	
FLUORANTHENE	0.17	J	P
FLUORENE	0.034	J	P
INDENO(1,2,3-CD)PYRENE	0.041	J	P
NAPHTHALENE	0.95	U	
PHENANTHRENE	0.17	J	P
PYRENE	0.081	J	P

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	0.94	U	
ACENAPHTHENE	0.94	U	
ACENAPHTHYLENE	0.94	U	
ANTHRACENE	0.19	U	
BENZO(A)ANTHRACENE	0.19	U	
BENZO(A)PYRENE	0.038	J	P
BENZO(B)FLUORANTHENE	0.059	J	P
BENZO(G,H,I)PERYLENE	0.063	J	P
BENZO(K)FLUORANTHENE	0.19	U	
CARBAZOLE	0.94	U	
CHRYSENE	0.039	J	P
DIBENZO(A,H)ANTHRACENE	0.19	U	
FLUORANTHENE	0.12	J	P
FLUORENE	0.021	J	P
INDENO(1,2,3-CD)PYRENE	0.049	J	P
NAPHTHALENE	0.94	U	
PHENANTHRENE	0.14	J	P
PYRENE	0.079	J	P

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: PAH

nsample	NTC01SW0300DL
samp_date	12/17/2006
lab_id	C6L190179004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	0.98	U	
ACENAPHTHENE	0.98	U	
ACENAPHTHYLENE	0.98	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.035	J	P
BENZO(B)FLUORANTHENE	0.058	J	P
BENZO(G,H,I)PERYLENE	0.057	J	P
BENZO(K)FLUORANTHENE	0.2	U	
CARBAZOLE	0.98	U	
CHRYSENE	0.038	J	P
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.12	J	P
FLUORENE	0.03	J	P
INDENO(1,2,3-CD)PYRENE	0.038	J	P
NAPHTHALENE	0.98	U	
PHENANTHRENE	0.14	J	P
PYRENE	0.078	J	P

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: HERB

nsample	NTC01FD12170601DL	nsample	NTC01SW0100DL	nsample	NTC01SW0200DL
samp_date	12/17/2006	samp_date	12/17/2006	samp_date	12/17/2006
lab_id	C6L190179001	lab_id	C6L190179002	lab_id	C6L190179003
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:	NTC01SW0300	DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	1	U	
2,4,5-TP (SILVEX)	1	U	
2,4-D	4.1	U	
PENTACHLOROPHENOL	1	U	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	0.97	U	
2,4,5-TP (SILVEX)	0.97	U	
2,4-D	3.9	U	
PENTACHLOROPHENOL	0.97	U	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	0.95	U	
2,4,5-TP (SILVEX)	0.95	U	
2,4-D	3.8	U	
PENTACHLOROPHENOL	0.95	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: HERB

nsample	NTC01SW0300DL
samp_date	12/17/2006
lab_id	C6L190179004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	1	U	
2,4,5-TP (SILVEX)	1	U	
2,4-D	4	U	
PENTACHLOROPHENOL	1	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: DIOX

nsample	NTC01FD12170601	nsample	NTC01SW0100	nsample	NTC01SW0200
samp_date	12/17/2006	samp_date	12/17/2006	samp_date	12/17/2006
lab_id	C6L190179001	lab_id	C6L190179002	lab_id	C6L190179003
qc_type	NM	qc_type	NM	qc_type	NM
units	PG/L	units	PG/L	units	PG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:	NTC01SW0300	DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	30	U	
1,2,3,4,6,7,8,9-OCDF	4.8	U	
1,2,3,4,6,7,8-HPCDD	3.5	U	
1,2,3,4,6,7,8-HPCDF	2.2	U	
1,2,3,4,7,8,9-HPCDF	2.4	U	
1,2,3,4,7,8-HXCDD	3.6	U	
1,2,3,4,7,8-HXCDF	4.3	U	
1,2,3,6,7,8-HXCDD	3.5	U	
1,2,3,6,7,8-HXCDF	4.1	U	
1,2,3,7,8,9-HXCDD	3.2	U	
1,2,3,7,8,9-HXCDF	4.3	U	
1,2,3,7,8-PECDD	2.8	U	
1,2,3,7,8-PECDF	1.6	U	
2,3,4,6,7,8-HXCDF	4.4	U	
2,3,4,7,8-PECDF	1.6	U	
2,3,7,8-TCDD	1.3	U	
2,3,7,8-TCDF	0.76	U	
TOTAL HPCDD	3.5	U	
TOTAL HPCDF	2.4	U	
TOTAL HXCDD	3.6	U	
TOTAL HXCDF	4.4	U	
TOTAL PECDD	4.6	U	
TOTAL PECDF	2.3	U	
TOTAL TCDD	1.3	U	
TOTAL TCDF	0.76	U	

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	29	U	
1,2,3,4,6,7,8,9-OCDF	5.2	U	
1,2,3,4,6,7,8-HPCDD	4.6	U	
1,2,3,4,6,7,8-HPCDF	2.4	U	
1,2,3,4,7,8,9-HPCDF	2.7	U	
1,2,3,4,7,8-HXCDD	4.4	U	
1,2,3,4,7,8-HXCDF	3.8	U	
1,2,3,6,7,8-HXCDD	4.2	U	
1,2,3,6,7,8-HXCDF	3.6	U	
1,2,3,7,8,9-HXCDD	4	U	
1,2,3,7,8,9-HXCDF	3.8	U	
1,2,3,7,8-PECDD	2.8	U	
1,2,3,7,8-PECDF	1.5	U	
2,3,4,6,7,8-HXCDF	3.9	U	
2,3,4,7,8-PECDF	1.4	U	
2,3,7,8-TCDD	1.3	U	
2,3,7,8-TCDF	0.92	U	
TOTAL HPCDD	4.6	U	
TOTAL HPCDF	2.7	U	
TOTAL HXCDD	4.4	U	
TOTAL HXCDF	3.9	U	
TOTAL PECDD	4.2	U	
TOTAL PECDF	2.2	U	
TOTAL TCDD	1.3	U	
TOTAL TCDF	0.92	U	

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	26	U	
1,2,3,4,6,7,8,9-OCDF	5.4	U	
1,2,3,4,6,7,8-HPCDD	3.6	U	
1,2,3,4,6,7,8-HPCDF	2.3	U	
1,2,3,4,7,8,9-HPCDF	2.6	U	
1,2,3,4,7,8-HXCDD	3.2	U	
1,2,3,4,7,8-HXCDF	3.2	U	
1,2,3,6,7,8-HXCDD	3	U	
1,2,3,6,7,8-HXCDF	3	U	
1,2,3,7,8,9-HXCDD	2.8	U	
1,2,3,7,8,9-HXCDF	3.2	U	
1,2,3,7,8-PECDD	2.5	U	
1,2,3,7,8-PECDF	1.3	U	
2,3,4,6,7,8-HXCDF	3.2	U	
2,3,4,7,8-PECDF	1.3	U	
2,3,7,8-TCDD	1.4	U	
2,3,7,8-TCDF	0.8	U	
TOTAL HPCDD	3.6	U	
TOTAL HPCDF	2.6	U	
TOTAL HXCDD	3.2	U	
TOTAL HXCDF	3.2	U	
TOTAL PECDD	6.2	U	
TOTAL PECDF	2.8	U	
TOTAL TCDD	1.4	U	
TOTAL TCDF	0.8	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: DIOX

nsample	NTC01SW0300
samp_date	12/17/2006
lab_id	C6L190179004
qc_type	NM
units	PG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	22	U	
1,2,3,4,6,7,8,9-OCDF	6	U	
1,2,3,4,6,7,8-HPCDD	4.6	U	
1,2,3,4,6,7,8-HPCDF	2.5	U	
1,2,3,4,7,8,9-HPCDF	2.8	U	
1,2,3,4,7,8-HXCDD	3.8	U	
1,2,3,4,7,8-HXCDF	3.7	U	
1,2,3,6,7,8-HXCDD	3.7	U	
1,2,3,6,7,8-HXCDF	3.5	U	
1,2,3,7,8,9-HXCDD	3.4	U	
1,2,3,7,8,9-HXCDF	3.7	U	
1,2,3,7,8-PECDD	2.7	U	
1,2,3,7,8-PECDF	1.4	U	
2,3,4,6,7,8-HXCDF	3.7	U	
2,3,4,7,8-PECDF	1.3	U	
2,3,7,8-TCDD	1.2	U	
2,3,7,8-TCDF	0.98	U	
TOTAL HPCDD	4.6	U	
TOTAL HPCDF	2.8	U	
TOTAL HXCDD	3.8	U	
TOTAL HXCDF	3.7	U	
TOTAL PECDD	4.5	U	
TOTAL PECDF	1.8	U	
TOTAL TCDD	1.2	U	
TOTAL TCDF	0.98	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01FD12180601
samp_date	12/18/2006
lab_id	C6L190179005
qc_type	NM
units	UG/KG
Pct_Solids	38.0
DUP_OF:	NTC01SD0400

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	13	U	
1,1,2,2-TETRACHLOROETHANE	13	U	
1,1,2-TRICHLOROETHANE	13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	13	U	
1,1-DICHLOROETHANE	13	U	
1,1-DICHLOROETHENE	13	U	
1,2,4-TRICHLOROBENZENE	13	U	
1,2-DIBROMO-3-CHLOROPROPANE	13	U	
1,2-DIBROMOETHANE	13	U	
1,2-DICHLOROBENZENE	13	U	
1,2-DICHLOROETHANE	13	U	
1,2-DICHLOROPROPANE	13	U	
1,3-DICHLOROBENZENE	13	U	
1,4-DICHLOROBENZENE	13	U	
2-BUTANONE	13	U	
2-HEXANONE	13	U	
4-METHYL-2-PENTANONE	13	U	
ACETONE	53	U	
BENZENE	13	U	
BROMODICHLOROMETHANE	13	U	
BROMOFORM	13	U	
BROMOMETHANE	13	UR	C
CARBON DISULFIDE	13	U	
CARBON TETRACHLORIDE	13	U	
CHLOROBENZENE	13	U	
CHLORODIBROMOMETHANE	13	U	
CHLOROETHANE	13	U	
CHLOROFORM	13	U	
CHLOROMETHANE	13	U	
CIS-1,2-DICHLOROETHENE	13	U	
CIS-1,3-DICHLOROPROPENE	13	U	
CYCLOHEXANE	13	U	

nsample	NTC01FD12180601
samp_date	12/18/2006
lab_id	C6L190179005
qc_type	NM
units	UG/KG
Pct_Solids	38.0
DUP_OF:	NTC01SD0400

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	13	U	
ETHYLBENZENE	13	U	
ISOPROPYLBENZENE	13	U	
METHYL ACETATE	13	U	
METHYL CYCLOHEXANE	13	U	
METHYL TERT-BUTYL ETHER	13	U	
METHYLENE CHLORIDE	13	U	
STYRENE	13	U	
TETRACHLOROETHENE	13	U	
TOLUENE	13	U	
TOTAL XYLENES	40	U	
TRANS-1,2-DICHLOROETHENE	13	U	
TRANS-1,3-DICHLOROPROPENE	13	U	
TRICHLOROETHENE	13	U	
TRICHLOROFLUOROMETHANE	13	U	
VINYL CHLORIDE	13	U	

nsample	NTC01FD12180602DL
samp_date	12/18/2006
lab_id	C6L190179006
qc_type	NM
units	UG/KG
Pct_Solids	78.0
DUP_OF:	NTC01SB0900812

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	10	U	
1,1,2,2-TETRACHLOROETHANE	10	U	
1,1,2-TRICHLOROETHANE	10	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	10	U	
1,1-DICHLOROETHANE	10	U	
1,1-DICHLOROETHENE	10	U	
1,2,4-TRICHLOROBENZENE	10	U	
1,2-DIBROMO-3-CHLOROPROPANE	10	UJ	C
1,2-DIBROMOETHANE	10	U	
1,2-DICHLOROBENZENE	10	U	
1,2-DICHLOROETHANE	10	U	
1,2-DICHLOROPROPANE	10	U	
1,3-DICHLOROBENZENE	10	U	
1,4-DICHLOROBENZENE	10	U	
2-BUTANONE	10	U	
2-HEXANONE	10	U	
4-METHYL-2-PENTANONE	10	U	
ACETONE	41	UJ	C
BENZENE	10	U	
BROMODICHLOROMETHANE	10	U	
BROMOFORM	10	U	
BROMOMETHANE	10	UR	C
CARBON DISULFIDE	10	U	
CARBON TETRACHLORIDE	10	U	
CHLOROBENZENE	10	U	
CHLORODIBROMOMETHANE	10	U	
CHLOROETHANE	10	U	
CHLOROFORM	10	U	
CHLOROMETHANE	10	U	
CIS-1,2-DICHLOROETHENE	10	U	
CIS-1,3-DICHLOROPROPENE	10	U	
CYCLOHEXANE	10	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01FD12180602DL
samp_date	12/18/2006
lab_id	C6L190179006
qc_type	NM
units	UG/KG
Pct_Solids	78.0
DUP_OF:	NTC01SB0900812

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	10	U	
ETHYLBENZENE	10	U	
ISOPROPYLBENZENE	10	U	
METHYL ACETATE	10	U	
METHYL CYCLOHEXANE	10	U	
METHYL TERT-BUTYL ETHER	10	U	
METHYLENE CHLORIDE	10	U	
STYRENE	10	U	
TETRACHLOROETHENE	10	U	
TOLUENE	10	U	
TOTAL XYLENES	31	U	
TRANS-1,2-DICHLOROETHENE	10	U	
TRANS-1,3-DICHLOROPROPENE	10	U	
TRICHLOROETHENE	10	U	
TRICHLOROFLUOROMETHANE	10	U	
VINYL CHLORIDE	10	U	

nsample	NTC01SB0880708DL
samp_date	12/18/2006
lab_id	C6L190179007
qc_type	NM
units	UG/KG
Pct_Solids	81.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	5.6	U	
1,1,2,2-TETRACHLOROETHANE	5.6	U	
1,1,2-TRICHLOROETHANE	5.6	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	5.6	U	
1,1-DICHLOROETHANE	5.6	U	
1,1-DICHLOROETHENE	5.6	U	
1,2,4-TRICHLOROBENZENE	5.6	U	
1,2-DIBROMO-3-CHLOROPROPANE	5.6	U	
1,2-DIBROMOETHANE	5.6	U	
1,2-DICHLOROBENZENE	5.6	U	
1,2-DICHLOROETHANE	5.6	U	
1,2-DICHLOROPROPANE	5.6	U	
1,3-DICHLOROBENZENE	5.6	U	
1,4-DICHLOROBENZENE	5.6	U	
2-BUTANONE	5.6	U	
2-HEXANONE	5.6	U	
4-METHYL-2-PENTANONE	5.6	U	
ACETONE	22	U	
BENZENE	5.6	U	
BROMODICHLOROMETHANE	5.6	U	
BROMOFORM	5.6	U	
BROMOMETHANE	5.6	UR	C
CARBON DISULFIDE	5.6	U	
CARBON TETRACHLORIDE	5.6	U	
CHLOROBENZENE	5.6	U	
CHLORODIBROMOMETHANE	5.6	U	
CHLOROETHANE	5.6	U	
CHLOROFORM	5.6	U	
CHLOROMETHANE	5.6	U	
CIS-1,2-DICHLOROETHENE	5.6	U	
CIS-1,3-DICHLOROPROPENE	5.6	U	
CYCLOHEXANE	5.6	U	

nsample	NTC01SB0880708DL
samp_date	12/18/2006
lab_id	C6L190179007
qc_type	NM
units	UG/KG
Pct_Solids	81.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	5.6	U	
ETHYLBENZENE	5.6	U	
ISOPROPYLBENZENE	5.6	U	
METHYL ACETATE	5.6	U	
METHYL CYCLOHEXANE	5.6	U	
METHYL TERT-BUTYL ETHER	5.6	U	
METHYLENE CHLORIDE	5.6	U	A
STYRENE	5.6	U	
TETRACHLOROETHENE	5.6	U	
TOLUENE	5.6	U	
TOTAL XYLENES	17	U	
TRANS-1,2-DICHLOROETHENE	5.6	U	
TRANS-1,3-DICHLOROPROPENE	5.6	U	
TRICHLOROETHENE	5.6	U	
TRICHLOROFLUOROMETHANE	5.6	U	
VINYL CHLORIDE	5.6	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SB0891112DL
samp_date	12/18/2006
lab_id	C6L190179008
qc_type	NM
units	UG/KG
Pct_Solids	79.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	7.5	U	
1,1,2,2-TETRACHLOROETHANE	7.5	U	
1,1,2-TRICHLOROETHANE	7.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	7.5	U	
1,1-DICHLOROETHANE	7.5	U	
1,1-DICHLOROETHENE	7.5	U	
1,2,4-TRICHLOROBENZENE	7.5	U	
1,2-DIBROMO-3-CHLOROPROPANE	7.5	U	
1,2-DIBROMOETHANE	7.5	U	
1,2-DICHLOROBENZENE	7.5	U	
1,2-DICHLOROETHANE	7.5	U	
1,2-DICHLOROPROPANE	7.5	U	
1,3-DICHLOROBENZENE	7.5	U	
1,4-DICHLOROBENZENE	7.5	U	
2-BUTANONE	7.5	U	
2-HEXANONE	7.5	U	
4-METHYL-2-PENTANONE	7.5	U	
ACETONE	30	U	
BENZENE	7.5	U	
BROMODICHLOROMETHANE	7.5	U	
BROMOFORM	7.5	U	
BROMOMETHANE	7.5	UR	C
CARBON DISULFIDE	7.5	U	
CARBON TETRACHLORIDE	7.5	U	
CHLOROBENZENE	7.5	U	
CHLORODIBROMOMETHANE	7.5	U	
CHLOROETHANE	7.5	U	
CHLOROFORM	7.5	U	
CHLOROMETHANE	7.5	U	
CIS-1,2-DICHLOROETHENE	7.5	U	
CIS-1,3-DICHLOROPROPENE	7.5	U	
CYCLOHEXANE	7.5	U	

nsample	NTC01SB0891112DL
samp_date	12/18/2006
lab_id	C6L190179008
qc_type	NM
units	UG/KG
Pct_Solids	79.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	7.5	U	
ETHYLBENZENE	7.5	U	
ISOPROPYLBENZENE	7.5	U	
METHYL ACETATE	7.5	U	
METHYL CYCLOHEXANE	7.5	U	
METHYL TERT-BUTYL ETHER	7.5	U	
METHYLENE CHLORIDE	7.5	U	
STYRENE	7.5	U	
TETRACHLOROETHENE	7.5	U	
TOLUENE	7.5	U	
TOTAL XYLENES	23	U	
TRANS-1,2-DICHLOROETHENE	7.5	U	
TRANS-1,3-DICHLOROPROPENE	7.5	U	
TRICHLOROETHENE	7.5	U	
TRICHLOROFLUOROMETHANE	7.5	U	
VINYL CHLORIDE	7.5	U	

nsample	NTC01SB0900812DL-R
samp_date	12/18/2006
lab_id	C6L190179009
qc_type	NM
units	UG/KG
Pct_Solids	78.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	8.7	UJ	R
1,1,2,2-TETRACHLOROETHANE	8.7	UJ	R
1,1,2-TRICHLOROETHANE	8.7	UJ	R
1,1,2-TRICHLOROTRIFLUOROETHANE	8.7	UJ	R
1,1-DICHLOROETHANE	8.7	UJ	R
1,1-DICHLOROETHENE	8.7	UJ	R
1,2,4-TRICHLOROBENZENE	8.7	UJ	R
1,2-DIBROMO-3-CHLOROPROPANE	8.7	UJ	CR
1,2-DIBROMOETHANE	8.7	UJ	R
1,2-DICHLOROBENZENE	8.7	UJ	R
1,2-DICHLOROETHANE	8.7	UJ	R
1,2-DICHLOROPROPANE	8.7	UJ	R
1,3-DICHLOROBENZENE	8.7	UJ	R
1,4-DICHLOROBENZENE	8.7	UJ	R
2-BUTANONE	8.7	UJ	R
2-HEXANONE	8.7	UJ	R
4-METHYL-2-PENTANONE	8.7	UJ	R
ACETONE	35	UJ	CR
BENZENE	8.7	UJ	R
BROMODICHLOROMETHANE	8.7	UJ	R
BROMOFORM	8.7	UJ	R
BROMOMETHANE	8.7	UR	C
CARBON DISULFIDE	8.7	UJ	R
CARBON TETRACHLORIDE	8.7	UJ	R
CHLOROBENZENE	8.7	UJ	R
CHLORODIBROMOMETHANE	8.7	UJ	R
CHLOROETHANE	8.7	UJ	R
CHLOROFORM	8.7	UJ	R
CHLOROMETHANE	8.7	UJ	R
CIS-1,2-DICHLOROETHENE	8.7	UJ	R
CIS-1,3-DICHLOROPROPENE	8.7	UJ	R
CYCLOHEXANE	8.7	UJ	R

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SB0900812DL-R
samp_date	12/18/2006
lab_id	C6L190179009
qc_type	NM
units	UG/KG
Pct_Solids	78.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	8.7	UJ	R
ETHYLBENZENE	8.7	UJ	R
ISOPROPYLBENZENE	8.7	UJ	R
METHYL ACETATE	8.7	UJ	R
METHYL CYCLOHEXANE	8.7	UJ	R
METHYL TERT-BUTYL ETHER	8.7	UJ	R
METHYLENE CHLORIDE	8.7	UJ	R
STYRENE	8.7	UJ	R
TETRACHLOROETHENE	8.7	UJ	R
TOLUENE	8.7	UJ	R
TOTAL XYLENES	26	UJ	R
TRANS-1,2-DICHLOROETHENE	8.7	UJ	R
TRANS-1,3-DICHLOROPROPENE	8.7	UJ	R
TRICHLOROETHENE	8.7	UJ	R
TRICHLOROFLUOROMETHANE	8.7	UJ	R
VINYL CHLORIDE	8.7	UJ	R

nsample	NTC01SB0910812DL
samp_date	12/18/2006
lab_id	C6L190179010
qc_type	NM
units	UG/KG
Pct_Solids	82.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	5.6	U	
1,1,2,2-TETRACHLOROETHANE	5.6	U	
1,1,2-TRICHLOROETHANE	5.6	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	5.6	U	
1,1-DICHLOROETHANE	5.6	U	
1,1-DICHLOROETHENE	5.6	U	
1,2,4-TRICHLOROBENZENE	5.6	U	
1,2-DIBROMO-3-CHLOROPROPANE	5.6	U	
1,2-DIBROMOETHANE	5.6	U	
1,2-DICHLOROBENZENE	5.6	U	
1,2-DICHLOROETHANE	5.6	U	
1,2-DICHLOROPROPANE	5.6	U	
1,3-DICHLOROBENZENE	5.6	U	
1,4-DICHLOROBENZENE	5.6	U	
2-BUTANONE	6.6		
2-HEXANONE	5.6	U	
4-METHYL-2-PENTANONE	5.6	U	
ACETONE	6.4	J	P
BENZENE	5.6	U	
BROMODICHLOROMETHANE	5.6	U	
BROMOFORM	5.6	U	
BROMOMETHANE	5.6	UR	C
CARBON DISULFIDE	5.6	U	
CARBON TETRACHLORIDE	5.6	U	
CHLOROBENZENE	5.6	U	
CHLORODIBROMOMETHANE	5.6	U	
CHLOROETHANE	5.6	U	
CHLOROFORM	5.6	U	
CHLOROMETHANE	5.6	U	
CIS-1,2-DICHLOROETHENE	5.6	U	
CIS-1,3-DICHLOROPROPENE	5.6	U	
CYCLOHEXANE	5.6	U	

nsample	NTC01SB0910812DL
samp_date	12/18/2006
lab_id	C6L190179010
qc_type	NM
units	UG/KG
Pct_Solids	82.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	5.6	U	
ETHYLBENZENE	5.6	U	
ISOPROPYLBENZENE	5.6	U	
METHYL ACETATE	5.6	U	
METHYL CYCLOHEXANE	5.6	U	
METHYL TERT-BUTYL ETHER	5.6	U	
METHYLENE CHLORIDE	5.6	U	A
STYRENE	5.6	U	
TETRACHLOROETHENE	5.6	U	
TOLUENE	5.6	U	
TOTAL XYLENES	17	U	
TRANS-1,2-DICHLOROETHENE	5.6	U	
TRANS-1,3-DICHLOROPROPENE	5.6	U	
TRICHLOROETHENE	5.6	U	
TRICHLOROFLUOROMETHANE	5.6	U	
VINYL CHLORIDE	5.6	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SB0921516DL
samp_date	12/18/2006
lab_id	C6L190179011
qc_type	NM
units	UG/KG
Pct_Solids	58.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	12	U	
1,1,2,2-TETRACHLOROETHANE	12	U	
1,1,2-TRICHLOROETHANE	12	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	12	U	
1,1-DICHLOROETHANE	12	U	
1,1-DICHLOROETHENE	12	U	
1,2,4-TRICHLOROBENZENE	12	U	
1,2-DIBROMO-3-CHLOROPROPANE	12	U	
1,2-DIBROMOETHANE	12	U	
1,2-DICHLOROBENZENE	12	U	
1,2-DICHLOROETHANE	12	U	
1,2-DICHLOROPROPANE	12	U	
1,3-DICHLOROBENZENE	12	U	
1,4-DICHLOROBENZENE	12	U	
2-BUTANONE	12	U	
2-HEXANONE	12	U	
4-METHYL-2-PENTANONE	12	U	
ACETONE	49	U	
BENZENE	12	U	
BROMODICHLOROMETHANE	12	U	
BROMOFORM	12	U	
BROMOMETHANE	12	UR	C
CARBON DISULFIDE	12	U	
CARBON TETRACHLORIDE	12	U	
CHLOROBENZENE	12	U	
CHLORODIBROMOMETHANE	12	U	
CHLOROETHANE	12	U	
CHLOROFORM	12	U	
CHLOROMETHANE	12	U	
CIS-1,2-DICHLOROETHENE	12	U	
CIS-1,3-DICHLOROPROPENE	12	U	
CYCLOHEXANE	12	U	

nsample	NTC01SB0921516DL
samp_date	12/18/2006
lab_id	C6L190179011
qc_type	NM
units	UG/KG
Pct_Solids	58.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	12	U	
ETHYLBENZENE	12	U	
ISOPROPYLBENZENE	12	U	
METHYL ACETATE	12	U	
METHYL CYCLOHEXANE	12	U	
METHYL TERT-BUTYL ETHER	12	U	
METHYLENE CHLORIDE	12	U	
STYRENE	12	U	
TETRACHLOROETHENE	12	U	
TOLUENE	12	U	
TOTAL XYLENES	37	U	
TRANS-1,2-DICHLOROETHENE	12	U	
TRANS-1,3-DICHLOROPROPENE	12	U	
TRICHLOROETHENE	12	U	
TRICHLOROFLUOROMETHANE	12	U	
VINYL CHLORIDE	12	U	

nsample	NTC01SB0930810DL
samp_date	12/18/2006
lab_id	C6L190179012
qc_type	NM
units	UG/KG
Pct_Solids	83.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	6.6	U	
1,1,2,2-TETRACHLOROETHANE	6.6	U	
1,1,2-TRICHLOROETHANE	6.6	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	6.6	U	
1,1-DICHLOROETHANE	6.6	U	
1,1-DICHLOROETHENE	6.6	U	
1,2,4-TRICHLOROBENZENE	6.6	U	
1,2-DIBROMO-3-CHLOROPROPANE	6.6	U	
1,2-DIBROMOETHANE	6.6	U	
1,2-DICHLOROBENZENE	6.6	U	
1,2-DICHLOROETHANE	6.6	U	
1,2-DICHLOROPROPANE	6.6	U	
1,3-DICHLOROBENZENE	6.6	U	
1,4-DICHLOROBENZENE	6.6	U	
2-BUTANONE	6.6	U	
2-HEXANONE	6.6	U	
4-METHYL-2-PENTANONE	6.6	U	
ACETONE	26	U	
BENZENE	6.6	U	
BROMODICHLOROMETHANE	6.6	U	
BROMOFORM	6.6	U	
BROMOMETHANE	6.6	UR	C
CARBON DISULFIDE	6.6	U	
CARBON TETRACHLORIDE	6.6	U	
CHLOROBENZENE	6.6	U	
CHLORODIBROMOMETHANE	6.6	U	
CHLOROETHANE	6.6	U	
CHLOROFORM	6.6	U	
CHLOROMETHANE	6.6	U	
CIS-1,2-DICHLOROETHENE	6.6	U	
CIS-1,3-DICHLOROPROPENE	6.6	U	
CYCLOHEXANE	6.6	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SB0930810DL
samp_date	12/18/2006
lab_id	C6L190179012
qc_type	NM
units	UG/KG
Pct_Solids	83.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	6.6	U	
ETHYLBENZENE	6.6	U	
ISOPROPYLBENZENE	6.6	U	
METHYL ACETATE	6.6	U	
METHYL CYCLOHEXANE	6.6	U	
METHYL TERT-BUTYL ETHER	6.6	U	
METHYLENE CHLORIDE	6.6	U	A
STYRENE	6.6	U	
TETRACHLOROETHENE	6.6	U	
TOLUENE	6.6	U	
TOTAL XYLENES	20	U	
TRANS-1,2-DICHLOROETHENE	6.6	U	
TRANS-1,3-DICHLOROPROPENE	6.6	U	
TRICHLOROETHENE	6.6	U	
TRICHLOROFLUOROMETHANE	6.6	U	
VINYL CHLORIDE	6.6	U	

nsample	NTC01SB0941416DL
samp_date	12/18/2006
lab_id	C6L190179013
qc_type	NM
units	UG/KG
Pct_Solids	64.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	8.8	U	
1,1,2,2-TETRACHLOROETHANE	8.8	U	
1,1,2-TRICHLOROETHANE	8.8	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	8.8	U	
1,1-DICHLOROETHANE	8.8	U	
1,1-DICHLOROETHENE	8.8	U	
1,2,4-TRICHLOROBENZENE	8.8	U	
1,2-DIBROMO-3-CHLOROPROPANE	8.8	U	
1,2-DIBROMOETHANE	8.8	U	
1,2-DICHLOROBENZENE	8.8	U	
1,2-DICHLOROETHANE	8.8	U	
1,2-DICHLOROPROPANE	8.8	U	
1,3-DICHLOROBENZENE	8.8	U	
1,4-DICHLOROBENZENE	8.8	U	
2-BUTANONE	8.8	U	
2-HEXANONE	8.8	U	
4-METHYL-2-PENTANONE	8.8	U	
ACETONE	35	U	
BENZENE	8.8	U	
BROMODICHLOROMETHANE	8.8	U	
BROMOFORM	8.8	U	
BROMOMETHANE	8.8	UR	C
CARBON DISULFIDE	8.8	U	
CARBON TETRACHLORIDE	8.8	U	
CHLOROBENZENE	8.8	U	
CHLORODIBROMOMETHANE	8.8	U	
CHLOROETHANE	8.8	U	
CHLOROFORM	8.8	U	
CHLOROMETHANE	8.8	U	
CIS-1,2-DICHLOROETHENE	8.8	U	
CIS-1,3-DICHLOROPROPENE	8.8	U	
CYCLOHEXANE	8.8	U	

nsample	NTC01SB0941416DL
samp_date	12/18/2006
lab_id	C6L190179013
qc_type	NM
units	UG/KG
Pct_Solids	64.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	8.8	U	
ETHYLBENZENE	8.8	U	
ISOPROPYLBENZENE	8.8	U	
METHYL ACETATE	8.8	U	
METHYL CYCLOHEXANE	8.8	U	
METHYL TERT-BUTYL ETHER	8.8	U	
METHYLENE CHLORIDE	8.8	U	
STYRENE	8.8	U	
TETRACHLOROETHENE	8.8	U	
TOLUENE	8.8	U	
TOTAL XYLENES	27	U	
TRANS-1,2-DICHLOROETHENE	8.8	U	
TRANS-1,3-DICHLOROPROPENE	8.8	U	
TRICHLOROETHENE	8.8	U	
TRICHLOROFLUOROMETHANE	8.8	U	
VINYL CHLORIDE	8.8	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SB0950810DL
samp_date	12/18/2006
lab_id	C6L190179014
qc_type	NM
units	UG/KG
Pct_Solids	37.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	16	U	
1,1,2,2-TETRACHLOROETHANE	16	U	
1,1,2-TRICHLOROETHANE	16	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	16	U	
1,1-DICHLOROETHANE	16	U	
1,1-DICHLOROETHENE	16	U	
1,2,4-TRICHLOROBENZENE	16	U	
1,2-DIBROMO-3-CHLOROPROPANE	16	U	
1,2-DIBROMOETHANE	16	U	
1,2-DICHLOROBENZENE	16	U	
1,2-DICHLOROETHANE	16	U	
1,2-DICHLOROPROPANE	16	U	
1,3-DICHLOROBENZENE	16	U	
1,4-DICHLOROBENZENE	16	U	
2-BUTANONE	16	U	
2-HEXANONE	16	U	
4-METHYL-2-PENTANONE	16	U	
ACETONE	62	U	
BENZENE	16	U	
BROMODICHLOROMETHANE	16	U	
BROMOFORM	16	U	
BROMOMETHANE	16	UR	C
CARBON DISULFIDE	16	U	
CARBON TETRACHLORIDE	16	U	
CHLOROBENZENE	16	U	
CHLORODIBROMOMETHANE	16	U	
CHLOROETHANE	16	U	
CHLOROFORM	16	U	
CHLOROMETHANE	16	U	
CIS-1,2-DICHLOROETHENE	16	U	
CIS-1,3-DICHLOROPROPENE	16	U	
CYCLOHEXANE	16	U	

nsample	NTC01SB0950810DL
samp_date	12/18/2006
lab_id	C6L190179014
qc_type	NM
units	UG/KG
Pct_Solids	37.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	16	U	
ETHYLBENZENE	16	U	
ISOPROPYLBENZENE	16	U	
METHYL ACETATE	16	U	
METHYL CYCLOHEXANE	16	U	
METHYL TERT-BUTYL ETHER	16	U	
METHYLENE CHLORIDE	16	U	A
STYRENE	16	U	
TETRACHLOROETHENE	16	U	
TOLUENE	16	U	
TOTAL XYLENES	47	U	
TRANS-1,2-DICHLOROETHENE	16	U	
TRANS-1,3-DICHLOROPROPENE	16	U	
TRICHLOROETHENE	16	U	
TRICHLOROFLUOROMETHANE	16	U	
VINYL CHLORIDE	16	U	

nsample	NTC01SB0961012DL
samp_date	12/18/2006
lab_id	C6L190179015
qc_type	NM
units	UG/KG
Pct_Solids	82.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	5.8	U	
1,1,2,2-TETRACHLOROETHANE	5.8	U	
1,1,2-TRICHLOROETHANE	5.8	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	5.8	U	
1,1-DICHLOROETHANE	5.8	U	
1,1-DICHLOROETHENE	5.8	U	
1,2,4-TRICHLOROBENZENE	5.8	U	
1,2-DIBROMO-3-CHLOROPROPANE	5.8	U	
1,2-DIBROMOETHANE	5.8	U	
1,2-DICHLOROBENZENE	5.8	U	
1,2-DICHLOROETHANE	5.8	U	
1,2-DICHLOROPROPANE	5.8	U	
1,3-DICHLOROBENZENE	5.8	U	
1,4-DICHLOROBENZENE	5.8	U	
2-BUTANONE	5.8	U	
2-HEXANONE	5.8	U	
4-METHYL-2-PENTANONE	5.8	U	
ACETONE	23	U	
BENZENE	5.8	U	
BROMODICHLOROMETHANE	5.8	U	
BROMOFORM	5.8	U	
BROMOMETHANE	5.8	UR	C
CARBON DISULFIDE	5.8	U	
CARBON TETRACHLORIDE	5.8	U	
CHLOROBENZENE	5.8	U	
CHLORODIBROMOMETHANE	5.8	U	
CHLOROETHANE	5.8	U	
CHLOROFORM	5.8	U	
CHLOROMETHANE	5.8	U	
CIS-1,2-DICHLOROETHENE	5.8	U	
CIS-1,3-DICHLOROPROPENE	5.8	U	
CYCLOHEXANE	5.8	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SB0961012DL
samp_date	12/18/2006
lab_id	C6L190179015
qc_type	NM
units	UG/KG
Pct_Solids	82.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	5.8	U	
ETHYLBENZENE	5.8	U	
ISOPROPYLBENZENE	5.8	U	
METHYL ACETATE	5.8	U	
METHYL CYCLOHEXANE	5.8	U	
METHYL TERT-BUTYL ETHER	5.8	U	
METHYLENE CHLORIDE	5.8	U	
STYRENE	5.8	U	
TETRACHLOROETHENE	5.8	U	
TOLUENE	5.8	U	
TOTAL XYLENES	17	U	
TRANS-1,2-DICHLOROETHENE	5.8	U	
TRANS-1,3-DICHLOROPROPENE	5.8	U	
TRICHLOROETHENE	5.8	U	
TRICHLOROFLUOROMETHANE	5.8	U	
VINYL CHLORIDE	5.8	U	

nsample	NTC01SB1010406DL
samp_date	12/18/2006
lab_id	C6L190179016
qc_type	NM
units	UG/KG
Pct_Solids	86.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	7.3	U	
1,1,2,2-TETRACHLOROETHANE	7.3	U	
1,1,2-TRICHLOROETHANE	7.3	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	7.3	U	
1,1-DICHLOROETHANE	7.3	U	
1,1-DICHLOROETHENE	7.3	U	
1,2,4-TRICHLOROBENZENE	7.3	U	
1,2-DIBROMO-3-CHLOROPROPANE	7.3	U	
1,2-DIBROMOETHANE	7.3	U	
1,2-DICHLOROBENZENE	7.3	U	
1,2-DICHLOROETHANE	7.3	U	
1,2-DICHLOROPROPANE	7.3	U	
1,3-DICHLOROBENZENE	7.3	U	
1,4-DICHLOROBENZENE	7.3	U	
2-BUTANONE	7.3	U	
2-HEXANONE	7.3	U	
4-METHYL-2-PENTANONE	7.3	U	
ACETONE	29	U	
BENZENE	7.3	U	
BROMODICHLOROMETHANE	7.3	U	
BROMOFORM	7.3	U	
BROMOMETHANE	7.3	UR	C
CARBON DISULFIDE	7.3	U	
CARBON TETRACHLORIDE	7.3	U	
CHLOROBENZENE	7.3	U	
CHLORODIBROMOMETHANE	7.3	U	
CHLOROETHANE	7.3	U	
CHLOROFORM	7.3	U	
CHLOROMETHANE	7.3	U	
CIS-1,2-DICHLOROETHENE	7.3	U	
CIS-1,3-DICHLOROPROPENE	7.3	U	
CYCLOHEXANE	7.3	U	

nsample	NTC01SB1010406DL
samp_date	12/18/2006
lab_id	C6L190179016
qc_type	NM
units	UG/KG
Pct_Solids	86.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	7.3	U	
ETHYLBENZENE	7.3	U	
ISOPROPYLBENZENE	7.3	U	
METHYL ACETATE	7.3	U	
METHYL CYCLOHEXANE	7.3	U	
METHYL TERT-BUTYL ETHER	7.3	U	
METHYLENE CHLORIDE	7.3	U	
STYRENE	7.3	U	
TETRACHLOROETHENE	7.3	U	
TOLUENE	7.3	U	
TOTAL XYLENES	22	U	
TRANS-1,2-DICHLOROETHENE	7.3	U	
TRANS-1,3-DICHLOROPROPENE	7.3	U	
TRICHLOROETHENE	7.3	U	
TRICHLOROFLUOROMETHANE	7.3	U	
VINYL CHLORIDE	7.3	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SB1020408DL
samp_date	12/18/2006
lab_id	C6L190179017
qc_type	NM
units	UG/KG
Pct_Solids	50.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	13	U	
1,1,2,2-TETRACHLOROETHANE	13	U	
1,1,2-TRICHLOROETHANE	13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	13	U	
1,1-DICHLOROETHANE	13	U	
1,1-DICHLOROETHENE	13	U	
1,2,4-TRICHLOROBENZENE	13	U	
1,2-DIBROMO-3-CHLOROPROPANE	13	U	
1,2-DIBROMOETHANE	13	U	
1,2-DICHLOROBENZENE	13	U	
1,2-DICHLOROETHANE	13	U	
1,2-DICHLOROPROPANE	13	U	
1,3-DICHLOROBENZENE	13	U	
1,4-DICHLOROBENZENE	13	U	
2-BUTANONE	13	U	
2-HEXANONE	13	U	
4-METHYL-2-PENTANONE	13	U	
ACETONE	51	U	
BENZENE	13	U	
BROMODICHLOROMETHANE	13	U	
BROMOFORM	13	U	
BROMOMETHANE	13	UR	C
CARBON DISULFIDE	13	U	
CARBON TETRACHLORIDE	13	U	
CHLOROBENZENE	13	U	
CHLORODIBROMOMETHANE	13	U	
CHLOROETHANE	13	U	
CHLOROFORM	13	U	
CHLOROMETHANE	13	U	
CIS-1,2-DICHLOROETHENE	13	U	
CIS-1,3-DICHLOROPROPENE	13	U	
CYCLOHEXANE	13	U	

nsample	NTC01SB1020408DL
samp_date	12/18/2006
lab_id	C6L190179017
qc_type	NM
units	UG/KG
Pct_Solids	50.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	13	U	
ETHYLBENZENE	13	U	
ISOPROPYLBENZENE	13	U	
METHYL ACETATE	13	U	
METHYL CYCLOHEXANE	13	U	
METHYL TERT-BUTYL ETHER	13	U	
METHYLENE CHLORIDE	13	U	
STYRENE	13	U	
TETRACHLOROETHENE	13	U	
TOLUENE	13	U	
TOTAL XYLENES	38	U	
TRANS-1,2-DICHLOROETHENE	13	U	
TRANS-1,3-DICHLOROPROPENE	13	U	
TRICHLOROETHENE	13	U	
TRICHLOROFLUOROMETHANE	13	U	
VINYL CHLORIDE	13	U	

nsample	NTC01SB1031919DL
samp_date	12/18/2006
lab_id	C6L190179018
qc_type	NM
units	UG/KG
Pct_Solids	86.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	4.5	U	
1,1,2,2-TETRACHLOROETHANE	4.5	U	
1,1,2-TRICHLOROETHANE	4.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	4.5	U	
1,1-DICHLOROETHANE	4.5	U	
1,1-DICHLOROETHENE	4.5	U	
1,2,4-TRICHLOROBENZENE	4.5	U	
1,2-DIBROMO-3-CHLOROPROPANE	4.5	U	
1,2-DIBROMOETHANE	4.5	U	
1,2-DICHLOROBENZENE	4.5	U	
1,2-DICHLOROETHANE	4.5	U	
1,2-DICHLOROPROPANE	4.5	U	
1,3-DICHLOROBENZENE	4.5	U	
1,4-DICHLOROBENZENE	4.5	U	
2-BUTANONE	4.5	U	
2-HEXANONE	4.5	U	
4-METHYL-2-PENTANONE	4.5	U	
ACETONE	18	U	
BENZENE	4.5	U	
BROMODICHLOROMETHANE	4.5	U	
BROMOFORM	4.5	U	
BROMOMETHANE	4.5	UR	C
CARBON DISULFIDE	4.5	U	
CARBON TETRACHLORIDE	4.5	U	
CHLOROBENZENE	4.5	U	
CHLORODIBROMOMETHANE	4.5	U	
CHLOROETHANE	4.5	U	
CHLOROFORM	4.5	U	
CHLOROMETHANE	4.5	U	
CIS-1,2-DICHLOROETHENE	4.5	U	
CIS-1,3-DICHLOROPROPENE	4.5	U	
CYCLOHEXANE	4.5	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SB1031919DL
samp_date	12/18/2006
lab_id	C6L190179018
qc_type	NM
units	UG/KG
Pct_Solids	86.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	4.5	U	
ETHYLBENZENE	4.5	U	
ISOPROPYLBENZENE	4.5	U	
METHYL ACETATE	4.5	U	
METHYL CYCLOHEXANE	4.5	U	
METHYL TERT-BUTYL ETHER	4.5	U	
METHYLENE CHLORIDE	4.5	U	A
STYRENE	4.5	U	
TETRACHLOROETHENE	4.5	U	
TOLUENE	4.5	U	
TOTAL XYLENES	14	U	
TRANS-1,2-DICHLOROETHENE	4.5	U	
TRANS-1,3-DICHLOROPROPENE	4.5	U	
TRICHLOROETHENE	4.5	U	
TRICHLOROFLUOROMETHANE	4.5	U	
VINYL CHLORIDE	4.5	U	

nsample	NTC01SD0100
samp_date	12/18/2006
lab_id	C6L190179019
qc_type	NM
units	UG/KG
Pct_Solids	66.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	7.6	U	
1,1,2,2-TETRACHLOROETHANE	7.6	U	
1,1,2-TRICHLOROETHANE	7.6	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	7.6	U	
1,1-DICHLOROETHANE	7.6	U	
1,1-DICHLOROETHENE	7.6	U	
1,2,4-TRICHLOROBENZENE	7.6	U	
1,2-DIBROMO-3-CHLOROPROPANE	7.6	U	
1,2-DIBROMOETHANE	7.6	U	
1,2-DICHLOROBENZENE	7.6	U	
1,2-DICHLOROETHANE	7.6	U	
1,2-DICHLOROPROPANE	7.6	U	
1,3-DICHLOROBENZENE	7.6	U	
1,4-DICHLOROBENZENE	7.6	U	
2-BUTANONE	7.6	U	
2-HEXANONE	7.6	U	
4-METHYL-2-PENTANONE	7.6	U	
ACETONE	30	U	
BENZENE	7.6	U	
BROMODICHLOROMETHANE	7.6	U	
BROMOFORM	7.6	U	
BROMOMETHANE	7.6	UR	C
CARBON DISULFIDE	7.6	U	
CARBON TETRACHLORIDE	7.6	U	
CHLOROBENZENE	7.6	U	
CHLORODIBROMOMETHANE	7.6	U	
CHLOROETHANE	7.6	U	
CHLOROFORM	7.6	U	
CHLOROMETHANE	7.6	U	
CIS-1,2-DICHLOROETHENE	7.6	U	
CIS-1,3-DICHLOROPROPENE	7.6	U	
CYCLOHEXANE	7.6	U	

nsample	NTC01SD0100
samp_date	12/18/2006
lab_id	C6L190179019
qc_type	NM
units	UG/KG
Pct_Solids	66.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	7.6	U	
ETHYLBENZENE	7.6	U	
ISOPROPYLBENZENE	7.6	U	
METHYL ACETATE	7.6	U	
METHYL CYCLOHEXANE	7.6	U	
METHYL TERT-BUTYL ETHER	7.6	U	
METHYLENE CHLORIDE	7.6	U	
STYRENE	7.6	U	
TETRACHLOROETHENE	7.6	U	
TOLUENE	7.6	U	
TOTAL XYLENES	23	U	
TRANS-1,2-DICHLOROETHENE	7.6	U	
TRANS-1,3-DICHLOROPROPENE	7.6	U	
TRICHLOROETHENE	7.6	U	
TRICHLOROFLUOROMETHANE	7.6	U	
VINYL CHLORIDE	7.6	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SD0101
samp_date	12/18/2006
lab_id	C6L190179020
qc_type	NM
units	UG/KG
Pct_Solids	57.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	8.8	U	
1,1,2,2-TETRACHLOROETHANE	8.8	U	
1,1,2-TRICHLOROETHANE	8.8	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	8.8	U	
1,1-DICHLOROETHANE	8.8	U	
1,1-DICHLOROETHENE	8.8	U	
1,2,4-TRICHLOROBENZENE	8.8	U	
1,2-DIBROMO-3-CHLOROPROPANE	8.8	U	
1,2-DIBROMOETHANE	8.8	U	
1,2-DICHLOROBENZENE	8.8	U	
1,2-DICHLOROETHANE	8.8	U	
1,2-DICHLOROPROPANE	8.8	U	
1,3-DICHLOROBENZENE	8.8	U	
1,4-DICHLOROBENZENE	8.8	U	
2-BUTANONE	8.8	U	
2-HEXANONE	8.8	U	
4-METHYL-2-PENTANONE	8.8	U	
ACETONE	35	U	
BENZENE	8.8	U	
BROMODICHLOROMETHANE	8.8	U	
BROMOFORM	8.8	U	
BROMOMETHANE	8.8	UR	C
CARBON DISULFIDE	8.8	U	
CARBON TETRACHLORIDE	8.8	U	
CHLOROBENZENE	8.8	U	
CHLORODIBROMOMETHANE	8.8	U	
CHLOROETHANE	8.8	U	
CHLOROFORM	8.8	U	
CHLOROMETHANE	8.8	U	
CIS-1,2-DICHLOROETHENE	8.8	U	
CIS-1,3-DICHLOROPROPENE	8.8	U	
CYCLOHEXANE	8.8	U	

nsample	NTC01SD0101
samp_date	12/18/2006
lab_id	C6L190179020
qc_type	NM
units	UG/KG
Pct_Solids	57.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	8.8	U	
ETHYLBENZENE	8.8	U	
ISOPROPYLBENZENE	8.8	U	
METHYL ACETATE	8.8	U	
METHYL CYCLOHEXANE	8.8	U	
METHYL TERT-BUTYL ETHER	8.8	U	
METHYLENE CHLORIDE	8.8	U	
STYRENE	8.8	U	
TETRACHLOROETHENE	8.8	U	
TOLUENE	8.8	U	
TOTAL XYLENES	27	U	
TRANS-1,2-DICHLOROETHENE	8.8	U	
TRANS-1,3-DICHLOROPROPENE	8.8	U	
TRICHLOROETHENE	8.8	U	
TRICHLOROFLUOROMETHANE	8.8	U	
VINYL CHLORIDE	8.8	U	

nsample	NTC01SD0200
samp_date	12/18/2006
lab_id	C6L190179021
qc_type	NM
units	UG/KG
Pct_Solids	37.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	13	U	
1,1,2,2-TETRACHLOROETHANE	13	U	
1,1,2-TRICHLOROETHANE	13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	13	U	
1,1-DICHLOROETHANE	13	U	
1,1-DICHLOROETHENE	13	U	
1,2,4-TRICHLOROBENZENE	13	U	
1,2-DIBROMO-3-CHLOROPROPANE	13	U	
1,2-DIBROMOETHANE	13	U	
1,2-DICHLOROBENZENE	13	U	
1,2-DICHLOROETHANE	13	U	
1,2-DICHLOROPROPANE	13	U	
1,3-DICHLOROBENZENE	13	U	
1,4-DICHLOROBENZENE	13	U	
2-BUTANONE	13	U	
2-HEXANONE	13	U	
4-METHYL-2-PENTANONE	13	U	
ACETONE	54	U	
BENZENE	13	U	
BROMODICHLOROMETHANE	13	U	
BROMOFORM	13	U	
BROMOMETHANE	13	UR	C
CARBON DISULFIDE	13	U	
CARBON TETRACHLORIDE	13	U	
CHLOROBENZENE	13	U	
CHLORODIBROMOMETHANE	13	U	
CHLOROETHANE	13	U	
CHLOROFORM	13	U	
CHLOROMETHANE	13	U	
CIS-1,2-DICHLOROETHENE	13	U	
CIS-1,3-DICHLOROPROPENE	13	U	
CYCLOHEXANE	13	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SD0200
samp_date	12/18/2006
lab_id	C6L190179021
qc_type	NM
units	UG/KG
Pct_Solids	37.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	13	U	
ETHYLBENZENE	13	U	
ISOPROPYLBENZENE	13	U	
METHYL ACETATE	13	U	
METHYL CYCLOHEXANE	13	U	
METHYL TERT-BUTYL ETHER	13	U	
METHYLENE CHLORIDE	13	U	
STYRENE	13	U	
TETRACHLOROETHENE	13	U	
TOLUENE	13	U	
TOTAL XYLENES	40	U	
TRANS-1,2-DICHLOROETHENE	13	U	
TRANS-1,3-DICHLOROPROPENE	13	U	
TRICHLOROETHENE	13	U	
TRICHLOROFLUOROMETHANE	13	U	
VINYL CHLORIDE	13	U	

nsample	NTC01SD0201
samp_date	12/18/2006
lab_id	C6L190179022
qc_type	NM
units	UG/KG
Pct_Solids	55.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	9	U	
1,1,2,2-TETRACHLOROETHANE	9	U	
1,1,2-TRICHLOROETHANE	9	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	9	U	
1,1-DICHLOROETHANE	9	U	
1,1-DICHLOROETHENE	9	U	
1,2,4-TRICHLOROBENZENE	9	U	
1,2-DIBROMO-3-CHLOROPROPANE	9	U	
1,2-DIBROMOETHANE	9	U	
1,2-DICHLOROBENZENE	9	U	
1,2-DICHLOROETHANE	9	U	
1,2-DICHLOROPROPANE	9	U	
1,3-DICHLOROBENZENE	9	U	
1,4-DICHLOROBENZENE	9	U	
2-BUTANONE	9	U	
2-HEXANONE	9	U	
4-METHYL-2-PENTANONE	9	U	
ACETONE	36	U	
BENZENE	9	U	
BROMODICHLOROMETHANE	9	U	
BROMOFORM	9	U	
BROMOMETHANE	9	UR	C
CARBON DISULFIDE	9	U	
CARBON TETRACHLORIDE	9	U	
CHLOROBENZENE	9	U	
CHLORODIBROMOMETHANE	9	U	
CHLOROETHANE	9	U	
CHLOROFORM	9	U	
CHLOROMETHANE	9	U	
CIS-1,2-DICHLOROETHENE	9	U	
CIS-1,3-DICHLOROPROPENE	9	U	
CYCLOHEXANE	9	U	

nsample	NTC01SD0201
samp_date	12/18/2006
lab_id	C6L190179022
qc_type	NM
units	UG/KG
Pct_Solids	55.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	9	U	
ETHYLBENZENE	9	U	
ISOPROPYLBENZENE	9	U	
METHYL ACETATE	9	U	
METHYL CYCLOHEXANE	9	U	
METHYL TERT-BUTYL ETHER	9	U	
METHYLENE CHLORIDE	9	U	
STYRENE	9	U	
TETRACHLOROETHENE	9	U	
TOLUENE	9	U	
TOTAL XYLENES	27	U	
TRANS-1,2-DICHLOROETHENE	9	U	
TRANS-1,3-DICHLOROPROPENE	9	U	
TRICHLOROETHENE	9	U	
TRICHLOROFLUOROMETHANE	9	U	
VINYL CHLORIDE	9	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SD0300	nsample	NTC01SD0300	nsample	NTC01SD0301
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179023	lab_id	C6L190179023	lab_id	C6L190179024
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	54.0	Pct_Solids	54.0	Pct_Solids	74.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	9.2	U	
1,1,2,2-TETRACHLOROETHANE	9.2	U	
1,1,2-TRICHLOROETHANE	9.2	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	9.2	U	
1,1-DICHLOROETHANE	9.2	U	
1,1-DICHLOROETHENE	9.2	U	
1,2,4-TRICHLOROBENZENE	9.2	U	
1,2-DIBROMO-3-CHLOROPROPANE	9.2	U	
1,2-DIBROMOETHANE	9.2	U	
1,2-DICHLOROBENZENE	9.2	U	
1,2-DICHLOROETHANE	9.2	U	
1,2-DICHLOROPROPANE	9.2	U	
1,3-DICHLOROBENZENE	9.2	U	
1,4-DICHLOROBENZENE	9.2	U	
2-BUTANONE	9.2	U	
2-HEXANONE	9.2	U	
4-METHYL-2-PENTANONE	9.2	U	
ACETONE	37	U	
BENZENE	9.2	U	
BROMODICHLOROMETHANE	9.2	U	
BROMOFORM	9.2	U	
BROMOMETHANE	9.2	UR	C
CARBON DISULFIDE	9.2	U	
CARBON TETRACHLORIDE	9.2	U	
CHLOROBENZENE	9.2	U	
CHLORODIBROMOMETHANE	9.2	U	
CHLOROETHANE	9.2	U	
CHLOROFORM	9.2	U	
CHLOROMETHANE	9.2	U	
CIS-1,2-DICHLOROETHENE	9.2	U	
CIS-1,3-DICHLOROPROPENE	9.2	U	
CYCLOHEXANE	9.2	U	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	9.2	U	
ETHYLBENZENE	9.2	U	
ISOPROPYLBENZENE	9.2	U	
METHYL ACETATE	9.2	U	
METHYL CYCLOHEXANE	9.2	U	
METHYL TERT-BUTYL ETHER	9.2	U	
METHYLENE CHLORIDE	9.2	U	
STYRENE	9.2	U	
TETRACHLOROETHENE	9.2	U	
TOLUENE	9.2	U	
TOTAL XYLENES	28	U	
TRANS-1,2-DICHLOROETHENE	9.2	U	
TRANS-1,3-DICHLOROPROPENE	9.2	U	
TRICHLOROETHENE	9.2	U	
TRICHLOROFLUOROMETHANE	9.2	U	
VINYL CHLORIDE	9.2	U	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	6.8	U	
1,1,2,2-TETRACHLOROETHANE	6.8	U	
1,1,2-TRICHLOROETHANE	6.8	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	6.8	U	
1,1-DICHLOROETHANE	6.8	U	
1,1-DICHLOROETHENE	6.8	U	
1,2,4-TRICHLOROBENZENE	6.8	U	
1,2-DIBROMO-3-CHLOROPROPANE	6.8	U	
1,2-DIBROMOETHANE	6.8	U	
1,2-DICHLOROBENZENE	6.8	U	
1,2-DICHLOROETHANE	6.8	U	
1,2-DICHLOROPROPANE	6.8	U	
1,3-DICHLOROBENZENE	6.8	U	
1,4-DICHLOROBENZENE	6.8	U	
2-BUTANONE	6.8	U	
2-HEXANONE	6.8	U	
4-METHYL-2-PENTANONE	6.8	U	
ACETONE	27	U	
BENZENE	6.8	U	
BROMODICHLOROMETHANE	6.8	U	
BROMOFORM	6.8	U	
BROMOMETHANE	6.8	UR	C
CARBON DISULFIDE	6.8	U	
CARBON TETRACHLORIDE	6.8	U	
CHLOROBENZENE	6.8	U	
CHLORODIBROMOMETHANE	6.8	U	
CHLOROETHANE	6.8	U	
CHLOROFORM	6.8	U	
CHLOROMETHANE	6.8	U	
CIS-1,2-DICHLOROETHENE	6.8	U	
CIS-1,3-DICHLOROPROPENE	6.8	U	
CYCLOHEXANE	6.8	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SD0301
samp_date	12/18/2006
lab_id	C6L190179024
qc_type	NM
units	UG/KG
Pct_Solids	74.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	6.8	U	
ETHYLBENZENE	6.8	U	
ISOPROPYLBENZENE	6.8	U	
METHYL ACETATE	6.8	U	
METHYL CYCLOHEXANE	6.8	U	
METHYL TERT-BUTYL ETHER	6.8	U	
METHYLENE CHLORIDE	6.8	U	
STYRENE	6.8	U	
TETRACHLOROETHENE	6.8	U	
TOLUENE	6.8	U	
TOTAL XYLENES	20	U	
TRANS-1,2-DICHLOROETHENE	6.8	U	
TRANS-1,3-DICHLOROPROPENE	6.8	U	
TRICHLOROETHENE	6.8	U	
TRICHLOROFLUOROMETHANE	6.8	U	
VINYL CHLORIDE	6.8	U	

nsample	NTC01SD0400
samp_date	12/18/2006
lab_id	C6L190179025
qc_type	NM
units	UG/KG
Pct_Solids	44.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	11	U	
1,1,2,2-TETRACHLOROETHANE	11	U	
1,1,2-TRICHLOROETHANE	11	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	11	U	
1,1-DICHLOROETHANE	11	U	
1,1-DICHLOROETHENE	11	U	
1,2,4-TRICHLOROBENZENE	11	U	
1,2-DIBROMO-3-CHLOROPROPANE	11	U	
1,2-DIBROMOETHANE	11	U	
1,2-DICHLOROBENZENE	11	U	
1,2-DICHLOROETHANE	11	U	
1,2-DICHLOROPROPANE	11	U	
1,3-DICHLOROBENZENE	11	U	
1,4-DICHLOROBENZENE	11	U	
2-BUTANONE	11	U	
2-HEXANONE	11	U	
4-METHYL-2-PENTANONE	11	U	
ACETONE	45	U	
BENZENE	11	U	
BROMODICHLOROMETHANE	11	U	
BROMOFORM	11	U	
BROMOMETHANE	11	UR	C
CARBON DISULFIDE	11	U	
CARBON TETRACHLORIDE	11	U	
CHLOROBENZENE	11	U	
CHLORODIBROMOMETHANE	11	U	
CHLOROETHANE	11	U	
CHLOROFORM	11	U	
CHLOROMETHANE	11	U	
CIS-1,2-DICHLOROETHENE	11	U	
CIS-1,3-DICHLOROPROPENE	11	U	
CYCLOHEXANE	11	U	

nsample	NTC01SD0400
samp_date	12/18/2006
lab_id	C6L190179025
qc_type	NM
units	UG/KG
Pct_Solids	44.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	11	U	
ETHYLBENZENE	11	U	
ISOPROPYLBENZENE	11	U	
METHYL ACETATE	11	U	
METHYL CYCLOHEXANE	11	U	
METHYL TERT-BUTYL ETHER	11	U	
METHYLENE CHLORIDE	11	U	
STYRENE	11	U	
TETRACHLOROETHENE	11	U	
TOLUENE	11	U	
TOTAL XYLENES	34	U	
TRANS-1,2-DICHLOROETHENE	11	U	
TRANS-1,3-DICHLOROPROPENE	11	U	
TRICHLOROETHENE	11	U	
TRICHLOROFLUOROMETHANE	11	U	
VINYL CHLORIDE	11	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SD0401
samp_date	12/18/2006
lab_id	C6L190179026
qc_type	NM
units	UG/KG
Pct_Solids	44.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	11	U	
1,1,2,2-TETRACHLOROETHANE	11	U	
1,1,2-TRICHLOROETHANE	11	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	11	U	
1,1-DICHLOROETHANE	11	U	
1,1-DICHLOROETHENE	11	U	
1,2,4-TRICHLOROBENZENE	11	U	
1,2-DIBROMO-3-CHLOROPROPANE	11	U	
1,2-DIBROMOETHANE	11	U	
1,2-DICHLOROBENZENE	11	U	
1,2-DICHLOROETHANE	11	U	
1,2-DICHLOROPROPANE	11	U	
1,3-DICHLOROBENZENE	11	U	
1,4-DICHLOROBENZENE	11	U	
2-BUTANONE	11	U	
2-HEXANONE	11	U	
4-METHYL-2-PENTANONE	11	U	
ACETONE	45	U	
BENZENE	11	U	
BROMODICHLOROMETHANE	11	U	
BROMOFORM	11	U	
BROMOMETHANE	11	UR	C
CARBON DISULFIDE	11	U	
CARBON TETRACHLORIDE	11	U	
CHLOROBENZENE	11	U	
CHLORODIBROMOMETHANE	11	U	
CHLOROETHANE	11	U	
CHLOROFORM	11	U	
CHLOROMETHANE	11	U	
CIS-1,2-DICHLOROETHENE	11	U	
CIS-1,3-DICHLOROPROPENE	11	U	
CYCLOHEXANE	11	U	

nsample	NTC01SD0401
samp_date	12/18/2006
lab_id	C6L190179026
qc_type	NM
units	UG/KG
Pct_Solids	44.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	11	U	
ETHYLBENZENE	11	U	
ISOPROPYLBENZENE	11	U	
METHYL ACETATE	11	U	
METHYL CYCLOHEXANE	11	U	
METHYL TERT-BUTYL ETHER	11	U	
METHYLENE CHLORIDE	11	U	
STYRENE	11	U	
TETRACHLOROETHENE	11	U	
TOLUENE	11	U	
TOTAL XYLENES	34	U	
TRANS-1,2-DICHLOROETHENE	11	U	
TRANS-1,3-DICHLOROPROPENE	11	U	
TRICHLOROETHENE	11	U	
TRICHLOROFLUOROMETHANE	11	U	
VINYL CHLORIDE	11	U	

nsample	NTC01SD0500
samp_date	12/18/2006
lab_id	C6L190179027
qc_type	NM
units	UG/KG
Pct_Solids	88.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	5.7	U	
1,1,2,2-TETRACHLOROETHANE	5.7	U	
1,1,2-TRICHLOROETHANE	5.7	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	5.7	U	
1,1-DICHLOROETHANE	5.7	U	
1,1-DICHLOROETHENE	5.7	U	
1,2,4-TRICHLOROBENZENE	5.7	U	
1,2-DIBROMO-3-CHLOROPROPANE	5.7	U	
1,2-DIBROMOETHANE	5.7	U	
1,2-DICHLOROBENZENE	5.7	U	
1,2-DICHLOROETHANE	5.7	U	
1,2-DICHLOROPROPANE	5.7	U	
1,3-DICHLOROBENZENE	5.7	U	
1,4-DICHLOROBENZENE	5.7	U	
2-BUTANONE	5.7	U	
2-HEXANONE	5.7	U	
4-METHYL-2-PENTANONE	5.7	U	
ACETONE	23	U	
BENZENE	5.7	U	
BROMODICHLOROMETHANE	5.7	U	
BROMOFORM	5.7	U	
BROMOMETHANE	5.7	UR	C
CARBON DISULFIDE	5.7	U	
CARBON TETRACHLORIDE	5.7	U	
CHLOROBENZENE	5.7	U	
CHLORODIBROMOMETHANE	5.7	U	
CHLOROETHANE	5.7	U	
CHLOROFORM	5.7	U	
CHLOROMETHANE	5.7	U	
CIS-1,2-DICHLOROETHENE	5.7	U	
CIS-1,3-DICHLOROPROPENE	5.7	U	
CYCLOHEXANE	5.7	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SD0500
samp_date	12/18/2006
lab_id	C6L190179027
qc_type	NM
units	UG/KG
Pct_Solids	88.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	5.7	U	
ETHYLBENZENE	5.7	U	
ISOPROPYLBENZENE	5.7	U	
METHYL ACETATE	5.7	U	
METHYL CYCLOHEXANE	5.7	U	
METHYL TERT-BUTYL ETHER	5.7	U	
METHYLENE CHLORIDE	5.7	U	
STYRENE	5.7	U	
TETRACHLOROETHENE	5.7	U	
TOLUENE	5.7	U	
TOTAL XYLENES	17	U	
TRANS-1,2-DICHLOROETHENE	5.7	U	
TRANS-1,3-DICHLOROPROPENE	5.7	U	
TRICHLOROETHENE	5.7	U	
TRICHLOROFLUOROMETHANE	5.7	U	
VINYL CHLORIDE	5.7	U	

nsample	NTC01SD0501
samp_date	12/18/2006
lab_id	C6L190179028
qc_type	NM
units	UG/KG
Pct_Solids	37.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	13	U	
1,1,2,2-TETRACHLOROETHANE	13	U	
1,1,2-TRICHLOROETHANE	13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	13	U	
1,1-DICHLOROETHANE	13	U	
1,1-DICHLOROETHENE	13	U	
1,2,4-TRICHLOROBENZENE	13	U	
1,2-DIBROMO-3-CHLOROPROPANE	13	U	
1,2-DIBROMOETHANE	13	U	
1,2-DICHLOROBENZENE	13	U	
1,2-DICHLOROETHANE	13	U	
1,2-DICHLOROPROPANE	13	U	
1,3-DICHLOROBENZENE	13	U	
1,4-DICHLOROBENZENE	13	U	
2-BUTANONE	13	U	
2-HEXANONE	13	U	
4-METHYL-2-PENTANONE	13	U	
ACETONE	53	U	
BENZENE	13	U	
BROMODICHLOROMETHANE	13	U	
BROMOFORM	13	U	
BROMOMETHANE	13	UR	C
CARBON DISULFIDE	13	U	
CARBON TETRACHLORIDE	13	U	
CHLOROBENZENE	13	U	
CHLORODIBROMOMETHANE	13	U	
CHLOROETHANE	13	U	
CHLOROFORM	13	U	
CHLOROMETHANE	13	U	
CIS-1,2-DICHLOROETHENE	13	U	
CIS-1,3-DICHLOROPROPENE	13	U	
CYCLOHEXANE	13	U	

nsample	NTC01SD0501
samp_date	12/18/2006
lab_id	C6L190179028
qc_type	NM
units	UG/KG
Pct_Solids	37.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	13	U	
ETHYLBENZENE	13	U	
ISOPROPYLBENZENE	13	U	
METHYL ACETATE	13	U	
METHYL CYCLOHEXANE	13	U	
METHYL TERT-BUTYL ETHER	13	U	
METHYLENE CHLORIDE	13	U	
STYRENE	13	U	
TETRACHLOROETHENE	13	U	
TOLUENE	13	U	
TOTAL XYLENES	40	U	
TRANS-1,2-DICHLOROETHENE	13	U	
TRANS-1,3-DICHLOROPROPENE	13	U	
TRICHLOROETHENE	13	U	
TRICHLOROFLUOROMETHANE	13	U	
VINYL CHLORIDE	13	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OS

nsample	NTC01FD12180601DL	nsample	NTC01FD12180601DL	nsample	NTC01FD12180601DL
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179005	lab_id	C6L190179005	lab_id	C6L190179005
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	38.0	Pct_Solids	38.0	Pct_Solids	38.0
DUP_OF:	NTC01SD0400	DUP_OF:	NTC01SD0400	DUP_OF:	NTC01SD0400

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	4400	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	4400	U	
2,4,5-TRICHLOROPHENOL	4400	U	
2,4,6-TRICHLOROPHENOL	4400	U	
2,4-DICHLOROPHENOL	4400	U	
2,4-DIMETHYLPHENOL	4400	U	
2,4-DINITROPHENOL	21000	U	
2,4-DINITROTOLUENE	4400	U	
2,6-DINITROTOLUENE	4400	U	
2-CHLORONAPHTHALENE	4400	U	
2-CHLOROPHENOL	4400	U	
2-METHYLNAPHTHALENE	4400	U	
2-METHYLPHENOL	4400	U	
2-NITROANILINE	21000	U	
2-NITROPHENOL	4400	U	
3,3'-DICHLOROBENZIDINE	21000	U	
3-NITROANILINE	21000	U	
4,6-DINITRO-2-METHYLPHENOL	21000	U	
4-BROMOPHENYL PHENYL ETHER	4400	U	
4-CHLORO-3-METHYLPHENOL	4400	U	
4-CHLOROANILINE	4400	U	
4-CHLOROPHENYL PHENYL ETHER	4400	U	
4-METHYLPHENOL	4400	U	
4-NITROANILINE	21000	U	
4-NITROPHENOL	21000	U	
ACENAPHTHENE	130	J	P
ACENAPHTHYLENE	4400	U	
ACETOPHENONE	4400	U	
ANTHRACENE	270	J	P
ATRAZINE	4400	U	
BENZALDEHYDE	4400	U	
BENZO(A)ANTHRACENE	1500	J	P

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	2500	J	P
BENZO(B)FLUORANTHENE	4000	J	P
BENZO(G,H,I)PERYLENE	2700	J	P
BENZO(K)FLUORANTHENE	1700	J	P
BIS(2-CHLOROETHOXY)METHANE	4400	U	
BIS(2-CHLOROETHYL)ETHER	4400	U	
BIS(2-ETHYLHEXYL)PHTHALATE	710	J	P
BUTYL BENZYL PHTHALATE	4400	U	
CAPROLACTAM	4400	U	
CARBAZOLE	420	J	P
CHRYSENE	2900	J	P
DIBENZO(A,H)ANTHRACENE	530	J	P
DIBENZOFURAN	4400	U	
DIETHYL PHTHALATE	4400	U	
DIMETHYL PHTHALATE	4400	U	
DI-N-BUTYL PHTHALATE	4400	U	
DI-N-OCTYL PHTHALATE	4400	U	
FLUORANTHENE	5200		
FLUORENE	160	J	P
HEXACHLOROBENZENE	4400	U	
HEXACHLOROBUTADIENE	4400	U	
HEXACHLOROCYCLOPENTADIENE	21000	UJ	C
HEXACHLOROETHANE	4400	U	
INDENO(1,2,3-CD)PYRENE	2600	J	P
ISOPHORONE	4400	U	
NAPHTHALENE	4400	U	
NITROBENZENE	4400	U	
N-NITROSO-DI-N-PROPYLAMINE	4400	U	
N-NITROSODIPHENYLAMINE	4400	U	
PENTACHLOROPHENOL	21000	U	
PHENANTHRENE	2300	J	P
PHENOL	4400	U	

Parameter	Result	Val Qual	Qual Code
PYRENE	4200	J	P

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OS

nsample	NTC01FD12180602DL
samp_date	12/18/2006
lab_id	C6L190179006
qc_type	NM
units	UG/KG
Pct_Solids	78.0
DUP_OF:	NTC01SB0900812

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	2100	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	2100	U	
2,4,5-TRICHLOROPHENOL	2100	U	
2,4,6-TRICHLOROPHENOL	2100	U	
2,4-DICHLOROPHENOL	2100	U	
2,4-DIMETHYLPHENOL	2100	U	
2,4-DINITROPHENOL	10000	U	
2,4-DINITROTOLUENE	2100	U	
2,6-DINITROTOLUENE	2100	U	
2-CHLORONAPHTHALENE	2100	U	
2-CHLOROPHENOL	2100	U	
2-METHYLNAPHTHALENE	96	J	P
2-METHYLPHENOL	2100	U	
2-NITROANILINE	10000	U	
2-NITROPHENOL	2100	U	
3,3'-DICHLOROBENZIDINE	10000	U	
3-NITROANILINE	10000	U	
4,6-DINITRO-2-METHYLPHENOL	10000	U	
4-BROMOPHENYL PHENYL ETHER	2100	U	
4-CHLORO-3-METHYLPHENOL	2100	U	
4-CHLOROANILINE	2100	U	
4-CHLOROPHENYL PHENYL ETHER	2100	U	
4-METHYLPHENOL	160	J	P
4-NITROANILINE	10000	U	
4-NITROPHENOL	10000	U	
ACENAPHTHENE	2100	U	
ACENAPHTHYLENE	100	J	P
ACETOPHENONE	2100	U	
ANTHRACENE	2100	U	
ATRAZINE	2100	U	
BENZALDEHYDE	2100	U	
BENZO(A)ANTHRACENE	2100	U	

nsample	NTC01FD12180602DL
samp_date	12/18/2006
lab_id	C6L190179006
qc_type	NM
units	UG/KG
Pct_Solids	78.0
DUP_OF:	NTC01SB0900812

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	2100	U	
BENZO(B)FLUORANTHENE	2100	U	
BENZO(G,H,I)PERYLENE	2100	U	
BENZO(K)FLUORANTHENE	2100	U	
BIS(2-CHLOROETHOXY)METHANE	2100	U	
BIS(2-CHLOROETHYL)ETHER	2100	U	
BIS(2-ETHYLHEXYL)PHTHALATE	660	J	P
BUTYL BENZYL PHTHALATE	2100	U	
CAPROLACTAM	2100	U	
CARBAZOLE	2100	U	
CHRYSENE	2100	U	
DIBENZO(A,H)ANTHRACENE	2100	U	
DIBENZOFURAN	2100	U	
DIETHYL PHTHALATE	430	J	P
DIMETHYL PHTHALATE	2100	U	
DI-N-BUTYL PHTHALATE	340	J	P
DI-N-OCTYL PHTHALATE	2100	U	
FLUORANTHENE	2100	U	
FLUORENE	92	J	P
HEXACHLOROBENZENE	2100	U	
HEXACHLOROBUTADIENE	2100	U	
HEXACHLOROCYCLOPENTADIENE	10000	UJ	C
HEXACHLOROETHANE	2100	U	
INDENO(1,2,3-CD)PYRENE	2100	U	
ISOPHORONE	2100	U	
NAPHTHALENE	250	J	P
NITROBENZENE	2100	U	
N-NITROSO-DI-N-PROPYLAMINE	2100	U	
N-NITROSODIPHENYLAMINE	2100	U	
PENTACHLOROPHENOL	10000	U	
PHENANTHRENE	140	J	P
PHENOL	93	J	P

nsample	NTC01FD12180602DL
samp_date	12/18/2006
lab_id	C6L190179006
qc_type	NM
units	UG/KG
Pct_Solids	78.0
DUP_OF:	NTC01SB0900812

Parameter	Result	Val Qual	Qual Code
PYRENE	55	J	P

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OS

nsample	NTC01SB0900812	nsample	NTC01SB0900812	nsample	NTC01SB0900812
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179009	lab_id	C6L190179009	lab_id	C6L190179009
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	78.0	Pct_Solids	78.0	Pct_Solids	78.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	420	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	420	U	
2,4,5-TRICHLOROPHENOL	420	U	
2,4,6-TRICHLOROPHENOL	420	U	
2,4-DICHLOROPHENOL	420	U	
2,4-DIMETHYLPHENOL	420	U	
2,4-DINITROPHENOL	2000	U	
2,4-DINITROTOLUENE	420	U	
2,6-DINITROTOLUENE	420	U	
2-CHLORONAPHTHALENE	420	U	
2-CHLOROPHENOL	420	U	
2-METHYLNAPHTHALENE	58	J	P
2-METHYLPHENOL	420	U	
2-NITROANILINE	2000	U	
2-NITROPHENOL	420	U	
3,3'-DICHLOROBENZIDINE	2000	U	
3-NITROANILINE	2000	U	
4,6-DINITRO-2-METHYLPHENOL	2000	U	
4-BROMOPHENYL PHENYL ETHER	420	U	
4-CHLORO-3-METHYLPHENOL	420	U	
4-CHLOROANILINE	420	U	
4-CHLOROPHENYL PHENYL ETHER	420	U	
4-METHYLPHENOL	13	J	P
4-NITROANILINE	2000	U	
4-NITROPHENOL	2000	U	
ACENAPHTHENE	11	J	P
ACENAPHTHYLENE	11	J	P
ACETOPHENONE	420	U	
ANTHRACENE	420	U	
ATRAZINE	420	U	
BENZALDEHYDE	150	J	P
BENZO(A)ANTHRACENE	420	U	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	14	J	P
BENZO(B)FLUORANTHENE	24	J	P
BENZO(G,H,I)PERYLENE	20	J	P
BENZO(K)FLUORANTHENE	420	U	
BIS(2-CHLOROETHOXY)METHANE	420	U	
BIS(2-CHLOROETHYL)ETHER	420	U	
BIS(2-ETHYLHEXYL)PHTHALATE	160	J	P
BUTYL BENZYL PHTHALATE	13	J	P
CAPROLACTAM	420	U	
CARBAZOLE	420	U	
CHRYSENE	420	U	
DIBENZO(A,H)ANTHRACENE	420	U	
DIBENZOFURAN	19	J	P
DIETHYL PHTHALATE	26	J	P
DIMETHYL PHTHALATE	420	U	
DI-N-BUTYL PHTHALATE	56	J	P
DI-N-OCTYL PHTHALATE	420	U	
FLUORANTHENE	61	J	P
FLUORENE	11	J	P
HEXACHLOROBENZENE	420	U	
HEXACHLOROBUTADIENE	420	U	
HEXACHLOROCYCLOPENTADIENE	2000	UJ	C
HEXACHLOROETHANE	420	U	
INDENO(1,2,3-CD)PYRENE	12	J	P
ISOPHORONE	420	U	
NAPHTHALENE	110	J	P
NITROBENZENE	420	U	
N-NITROSO-DI-N-PROPYLAMINE	420	U	
N-NITROSODIPHENYLAMINE	420	U	
PENTACHLOROPHENOL	2000	U	
PHENANTHRENE	99	J	P
PHENOL	420	U	

Parameter	Result	Val Qual	Qual Code
PYRENE	56	J	P

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OS

nsample	NTC01SB0950810	nsample	NTC01SB0950810	nsample	NTC01SB0950810
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179014	lab_id	C6L190179014	lab_id	C6L190179014
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	37.0	Pct_Solids	37.0	Pct_Solids	37.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	890	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	890	U	
2,4,5-TRICHLOROPHENOL	890	U	
2,4,6-TRICHLOROPHENOL	890	U	
2,4-DICHLOROPHENOL	890	U	
2,4-DIMETHYLPHENOL	890	U	
2,4-DINITROPHENOL	4300	U	
2,4-DINITROTOLUENE	890	U	
2,6-DINITROTOLUENE	890	U	
2-CHLORONAPHTHALENE	890	U	
2-CHLOROPHENOL	890	U	
2-METHYLNAPHTHALENE	40	J	P
2-METHYLPHENOL	890	U	
2-NITROANILINE	4300	U	
2-NITROPHENOL	890	U	
3,3'-DICHLOROBENZIDINE	4300	U	
3-NITROANILINE	4300	U	
4,6-DINITRO-2-METHYLPHENOL	4300	U	
4-BROMOPHENYL PHENYL ETHER	890	U	
4-CHLORO-3-METHYLPHENOL	890	U	
4-CHLOROANILINE	890	U	
4-CHLOROPHENYL PHENYL ETHER	890	U	
4-METHYLPHENOL	890	U	
4-NITROANILINE	4300	U	
4-NITROPHENOL	4300	U	
ACENAPHTHENE	890	U	
ACENAPHTHYLENE	890	U	
ACETOPHENONE	890	U	
ANTHRACENE	890	U	
ATRAZINE	890	U	
BENZALDEHYDE	890	U	
BENZO(A)ANTHRACENE	890	U	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	890	U	
BENZO(B)FLUORANTHENE	890	U	
BENZO(G,H,I)PERYLENE	890	U	
BENZO(K)FLUORANTHENE	890	U	
BIS(2-CHLOROETHOXY)METHANE	890	U	
BIS(2-CHLOROETHYL)ETHER	890	U	
BIS(2-ETHYLHEXYL)PHTHALATE	890	U	
BUTYL BENZYL PHTHALATE	74	J	P
CAPROLACTAM	890	U	
CARBAZOLE	890	U	
CHRYSENE	890	U	
DIBENZO(A,H)ANTHRACENE	890	U	
DIBENZOFURAN	890	U	
DIETHYL PHTHALATE	890	U	
DIMETHYL PHTHALATE	890	U	
DI-N-BUTYL PHTHALATE	890	U	
DI-N-OCTYL PHTHALATE	890	U	
FLUORANTHENE	890	U	
FLUORENE	890	U	
HEXACHLOROBENZENE	890	U	
HEXACHLOROBUTADIENE	890	U	
HEXACHLOROCYCLOPENTADIENE	4300	U	
HEXACHLOROETHANE	890	U	
INDENO(1,2,3-CD)PYRENE	890	U	
ISOPHORONE	890	U	
NAPHTHALENE	52	J	P
NITROBENZENE	890	U	
N-NITROSO-DI-N-PROPYLAMINE	890	U	
N-NITROSODIPHENYLAMINE	890	U	
PENTACHLOROPHENOL	4300	U	
PHENANTHRENE	58	J	P
PHENOL	890	U	

Parameter	Result	Val Qual	Qual Code
PYRENE	890	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OS

nsample	NTC01SB1020408	nsample	NTC01SB1020408	nsample	NTC01SB1020408
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179017	lab_id	C6L190179017	lab_id	C6L190179017
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	50.0	Pct_Solids	50.0	Pct_Solids	50.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	660	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	660	U	
2,4,5-TRICHLOROPHENOL	660	U	
2,4,6-TRICHLOROPHENOL	660	U	
2,4-DICHLOROPHENOL	660	U	
2,4-DIMETHYLPHENOL	660	U	
2,4-DINITROPHENOL	3200	U	
2,4-DINITROTOLUENE	660	U	
2,6-DINITROTOLUENE	660	U	
2-CHLORONAPHTHALENE	660	U	
2-CHLOROPHENOL	660	U	
2-METHYLNAPHTHALENE	41	J	P
2-METHYLPHENOL	660	U	
2-NITROANILINE	3200	U	
2-NITROPHENOL	660	U	
3,3'-DICHLOROBENZIDINE	3200	U	
3-NITROANILINE	3200	U	
4,6-DINITRO-2-METHYLPHENOL	3200	U	
4-BROMOPHENYL PHENYL ETHER	660	U	
4-CHLORO-3-METHYLPHENOL	660	U	
4-CHLOROANILINE	660	U	
4-CHLOROPHENYL PHENYL ETHER	660	U	
4-METHYLPHENOL	660	U	
4-NITROANILINE	3200	U	
4-NITROPHENOL	3200	U	
ACENAPHTHENE	290	J	P
ACENAPHTHYLENE	660	U	
ACETOPHENONE	660	U	
ANTHRACENE	260	J	P
ATRAZINE	660	U	
BENZALDEHYDE	660	U	
BENZO(A)ANTHRACENE	320	J	P

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	250	J	P
BENZO(B)FLUORANTHENE	370	J	P
BENZO(G,H,I)PERYLENE	200	J	P
BENZO(K)FLUORANTHENE	130	J	P
BIS(2-CHLOROETHOXY)METHANE	660	U	
BIS(2-CHLOROETHYL)ETHER	660	U	
BIS(2-ETHYLHEXYL)PHTHALATE	660	U	
BUTYL BENZYL PHTHALATE	46	J	P
CAPROLACTAM	660	U	
CARBAZOLE	250	J	P
CHRYSENE	400	J	P
DIBENZO(A,H)ANTHRACENE	59	J	P
DIBENZOFURAN	100	J	P
DIETHYL PHTHALATE	660	U	
DIMETHYL PHTHALATE	660	U	
DI-N-BUTYL PHTHALATE	660	U	
DI-N-OCTYL PHTHALATE	660	U	
FLUORANTHENE	1100		
FLUORENE	320	J	P
HEXACHLOROBENZENE	660	U	
HEXACHLOROBUTADIENE	660	U	
HEXACHLOROCYCLOPENTADIENE	3200	U	
HEXACHLOROETHANE	660	U	
INDENO(1,2,3-CD)PYRENE	200	J	P
ISOPHORONE	660	U	
NAPHTHALENE	210	J	P
NITROBENZENE	660	U	
N-NITROSO-DI-N-PROPYLAMINE	660	U	
N-NITROSODIPHENYLAMINE	660	U	
PENTACHLOROPHENOL	3200	U	
PHENANTHRENE	1700		
PHENOL	22	J	P

Parameter	Result	Val Qual	Qual Code
PYRENE	1300		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OS

nsample	NTC01SD0100DL	nsample	NTC01SD0100DL	nsample	NTC01SD0100DL
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179019	lab_id	C6L190179019	lab_id	C6L190179019
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	66.0	Pct_Solids	66.0	Pct_Solids	66.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	2500	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	2500	U	
2,4,5-TRICHLOROPHENOL	2500	U	
2,4,6-TRICHLOROPHENOL	2500	U	
2,4-DICHLOROPHENOL	2500	U	
2,4-DIMETHYLPHENOL	2500	U	
2,4-DINITROPHENOL	12000	U	
2,4-DINITROTOLUENE	2500	U	
2,6-DINITROTOLUENE	2500	U	
2-CHLORONAPHTHALENE	2500	U	
2-CHLOROPHENOL	2500	U	
2-METHYLNAPHTHALENE	2500	U	
2-METHYLPHENOL	2500	U	
2-NITROANILINE	12000	U	
2-NITROPHENOL	2500	U	
3,3'-DICHLOROBENZIDINE	12000	U	
3-NITROANILINE	12000	U	
4,6-DINITRO-2-METHYLPHENOL	12000	U	
4-BROMOPHENYL PHENYL ETHER	2500	U	
4-CHLORO-3-METHYLPHENOL	2500	U	
4-CHLOROANILINE	2500	U	
4-CHLOROPHENYL PHENYL ETHER	2500	U	
4-METHYLPHENOL	2500	U	
4-NITROANILINE	12000	U	
4-NITROPHENOL	12000	U	
ACENAPHTHENE	2500	U	
ACENAPHTHYLENE	2500	U	
ACETOPHENONE	2500	U	
ANTHRACENE	150	J	P
ATRAZINE	2500	U	
BENZALDEHYDE	2500	U	
BENZO(A)ANTHRACENE	690	J	P

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	810	J	P
BENZO(B)FLUORANTHENE	1100	J	P
BENZO(G,H,I)PERYLENE	680	J	P
BENZO(K)FLUORANTHENE	480	J	P
BIS(2-CHLOROETHOXY)METHANE	2500	U	
BIS(2-CHLOROETHYL)ETHER	2500	U	
BIS(2-ETHYLHEXYL)PHTHALATE	940	J	P
BUTYL BENZYL PHTHALATE	150	J	P
CAPROLACTAM	2500	U	
CARBAZOLE	140	J	P
CHRYSENE	960	J	P
DIBENZO(A,H)ANTHRACENE	150	J	P
DIBENZOFURAN	2500	U	
DIETHYL PHTHALATE	2500	U	
DIMETHYL PHTHALATE	2500	U	
DI-N-BUTYL PHTHALATE	2500	U	
DI-N-OCTYL PHTHALATE	120	J	P
FLUORANTHENE	1900	J	P
FLUORENE	2500	U	
HEXACHLOROBENZENE	2500	U	
HEXACHLOROBUTADIENE	2500	U	
HEXACHLOROCYCLOPENTADIENE	12000	U	
HEXACHLOROETHANE	2500	U	
INDENO(1,2,3-CD)PYRENE	710	J	P
ISOPHORONE	2500	U	
NAPHTHALENE	2500	U	
NITROBENZENE	2500	U	
N-NITROSO-DI-N-PROPYLAMINE	2500	U	
N-NITROSODIPHENYLAMINE	2500	U	
PENTACHLOROPHENOL	12000	U	
PHENANTHRENE	780	J	P
PHENOL	2500	U	

Parameter	Result	Val Qual	Qual Code
PYRENE	1500	J	P

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OS

nsample	NTC01SD0101DL	nsample	NTC01SD0101DL	nsample	NTC01SD0101DL
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179020	lab_id	C6L190179020	lab_id	C6L190179020
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	57.0	Pct_Solids	57.0	Pct_Solids	57.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	2900	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	2900	U	
2,4,5-TRICHLOROPHENOL	2900	U	
2,4,6-TRICHLOROPHENOL	2900	U	
2,4-DICHLOROPHENOL	2900	U	
2,4-DIMETHYLPHENOL	2900	U	
2,4-DINITROPHENOL	14000	U	
2,4-DINITROTOLUENE	2900	U	
2,6-DINITROTOLUENE	2900	U	
2-CHLORONAPHTHALENE	2900	U	
2-CHLOROPHENOL	2900	U	
2-METHYLNAPHTHALENE	220	J	P
2-METHYLPHENOL	2900	U	
2-NITROANILINE	14000	U	
2-NITROPHENOL	2900	U	
3,3'-DICHLOROBENZIDINE	14000	U	
3-NITROANILINE	14000	U	
4,6-DINITRO-2-METHYLPHENOL	14000	U	
4-BROMOPHENYL PHENYL ETHER	2900	U	
4-CHLORO-3-METHYLPHENOL	2900	U	
4-CHLOROANILINE	2900	U	
4-CHLOROPHENYL PHENYL ETHER	2900	U	
4-METHYLPHENOL	2900	U	
4-NITROANILINE	14000	U	
4-NITROPHENOL	14000	U	
ACENAPHTHENE	1000	J	P
ACENAPHTHYLENE	79	J	P
ACETOPHENONE	2900	U	
ANTHRACENE	1600	J	P
ATRAZINE	2900	U	
BENZALDEHYDE	2900	U	
BENZO(A)ANTHRACENE	4500		

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	4900		
BENZO(B)FLUORANTHENE	6400		
BENZO(G,H,I)PERYLENE	2200	J	P
BENZO(K)FLUORANTHENE	2700	J	P
BIS(2-CHLOROETHOXY)METHANE	2900	U	
BIS(2-CHLOROETHYL)ETHER	2900	U	
BIS(2-ETHYLHEXYL)PHTHALATE	2100	J	P
BUTYL BENZYL PHTHALATE	190	J	P
CAPROLACTAM	2900	U	
CARBAZOLE	1100	J	P
CHRYSENE	5500		
DIBENZO(A,H)ANTHRACENE	670	J	P
DIBENZOFURAN	510	J	P
DIETHYL PHTHALATE	2900	U	
DIMETHYL PHTHALATE	2900	U	
DI-N-BUTYL PHTHALATE	2900	U	
DI-N-OCTYL PHTHALATE	180	J	P
FLUORANTHENE	12000		
FLUORENE	1000	J	P
HEXACHLOROBENZENE	2900	U	
HEXACHLOROBUTADIENE	2900	U	
HEXACHLOROCYCLOPENTADIENE	14000	U	
HEXACHLOROETHANE	2900	U	
INDENO(1,2,3-CD)PYRENE	2600	J	P
ISOPHORONE	2900	U	
NAPHTHALENE	440	J	P
NITROBENZENE	2900	U	
N-NITROSO-DI-N-PROPYLAMINE	2900	U	
N-NITROSODIPHENYLAMINE	2900	U	
PENTACHLOROPHENOL	14000	U	
PHENANTHRENE	7400		
PHENOL	2900	U	

Parameter	Result	Val Qual	Qual Code
PYRENE	9400		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OS

nsample	NTC01SD0200DL	nsample	NTC01SD0200DL	nsample	NTC01SD0200DL
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179021	lab_id	C6L190179021	lab_id	C6L190179021
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	37.0	Pct_Solids	37.0	Pct_Solids	37.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	4400	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	4400	U	
2,4,5-TRICHLOROPHENOL	4400	U	
2,4,6-TRICHLOROPHENOL	4400	U	
2,4-DICHLOROPHENOL	4400	U	
2,4-DIMETHYLPHENOL	4400	U	
2,4-DINITROPHENOL	21000	U	
2,4-DINITROTOLUENE	4400	U	
2,6-DINITROTOLUENE	4400	U	
2-CHLORONAPHTHALENE	4400	U	
2-CHLOROPHENOL	4400	U	
2-METHYLNAPHTHALENE	4400	U	
2-METHYLPHENOL	4400	U	
2-NITROANILINE	21000	U	
2-NITROPHENOL	4400	U	
3,3'-DICHLOROBENZIDINE	21000	U	
3-NITROANILINE	21000	U	
4,6-DINITRO-2-METHYLPHENOL	21000	U	
4-BROMOPHENYL PHENYL ETHER	4400	U	
4-CHLORO-3-METHYLPHENOL	4400	U	
4-CHLOROANILINE	4400	U	
4-CHLOROPHENYL PHENYL ETHER	4400	U	
4-METHYLPHENOL	4400	U	
4-NITROANILINE	21000	U	
4-NITROPHENOL	21000	U	
ACENAPHTHENE	740	J	P
ACENAPHTHYLENE	4400	U	
ACETOPHENONE	4400	U	
ANTHRACENE	1800	J	P
ATRAZINE	4400	U	
BENZALDEHYDE	4400	U	
BENZO(A)ANTHRACENE	4400		

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	4900		
BENZO(B)FLUORANTHENE	6400		
BENZO(G,H,I)PERYLENE	2800	J	P
BENZO(K)FLUORANTHENE	2600	J	P
BIS(2-CHLOROETHOXY)METHANE	4400	U	
BIS(2-CHLOROETHYL)ETHER	4400	U	
BIS(2-ETHYLHEXYL)PHTHALATE	580	J	P
BUTYL BENZYL PHTHALATE	4400	U	
CAPROLACTAM	4400	U	
CARBAZOLE	930	J	P
CHRYSENE	5400		
DIBENZO(A,H)ANTHRACENE	770	J	P
DIBENZOFURAN	380	J	P
DIETHYL PHTHALATE	4400	U	
DIMETHYL PHTHALATE	4400	U	
DI-N-BUTYL PHTHALATE	4400	U	
DI-N-OCTYL PHTHALATE	4400	U	
FLUORANTHENE	12000		
FLUORENE	920	J	P
HEXACHLOROBENZENE	4400	U	
HEXACHLOROBUTADIENE	4400	U	
HEXACHLOROCYCLOPENTADIENE	21000	U	
HEXACHLOROETHANE	4400	U	
INDENO(1,2,3-CD)PYRENE	3100	J	P
ISOPHORONE	4400	U	
NAPHTHALENE	160	J	P
NITROBENZENE	4400	U	
N-NITROSO-DI-N-PROPYLAMINE	4400	U	
N-NITROSODIPHENYLAMINE	4400	U	
PENTACHLOROPHENOL	21000	U	
PHENANTHRENE	7600		
PHENOL	4400	U	

Parameter	Result	Val Qual	Qual Code
PYRENE	9300		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: OS

nsample	NTC01SD0400DL
samp_date	12/18/2006
lab_id	C6L190179025
qc_type	NM
units	UG/KG
Pct_Solids	44.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	3700	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	3700	U	
2,4,5-TRICHLOROPHENOL	3700	U	
2,4,6-TRICHLOROPHENOL	3700	U	
2,4-DICHLOROPHENOL	3700	U	
2,4-DIMETHYLPHENOL	3700	U	
2,4-DINITROPHENOL	18000	U	
2,4-DINITROTOLUENE	3700	U	
2,6-DINITROTOLUENE	3700	U	
2-CHLORONAPHTHALENE	3700	U	
2-CHLOROPHENOL	3700	U	
2-METHYLNAPHTHALENE	3700	U	
2-METHYLPHENOL	3700	U	
2-NITROANILINE	18000	U	
2-NITROPHENOL	3700	U	
3,3'-DICHLOROBENZIDINE	18000	UR	D
3-NITROANILINE	18000	U	
4,6-DINITRO-2-METHYLPHENOL	18000	U	
4-BROMOPHENYL PHENYL ETHER	3700	U	
4-CHLORO-3-METHYLPHENOL	3700	U	
4-CHLOROANILINE	3700	U	
4-CHLOROPHENYL PHENYL ETHER	3700	U	
4-METHYLPHENOL	3700	U	
4-NITROANILINE	18000	U	
4-NITROPHENOL	18000	U	
ACENAPHTHENE	240	J	P
ACENAPHTHYLENE	87	J	P
ACETOPHENONE	3700	U	
ANTHRACENE	510	J	P
ATRAZINE	3700	U	
BENZALDEHYDE	3700	U	
BENZO(A)ANTHRACENE	2300	J	P

nsample	NTC01SD0400DL
samp_date	12/18/2006
lab_id	C6L190179025
qc_type	NM
units	UG/KG
Pct_Solids	44.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	3200	J	P
BENZO(B)FLUORANTHENE	5100		
BENZO(G,H,I)PERYLENE	1900	J	P
BENZO(K)FLUORANTHENE	2000	J	P
BIS(2-CHLOROETHOXY)METHANE	3700	U	
BIS(2-CHLOROETHYL)ETHER	3700	U	
BIS(2-ETHYLHEXYL)PHTHALATE	1000	J	P
BUTYL BENZYL PHTHALATE	3700	U	
CAPROLACTAM	3700	U	
CARBAZOLE	600	J	P
CHRYSENE	3700		
DIBENZO(A,H)ANTHRACENE	500	J	P
DIBENZOFURAN	130	J	P
DIETHYL PHTHALATE	3700	U	
DIMETHYL PHTHALATE	3700	U	
DI-N-BUTYL PHTHALATE	3700	U	
DI-N-OCTYL PHTHALATE	3700	U	
FLUORANTHENE	7400		
FLUORENE	280	J	P
HEXACHLOROBENZENE	3700	U	
HEXACHLOROBUTADIENE	3700	U	
HEXACHLOROCYCLOPENTADIENE	18000	UR	D
HEXACHLOROETHANE	3700	U	
INDENO(1,2,3-CD)PYRENE	2200	J	P
ISOPHORONE	3700	U	
NAPHTHALENE	3700	U	
NITROBENZENE	3700	U	
N-NITROSO-DI-N-PROPYLAMINE	3700	U	
N-NITROSODIPHENYLAMINE	3700	U	
PENTACHLOROPHENOL	18000	U	
PHENANTHRENE	3600	J	P
PHENOL	3700	U	

nsample	NTC01SD0400DL
samp_date	12/18/2006
lab_id	C6L190179025
qc_type	NM
units	UG/KG
Pct_Solids	44.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
PYRENE	5800		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: PEST/PCB

nsample	NTC01FD12180601	nsample	NTC01FD12180601DL	nsample	NTC01FD12180602
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179005	lab_id	C6L190179005	lab_id	C6L190179006
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	38.0	Pct_Solids	38.0	Pct_Solids	78.0
DUP_OF:	NTC01SD0400	DUP_OF:	NTC01SD0400	DUP_OF:	NTC01SB0900812

Parameter	Result	Val Qual	Qual Code
AROCLOR-1016	88	U	
AROCLOR-1221	88	U	
AROCLOR-1232	88	U	
AROCLOR-1242	88	U	
AROCLOR-1248	88	U	
AROCLOR-1254	88	U	
AROCLOR-1260	88	U	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	8.9	J	P
4,4'-DDE	14	J	CPU
4,4'-DDT	6.2	R	U
ALDRIN	23	U	
ALPHA-BHC	23	U	
ALPHA-CHLORDANE	5	J	PU
BETA-BHC	23	U	
DELTA-BHC	23	U	
DIELDRIN	23	U	
ENDOSULFAN I	23	U	
ENDOSULFAN II	3.6	J	PU
ENDOSULFAN SULFATE	23	U	
ENDRIN	2.7	J	PU
ENDRIN ALDEHYDE	23	U	
ENDRIN KETONE	23	U	
GAMMA-BHC (LINDANE)	23	U	
GAMMA-CHLORDANE	23	U	
HEPTACHLOR	23	U	
HEPTACHLOR EPOXIDE	23	U	
METHOXYCHLOR	44	U	
TOXAPHENE	890	U	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	4.8		
4,4'-DDE	0.6	J	CPU
4,4'-DDT	2.2	U	
ALDRIN	2.2	U	
ALPHA-BHC	2.2	U	
ALPHA-CHLORDANE	2.2	U	
AROCLOR-1016	43	UJ	R
AROCLOR-1221	43	UJ	R
AROCLOR-1232	43	UJ	R
AROCLOR-1242	43	UJ	R
AROCLOR-1248	43	UJ	R
AROCLOR-1254	43	UJ	R
AROCLOR-1260	43	UJ	R
BETA-BHC	2.2	U	
DELTA-BHC	2.2	U	
DIELDRIN	0.32	R	U
ENDOSULFAN I	2.2	U	
ENDOSULFAN II	2.2	U	
ENDOSULFAN SULFATE	2.2	U	
ENDRIN	2.2	U	
ENDRIN ALDEHYDE	2.2	U	
ENDRIN KETONE	2.2	U	
GAMMA-BHC (LINDANE)	2.2	U	
GAMMA-CHLORDANE	2.2	U	
HEPTACHLOR	2.2	U	
HEPTACHLOR EPOXIDE	2.2	U	
METHOXYCHLOR	4.3	U	
TOXAPHENE	86	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: PEST/PCB

nsample	NTC01SB0900812
samp_date	12/18/2006
lab_id	C6L190179009
qc_type	NM
units	UG/KG
Pct_Solids	78.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	6.9		
4,4'-DDE	12	J	C
4,4'-DDT	1.4	J	CPU
ALDRIN	2.2	U	
ALPHA-BHC	2.2	U	
ALPHA-CHLORDANE	2.8	J	U
AROCLOR-1016	42	U	
AROCLOR-1221	42	U	
AROCLOR-1232	42	U	
AROCLOR-1242	42	U	
AROCLOR-1248	42	U	
AROCLOR-1254	33	J	P
AROCLOR-1260	42	U	
BETA-BHC	2.2	U	
DELTA-BHC	2.2	U	
DIELDRIN	2.2	U	
ENDOSULFAN I	2.2	U	
ENDOSULFAN II	0.65	R	U
ENDOSULFAN SULFATE	2.2	U	
ENDRIN	1.6	J	PU
ENDRIN ALDEHYDE	0.51	R	U
ENDRIN KETONE	0.73	J	PU
GAMMA-BHC (LINDANE)	2.2	U	
GAMMA-CHLORDANE	3.2		
HEPTACHLOR	2.2	U	
HEPTACHLOR EPOXIDE	2.2	U	
METHOXYCHLOR	4.2	U	
TOXAPHENE	85	U	

nsample	NTC01SB0950810
samp_date	12/18/2006
lab_id	C6L190179014
qc_type	NM
units	UG/KG
Pct_Solids	37.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	56		
4,4'-DDE	8.3		
4,4'-DDT	11		
ALDRIN	4.6	U	
ALPHA-BHC	4.6	U	
ALPHA-CHLORDANE	2.2	J	P
AROCLOR-1016	89	U	
AROCLOR-1221	89	U	
AROCLOR-1232	89	U	
AROCLOR-1242	89	U	
AROCLOR-1248	89	U	
AROCLOR-1254	89	U	
AROCLOR-1260	89	U	
BETA-BHC	4.6	U	
DELTA-BHC	4.6	U	
DIELDRIN	4.6	U	
ENDOSULFAN I	4.6	U	
ENDOSULFAN II	4.6	U	
ENDOSULFAN SULFATE	4.6	U	
ENDRIN	4.6	U	
ENDRIN ALDEHYDE	4.6	U	
ENDRIN KETONE	4.6	U	
GAMMA-BHC (LINDANE)	4.6	U	
GAMMA-CHLORDANE	2	J	P
HEPTACHLOR	4.6	U	
HEPTACHLOR EPOXIDE	4.6	U	
METHOXYCHLOR	8.9	U	
TOXAPHENE	180	U	

nsample	NTC01SB1020408
samp_date	12/18/2006
lab_id	C6L190179017
qc_type	NM
units	UG/KG
Pct_Solids	50.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	45		
4,4'-DDE	16		
4,4'-DDT	3.6		
ALDRIN	3.4	U	
ALPHA-BHC	3.4	U	
ALPHA-CHLORDANE	3.4	U	
AROCLOR-1016	66	U	
AROCLOR-1221	66	U	
AROCLOR-1232	66	U	
AROCLOR-1242	66	U	
AROCLOR-1248	66	U	
AROCLOR-1254	66	U	
AROCLOR-1260	66	U	
BETA-BHC	3.4	U	
DELTA-BHC	3.4	U	
DIELDRIN	0.55	J	P
ENDOSULFAN I	3.4	U	
ENDOSULFAN II	3.4	U	
ENDOSULFAN SULFATE	3.4	U	
ENDRIN	3.4	U	
ENDRIN ALDEHYDE	3.4	U	
ENDRIN KETONE	3.4	U	
GAMMA-BHC (LINDANE)	3.4	U	
GAMMA-CHLORDANE	3.4	U	
HEPTACHLOR	3.4	U	
HEPTACHLOR EPOXIDE	3.4	U	
METHOXYCHLOR	6.6	U	
TOXAPHENE	130	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: PEST/PCB

nsample	NTC01SD0100	nsample	NTC01SD0100DL	nsample	NTC01SD0101
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179019	lab_id	C6L190179019	lab_id	C6L190179020
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	66.0	Pct_Solids	66.0	Pct_Solids	57.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
AROCLOR-1016	50	U	
AROCLOR-1221	50	U	
AROCLOR-1232	50	U	
AROCLOR-1242	50	U	
AROCLOR-1248	50	U	
AROCLOR-1254	50	U	
AROCLOR-1260	50	U	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	5.5	J	P
4,4'-DDE	10	J	P
4,4'-DDT	4.9	J	P
ALDRIN	13	U	
ALPHA-BHC	13	U	
ALPHA-CHLORDANE	13	U	
BETA-BHC	13	U	
DELTA-BHC	13	U	
DIELDRIN	13	U	
ENDOSULFAN I	13	U	
ENDOSULFAN II	13	U	
ENDOSULFAN SULFATE	13	U	
ENDRIN	13	U	
ENDRIN ALDEHYDE	13	U	
ENDRIN KETONE	13	U	
GAMMA-BHC (LINDANE)	13	U	
GAMMA-CHLORDANE	13	U	
HEPTACHLOR	13	U	
HEPTACHLOR EPOXIDE	13	U	
METHOXYCHLOR	25	U	
TOXAPHENE	510	U	

Parameter	Result	Val Qual	Qual Code
AROCLOR-1016	58	U	
AROCLOR-1221	58	U	
AROCLOR-1232	58	U	
AROCLOR-1242	58	U	
AROCLOR-1248	820		
AROCLOR-1254	58	U	
AROCLOR-1260	58	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: PEST/PCB

nsample	NTC01SD0101DL
samp_date	12/18/2006
lab_id	C6L190179020
qc_type	NM
units	UG/KG
Pct_Solids	57.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	86	J	P
4,4'-DDE	79	J	P
4,4'-DDT	150	U	
ALDRIN	150	U	
ALPHA-BHC	150	U	
ALPHA-CHLORDANE	150	U	
BETA-BHC	150	U	
DELTA-BHC	150	U	
DIELDRIN	150	U	
ENDOSULFAN I	150	U	
ENDOSULFAN II	150	U	
ENDOSULFAN SULFATE	150	U	
ENDRIN	150	U	
ENDRIN ALDEHYDE	41	J	P
ENDRIN KETONE	150	U	
GAMMA-BHC (LINDANE)	150	U	
GAMMA-CHLORDANE	150	U	
HEPTACHLOR	150	U	
HEPTACHLOR EPOXIDE	150	U	
METHOXYCHLOR	290	U	
TOXAPHENE	5900	U	

nsample	NTC01SD0200
samp_date	12/18/2006
lab_id	C6L190179021
qc_type	NM
units	UG/KG
Pct_Solids	37.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
AROCLOR-1016	89	U	
AROCLOR-1221	89	U	
AROCLOR-1232	89	U	
AROCLOR-1242	89	U	
AROCLOR-1248	89	U	
AROCLOR-1254	89	U	
AROCLOR-1260	89	U	

nsample	NTC01SD0200DL
samp_date	12/18/2006
lab_id	C6L190179021
qc_type	NM
units	UG/KG
Pct_Solids	37.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	17	J	P
4,4'-DDE	32		
4,4'-DDT	4.9	J	P
ALDRIN	23	U	
ALPHA-BHC	23	U	
ALPHA-CHLORDANE	5.5	J	P
BETA-BHC	23	U	
DELTA-BHC	23	U	
DIELDRIN	23	U	
ENDOSULFAN I	23	U	
ENDOSULFAN II	23	U	
ENDOSULFAN SULFATE	23	U	
ENDRIN	23	U	
ENDRIN ALDEHYDE	23	U	
ENDRIN KETONE	23	U	
GAMMA-BHC (LINDANE)	23	U	
GAMMA-CHLORDANE	2.9	J	P
HEPTACHLOR	23	U	
HEPTACHLOR EPOXIDE	23	U	
METHOXYCHLOR	44	U	
TOXAPHENE	900	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: PEST/PCB

nsample	NTC01SD0400
samp_date	12/18/2006
lab_id	C6L190179025
qc_type	NM
units	UG/KG
Pct_Solids	44.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
AROCLOR-1016	75	U	
AROCLOR-1221	75	U	
AROCLOR-1232	75	U	
AROCLOR-1242	75	U	
AROCLOR-1248	75	U	
AROCLOR-1254	75	U	
AROCLOR-1260	75	U	

nsample	NTC01SD0400DL
samp_date	12/18/2006
lab_id	C6L190179025
qc_type	NM
units	UG/KG
Pct_Solids	44.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	11	J	P
4,4'-DDE	18	J	PU
4,4'-DDT	7.4	J	CPU
ALDRIN	19	U	
ALPHA-BHC	19	U	
ALPHA-CHLORDANE	19	U	
BETA-BHC	19	U	
DELTA-BHC	19	U	
DIELDRIN	4.4	J	PU
ENDOSULFAN I	19	U	
ENDOSULFAN II	4.8	J	PU
ENDOSULFAN SULFATE	19	U	
ENDRIN	6.7	J	PU
ENDRIN ALDEHYDE	19	U	
ENDRIN KETONE	19	U	
GAMMA-BHC (LINDANE)	19	U	
GAMMA-CHLORDANE	19	U	
HEPTACHLOR	19	U	
HEPTACHLOR EPOXIDE	19	U	
METHOXYCHLOR	37	U	
TOXAPHENE	760	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: HERB

nsample	NTC01FD12180601	nsample	NTC01FD12180602	nsample	NTC01SB0900812
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179005	lab_id	C6L190179006	lab_id	C6L190179009
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	38.0	Pct_Solids	78.0	Pct_Solids	78.0
DUP_OF:	NTC01SD0400	DUP_OF:	NTC01SB0900812	DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	53	U	
2,4,5-TP (SILVEX)	53	U	
2,4-D	210	U	
PENTACHLOROPHENOL	27	U	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	26	U	
2,4,5-TP (SILVEX)	26	U	
2,4-D	100	U	
PENTACHLOROPHENOL	4.2	J	P

Parameter	Result	Val Qual	Qual Code
2,4,5-T	25	U	
2,4,5-TP (SILVEX)	25	U	
2,4-D	100	U	
PENTACHLOROPHENOL	13	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: HERB

nsample	NTC01SB0950810	nsample	NTC01SB1020408	nsample	NTC01SD0100
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179014	lab_id	C6L190179017	lab_id	C6L190179019
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	37.0	Pct_Solids	50.0	Pct_Solids	66.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	54	U	
2,4,5-TP (SILVEX)	54	U	
2,4-D	220	U	
PENTACHLOROPHENOL	27	U	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	40	U	
2,4,5-TP (SILVEX)	40	U	
2,4-D	160	U	
PENTACHLOROPHENOL	20	U	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	30	U	
2,4,5-TP (SILVEX)	30	U	
2,4-D	120	U	
PENTACHLOROPHENOL	15	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: HERB

nsample	NTC01SD0101
samp_date	12/18/2006
lab_id	C6L190179020
qc_type	NM
units	UG/KG
Pct_Solids	57.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	35	U	
2,4,5-TP (SILVEX)	35	U	
2,4-D	140	U	
PENTACHLOROPHENOL	18	U	

nsample	NTC01SD0200
samp_date	12/18/2006
lab_id	C6L190179021
qc_type	NM
units	UG/KG
Pct_Solids	37.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	54	U	
2,4,5-TP (SILVEX)	54	U	
2,4-D	210	U	
PENTACHLOROPHENOL	27	U	

nsample	NTC01SD0400
samp_date	12/18/2006
lab_id	C6L190179025
qc_type	NM
units	UG/KG
Pct_Solids	44.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	45	U	
2,4,5-TP (SILVEX)	45	U	
2,4-D	180	U	
PENTACHLOROPHENOL	23	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: PAH

nsample	NTC01FD12180601DL	nsample	NTC01FD12180602RE	nsample	NTC01SB0880708DL
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179005	lab_id	C6L190179006	lab_id	C6L190179007
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	38.0	Pct_Solids	78.0	Pct_Solids	81.0
DUP_OF:	NTC01SD0400	DUP_OF:	NTC01SB0900812	DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1800	U	
ACENAPHTHENE	1800	U	
ACENAPHTHYLENE	200	J	P
ANTHRACENE	67	J	PU
BENZO(A)ANTHRACENE	730		
BENZO(A)PYRENE	1300		
BENZO(B)FLUORANTHENE	1300	J	U
BENZO(G,H,I)PERYLENE	1500		
BENZO(K)FLUORANTHENE	650	J	U
CARBAZOLE	1800	U	
CHRYSENE	1200		
DIBENZO(A,H)ANTHRACENE	360	U	
FLUORANTHENE	3100	J	U
FLUORENE	360	U	
INDENO(1,2,3-CD)PYRENE	1400	J	U
NAPHTHALENE	1800	U	
PHENANTHRENE	1100		
PYRENE	1700	J	U

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	120	J	HR
ACENAPHTHENE	43	UJ	HR
ACENAPHTHYLENE	280	J	HR
ANTHRACENE	8.8	J	HRU
BENZO(A)ANTHRACENE	8.6	UJ	HR
BENZO(A)PYRENE	8.6	UJ	HR
BENZO(B)FLUORANTHENE	26	J	HRU
BENZO(G,H,I)PERYLENE	2.9	J	HPRU
BENZO(K)FLUORANTHENE	8.6	UJ	HR
CARBAZOLE	43	UJ	HR
CHRYSENE	1.6	J	HPRU
DIBENZO(A,H)ANTHRACENE	8.9	J	HRU
FLUORANTHENE	21	J	HRU
FLUORENE	23	J	HRU
INDENO(1,2,3-CD)PYRENE	3.1	J	HPRU
NAPHTHALENE	160	J	HRU
PHENANTHRENE	55	J	HR
PYRENE	9.9	J	HRU

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1300	J	P
ACENAPHTHENE	4100	U	
ACENAPHTHYLENE	4100	U	
ANTHRACENE	2200		
BENZO(A)ANTHRACENE	6200		
BENZO(A)PYRENE	6200		
BENZO(B)FLUORANTHENE	6100		
BENZO(G,H,I)PERYLENE	5100		
BENZO(K)FLUORANTHENE	3100		
CARBAZOLE	830	J	P
CHRYSENE	6200		
DIBENZO(A,H)ANTHRACENE	850		
FLUORANTHENE	14000		
FLUORENE	1200		
INDENO(1,2,3-CD)PYRENE	4600		
NAPHTHALENE	4100	U	
PHENANTHRENE	6500		
PYRENE	13000		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: PAH

nsample	NTC01SB0891112DL	nsample	NTC01SB0900812RE	nsample	NTC01SB0910812
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179008	lab_id	C6L190179009	lab_id	C6L190179010
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	79.0	Pct_Solids	78.0	Pct_Solids	82.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	710		
ACENAPHTHENE	210	U	
ACENAPHTHYLENE	670		
ANTHRACENE	130		
BENZO(A)ANTHRACENE	280		
BENZO(A)PYRENE	300		
BENZO(B)FLUORANTHENE	290		
BENZO(G,H,I)PERYLENE	280		
BENZO(K)FLUORANTHENE	120		
CARBAZOLE	57	J	P
CHRYSENE	370		
DIBENZO(A,H)ANTHRACENE	60		
FLUORANTHENE	620		
FLUORENE	48		
INDENO(1,2,3-CD)PYRENE	290		
NAPHTHALENE	460		
PHENANTHRENE	440		
PYRENE	420		

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	130	J	HR
ACENAPHTHENE	14	J	HPRU
ACENAPHTHYLENE	300	J	HR
ANTHRACENE	25	J	HR
BENZO(A)ANTHRACENE	8.5	UJ	HR
BENZO(A)PYRENE	20	J	HR
BENZO(B)FLUORANTHENE	52	J	HRU
BENZO(G,H,I)PERYLENE	17	J	HRU
BENZO(K)FLUORANTHENE	10	J	HRU
CARBAZOLE	12	J	HPRU
CHRYSENE	42	J	HR
DIBENZO(A,H)ANTHRACENE	8.5	UJ	HR
FLUORANTHENE	160	J	HRU
FLUORENE	19	J	HRU
INDENO(1,2,3-CD)PYRENE	16	J	HR
NAPHTHALENE	150	J	HR
PHENANTHRENE	140	J	HR
PYRENE	120	J	HRU

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	24	J	PR
ACENAPHTHENE	40	UR	R
ACENAPHTHYLENE	37	J	PR
ANTHRACENE	4.1	J	PR
BENZO(A)ANTHRACENE	8.2	UR	R
BENZO(A)PYRENE	2.9	J	PR
BENZO(B)FLUORANTHENE	11	J	R
BENZO(G,H,I)PERYLENE	2.6	J	PR
BENZO(K)FLUORANTHENE	1.8	J	PR
CARBAZOLE	40	UR	R
CHRYSENE	6.9	J	PR
DIBENZO(A,H)ANTHRACENE	8.2	UR	R
FLUORANTHENE	36	J	R
FLUORENE	8.2	UR	R
INDENO(1,2,3-CD)PYRENE	2.2	J	PR
NAPHTHALENE	21	J	PR
PHENANTHRENE	24	J	R
PYRENE	27	J	R

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: PAH

nsample	NTC01SB0921516
samp_date	12/18/2006
lab_id	C6L190179011
qc_type	NM
units	UG/KG
Pct_Solids	58.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	25	J	P
ACENAPHTHENE	57	U	
ACENAPHTHYLENE	57	U	
ANTHRACENE	11	J	P
BENZO(A)ANTHRACENE	47		
BENZO(A)PYRENE	41		
BENZO(B)FLUORANTHENE	47		
BENZO(G,H,I)PERYLENE	46		
BENZO(K)FLUORANTHENE	18		
CARBAZOLE	57	U	
CHRYSENE	46		
DIBENZO(A,H)ANTHRACENE	4.4	J	P
FLUORANTHENE	90		
FLUORENE	12	U	
INDENO(1,2,3-CD)PYRENE	32		
NAPHTHALENE	20	J	P
PHENANTHRENE	52		
PYRENE	74		

nsample	NTC01SB0930810DL
samp_date	12/18/2006
lab_id	C6L190179012
qc_type	NM
units	UG/KG
Pct_Solids	83.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	150	J	P
ACENAPHTHENE	200	U	
ACENAPHTHYLENE	1400		
ANTHRACENE	31	J	P
BENZO(A)ANTHRACENE	40	U	
BENZO(A)PYRENE	58		
BENZO(B)FLUORANTHENE	40	U	
BENZO(G,H,I)PERYLENE	87		
BENZO(K)FLUORANTHENE	40	U	
CARBAZOLE	200	U	
CHRYSENE	78		
DIBENZO(A,H)ANTHRACENE	40	U	
FLUORANTHENE	200		
FLUORENE	40	U	
INDENO(1,2,3-CD)PYRENE	99		
NAPHTHALENE	66	J	P
PHENANTHRENE	130		
PYRENE	87		

nsample	NTC01SB0941416
samp_date	12/18/2006
lab_id	C6L190179013
qc_type	NM
units	UG/KG
Pct_Solids	64.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	94		
ACENAPHTHENE	24	J	P
ACENAPHTHYLENE	52	U	
ANTHRACENE	19		
BENZO(A)ANTHRACENE	41		
BENZO(A)PYRENE	39		
BENZO(B)FLUORANTHENE	76		
BENZO(G,H,I)PERYLENE	54		
BENZO(K)FLUORANTHENE	24		
CARBAZOLE	52	U	
CHRYSENE	43		
DIBENZO(A,H)ANTHRACENE	10	U	
FLUORANTHENE	120		
FLUORENE	14		
INDENO(1,2,3-CD)PYRENE	46		
NAPHTHALENE	110		
PHENANTHRENE	110		
PYRENE	81		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: PAH

nsample	NTC01SB0950810	nsample	NTC01SB0961012DL	nsample	NTC01SB1010406DL
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179014	lab_id	C6L190179015	lab_id	C6L190179016
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	37.0	Pct_Solids	82.0	Pct_Solids	86.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	58	J	P
ACENAPHTHENE	89	U	
ACENAPHTHYLENE	25	J	P
ANTHRACENE	1.8	J	P
BENZO(A)ANTHRACENE	18	U	
BENZO(A)PYRENE	18	U	
BENZO(B)FLUORANTHENE	18	U	
BENZO(G,H,I)PERYLENE	1.6	J	P
BENZO(K)FLUORANTHENE	18	U	
CARBAZOLE	89	U	
CHRYSENE	18	U	
DIBENZO(A,H)ANTHRACENE	18	U	
FLUORANTHENE	4.8	J	P
FLUORENE	18	U	
INDENO(1,2,3-CD)PYRENE	2.5	J	P
NAPHTHALENE	72	J	P
PHENANTHRENE	14	J	P
PYRENE	4	J	P

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	400	U	
ACENAPHTHENE	400	U	
ACENAPHTHYLENE	78	J	P
ANTHRACENE	27	J	P
BENZO(A)ANTHRACENE	250		
BENZO(A)PYRENE	270		
BENZO(B)FLUORANTHENE	290		
BENZO(G,H,I)PERYLENE	300		
BENZO(K)FLUORANTHENE	130		
CARBAZOLE	400	U	
CHRYSENE	300		
DIBENZO(A,H)ANTHRACENE	34	J	P
FLUORANTHENE	470		
FLUORENE	82	U	
INDENO(1,2,3-CD)PYRENE	230		
NAPHTHALENE	400	U	
PHENANTHRENE	140		
PYRENE	420		

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	490		
ACENAPHTHENE	190	U	
ACENAPHTHYLENE	2600		
ANTHRACENE	72		
BENZO(A)ANTHRACENE	150		
BENZO(A)PYRENE	250		
BENZO(B)FLUORANTHENE	420		
BENZO(G,H,I)PERYLENE	250		
BENZO(K)FLUORANTHENE	39	U	
CARBAZOLE	190	U	
CHRYSENE	360		
DIBENZO(A,H)ANTHRACENE	39	U	
FLUORANTHENE	270		
FLUORENE	39	U	
INDENO(1,2,3-CD)PYRENE	220		
NAPHTHALENE	110	J	P
PHENANTHRENE	350		
PYRENE	350		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: PAH

nsample	NTC01SB1020408DL	nsample	NTC01SB1031919	nsample	NTC01SD0100DL
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179017	lab_id	C6L190179018	lab_id	C6L190179019
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	50.0	Pct_Solids	86.0	Pct_Solids	66.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	3500	J	P
ACENAPHTHENE	13000	U	
ACENAPHTHYLENE	13000	U	
ANTHRACENE	5200		
BENZO(A)ANTHRACENE	11000		
BENZO(A)PYRENE	9300		
BENZO(B)FLUORANTHENE	14000		
BENZO(G,H,I)PERYLENE	7300		
BENZO(K)FLUORANTHENE	4600		
CARBAZOLE	4300	J	P
CHRYSENE	12000		
DIBENZO(A,H)ANTHRACENE	580	J	P
FLUORANTHENE	49000		
FLUORENE	3300		
INDENO(1,2,3-CD)PYRENE	6300		
NAPHTHALENE	3100	J	P
PHENANTHRENE	26000		
PYRENE	31000		

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	7.5	J	P
ACENAPHTHENE	38	U	
ACENAPHTHYLENE	38	U	
ANTHRACENE	2.7	J	P
BENZO(A)ANTHRACENE	7.8	U	
BENZO(A)PYRENE	7.8	U	
BENZO(B)FLUORANTHENE	5	J	P
BENZO(G,H,I)PERYLENE	18		
BENZO(K)FLUORANTHENE	1.8	J	P
CARBAZOLE	38	U	
CHRYSENE	19		
DIBENZO(A,H)ANTHRACENE	7.8	U	
FLUORANTHENE	11		
FLUORENE	7.8	U	
INDENO(1,2,3-CD)PYRENE	9		
NAPHTHALENE	38	U	
PHENANTHRENE	7	J	P
PYRENE	14		

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	180	J	P
ACENAPHTHENE	1000	U	
ACENAPHTHYLENE	220	J	P
ANTHRACENE	360		
BENZO(A)ANTHRACENE	1600		
BENZO(A)PYRENE	1600		
BENZO(B)FLUORANTHENE	1400		
BENZO(G,H,I)PERYLENE	1400		
BENZO(K)FLUORANTHENE	800		
CARBAZOLE	290	J	P
CHRYSENE	1800		
DIBENZO(A,H)ANTHRACENE	190	J	P
FLUORANTHENE	5800		
FLUORENE	130	J	P
INDENO(1,2,3-CD)PYRENE	1300		
NAPHTHALENE	120	J	P
PHENANTHRENE	2100		
PYRENE	3900		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: PAH

nsample	NTC01SD0101DL	nsample	NTC01SD0200DL	nsample	NTC01SD0201DL
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179020	lab_id	C6L190179021	lab_id	C6L190179022
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	57.0	Pct_Solids	37.0	Pct_Solids	55.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1300	J	P
ACENAPHTHENE	5800	U	
ACENAPHTHYLENE	5800	U	
ANTHRACENE	1300		
BENZO(A)ANTHRACENE	4100		
BENZO(A)PYRENE	3500		
BENZO(B)FLUORANTHENE	4000		
BENZO(G,H,I)PERYLENE	2300		
BENZO(K)FLUORANTHENE	1700		
CARBAZOLE	5800	U	
CHRYSENE	3600		
DIBENZO(A,H)ANTHRACENE	440	J	P
FLUORANTHENE	9400		
FLUORENE	580	J	P
INDENO(1,2,3-CD)PYRENE	2900		
NAPHTHALENE	5800	U	
PHENANTHRENE	5700		
PYRENE	6800		

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	570	J	P
ACENAPHTHENE	1800	U	
ACENAPHTHYLENE	420	J	P
ANTHRACENE	500		
BENZO(A)ANTHRACENE	1600		
BENZO(A)PYRENE	1900		
BENZO(B)FLUORANTHENE	360	U	
BENZO(G,H,I)PERYLENE	2000		
BENZO(K)FLUORANTHENE	360	U	
CARBAZOLE	420	J	P
CHRYSENE	1900		
DIBENZO(A,H)ANTHRACENE	280	J	P
FLUORANTHENE	6000		
FLUORENE	260	J	P
INDENO(1,2,3-CD)PYRENE	1700		
NAPHTHALENE	660	J	P
PHENANTHRENE	3100		
PYRENE	4300		

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	23	J	P
ACENAPHTHENE	180	U	
ACENAPHTHYLENE	160	J	P
ANTHRACENE	28	J	P
BENZO(A)ANTHRACENE	110		
BENZO(A)PYRENE	250		
BENZO(B)FLUORANTHENE	200		
BENZO(G,H,I)PERYLENE	320		
BENZO(K)FLUORANTHENE	100		
CARBAZOLE	180	U	
CHRYSENE	160		
DIBENZO(A,H)ANTHRACENE	67		
FLUORANTHENE	230		
FLUORENE	11	J	P
INDENO(1,2,3-CD)PYRENE	280		
NAPHTHALENE	180	U	
PHENANTHRENE	100		
PYRENE	170		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: PAH

nsample	NTC01SD0300DL	nsample	NTC01SD0301DL	nsample	NTC01SD0400DL
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179023	lab_id	C6L190179024	lab_id	C6L190179025
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	54.0	Pct_Solids	74.0	Pct_Solids	44.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1200	U	
ACENAPHTHENE	1200	U	
ACENAPHTHYLENE	340	J	P
ANTHRACENE	110	J	P
BENZO(A)ANTHRACENE	1700		
BENZO(A)PYRENE	2000		
BENZO(B)FLUORANTHENE	2400		
BENZO(G,H,I)PERYLENE	2100		
BENZO(K)FLUORANTHENE	1100		
CARBAZOLE	1200	U	
CHRYSENE	2000		
DIBENZO(A,H)ANTHRACENE	240	J	P
FLUORANTHENE	3200		
FLUORENE	250	U	
INDENO(1,2,3-CD)PYRENE	1600		
NAPHTHALENE	1200	U	
PHENANTHRENE	460		
PYRENE	2700		

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	240	J	P
ACENAPHTHENE	450	U	
ACENAPHTHYLENE	350	J	P
ANTHRACENE	300		
BENZO(A)ANTHRACENE	950		
BENZO(A)PYRENE	820		
BENZO(B)FLUORANTHENE	880		
BENZO(G,H,I)PERYLENE	790		
BENZO(K)FLUORANTHENE	420		
CARBAZOLE	220	J	P
CHRYSENE	960		
DIBENZO(A,H)ANTHRACENE	120		
FLUORANTHENE	2300		
FLUORENE	140		
INDENO(1,2,3-CD)PYRENE	690		
NAPHTHALENE	150	J	P
PHENANTHRENE	1500		
PYRENE	1600		

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1500	U	
ACENAPHTHENE	1500	U	
ACENAPHTHYLENE	280	J	P
ANTHRACENE	160	J	P
BENZO(A)ANTHRACENE	890		
BENZO(A)PYRENE	1300		
BENZO(B)FLUORANTHENE	1400	J	U
BENZO(G,H,I)PERYLENE	1500		
BENZO(K)FLUORANTHENE	650	J	U
CARBAZOLE	1500	U	
CHRYSENE	1300		
DIBENZO(A,H)ANTHRACENE	180	J	PU
FLUORANTHENE	3600	J	U
FLUORENE	300	U	
INDENO(1,2,3-CD)PYRENE	1400	J	U
NAPHTHALENE	1500	U	
PHENANTHRENE	1300		
PYRENE	1800		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: PAH

nsample	NTC01SD0401DL	nsample	NTC01SD0500DL	nsample	NTC01SD0501DL
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179026	lab_id	C6L190179027	lab_id	C6L190179028
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	44.0	Pct_Solids	88.0	Pct_Solids	37.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	170	J	P
ACENAPHTHENE	1500	U	
ACENAPHTHYLENE	390	J	P
ANTHRACENE	260	J	P
BENZO(A)ANTHRACENE	1200		
BENZO(A)PYRENE	1700		
BENZO(B)FLUORANTHENE	2600		
BENZO(G,H,I)PERYLENE	1900		
BENZO(K)FLUORANTHENE	870		
CARBAZOLE	190	J	P
CHRYSENE	1600		
DIBENZO(A,H)ANTHRACENE	260	J	P
FLUORANTHENE	4500		
FLUORENE	97	J	P
INDENO(1,2,3-CD)PYRENE	1700		
NAPHTHALENE	1500	U	
PHENANTHRENE	1700		
PYRENE	3200		

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	40	J	P
ACENAPHTHENE	380	U	
ACENAPHTHYLENE	62	J	P
ANTHRACENE	120		
BENZO(A)ANTHRACENE	480		
BENZO(A)PYRENE	400		
BENZO(B)FLUORANTHENE	400		
BENZO(G,H,I)PERYLENE	260		
BENZO(K)FLUORANTHENE	190		
CARBAZOLE	380	U	
CHRYSENE	460		
DIBENZO(A,H)ANTHRACENE	50	J	P
FLUORANTHENE	810		
FLUORENE	39	J	P
INDENO(1,2,3-CD)PYRENE	300		
NAPHTHALENE	380	U	
PHENANTHRENE	410		
PYRENE	620		

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	110	J	P
ACENAPHTHENE	880	U	
ACENAPHTHYLENE	150	J	P
ANTHRACENE	130	J	P
BENZO(A)ANTHRACENE	770		
BENZO(A)PYRENE	180	U	
BENZO(B)FLUORANTHENE	1100		
BENZO(G,H,I)PERYLENE	1100		
BENZO(K)FLUORANTHENE	540		
CARBAZOLE	880	U	
CHRYSENE	1100		
DIBENZO(A,H)ANTHRACENE	140	J	P
FLUORANTHENE	3100		
FLUORENE	180	U	
INDENO(1,2,3-CD)PYRENE	1100		
NAPHTHALENE	880	U	
PHENANTHRENE	1200		
PYRENE	2100		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: DIOX

nsample	NTC01FD12180601	nsample	NTC01FD12180602DL	nsample	NTC01SB0900812
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179005	lab_id	C6L190179006	lab_id	C6L190179009
qc_type	NM	qc_type	NM	qc_type	NM
units	NG/KG	units	NG/KG	units	NG/KG
Pct_Solids	38.0	Pct_Solids	78.0	Pct_Solids	78.0
DUP_OF:	NTC01SD0400	DUP_OF:	NTC01SB0900812	DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	2300		
1,2,3,4,6,7,8,9-OCDF	220		
1,2,3,4,6,7,8-HPCDD	240		
1,2,3,4,6,7,8-HPCDF	62		
1,2,3,4,7,8,9-HPCDF	4.6	U	
1,2,3,4,7,8-HXCDD	3.4	U	
1,2,3,4,7,8-HXCDF	5	U	
1,2,3,6,7,8-HXCDD	9.4	J	P
1,2,3,6,7,8-HXCDF	3.5	U	
1,2,3,7,8,9-HXCDD	11	J	P
1,2,3,7,8,9-HXCDF	1	U	
1,2,3,7,8-PECDD	2.8	U	
1,2,3,7,8-PECDF	1.8	U	
2,3,4,6,7,8-HXCDF	3.5	U	
2,3,4,7,8-PECDF	3.3	U	
2,3,7,8-TCDD	0.72	U	
2,3,7,8-TCDF	4.6		
TOTAL HPCDD	440		
TOTAL HPCDF	170		
TOTAL HXCDD	65		
TOTAL HXCDF	39		
TOTAL PECDD	4.2	U	
TOTAL PECDF	13		
TOTAL TCDD	1.3	U	
TOTAL TCDF	65		

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	16000	J	G
1,2,3,4,6,7,8,9-OCDF	20000	J	G
1,2,3,4,6,7,8-HPCDD	11000	J	G
1,2,3,4,6,7,8-HPCDF	34000	J	G
1,2,3,4,7,8,9-HPCDF	3100	J	G
1,2,3,4,7,8-HXCDD	1200	J	G
1,2,3,4,7,8-HXCDF	8900	J	G
1,2,3,6,7,8-HXCDD	2000	J	G
1,2,3,6,7,8-HXCDF	6700	J	G
1,2,3,7,8,9-HXCDD	1600	J	G
1,2,3,7,8,9-HXCDF	290	J	G
1,2,3,7,8-PECDD	1200	J	G
1,2,3,7,8-PECDF	6400	J	G
2,3,4,6,7,8-HXCDF	8000	J	G
2,3,4,7,8-PECDF	12000	J	G
2,3,7,8-TCDD	140	J	G
2,3,7,8-TCDF	5500	J	GL
TOTAL HPCDD	21000	J	G
TOTAL HPCDF	47000	J	G
TOTAL HXCDD	21000	J	G
TOTAL HXCDF	61000	J	G
TOTAL PECDD	16000	J	G
TOTAL PECDF	110000	J	G
TOTAL TCDD	8000	J	G
TOTAL TCDF	100000	J	G

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	4200	J	G
1,2,3,4,6,7,8,9-OCDF	340	J	G
1,2,3,4,6,7,8-HPCDD	920	J	G
1,2,3,4,6,7,8-HPCDF	310	J	G
1,2,3,4,7,8,9-HPCDF	28	J	G
1,2,3,4,7,8-HXCDD	18	J	G
1,2,3,4,7,8-HXCDF	62	J	G
1,2,3,6,7,8-HXCDD	56	J	G
1,2,3,6,7,8-HXCDF	33	J	G
1,2,3,7,8,9-HXCDD	47	J	G
1,2,3,7,8,9-HXCDF	3.3	J	GP
1,2,3,7,8-PECDD	22	J	G
1,2,3,7,8-PECDF	40	J	G
2,3,4,6,7,8-HXCDF	38	J	G
2,3,4,7,8-PECDF	48	J	G
2,3,7,8-TCDD	8	J	G
2,3,7,8-TCDF	48	J	G
TOTAL HPCDD	1700	J	G
TOTAL HPCDF	470	J	G
TOTAL HXCDD	540	J	G
TOTAL HXCDF	350	J	G
TOTAL PECDD	270	J	G
TOTAL PECDF	480	J	G
TOTAL TCDD	250	J	G
TOTAL TCDF	800	J	G

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: DIOX

nsample	NTC01SB0950810	nsample	NTC01SB1020408DL	nsample	NTC01SD0100
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179014	lab_id	C6L190179017	lab_id	C6L190179019
qc_type	NM	qc_type	NM	qc_type	NM
units	NG/KG	units	NG/KG	units	NG/KG
Pct_Solids	37.0	Pct_Solids	50.0	Pct_Solids	66.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	57		
1,2,3,4,6,7,8,9-OCDF	5.7	U	
1,2,3,4,6,7,8-HPCDD	14		
1,2,3,4,6,7,8-HPCDF	7.3	J	P
1,2,3,4,7,8,9-HPCDF	0.59	U	
1,2,3,4,7,8-HXCDD	0.89	U	
1,2,3,4,7,8-HXCDF	3.3	U	
1,2,3,6,7,8-HXCDD	0.86	U	
1,2,3,6,7,8-HXCDF	1.6	U	
1,2,3,7,8,9-HXCDD	1.4	U	
1,2,3,7,8,9-HXCDF	0.57	U	
1,2,3,7,8-PECDD	0.84	U	
1,2,3,7,8-PECDF	1.2	U	
2,3,4,6,7,8-HXCDF	1.5	U	
2,3,4,7,8-PECDF	1.3	U	
2,3,7,8-TCDD	0.4	U	
2,3,7,8-TCDF	1	U	
TOTAL HPCDD	26		
TOTAL HPCDF	7.3		
TOTAL HXCDD	3.8	U	
TOTAL HXCDF	3.3	U	
TOTAL PECDD	0.84	U	
TOTAL PECDF	4.4	U	
TOTAL TCDD	0.62	U	
TOTAL TCDF	23		

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	2200		
1,2,3,4,6,7,8,9-OCDF	38	U	
1,2,3,4,6,7,8-HPCDD	600		
1,2,3,4,6,7,8-HPCDF	59		
1,2,3,4,7,8,9-HPCDF	2.4	U	
1,2,3,4,7,8-HXCDD	7.4	U	
1,2,3,4,7,8-HXCDF	3	U	
1,2,3,6,7,8-HXCDD	66		
1,2,3,6,7,8-HXCDF	2	U	
1,2,3,7,8,9-HXCDD	41	J	P
1,2,3,7,8,9-HXCDF	1.2	U	
1,2,3,7,8-PECDD	20	U	
1,2,3,7,8-PECDF	5.5	U	
2,3,4,6,7,8-HXCDF	1.2	U	
2,3,4,7,8-PECDF	5.7	U	
2,3,7,8-TCDD	9	U	
2,3,7,8-TCDF	11	U	
TOTAL HPCDD	1100		
TOTAL HPCDF	110		
TOTAL HXCDD	550		
TOTAL HXCDF	13	U	
TOTAL PECDD	25	U	
TOTAL PECDF	7.3	U	
TOTAL TCDD	9	U	
TOTAL TCDF	11	U	

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	1400		
1,2,3,4,6,7,8,9-OCDF	130		
1,2,3,4,6,7,8-HPCDD	130		
1,2,3,4,6,7,8-HPCDF	30		
1,2,3,4,7,8,9-HPCDF	2.1	U	
1,2,3,4,7,8-HXCDD	1.6	U	
1,2,3,4,7,8-HXCDF	2.3	U	
1,2,3,6,7,8-HXCDD	5.2	J	P
1,2,3,6,7,8-HXCDF	1.3	U	
1,2,3,7,8,9-HXCDD	6.8	J	P
1,2,3,7,8,9-HXCDF	0.26	U	
1,2,3,7,8-PECDD	1.4	U	
1,2,3,7,8-PECDF	0.51	U	
2,3,4,6,7,8-HXCDF	1.2	U	
2,3,4,7,8-PECDF	0.69	U	
2,3,7,8-TCDD	0.76	J	P
2,3,7,8-TCDF	1.3	J	P
TOTAL HPCDD	250		
TOTAL HPCDF	95		
TOTAL HXCDD	41		
TOTAL HXCDF	18		
TOTAL PECDD	3.2	U	
TOTAL PECDF	5		
TOTAL TCDD	4.3		
TOTAL TCDF	18		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: DIOX

nsample	NTC01SD0101	nsample	NTC01SD0200	nsample	NTC01SD0400
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179020	lab_id	C6L190179021	lab_id	C6L190179025
qc_type	NM	qc_type	NM	qc_type	NM
units	NG/KG	units	NG/KG	units	NG/KG
Pct_Solids	57.0	Pct_Solids	37.0	Pct_Solids	44.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	7700	J	L
1,2,3,4,6,7,8,9-OCDF	330		
1,2,3,4,6,7,8-HPCDD	580		
1,2,3,4,6,7,8-HPCDF	99		
1,2,3,4,7,8,9-HPCDF	9		
1,2,3,4,7,8-HXCDD	3.9	U	
1,2,3,4,7,8-HXCDF	4.2	U	
1,2,3,6,7,8-HXCDD	23		
1,2,3,6,7,8-HXCDF	2.9	U	
1,2,3,7,8,9-HXCDD	7.4	J	P
1,2,3,7,8,9-HXCDF	0.46	U	
1,2,3,7,8-PECDD	2.1	U	
1,2,3,7,8-PECDF	1.4	U	
2,3,4,6,7,8-HXCDF	2.4	U	
2,3,4,7,8-PECDF	4.3	U	
2,3,7,8-TCDD	0.83	U	
2,3,7,8-TCDF	5.7		
TOTAL HPCDD	1100		
TOTAL HPCDF	510		
TOTAL HXCDD	120		
TOTAL HXCDF	110		
TOTAL PECDD	4.8	U	
TOTAL PECDF	29		
TOTAL TCDD	2.4		
TOTAL TCDF	81		

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	2300		
1,2,3,4,6,7,8,9-OCDF	250		
1,2,3,4,6,7,8-HPCDD	240		
1,2,3,4,6,7,8-HPCDF	65		
1,2,3,4,7,8,9-HPCDF	4.2	U	
1,2,3,4,7,8-HXCDD	4.1	U	
1,2,3,4,7,8-HXCDF	5.6	U	
1,2,3,6,7,8-HXCDD	9.9	J	P
1,2,3,6,7,8-HXCDF	5.4	U	
1,2,3,7,8,9-HXCDD	9.2	J	P
1,2,3,7,8,9-HXCDF	0.94	U	
1,2,3,7,8-PECDD	2.7	U	
1,2,3,7,8-PECDF	3.6	U	
2,3,4,6,7,8-HXCDF	3.4	U	
2,3,4,7,8-PECDF	4.7	U	
2,3,7,8-TCDD	0.62	U	
2,3,7,8-TCDF	5.1		
TOTAL HPCDD	440		
TOTAL HPCDF	180		
TOTAL HXCDD	67		
TOTAL HXCDF	41		
TOTAL PECDD	4.2	U	
TOTAL PECDF	15		
TOTAL TCDD	1.7		
TOTAL TCDF	77		

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	1900		
1,2,3,4,6,7,8,9-OCDF	170		
1,2,3,4,6,7,8-HPCDD	220		
1,2,3,4,6,7,8-HPCDF	64		
1,2,3,4,7,8,9-HPCDF	4.4	U	
1,2,3,4,7,8-HXCDD	4.4	U	
1,2,3,4,7,8-HXCDF	5.5	U	
1,2,3,6,7,8-HXCDD	10	J	P
1,2,3,6,7,8-HXCDF	3.6	U	
1,2,3,7,8,9-HXCDD	11	J	P
1,2,3,7,8,9-HXCDF	0.9	U	
1,2,3,7,8-PECDD	2.7	U	
1,2,3,7,8-PECDF	1.6	U	
2,3,4,6,7,8-HXCDF	3	U	
2,3,4,7,8-PECDF	2.7	U	
2,3,7,8-TCDD	0.84	U	
2,3,7,8-TCDF	4.5		
TOTAL HPCDD	430		
TOTAL HPCDF	170		
TOTAL HXCDD	73		
TOTAL HXCDF	50		
TOTAL PECDD	5.1	U	
TOTAL PECDF	9.7		
TOTAL TCDD	1.2		
TOTAL TCDF	65		

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**MR. B. DAVIS**	**DATE:**	**APRIL 18, 2007**
FROM:	**EDWARD SEDLMYER**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION- VOA/SVOA/PEST/PCB/PAH/PCDD/PCDF**

CTO 0013, NTC GREAT LAKES
SDG C6L200201

SAMPLES: 4/Aqueous/VOA/SVOA/PEST/PCB/PAH/HERB/PCDD/PCDF

NTC01RB12190601 NTC01SW0400 NTC01SW0500
NTC01TB12190601

5/Soild/VOA/PAH

NTC01FD12190601 NTC01SB0970304 NTC01SB0981516
NTC01SB0991012 NTC01SB1001012

2/Soild/SVOA/PEST/PCB/HERB/PCDD/PCDF

NTC01FD12190601 NTC01SB0991012

OVERVIEW

The sample set for CTO 0013 NTC Great Lakes, SDG C6L200201 consists of one (1) trip blank, one (1) rinse blank, two (2) aqueous environmental samples, and five (5) soil environmental samples. The samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOA), polynuclear aromatic hydrocarbons (PAH), pesticides (PEST), polychlorinated biphenyls (PCBs), and polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF) as listed above. The trip blank was analyzed for VOAs only. One field duplicate pair was associated with this SDG: NTC01SB0991012 / NTC01FD12190601.

The samples were collected by TetraTech NUS on December 18 and 19, 2006 and analyzed by Severn Trent Laboratories, Inc. All analyses were conducted in accordance with USEPA SW 846 Methods 8260B, 8270C, 8081A, 8082, 8310, 8151A, and 8290 analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
  • Initial and Continuing Calibration
* • Laboratory Blank Analyses
  • Field Duplicate Results
* • Detection Limits

In addition, sample NTC01SW0500 was also validated with regard to the following parameters:

* • Surrogate Recoveries
* • Blank Spike/Blank Spike Duplicate Results
  • Matrix Spike/Matrix Spike Duplicate Results
* • Internal Standard Recoveries
* • Compound Quantitation

- Compound Identification

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

Volatile

Toluene was detected in the rinse blank at a concentration of 0.44 ug/L. No qualification of the data was performed but the issue is documented for the end user of the data to evaluate.

Initial and continuing calibration relative response factors (RRFs) were less than the 0.05 quality control limit for bromomethane on instrument HP3. Only non-detected results were reported for the aforementioned compounds and these were rejected (UR) in all soil samples.

Continuing calibration percent differences (%Ds) were greater than the 25% quality control limit for acetone and methyl acetate on instrument HP3, on 12/27/06 at 13:15. No action was taken on this basis because the associated samples were for limited review only.

Continuing calibration percent differences (%Ds) were greater than the 25% quality control limit for dichlorodifluoromethane, isopropylbenzene, 1,2,4-trichlorobenzene, and cyclohexane on instrument HP4, on 12/27/06 at 16:41. The non-detected results for the aforementioned compounds were qualified as estimated (UJ) for sample NTC01SW0500.

The matrix spike / matrix spike duplicate (MS/MSD) associated with aqueous batch 6361503 had a percent recovery less than the quality control limit for 1,2,4-trichlorobenzene. No action was taken on this basis because the spiked sample was not a Tetra Tech sample.

Acetone and methylene chloride were not detected in the method blanks. However, they are considered common laboratory contaminants. Positive acetone and methylene chloride results were qualified as estimated (J) in the associated samples.

Semivolatile

A %D was greater than the 25% quality control limit for hexachlorocyclopentadiene on instrument 722, on 01/08/07 at 13:10. The non-detected result for hexachlorocyclopentadiene was qualified as estimated (UJ), in sample NTC01SW0500.

The MS/MSD associated with the aqueous batch 6355281 had percent recoveries less than 10% for hexachlorocyclopentadiene and 3,3'-dichlorobenzidine in the MS and MSD. No action was taken on this basis because the LCS recoveries were acceptable and the MS/MSD was not performed on a Tetra Tech sample.

The MS/MSD performed on sample NTC01SB0991012 had percent recoveries less than 10% for 2,4-dinitrophenol, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, and benzo(g,h,i)perylene in the MS and MSD. The non-detected results for the aforementioned compounds for sample NTC01SB0991012 have been rejected (UR).

The field duplicate precision exceeded the 50% relative percent difference (RPD) quality control limit for 2-pyrene, fluoranthene, and phenanthrene in the field duplicate pair NTC01FD12190601 and NTC01SB0991012. Positive results for the aforementioned compounds in the duplicate samples NTC01FD12190601 and NTC01SB0991012 were qualified as estimated (J).

Hexachlorophene was not calibrated for in the initial or continuing calibrations. The compound was searched for

as a TIC. Hexachlorophene was not found in any samples.

The PAHs were reported in both the semivolatile fraction and the PAH fraction. No action was taken on this basis.

Pentachlorophenol results were reported in both the semivolatile and herbicide fractions.

Pesticides

A continuing verification %D exceeded the 15% quality control limit for 4,4'-DDD on 01/04/07 at 01:45 on the RTX-50 column. The compounds alpha-BHC, gamma-BHC, endrin, 4,4'-DDD, and methoxychlor exceeded the 15% quality control limit for the RTX-1701 column. The non-detected result for 4,4'-DDD in sample NTC01SW0500 has been qualified as estimated (UJ). No action was taken on the other compounds because the results were non-detected and the RTX-50 column met control limits.

Continuing verification %Ds exceeded the 15% quality control limit for beta-BHC, delta-BHC, 4,4'-DDE, endosulfan II, endrin aldehyde, and endosulfan sulfate on 01/04/07 at 01:45 on the RTX-1701 column. All compounds met the 15% quality control limit for the RTX-50 column. No action was taken because all the results were non-detected and the RTX-50 column met control limits.

The field duplicate precision exceeded the 50% relative percent difference (RPD) quality control limit for 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT in the field duplicate pair NTC01FD12190601 and NTC01SB0991012. Positive results for the aforementioned compounds in the duplicate samples NTC01FD12190601 and NTC01SB0991012 were qualified as estimated (J).

PCBs

The field duplicate pair NTC01SB0991012 and NTC01FD12190601 exceeded the RPD and/or the difference between results was >2X RL quality control criteria for Aroclor-1248 and Aroclor-1260. The positive and non-detected results for Aroclor-1248 and Aroclor-1260 were qualified as estimated (J) and (UJ), in the field duplicate pair.

PAHs

Phenanthrene was detected in the rinse blank at a concentration of 0.078 ug/L. No qualification of the data was performed but the issue is documented for the end user of the data to evaluate.

The relative percent difference (RPD) between columns exceeded 25% for the following compounds. The positive results were reported as estimated, (J) for the compounds below:

Sample	Compound	%D
NTC01SW0500	Fluoranthene	44.5%
	Pyrene	66.5%
	Indeno(1,2,3-cd)pyrene	88.2%

The field duplicate precision exceeded the 50% relative percent difference (RPD) quality control limit for 2-methylnaphthalene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, carbazole, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene in the field duplicate pair NTC01FD12190601 and NTC01SB0991012. Positive results for the aforementioned compounds in the duplicate samples NTC01FD12190601 and NTC01SB0991012 were qualified as estimated (J).

HERB

Continuing verification %Ds exceeded the 15% quality control limit for 2,4-D and 2,4,5-T on 12/31/06 at 02:34 on the RTX-1701 column. All compounds met the 15% quality control limit for the RTX-50 column. No action was taken because all the results were non-detected and the RTX-50 column met control limits.

PCDD/PCDF

OCDD was detected in the rinse blank at a concentration of 80 pg/g. No qualification of the data was performed but the issue is documented for the end user of the data to evaluate.

The internal standards 13C-2,3,7,8-TCDD and 13C-2,3,7,8-TCDF for the method blank had recoveries less than 40%. No action was taken on this basis because all signal to noise ratios were greater than 10% and QC data does not get qualified.

The field duplicate precision exceeded the 50% relative percent difference (RPD) quality control limit for OCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8-HpCDF, 2,3,7,8-TCDD, 2,3,7,8-TCDF, total HpCDD, total HpCDF, total HxCDF, total PeCDD, total PeCDF, total TCDD, and total TCDF in the field duplicate pair NTC01FD12190601 and NTC01SB0991012. Positive results for the aforementioned compounds in the duplicate samples NTC01FD12190601 and NTC01SB0991012 were qualified as estimated (J).

The bracketing continuing calibration analyzed on 1/11/07 at 08:45 had a percent difference that exceeded the 20% quality control limit. No action was taken on this basis and the average response factor between the opening and ending continuing calibrations was used to quantitate 1,2,3,4,7,8-HxCDD for the associated samples.

All soil samples with positive detections for 2,3,7,8-TCDF were confirmed on a different column and the confirmation results were reported by the laboratory.

Additional Comments:

Positive results less than the reporting limit (RL) were qualified as estimated, J, due to uncertainty near the detection limit.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Qualifications were made on initial or continuing calibration of several VOA, SVOA, and PEST compounds that failed to comply with quality control criteria (%RSDs, %Ds, and RRFs).

Other factors affecting data quality: Field duplicate imprecision in the PAH, SVOC, PCB, PEST, and PCDD/PCDF fractions resulted in qualification of results for samples NTC01FD12180602 and NTC01SB0900812. Qualifications were made based on percent difference between columns non-compliances for the PAH fraction. SVOA MS/MSD non-compliances resulted in qualification of sample NTC01SB0991012.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (October 1999), U.S. EPA National Functional Guidelines for Dioxin/Furan Data Validation (September 2005), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006). The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the DoD QSM."

Tetra Tech NUS

Edward Sedlmyer
Chemist/Data Validator

TetraTech NUS

Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00295

SDG: C6L200201 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01RB12190601
samp_date	12/19/2006
lab_id	C6L200201003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01RB12190601
samp_date	12/19/2006
lab_id	C6L200201003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	0.44	J	P
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

nsample	NTC01SW0400
samp_date	12/19/2006
lab_id	C6L200201008
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	0.39	J	P
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1.7		
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01SW0400
samp_date	12/19/2006
lab_id	C6L200201008
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	0.34	J	P

nsample	NTC01SW0500
samp_date	12/18/2006
lab_id	C6L200201001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	0.21	J	P
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	UJ	C
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1.6		
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	UJ	C

nsample	NTC01SW0500
samp_date	12/18/2006
lab_id	C6L200201001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	UJ	C
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	UJ	C
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01TB12190601
samp_date	12/19/2006
lab_id	C6L200201009
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01TB12190601
samp_date	12/19/2006
lab_id	C6L200201009
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: WATER DATA FRACTION: OS

nsample	NTC01RB12190601DL
samp_date	12/19/2006
lab_id	C6L200201003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	11	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	11	U	
2,4,5-TRICHLOROPHENOL	11	U	
2,4,6-TRICHLOROPHENOL	11	U	
2,4-DICHLOROPHENOL	11	U	
2,4-DIMETHYLPHENOL	11	U	
2,4-DINITROPHENOL	56	U	
2,4-DINITROTOLUENE	11	U	
2,6-DINITROTOLUENE	11	U	
2-CHLORONAPHTHALENE	11	U	
2-CHLOROPHENOL	11	U	
2-METHYLNAPHTHALENE	11	U	
2-METHYLPHENOL	11	U	
2-NITROANILINE	56	U	
2-NITROPHENOL	11	U	
3,3'-DICHLOROBENZIDINE	56	U	
3-NITROANILINE	56	U	
4,6-DINITRO-2-METHYLPHENOL	56	U	
4-BROMOPHENYL PHENYL ETHER	11	U	
4-CHLORO-3-METHYLPHENOL	11	U	
4-CHLOROANILINE	11	U	
4-CHLOROPHENYL PHENYL ETHER	11	U	
4-METHYLPHENOL	11	U	
4-NITROANILINE	56	U	
4-NITROPHENOL	56	U	
ACENAPHTHENE	11	U	
ACENAPHTHYLENE	11	U	
ACETOPHENONE	11	U	
ANTHRACENE	11	U	
ATRAZINE	11	U	
BENZALDEHYDE	11	U	
BENZO(A)ANTHRACENE	11	U	

nsample	NTC01RB12190601DL
samp_date	12/19/2006
lab_id	C6L200201003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	11	U	
BENZO(B)FLUORANTHENE	11	U	
BENZO(G,H,I)PERYLENE	11	U	
BENZO(K)FLUORANTHENE	11	U	
BIS(2-CHLOROETHOXY)METHANE	11	U	
BIS(2-CHLOROETHYL)ETHER	11	U	
BIS(2-ETHYLHEXYL)PHTHALATE	11	U	
BUTYL BENZYL PHTHALATE	11	U	
CAPROLACTAM	11	U	
CARBAZOLE	11	U	
CHRYSENE	11	U	
DIBENZO(A,H)ANTHRACENE	11	U	
DIBENZOFURAN	11	U	
DIETHYL PHTHALATE	11	U	
DIMETHYL PHTHALATE	11	U	
DI-N-BUTYL PHTHALATE	11	U	
DI-N-OCTYL PHTHALATE	11	U	
FLUORANTHENE	11	U	
FLUORENE	11	U	
HEXACHLOROBENZENE	11	U	
HEXACHLOROBUTADIENE	11	U	
HEXACHLOROCYCLOPENTADIENE	56	U	
HEXACHLOROETHANE	11	U	
INDENO(1,2,3-CD)PYRENE	11	U	
ISOPHORONE	11	U	
NAPHTHALENE	11	U	
NITROBENZENE	11	U	
N-NITROSO-DI-N-PROPYLAMINE	11	U	
N-NITROSODIPHENYLAMINE	11	U	
PENTACHLOROPHENOL	56	U	
PHENANTHRENE	11	U	
PHENOL	11	U	

nsample	NTC01RB12190601DL
samp_date	12/19/2006
lab_id	C6L200201003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
PYRENE	11	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: WATER DATA FRACTION: OS

nsample	NTC01SW0400DL
samp_date	12/19/2006
lab_id	C6L200201008
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	11	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	11	U	
2,4,5-TRICHLOROPHENOL	11	U	
2,4,6-TRICHLOROPHENOL	11	U	
2,4-DICHLOROPHENOL	11	U	
2,4-DIMETHYLPHENOL	11	U	
2,4-DINITROPHENOL	55	U	
2,4-DINITROTOLUENE	11	U	
2,6-DINITROTOLUENE	11	U	
2-CHLORONAPHTHALENE	11	U	
2-CHLOROPHENOL	11	U	
2-METHYLNAPHTHALENE	11	U	
2-METHYLPHENOL	11	U	
2-NITROANILINE	55	U	
2-NITROPHENOL	11	U	
3,3'-DICHLOROBENZIDINE	55	U	
3-NITROANILINE	55	U	
4,6-DINITRO-2-METHYLPHENOL	55	U	
4-BROMOPHENYL PHENYL ETHER	11	U	
4-CHLORO-3-METHYLPHENOL	11	U	
4-CHLOROANILINE	11	U	
4-CHLOROPHENYL PHENYL ETHER	11	U	
4-METHYLPHENOL	11	U	
4-NITROANILINE	55	U	
4-NITROPHENOL	55	U	
ACENAPHTHENE	11	U	
ACENAPHTHYLENE	11	U	
ACETOPHENONE	11	U	
ANTHRACENE	11	U	
ATRAZINE	11	U	
BENZALDEHYDE	11	U	
BENZO(A)ANTHRACENE	11	U	

nsample	NTC01SW0400DL
samp_date	12/19/2006
lab_id	C6L200201008
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	11	U	
BENZO(B)FLUORANTHENE	11	U	
BENZO(G,H,I)PERYLENE	11	U	
BENZO(K)FLUORANTHENE	11	U	
BIS(2-CHLOROETHOXY)METHANE	11	U	
BIS(2-CHLOROETHYL)ETHER	11	U	
BIS(2-ETHYLHEXYL)PHTHALATE	11	U	
BUTYL BENZYL PHTHALATE	11	U	
CAPROLACTAM	11	U	
CARBAZOLE	11	U	
CHRYSENE	11	U	
DIBENZO(A,H)ANTHRACENE	11	U	
DIBENZOFURAN	11	U	
DIETHYL PHTHALATE	11	U	
DIMETHYL PHTHALATE	11	U	
DI-N-BUTYL PHTHALATE	11	U	
DI-N-OCTYL PHTHALATE	11	U	
FLUORANTHENE	11	U	
FLUORENE	11	U	
HEXACHLOROBENZENE	11	U	
HEXACHLOROBUTADIENE	11	U	
HEXACHLOROCYCLOPENTADIENE	55	U	
HEXACHLOROETHANE	11	U	
INDENO(1,2,3-CD)PYRENE	11	U	
ISOPHORONE	11	U	
NAPHTHALENE	11	U	
NITROBENZENE	11	U	
N-NITROSO-DI-N-PROPYLAMINE	11	U	
N-NITROSODIPHENYLAMINE	11	U	
PENTACHLOROPHENOL	55	U	
PHENANTHRENE	11	U	
PHENOL	11	U	

nsample	NTC01SW0400DL
samp_date	12/19/2006
lab_id	C6L200201008
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
PYRENE	11	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: WATER DATA FRACTION: OS

nsample	NTC01SW0500DL
samp_date	12/18/2006
lab_id	C6L200201001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	10	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	10	U	
2,4,5-TRICHLOROPHENOL	10	U	
2,4,6-TRICHLOROPHENOL	10	U	
2,4-DICHLOROPHENOL	10	U	
2,4-DIMETHYLPHENOL	10	U	
2,4-DINITROPHENOL	52	U	
2,4-DINITROTOLUENE	10	U	
2,6-DINITROTOLUENE	10	U	
2-CHLORONAPHTHALENE	10	U	
2-CHLOROPHENOL	10	U	
2-METHYLNAPHTHALENE	10	U	
2-METHYLPHENOL	10	U	
2-NITROANILINE	52	U	
2-NITROPHENOL	10	U	
3,3'-DICHLOROBENZIDINE	52	U	
3-NITROANILINE	52	U	
4,6-DINITRO-2-METHYLPHENOL	52	U	
4-BROMOPHENYL PHENYL ETHER	10	U	
4-CHLORO-3-METHYLPHENOL	10	U	
4-CHLOROANILINE	10	U	
4-CHLOROPHENYL PHENYL ETHER	10	U	
4-METHYLPHENOL	10	U	
4-NITROANILINE	52	U	
4-NITROPHENOL	52	U	
ACENAPHTHENE	10	U	
ACENAPHTHYLENE	10	U	
ACETOPHENONE	10	U	
ANTHRACENE	10	U	
ATRAZINE	10	U	
BENZALDEHYDE	10	U	
BENZO(A)ANTHRACENE	10	U	

nsample	NTC01SW0500DL
samp_date	12/18/2006
lab_id	C6L200201001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	10	U	
BENZO(B)FLUORANTHENE	10	U	
BENZO(G,H,I)PERYLENE	10	U	
BENZO(K)FLUORANTHENE	10	U	
BIS(2-CHLOROETHOXY)METHANE	10	U	
BIS(2-CHLOROETHYL)ETHER	10	U	
BIS(2-ETHYLHEXYL)PHTHALATE	10	U	
BUTYL BENZYL PHTHALATE	10	U	
CAPROLACTAM	10	U	
CARBAZOLE	10	U	
CHRYSENE	10	U	
DIBENZO(A,H)ANTHRACENE	10	U	
DIBENZOFURAN	10	U	
DIETHYL PHTHALATE	10	U	
DIMETHYL PHTHALATE	10	U	
DI-N-BUTYL PHTHALATE	10	U	
DI-N-OCTYL PHTHALATE	10	U	
FLUORANTHENE	10	U	
FLUORENE	10	U	
HEXACHLOROBENZENE	10	U	
HEXACHLOROBUTADIENE	10	U	
HEXACHLOROCYCLOPENTADIENE	52	UJ	C
HEXACHLOROETHANE	10	U	
INDENO(1,2,3-CD)PYRENE	10	U	
ISOPHORONE	10	U	
NAPHTHALENE	10	U	
NITROBENZENE	10	U	
N-NITROSO-DI-N-PROPYLAMINE	10	U	
N-NITROSODIPHENYLAMINE	10	U	
PENTACHLOROPHENOL	52	U	
PHENANTHRENE	10	U	
PHENOL	10	U	

nsample	NTC01SW0500DL
samp_date	12/18/2006
lab_id	C6L200201001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
PYRENE	10	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: WATER DATA FRACTION: PAH

nsample	NTC01RB12190601DL
samp_date	12/19/2006
lab_id	C6L200201003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1	U	
ACENAPHTHENE	1	U	
ACENAPHTHYLENE	1	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CARBAZOLE	1	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	1	U	
PHENANTHRENE	0.078	J	P
PYRENE	0.2	U	

nsample	NTC01SW0400DL
samp_date	12/19/2006
lab_id	C6L200201008
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1	U	
ACENAPHTHENE	1	U	
ACENAPHTHYLENE	1	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.044	J	P
BENZO(K)FLUORANTHENE	0.2	U	
CARBAZOLE	1	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.12	J	P
FLUORENE	0.025	J	P
INDENO(1,2,3-CD)PYRENE	0.029	J	P
NAPHTHALENE	1	U	
PHENANTHRENE	0.12	J	P
PYRENE	0.056	J	P

nsample	NTC01SW0500
samp_date	12/18/2006
lab_id	C6L200201001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1	U	
ACENAPHTHENE	1	U	
ACENAPHTHYLENE	1	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.049	J	P
BENZO(K)FLUORANTHENE	0.2	U	
CARBAZOLE	1	U	
CHRYSENE	0.034	J	P
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.1	J	PU
FLUORENE	0.031	J	P
INDENO(1,2,3-CD)PYRENE	0.032	J	PU
NAPHTHALENE	1	U	
PHENANTHRENE	0.15	J	P
PYRENE	0.063	J	PU

PROJ_NO: 00295

SDG: C6L200201 MEDIA: WATER DATA FRACTION: PEST/PCB

nsample	NTC01RB12190601DL
samp_date	12/19/2006
lab_id	C6L200201003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	0.05	U	
4,4'-DDE	0.05	U	
4,4'-DDT	0.05	U	
ALDRIN	0.05	U	
ALPHA-BHC	0.05	U	
ALPHA-CHLORDANE	0.05	U	
AROCLOR-1016	1	U	
AROCLOR-1221	1	U	
AROCLOR-1232	1	U	
AROCLOR-1242	1	U	
AROCLOR-1248	1	U	
AROCLOR-1254	1	U	
AROCLOR-1260	1	U	
BETA-BHC	0.05	U	
DELTA-BHC	0.05	U	
DIELDRIN	0.05	U	
ENDOSULFAN I	0.05	U	
ENDOSULFAN II	0.05	U	
ENDOSULFAN SULFATE	0.05	U	
ENDRIN	0.05	U	
ENDRIN ALDEHYDE	0.05	U	
ENDRIN KETONE	0.05	U	
GAMMA-BHC (LINDANE)	0.05	U	
GAMMA-CHLORDANE	0.05	U	
HEPTACHLOR	0.05	U	
HEPTACHLOR EPOXIDE	0.05	U	
METHOXYCHLOR	0.1	U	
TOXAPHENE	2	U	

nsample	NTC01SW0400
samp_date	12/19/2006
lab_id	C6L200201008
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	0.05	U	
4,4'-DDE	0.05	U	
4,4'-DDT	0.05	U	
ALDRIN	0.05	U	
ALPHA-BHC	0.05	U	
ALPHA-CHLORDANE	0.05	U	
AROCLOR-1016	1	U	
AROCLOR-1221	1	U	
AROCLOR-1232	1	U	
AROCLOR-1242	1	U	
AROCLOR-1248	1	U	
AROCLOR-1254	1	U	
AROCLOR-1260	1	U	
BETA-BHC	0.05	U	
DELTA-BHC	0.05	U	
DIELDRIN	0.05	U	
ENDOSULFAN I	0.05	U	
ENDOSULFAN II	0.05	U	
ENDOSULFAN SULFATE	0.05	U	
ENDRIN	0.05	U	
ENDRIN ALDEHYDE	0.05	U	
ENDRIN KETONE	0.05	U	
GAMMA-BHC (LINDANE)	0.05	U	
GAMMA-CHLORDANE	0.05	U	
HEPTACHLOR	0.05	U	
HEPTACHLOR EPOXIDE	0.05	U	
METHOXYCHLOR	0.1	U	
TOXAPHENE	2	U	

nsample	NTC01SW0500DL
samp_date	12/18/2006
lab_id	C6L200201001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	0.05	UJ	C
4,4'-DDE	0.05	U	
4,4'-DDT	0.05	U	
ALDRIN	0.05	U	
ALPHA-BHC	0.05	U	
ALPHA-CHLORDANE	0.05	U	
AROCLOR-1016	1	U	
AROCLOR-1221	1	U	
AROCLOR-1232	1	U	
AROCLOR-1242	1	U	
AROCLOR-1248	1	U	
AROCLOR-1254	1	U	
AROCLOR-1260	1	U	
BETA-BHC	0.05	U	
DELTA-BHC	0.05	U	
DIELDRIN	0.05	U	
ENDOSULFAN I	0.05	U	
ENDOSULFAN II	0.05	U	
ENDOSULFAN SULFATE	0.05	U	
ENDRIN	0.05	U	
ENDRIN ALDEHYDE	0.05	U	
ENDRIN KETONE	0.05	U	
GAMMA-BHC (LINDANE)	0.05	U	
GAMMA-CHLORDANE	0.05	U	
HEPTACHLOR	0.05	U	
HEPTACHLOR EPOXIDE	0.05	U	
METHOXYCHLOR	0.1	U	
TOXAPHENE	2	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: WATER DATA FRACTION: HERB

nsample	NTC01RB12190601DL
samp_date	12/19/2006
lab_id	C6L200201003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	1.1	U	
2,4,5-TP (SILVEX)	1.1	U	
2,4-D	4.4	U	
PENTACHLOROPHENOL	1.1	U	

nsample	NTC01SW0400DL
samp_date	12/19/2006
lab_id	C6L200201008
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	1	U	
2,4,5-TP (SILVEX)	1	U	
2,4-D	4.2	U	
PENTACHLOROPHENOL	1	U	

nsample	NTC01SW0500DL
samp_date	12/18/2006
lab_id	C6L200201001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	1.1	U	
2,4,5-TP (SILVEX)	1.1	U	
2,4-D	4.2	U	
PENTACHLOROPHENOL	1.1	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: WATER DATA FRACTION: DIOX

nsample	NTC01RB12190601
samp_date	12/19/2006
lab_id	C6L200201003
qc_type	NM
units	PG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	80	J	P
1,2,3,4,6,7,8,9-OCDF	3.7	U	
1,2,3,4,6,7,8-HPCDD	5.7	U	
1,2,3,4,6,7,8-HPCDF	2.2	U	
1,2,3,4,7,8,9-HPCDF	2.6	U	
1,2,3,4,7,8-HXCDD	1.6	U	
1,2,3,4,7,8-HXCDF	2.7	U	
1,2,3,6,7,8-HXCDD	1.5	U	
1,2,3,6,7,8-HXCDF	2.5	U	
1,2,3,7,8,9-HXCDD	1.5	U	
1,2,3,7,8,9-HXCDF	2.1	U	
1,2,3,7,8-PECDD	4.1	U	
1,2,3,7,8-PECDF	1.5	U	
2,3,4,6,7,8-HXCDF	2	U	
2,3,4,7,8-PECDF	1.5	U	
2,3,7,8-TCDD	1.2	U	
2,3,7,8-TCDF	1.1	U	
TOTAL HPCDD	5.7	U	
TOTAL HPCDF	2.6	U	
TOTAL HXCDD	1.6	U	
TOTAL HXCDF	2.7	U	
TOTAL PECDD	8.6	U	
TOTAL PECDF	1.5	U	
TOTAL TCDD	1.2	U	
TOTAL TCDF	1.1	U	

nsample	NTC01SW0400
samp_date	12/19/2006
lab_id	C6L200201008
qc_type	NM
units	PG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	44	U	
1,2,3,4,6,7,8,9-OCDF	4	U	
1,2,3,4,6,7,8-HPCDD	4.3	U	
1,2,3,4,6,7,8-HPCDF	3	U	
1,2,3,4,7,8,9-HPCDF	2.2	U	
1,2,3,4,7,8-HXCDD	2	U	
1,2,3,4,7,8-HXCDF	1.6	U	
1,2,3,6,7,8-HXCDD	2	U	
1,2,3,6,7,8-HXCDF	1.1	U	
1,2,3,7,8,9-HXCDD	1.9	U	
1,2,3,7,8,9-HXCDF	1.3	U	
1,2,3,7,8-PECDD	3.7	U	
1,2,3,7,8-PECDF	1.8	U	
2,3,4,6,7,8-HXCDF	1.2	U	
2,3,4,7,8-PECDF	1.8	U	
2,3,7,8-TCDD	1.2	U	
2,3,7,8-TCDF	0.91	U	
TOTAL HPCDD	4.3	U	
TOTAL HPCDF	3	U	
TOTAL HXCDD	2	U	
TOTAL HXCDF	1.6	U	
TOTAL PECDD	10	U	
TOTAL PECDF	1.8	U	
TOTAL TCDD	1.2	U	
TOTAL TCDF	0.91	U	

nsample	NTC01SW0500
samp_date	12/18/2006
lab_id	C6L200201001
qc_type	NM
units	PG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	130		
1,2,3,4,6,7,8,9-OCDF	4.3	U	
1,2,3,4,6,7,8-HPCDD	6	U	
1,2,3,4,6,7,8-HPCDF	2.3	U	
1,2,3,4,7,8,9-HPCDF	2.2	U	
1,2,3,4,7,8-HXCDD	2	U	
1,2,3,4,7,8-HXCDF	2.1	U	
1,2,3,6,7,8-HXCDD	1.9	U	
1,2,3,6,7,8-HXCDF	1.1	U	
1,2,3,7,8,9-HXCDD	1.8	U	
1,2,3,7,8,9-HXCDF	1.3	U	
1,2,3,7,8-PECDD	3.7	U	
1,2,3,7,8-PECDF	1.6	U	
2,3,4,6,7,8-HXCDF	1.3	U	
2,3,4,7,8-PECDF	1.7	U	
2,3,7,8-TCDD	1.4	U	
2,3,7,8-TCDF	1	U	
TOTAL HPCDD	6.5	U	
TOTAL HPCDF	2.3	U	
TOTAL HXCDD	2	U	
TOTAL HXCDF	2.1	U	
TOTAL PECDD	9.7	U	
TOTAL PECDF	1.7	U	
TOTAL TCDD	1.4	U	
TOTAL TCDF	1	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01FD12190601DL
samp_date	12/19/2006
lab_id	C6L200201002
qc_type	NM
units	UG/KG
Pct_Solids	82.0
DUP_OF:	NTC01SB0991012

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	6.1	U	
1,1,2,2-TETRACHLOROETHANE	6.1	U	
1,1,2-TRICHLOROETHANE	6.1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	6.1	U	
1,1-DICHLOROETHANE	6.1	U	
1,1-DICHLOROETHENE	6.1	U	
1,2,4-TRICHLOROBENZENE	6.1	U	
1,2-DIBROMO-3-CHLOROPROPANE	6.1	U	
1,2-DIBROMOETHANE	6.1	U	
1,2-DICHLOROBENZENE	6.1	U	
1,2-DICHLOROETHANE	6.1	U	
1,2-DICHLOROPROPANE	6.1	U	
1,3-DICHLOROBENZENE	6.1	U	
1,4-DICHLOROBENZENE	6.1	U	
2-BUTANONE	6.1	U	
2-HEXANONE	6.1	U	
4-METHYL-2-PENTANONE	6.1	U	
ACETONE	24	U	
BENZENE	6.1	U	
BROMODICHLOROMETHANE	6.1	U	
BROMOFORM	6.1	U	
BROMOMETHANE	6.1	UR	C
CARBON DISULFIDE	6.1	U	
CARBON TETRACHLORIDE	6.1	U	
CHLOROBENZENE	6.1	U	
CHLORODIBROMOMETHANE	6.1	U	
CHLOROETHANE	6.1	U	
CHLOROFORM	6.1	U	
CHLOROMETHANE	6.1	U	
CIS-1,2-DICHLOROETHENE	6.1	U	
CIS-1,3-DICHLOROPROPENE	6.1	U	
CYCLOHEXANE	6.1	U	

nsample	NTC01FD12190601DL
samp_date	12/19/2006
lab_id	C6L200201002
qc_type	NM
units	UG/KG
Pct_Solids	82.0
DUP_OF:	NTC01SB0991012

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	6.1	U	
ETHYLBENZENE	6.1	U	
ISOPROPYLBENZENE	6.1	U	
METHYL ACETATE	6.1	U	
METHYL CYCLOHEXANE	6.1	U	
METHYL TERT-BUTYL ETHER	6.1	U	
METHYLENE CHLORIDE	6.1	U	
STYRENE	6.1	U	
TETRACHLOROETHENE	6.1	U	
TOLUENE	6.1	U	
TOTAL XYLENES	18	U	
TRANS-1,2-DICHLOROETHENE	6.1	U	
TRANS-1,3-DICHLOROPROPENE	6.1	U	
TRICHLOROETHENE	6.1	U	
TRICHLOROFLUOROMETHANE	6.1	U	
VINYL CHLORIDE	6.1	U	

nsample	NTC01SB0970304DL
samp_date	12/19/2006
lab_id	C6L200201004
qc_type	NM
units	UG/KG
Pct_Solids	74.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	8.1	U	
1,1,2,2-TETRACHLOROETHANE	8.1	U	
1,1,2-TRICHLOROETHANE	8.1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	8.1	U	
1,1-DICHLOROETHANE	8.1	U	
1,1-DICHLOROETHENE	8.1	U	
1,2,4-TRICHLOROBENZENE	8.1	U	
1,2-DIBROMO-3-CHLOROPROPANE	8.1	U	
1,2-DIBROMOETHANE	8.1	U	
1,2-DICHLOROBENZENE	8.1	U	
1,2-DICHLOROETHANE	8.1	U	
1,2-DICHLOROPROPANE	8.1	U	
1,3-DICHLOROBENZENE	8.1	U	
1,4-DICHLOROBENZENE	8.1	U	
2-BUTANONE	8.1	U	
2-HEXANONE	8.1	U	
4-METHYL-2-PENTANONE	8.1	U	
ACETONE	33	U	
BENZENE	8.1	U	
BROMODICHLOROMETHANE	8.1	U	
BROMOFORM	8.1	U	
BROMOMETHANE	8.1	UR	C
CARBON DISULFIDE	8.1	U	
CARBON TETRACHLORIDE	8.1	U	
CHLOROBENZENE	8.1	U	
CHLORODIBROMOMETHANE	8.1	U	
CHLOROETHANE	8.1	U	
CHLOROFORM	8.1	U	
CHLOROMETHANE	8.1	U	
CIS-1,2-DICHLOROETHENE	8.1	U	
CIS-1,3-DICHLOROPROPENE	8.1	U	
CYCLOHEXANE	8.1	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SB0970304DL
samp_date	12/19/2006
lab_id	C6L200201004
qc_type	NM
units	UG/KG
Pct_Solids	74.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	8.1	U	
ETHYLBENZENE	8.1	U	
ISOPROPYLBENZENE	8.1	U	
METHYL ACETATE	8.1	U	
METHYL CYCLOHEXANE	8.1	U	
METHYL TERT-BUTYL ETHER	8.1	U	
METHYLENE CHLORIDE	8.1	U	
STYRENE	8.1	U	
TETRACHLOROETHENE	8.1	U	
TOLUENE	8.1	U	
TOTAL XYLENES	24	U	
TRANS-1,2-DICHLOROETHENE	8.1	U	
TRANS-1,3-DICHLOROPROPENE	8.1	U	
TRICHLOROETHENE	8.1	U	
TRICHLOROFLUOROMETHANE	8.1	U	
VINYL CHLORIDE	8.1	U	

nsample	NTC01SB0981516DL
samp_date	12/19/2006
lab_id	C6L200201005
qc_type	NM
units	UG/KG
Pct_Solids	71.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	8.1	U	
1,1,2,2-TETRACHLOROETHANE	8.1	U	
1,1,2-TRICHLOROETHANE	8.1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	8.1	U	
1,1-DICHLOROETHANE	8.1	U	
1,1-DICHLOROETHENE	8.1	U	
1,2,4-TRICHLOROBENZENE	8.1	U	
1,2-DIBROMO-3-CHLOROPROPANE	8.1	U	
1,2-DIBROMOETHANE	8.1	U	
1,2-DICHLOROBENZENE	8.1	U	
1,2-DICHLOROETHANE	8.1	U	
1,2-DICHLOROPROPANE	8.1	U	
1,3-DICHLOROBENZENE	8.1	U	
1,4-DICHLOROBENZENE	8.1	U	
2-BUTANONE	3.2	J	P
2-HEXANONE	8.1	U	
4-METHYL-2-PENTANONE	8.1	U	
ACETONE	32	U	
BENZENE	8.1	U	
BROMODICHLOROMETHANE	8.1	U	
BROMOFORM	8.1	U	
BROMOMETHANE	8.1	UR	C
CARBON DISULFIDE	8.1	U	
CARBON TETRACHLORIDE	8.1	U	
CHLOROBENZENE	8.1	U	
CHLORODIBROMOMETHANE	8.1	U	
CHLOROETHANE	8.1	U	
CHLOROFORM	8.1	U	
CHLOROMETHANE	8.1	U	
CIS-1,2-DICHLOROETHENE	8.1	U	
CIS-1,3-DICHLOROPROPENE	8.1	U	
CYCLOHEXANE	8.1	U	

nsample	NTC01SB0981516DL
samp_date	12/19/2006
lab_id	C6L200201005
qc_type	NM
units	UG/KG
Pct_Solids	71.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	8.1	U	
ETHYLBENZENE	8.1	U	
ISOPROPYLBENZENE	8.1	U	
METHYL ACETATE	8.1	U	
METHYL CYCLOHEXANE	8.1	U	
METHYL TERT-BUTYL ETHER	8.1	U	
METHYLENE CHLORIDE	2.3	J	P
STYRENE	8.1	U	
TETRACHLOROETHENE	8.1	U	
TOLUENE	8.1	U	
TOTAL XYLENES	24	U	
TRANS-1,2-DICHLOROETHENE	8.1	U	
TRANS-1,3-DICHLOROPROPENE	8.1	U	
TRICHLOROETHENE	8.1	U	
TRICHLOROFLUOROMETHANE	8.1	U	
VINYL CHLORIDE	8.1	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SB0991012
samp_date	12/19/2006
lab_id	C6L200201006
qc_type	NM
units	UG/KG
Pct_Solids	82.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	6.1	U	
1,1,2,2-TETRACHLOROETHANE	6.1	U	
1,1,2-TRICHLOROETHANE	6.1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	6.1	U	
1,1-DICHLOROETHANE	6.1	U	
1,1-DICHLOROETHENE	6.1	U	
1,2,4-TRICHLOROBENZENE	6.1	U	
1,2-DIBROMO-3-CHLOROPROPANE	6.1	U	
1,2-DIBROMOETHANE	6.1	U	
1,2-DICHLOROBENZENE	6.1	U	
1,2-DICHLOROETHANE	6.1	U	
1,2-DICHLOROPROPANE	6.1	U	
1,3-DICHLOROBENZENE	6.1	U	
1,4-DICHLOROBENZENE	6.1	U	
2-BUTANONE	6.1	U	
2-HEXANONE	6.1	U	
4-METHYL-2-PENTANONE	6.1	U	
ACETONE	25	U	
BENZENE	6.1	U	
BROMODICHLOROMETHANE	6.1	U	
BROMOFORM	6.1	U	
BROMOMETHANE	6.1	UR	C
CARBON DISULFIDE	6.1	U	
CARBON TETRACHLORIDE	6.1	U	
CHLOROBENZENE	6.1	U	
CHLORODIBROMOMETHANE	6.1	U	
CHLOROETHANE	6.1	U	
CHLOROFORM	6.1	U	
CHLOROMETHANE	6.1	U	
CIS-1,2-DICHLOROETHENE	6.1	U	
CIS-1,3-DICHLOROPROPENE	6.1	U	
CYCLOHEXANE	6.1	U	

nsample	NTC01SB0991012
samp_date	12/19/2006
lab_id	C6L200201006
qc_type	NM
units	UG/KG
Pct_Solids	82.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	6.1	U	
ETHYLBENZENE	6.1	U	
ISOPROPYLBENZENE	6.1	U	
METHYL ACETATE	6.1	U	
METHYL CYCLOHEXANE	6.1	U	
METHYL TERT-BUTYL ETHER	6.1	U	
METHYLENE CHLORIDE	6.1	U	
STYRENE	6.1	U	
TETRACHLOROETHENE	6.1	U	
TOLUENE	6.1	U	
TOTAL XYLENES	18	U	
TRANS-1,2-DICHLOROETHENE	6.1	U	
TRANS-1,3-DICHLOROPROPENE	6.1	U	
TRICHLOROETHENE	6.1	U	
TRICHLOROFLUOROMETHANE	6.1	U	
VINYL CHLORIDE	6.1	U	

nsample	NTC01SB1001012DL
samp_date	12/19/2006
lab_id	C6L200201007
qc_type	NM
units	UG/KG
Pct_Solids	79.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	5.9	U	
1,1,2,2-TETRACHLOROETHANE	5.9	U	
1,1,2-TRICHLOROETHANE	5.9	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	5.9	U	
1,1-DICHLOROETHANE	5.9	U	
1,1-DICHLOROETHENE	5.9	U	
1,2,4-TRICHLOROBENZENE	5.9	U	
1,2-DIBROMO-3-CHLOROPROPANE	5.9	U	
1,2-DIBROMOETHANE	5.9	U	
1,2-DICHLOROBENZENE	5.9	U	
1,2-DICHLOROETHANE	5.9	U	
1,2-DICHLOROPROPANE	5.9	U	
1,3-DICHLOROBENZENE	5.9	U	
1,4-DICHLOROBENZENE	5.9	U	
2-BUTANONE	12		
2-HEXANONE	5.9	U	
4-METHYL-2-PENTANONE	5.9	U	
ACETONE	59	J	A
BENZENE	5.9	U	
BROMODICHLOROMETHANE	5.9	U	
BROMOFORM	5.9	U	
BROMOMETHANE	5.9	UR	C
CARBON DISULFIDE	5.9	U	
CARBON TETRACHLORIDE	5.9	U	
CHLOROBENZENE	5.9	U	
CHLORODIBROMOMETHANE	5.9	U	
CHLOROETHANE	5.9	U	
CHLOROFORM	5.9	U	
CHLOROMETHANE	5.9	U	
CIS-1,2-DICHLOROETHENE	5.9	U	
CIS-1,3-DICHLOROPROPENE	5.9	U	
CYCLOHEXANE	5.9	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: OV

nsample	NTC01SB1001012DL
samp_date	12/19/2006
lab_id	C6L200201007
qc_type	NM
units	UG/KG
Pct_Solids	79.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	5.9	U	
ETHYLBENZENE	5.9	U	
ISOPROPYLBENZENE	5.9	U	
METHYL ACETATE	5.9	U	
METHYL CYCLOHEXANE	5.9	U	
METHYL TERT-BUTYL ETHER	5.9	U	
METHYLENE CHLORIDE	2.1	J	AP
STYRENE	5.9	U	
TETRACHLOROETHENE	5.9	U	
TOLUENE	5.9	U	
TOTAL XYLENES	18	U	
TRANS-1,2-DICHLOROETHENE	5.9	U	
TRANS-1,3-DICHLOROPROPENE	5.9	U	
TRICHLOROETHENE	5.9	U	
TRICHLOROFLUOROMETHANE	5.9	U	
VINYL CHLORIDE	5.9	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: OS

nsample	NTC01FD12190601	nsample	NTC01FD12190601	nsample	NTC01FD12190601
samp_date	12/19/2006	samp_date	12/19/2006	samp_date	12/19/2006
lab_id	C6L200201002	lab_id	C6L200201002	lab_id	C6L200201002
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	82.0	Pct_Solids	82.0	Pct_Solids	82.0
DUP_OF:	NTC01SB0991012	DUP_OF:	NTC01SB0991012	DUP_OF:	NTC01SB0991012

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	400	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	400	U	
2,4,5-TRICHLOROPHENOL	400	U	
2,4,6-TRICHLOROPHENOL	400	U	
2,4-DICHLOROPHENOL	400	U	
2,4-DIMETHYLPHENOL	400	U	
2,4-DINITROPHENOL	1900	U	
2,4-DINITROTOLUENE	400	U	
2,6-DINITROTOLUENE	400	U	
2-CHLORONAPHTHALENE	400	U	
2-CHLOROPHENOL	400	U	
2-METHYLNAPHTHALENE	160	J	P
2-METHYLPHENOL	39	J	P
2-NITROANILINE	1900	U	
2-NITROPHENOL	400	U	
3,3'-DICHLOROBENZIDINE	1900	U	
3-NITROANILINE	1900	U	
4,6-DINITRO-2-METHYLPHENOL	1900	U	
4-BROMOPHENYL PHENYL ETHER	400	U	
4-CHLORO-3-METHYLPHENOL	400	U	
4-CHLOROANILINE	400	U	
4-CHLOROPHENYL PHENYL ETHER	400	U	
4-METHYLPHENOL	170	J	P
4-NITROANILINE	1900	U	
4-NITROPHENOL	1900	U	
ACENAPHTHENE	180	J	P
ACENAPHTHYLENE	18	J	P
ACETOPHENONE	400	U	
ANTHRACENE	160	J	P
ATRAZINE	400	U	
BENZALDEHYDE	110	J	P
BENZO(A)ANTHRACENE	520		

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	500		
BENZO(B)FLUORANTHENE	870		
BENZO(G,H,I)PERYLENE	500		
BENZO(K)FLUORANTHENE	230	J	P
BIS(2-CHLOROETHOXY)METHANE	400	U	
BIS(2-CHLOROETHYL)ETHER	400	U	
BIS(2-ETHYLHEXYL)PHTHALATE	400	U	
BUTYL BENZYL PHTHALATE	400	U	
CAPROLACTAM	400	U	
CARBAZOLE	100	J	P
CHRYSENE	680		
DIBENZO(A,H)ANTHRACENE	130	J	P
DIBENZOFURAN	96	J	P
DIETHYL PHTHALATE	18	J	P
DIMETHYL PHTHALATE	400	U	
DI-N-BUTYL PHTHALATE	400	U	
DI-N-OCTYL PHTHALATE	400	U	
FLUORANTHENE	1400	J	G
FLUORENE	140	J	P
HEXACHLOROBENZENE	400	U	
HEXACHLOROBUTADIENE	400	U	
HEXACHLOROCYCLOPENTADIENE	1900	U	
HEXACHLOROETHANE	400	U	
INDENO(1,2,3-CD)PYRENE	400		
ISOPHORONE	400	U	
NAPHTHALENE	200	J	P
NITROBENZENE	400	U	
N-NITROSO-DI-N-PROPYLAMINE	400	U	
N-NITROSODIPHENYLAMINE	400	U	
PENTACHLOROPHENOL	1900	U	
PHENANTHRENE	920	J	G
PHENOL	400	U	

Parameter	Result	Val Qual	Qual Code
PYRENE	1100	J	G

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: OS

nsample	NTC01SB0991012	nsample	NTC01SB0991012	nsample	NTC01SB0991012
samp_date	12/19/2006	samp_date	12/19/2006	samp_date	12/19/2006
lab_id	C6L200201006	lab_id	C6L200201006	lab_id	C6L200201006
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	82.0	Pct_Solids	82.0	Pct_Solids	82.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	400	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	400	U	
2,4,5-TRICHLOROPHENOL	400	U	
2,4,6-TRICHLOROPHENOL	400	U	
2,4-DICHLOROPHENOL	400	U	
2,4-DIMETHYLPHENOL	400	U	
2,4-DINITROPHENOL	2000	UR	D
2,4-DINITROTOLUENE	400	U	
2,6-DINITROTOLUENE	400	U	
2-CHLORONAPHTHALENE	400	U	
2-CHLOROPHENOL	400	U	
2-METHYLNAPHTHALENE	250	J	P
2-METHYLPHENOL	400	U	
2-NITROANILINE	2000	U	
2-NITROPHENOL	400	U	
3,3'-DICHLOROBENZIDINE	2000	U	
3-NITROANILINE	2000	U	
4,6-DINITRO-2-METHYLPHENOL	2000	U	
4-BROMOPHENYL PHENYL ETHER	400	U	
4-CHLORO-3-METHYLPHENOL	400	U	
4-CHLOROANILINE	400	U	
4-CHLOROPHENYL PHENYL ETHER	400	U	
4-METHYLPHENOL	60	J	P
4-NITROANILINE	2000	U	
4-NITROPHENOL	2000	U	
ACENAPHTHENE	160	J	P
ACENAPHTHYLENE	400	U	
ACETOPHENONE	400	U	
ANTHRACENE	13	J	P
ATRAZINE	400	U	
BENZALDEHYDE	400	U	
BENZO(A)ANTHRACENE	400	U	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	400	U	
BENZO(B)FLUORANTHENE	400	U	
BENZO(G,H,I)PERYLENE	400	UR	D
BENZO(K)FLUORANTHENE	400	U	
BIS(2-CHLOROETHOXY)METHANE	400	U	
BIS(2-CHLOROETHYL)ETHER	400	U	
BIS(2-ETHYLHEXYL)PHTHALATE	150	J	P
BUTYL BENZYL PHTHALATE	9.8	J	P
CAPROLACTAM	400	U	
CARBAZOLE	400	U	
CHRYSENE	400	U	
DIBENZO(A,H)ANTHRACENE	400	UR	D
DIBENZOFURAN	62	J	P
DIETHYL PHTHALATE	400	U	
DIMETHYL PHTHALATE	400	U	
DI-N-BUTYL PHTHALATE	400	U	
DI-N-OCTYL PHTHALATE	400	U	
FLUORANTHENE	45	J	GP
FLUORENE	400	U	
HEXACHLOROBENZENE	400	U	
HEXACHLOROBUTADIENE	400	U	
HEXACHLOROCYCLOPENTADIENE	2000	U	
HEXACHLOROETHANE	400	U	
INDENO(1,2,3-CD)PYRENE	400	UR	D
ISOPHORONE	400	U	
NAPHTHALENE	150	J	P
NITROBENZENE	400	U	
N-NITROSO-DI-N-PROPYLAMINE	400	U	
N-NITROSODIPHENYLAMINE	400	U	
PENTACHLOROPHENOL	2000	U	
PHENANTHRENE	120	J	GP
PHENOL	400	U	

Parameter	Result	Val Qual	Qual Code
PYRENE	41	J	GP

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: PAH

nsample	NTC01FD12190601DL	nsample	NTC01SB0970304DL	nsample	NTC01SB0981516
samp_date	12/19/2006	samp_date	12/19/2006	samp_date	12/19/2006
lab_id	C6L200201002	lab_id	C6L200201004	lab_id	C6L200201005
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	82.0	Pct_Solids	74.0	Pct_Solids	71.0
DUP_OF:	NTC01SB0991012	DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1200	J	G
ACENAPHTHENE	260	J	P
ACENAPHTHYLENE	3100	J	G
ANTHRACENE	360	J	G
BENZO(A)ANTHRACENE	580	J	G
BENZO(A)PYRENE	480	J	G
BENZO(B)FLUORANTHENE	620	J	G
BENZO(G,H,I)PERYLENE	490	J	G
BENZO(K)FLUORANTHENE	190	J	G
CARBAZOLE	300	J	GP
CHRYSENE	690	J	G
DIBENZO(A,H)ANTHRACENE	83	J	P
FLUORANTHENE	1800	J	G
FLUORENE	220		
INDENO(1,2,3-CD)PYRENE	550	J	G
NAPHTHALENE	770	J	P
PHENANTHRENE	1600	J	G
PYRENE	1000	J	G

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	290	J	P
ACENAPHTHENE	890	U	
ACENAPHTHYLENE	890	U	
ANTHRACENE	470		
BENZO(A)ANTHRACENE	1400		
BENZO(A)PYRENE	1300		
BENZO(B)FLUORANTHENE	1700		
BENZO(G,H,I)PERYLENE	900		
BENZO(K)FLUORANTHENE	800		
CARBAZOLE	160	J	P
CHRYSENE	1600		
DIBENZO(A,H)ANTHRACENE	180	U	
FLUORANTHENE	3700		
FLUORENE	110	J	P
INDENO(1,2,3-CD)PYRENE	1100		
NAPHTHALENE	280	J	P
PHENANTHRENE	2100		
PYRENE	2500		

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	7.7	J	P
ACENAPHTHENE	46	U	
ACENAPHTHYLENE	30	J	P
ANTHRACENE	4	J	P
BENZO(A)ANTHRACENE	9.4	U	
BENZO(A)PYRENE	1.5	J	P
BENZO(B)FLUORANTHENE	4.9	J	P
BENZO(G,H,I)PERYLENE	0.96	J	P
BENZO(K)FLUORANTHENE	9.4	U	
CARBAZOLE	46	U	
CHRYSENE	3.5	J	P
DIBENZO(A,H)ANTHRACENE	9.4	U	
FLUORANTHENE	15		
FLUORENE	9.4	U	
INDENO(1,2,3-CD)PYRENE	1	J	P
NAPHTHALENE	20	J	P
PHENANTHRENE	26		
PYRENE	12		

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: PAH

nsample	NTC01SB0991012DL	nsample	NTC01SB1001012
samp_date	12/19/2006	samp_date	12/19/2006
lab_id	C6L200201006	lab_id	C6L200201007
qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG
Pct_Solids	82.0	Pct_Solids	79.0
DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	260	J	GP
ACENAPHTHENE	400	U	
ACENAPHTHYLENE	250	J	GP
ANTHRACENE	120	J	G
BENZO(A)ANTHRACENE	120	J	G
BENZO(A)PYRENE	71	J	GP
BENZO(B)FLUORANTHENE	120	J	G
BENZO(G,H,I)PERYLENE	98	J	G
BENZO(K)FLUORANTHENE	38	J	GP
CARBAZOLE	56	J	GP
CHRYSENE	120	J	G
DIBENZO(A,H)ANTHRACENE	82	U	
FLUORANTHENE	540	J	G
FLUORENE	230		
INDENO(1,2,3-CD)PYRENE	99	J	G
NAPHTHALENE	110	J	P
PHENANTHRENE	920	J	G
PYRENE	370	J	G

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	27	J	P
ACENAPHTHENE	42	U	
ACENAPHTHYLENE	300		
ANTHRACENE	7.4	J	P
BENZO(A)ANTHRACENE	8.5	U	
BENZO(A)PYRENE	23		
BENZO(B)FLUORANTHENE	35		
BENZO(G,H,I)PERYLENE	44		
BENZO(K)FLUORANTHENE	9.7		
CARBAZOLE	42	U	
CHRYSENE	23		
DIBENZO(A,H)ANTHRACENE	8.5	U	
FLUORANTHENE	46		
FLUORENE	8.5	U	
INDENO(1,2,3-CD)PYRENE	38		
NAPHTHALENE	25	J	P
PHENANTHRENE	34		
PYRENE	34		

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: PEST/PCB

nsample	NTC01FD12190601
samp_date	12/19/2006
lab_id	C6L200201002
qc_type	NM
units	UG/KG
Pct_Solids	82.0
DUP_OF:	NTC01SB0991012

Parameter	Result	Val Qual	Qual Code
AROCLOR-1016	40	U	
AROCLOR-1221	40	U	
AROCLOR-1232	40	U	
AROCLOR-1242	40	U	
AROCLOR-1248	40	UJ	G
AROCLOR-1254	40	U	
AROCLOR-1260	40	UJ	G

nsample	NTC01FD12190601DL
samp_date	12/19/2006
lab_id	C6L200201002
qc_type	NM
units	UG/KG
Pct_Solids	82.0
DUP_OF:	NTC01SB0991012

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	280	J	G
4,4'-DDE	82	J	G
4,4'-DDT	27	J	G
ALDRIN	1.5	J	P
ALPHA-BHC	10	U	
ALPHA-CHLORDANE	10	U	
BETA-BHC	10	U	
DELTA-BHC	10	U	
DIELDRIN	10	U	
ENDOSULFAN I	10	U	
ENDOSULFAN II	3.7	J	P
ENDOSULFAN SULFATE	2	J	P
ENDRIN	9.6	J	P
ENDRIN ALDEHYDE	10	U	
ENDRIN KETONE	10	U	
GAMMA-BHC (LINDANE)	7.7	J	P
GAMMA-CHLORDANE	10	U	
HEPTACHLOR	2.4	J	P
HEPTACHLOR EPOXIDE	2	J	P
METHOXYCHLOR	2.5	J	P
TOXAPHENE	410	U	

nsample	NTC01SB0991012
samp_date	12/19/2006
lab_id	C6L200201006
qc_type	NM
units	UG/KG
Pct_Solids	82.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
AROCLOR-1016	40	U	
AROCLOR-1221	40	U	
AROCLOR-1232	40	U	
AROCLOR-1242	40	U	
AROCLOR-1248	130	J	G
AROCLOR-1254	40	U	
AROCLOR-1260	100	J	G

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: PEST/PCB

nsample	NTC01SB0991012DL
samp_date	12/19/2006
lab_id	C6L200201006
qc_type	NM
units	UG/KG
Pct_Solids	82.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	83	J	G
4,4'-DDE	45	J	G
4,4'-DDT	15	J	G
ALDRIN	10	U	
ALPHA-BHC	1.7	J	P
ALPHA-CHLORDANE	10	U	
BETA-BHC	10	U	
DELTA-BHC	1.2	J	P
DIELDRIN	1.2	J	P
ENDOSULFAN I	3.1	J	P
ENDOSULFAN II	6.1	J	P
ENDOSULFAN SULFATE	10	U	
ENDRIN	10	U	
ENDRIN ALDEHYDE	10	U	
ENDRIN KETONE	2.2	J	P
GAMMA-BHC (LINDANE)	1.2	J	P
GAMMA-CHLORDANE	6.9	J	P
HEPTACHLOR	10	U	
HEPTACHLOR EPOXIDE	4.4	J	P
METHOXYCHLOR	2.4	J	P
TOXAPHENE	410	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: HERB

nsample	NTC01FD12190601	nsample	NTC01SB0991012
samp_date	12/19/2006	samp_date	12/19/2006
lab_id	C6L200201002	lab_id	C6L200201006
qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG
Pct_Solids	82.0	Pct_Solids	82.0
DUP_OF:	NTC01SB0991012	DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	24	U	
2,4,5-TP (SILVEX)	24	U	
2,4-D	97	U	
PENTACHLOROPHENOL	12	U	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	25	U	
2,4,5-TP (SILVEX)	25	U	
2,4-D	98	U	
PENTACHLOROPHENOL	12	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: DIOX

nsample	NTC01FD12190601	nsample	NTC01SB0991012
samp_date	12/19/2006	samp_date	12/19/2006
lab_id	C6L200201002	lab_id	C6L200201006
qc_type	NM	qc_type	NM
units	NG/KG	units	NG/KG
Pct_Solids	82.0	Pct_Solids	82.0
DUP_OF:	NTC01SB0991012	DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	2000	J	G
1,2,3,4,6,7,8,9-OCDF	47		
1,2,3,4,6,7,8-HPCDD	400	J	G
1,2,3,4,6,7,8-HPCDF	71	J	G
1,2,3,4,7,8,9-HPCDF	4.7	J	P
1,2,3,4,7,8-HXCDD	8.4		
1,2,3,4,7,8-HXCDF	20		
1,2,3,6,7,8-HXCDD	22		
1,2,3,6,7,8-HXCDF	10		
1,2,3,7,8,9-HXCDD	20		
1,2,3,7,8,9-HXCDF	0.5	U	
1,2,3,7,8-PECDD	9.1		
1,2,3,7,8-PECDF	12		
2,3,4,6,7,8-HXCDF	12		
2,3,4,7,8-PECDF	19		
2,3,7,8-TCDD	3.6	J	G
2,3,7,8-TCDF	18	J	G
TOTAL HPCDD	760	J	G
TOTAL HPCDF	130	J	G
TOTAL HXCDD	250		
TOTAL HXCDF	110	J	G
TOTAL PECDD	110	J	G
TOTAL PECDF	140	J	G
TOTAL TCDD	84	J	G
TOTAL TCDF	270	J	G

Parameter	Result	Val Qual	Qual Code
1,2,3,4,6,7,8,9-OCDD	850	J	G
1,2,3,4,6,7,8,9-OCDF	29		
1,2,3,4,6,7,8-HPCDD	190	J	G
1,2,3,4,6,7,8-HPCDF	41	J	G
1,2,3,4,7,8,9-HPCDF	3.6	J	P
1,2,3,4,7,8-HXCDD	5.8	J	P
1,2,3,4,7,8-HXCDF	13	U	
1,2,3,6,7,8-HXCDD	15		
1,2,3,6,7,8-HXCDF	7.4	U	
1,2,3,7,8,9-HXCDD	12		
1,2,3,7,8,9-HXCDF	0.75	U	
1,2,3,7,8-PECDD	6.4	U	
1,2,3,7,8-PECDF	8.4	U	
2,3,4,6,7,8-HXCDF	10	U	
2,3,4,7,8-PECDF	11	U	
2,3,7,8-TCDD	1.9	J	G
2,3,7,8-TCDF	10	J	G
TOTAL HPCDD	380	J	G
TOTAL HPCDF	75	J	G
TOTAL HXCDD	180		
TOTAL HXCDF	21	J	G
TOTAL PECDD	15	J	G
TOTAL PECDF	47	J	G
TOTAL TCDD	42	J	G
TOTAL TCDF	140	J	G

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**B. DAVIS**	**DATE:**	**APRIL 18, 2007**
FROM:	**MATTHEW D. KRAUS**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC/PAH**
NTC GREAT LAKES – CTO 0013
SDG – C7C130264

SAMPLES: 13/Aqueous/

NTC01FD03110701	NTC01GW0101	NTC01GW0201
NTC01GW0301	NTC01GW0401	NTC01GW0501
NTC01GW0601	NTC01GW0701	NTC01GW0801
NTC01GW0901	NTC01GW1001	NTC01TWGW0401
TRIP-1		

Overview

The sample set for NTC Great Lakes, CTO 0013, SDG C7C130264 consists of thirteen aqueous environmental samples. One field duplicate pair (NTC01FD03110701 / NTC01GW0101) is included in this SDG.

All aqueous samples were analyzed for target compound list (TLC) volatile organic compounds (VOC) and TCL polynuclear aromatic compounds (PAH) except for the trip blank (TRIP-1), NTC01GW0401 and NTC01TWGW0401 which were analyzed for VOC only. All samples were collected by Tetra Tech NUS on March 11-12, 2007 and analyzed by Severn Trent Laboratories, Inc. under Naval Facilities Engineering Service Center (NFESC) Quality Assurance / Quality Control (QA/QC) criteria.

The VOC and PAH fractions were analyzed in accordance with SW-846 Methods 8260B and 8310, respectively.

Volatile organic compounds and PAH analyses were conducted using gas chromatography / mass spectrometry (GC/MS) and high pressure liquid chromatography (HPLC) methodologies, respectively.

The data confined in this SDG were evaluated with regard to the following parameters:

* • Data Completeness
* • Holding Times
* • Initial and Continuing Calibration Recoveries
* • Laboratory Method/Preparation Blank Analyses
* • Field Duplicate Precision Results
* • Detection Limits

Sample NTCFD03110701 was evaluated for the following parameters in addition to the parameters previously summarized:

* • GC/MS Tuning
* • Matrix Spike/Matrix Spike Duplicate Recoveries
* • Laboratory Control Sample Recoveries
* • Internal Standard Recoveries
* • Surrogate Recoveries
* • Analyte Quantitation

* - All quality control criteria were met for this parameter.

Notes

The positive result reported for acetone in sample NTC01TWGW0401 was qualified as estimated, "J", because acetone in a suspected laboratory contaminant.

The PAH fraction was not analyzed for Sample NTC01GW0401 as requested in the chain-of-custody (COC) report because the sample containers were broken upon laboratory receipt.

Executive Summary

Laboratory Performance: The performance of the laboratory did not affect data integrity.

Other Factors Affecting Data Quality: Several analytes were qualified due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Data Review", October 1999 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006).

The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the DoD QSM Guidelines and the Quality Assurance Project Plan (QAPP)."

Tetra Tech NUS
Matthew D. Kraus
Environmental Chemist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C – Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01FD03110701	nsample	NTC01FD03110701	nsample	NTC01GW0101
samp_date	3/12/2007	samp_date	3/12/2007	samp_date	3/11/2007
lab_id	C7C130264015	lab_id	C7C130264015	lab_id	C7C130264004
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:	NTC01GW0101	DUP_OF:	NTC01GW0101	DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01GW0101
samp_date	3/11/2007
lab_id	C7C130264004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

nsample	NTC01GW0201
samp_date	3/11/2007
lab_id	C7C130264005
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01GW0201
samp_date	3/11/2007
lab_id	C7C130264005
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	0.65	J	P
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01GW0301
samp_date	3/12/2007
lab_id	C7C130264010
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01GW0301
samp_date	3/12/2007
lab_id	C7C130264010
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

nsample	NTC01GW0401
samp_date	3/12/2007
lab_id	C7C130264011
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01GW0401
samp_date	3/12/2007
lab_id	C7C130264011
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

nsample	NTC01GW0501
samp_date	3/12/2007
lab_id	C7C130264012
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01GW0501
samp_date	3/12/2007
lab_id	C7C130264012
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01GW0601
samp_date	3/12/2007
lab_id	C7C130264013
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01GW0601
samp_date	3/12/2007
lab_id	C7C130264013
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

nsample	NTC01GW0701
samp_date	3/11/2007
lab_id	C7C130264006
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01GW0701
samp_date	3/11/2007
lab_id	C7C130264006
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

nsample	NTC01GW0801
samp_date	3/11/2007
lab_id	C7C130264007
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01GW0801
samp_date	3/11/2007
lab_id	C7C130264007
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01GW0901
samp_date	3/11/2007
lab_id	C7C130264008
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01GW0901
samp_date	3/11/2007
lab_id	C7C130264008
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

nsample	NTC01GW1001
samp_date	3/11/2007
lab_id	C7C130264009
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01GW1001
samp_date	3/11/2007
lab_id	C7C130264009
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

nsample	NTC01TWGW0401
samp_date	3/12/2007
lab_id	C7C130264014
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	J	A
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01TWGW0401
samp_date	3/12/2007
lab_id	C7C130264014
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: OV

nsample	TRIP-1	nsample	TRIP-1
samp_date	3/12/2007	samp_date	3/12/2007
lab_id	C7C130264016	lab_id	C7C130264016
qc_type	NM	qc_type	NM
units	UG/L	units	UG/L
Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: PAH

nsample	NTC01FD03110701DL
samp_date	3/12/2007
lab_id	C7C130264015
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	NTC01GW0101

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	0.96	U	
ACENAPHTHENE	0.96	U	
ACENAPHTHYLENE	0.96	U	
ANTHRACENE	0.19	U	
BENZO(A)ANTHRACENE	0.19	U	
BENZO(A)PYRENE	0.19	U	
BENZO(B)FLUORANTHENE	0.19	U	
BENZO(G,H,I)PERYLENE	0.19	U	
BENZO(K)FLUORANTHENE	0.19	U	
CARBAZOLE	0.96	U	
CHRYSENE	0.19	U	
DIBENZO(A,H)ANTHRACENE	0.19	U	
FLUORANTHENE	0.19	U	
FLUORENE	0.19	U	
INDENO(1,2,3-CD)PYRENE	0.19	U	
NAPHTHALENE	0.96	U	
PHENANTHRENE	0.061	J	P
PYRENE	0.19	U	

nsample	NTC01GW0101DL
samp_date	3/11/2007
lab_id	C7C130264004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	0.97	U	
ACENAPHTHENE	0.97	U	
ACENAPHTHYLENE	0.97	U	
ANTHRACENE	0.19	U	
BENZO(A)ANTHRACENE	0.19	U	
BENZO(A)PYRENE	0.19	U	
BENZO(B)FLUORANTHENE	0.19	U	
BENZO(G,H,I)PERYLENE	0.19	U	
BENZO(K)FLUORANTHENE	0.19	U	
CARBAZOLE	0.97	U	
CHRYSENE	0.19	U	
DIBENZO(A,H)ANTHRACENE	0.19	U	
FLUORANTHENE	0.19	U	
FLUORENE	0.19	U	
INDENO(1,2,3-CD)PYRENE	0.19	U	
NAPHTHALENE	0.97	U	
PHENANTHRENE	0.085	J	P
PYRENE	0.19	U	

nsample	NTC01GW0201DL
samp_date	3/11/2007
lab_id	C7C130264005
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	0.96	U	
ACENAPHTHENE	0.96	U	
ACENAPHTHYLENE	0.96	U	
ANTHRACENE	0.19	U	
BENZO(A)ANTHRACENE	0.19	U	
BENZO(A)PYRENE	0.19	U	
BENZO(B)FLUORANTHENE	0.19	U	
BENZO(G,H,I)PERYLENE	0.19	U	
BENZO(K)FLUORANTHENE	0.19	U	
CARBAZOLE	0.96	U	
CHRYSENE	0.19	U	
DIBENZO(A,H)ANTHRACENE	0.19	U	
FLUORANTHENE	0.19	U	
FLUORENE	0.19	U	
INDENO(1,2,3-CD)PYRENE	0.19	U	
NAPHTHALENE	0.96	U	
PHENANTHRENE	0.087	J	P
PYRENE	0.19	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: PAH

nsample	NTC01GW0301DL
samp_date	3/12/2007
lab_id	C7C130264010
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	0.98	U	
ACENAPHTHENE	0.98	U	
ACENAPHTHYLENE	0.98	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CARBAZOLE	0.98	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	0.98	U	
PHENANTHRENE	0.1	J	P
PYRENE	0.025	J	P

nsample	NTC01GW0501DL
samp_date	3/12/2007
lab_id	C7C130264012
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	0.96	U	
ACENAPHTHENE	0.96	U	
ACENAPHTHYLENE	0.96	U	
ANTHRACENE	0.19	U	
BENZO(A)ANTHRACENE	0.19	U	
BENZO(A)PYRENE	0.19	U	
BENZO(B)FLUORANTHENE	0.19	U	
BENZO(G,H,I)PERYLENE	0.19	U	
BENZO(K)FLUORANTHENE	0.19	U	
CARBAZOLE	0.96	U	
CHRYSENE	0.19	U	
DIBENZO(A,H)ANTHRACENE	0.19	U	
FLUORANTHENE	0.19	U	
FLUORENE	0.19	U	
INDENO(1,2,3-CD)PYRENE	0.19	U	
NAPHTHALENE	0.96	U	
PHENANTHRENE	0.067	J	P
PYRENE	0.19	U	

nsample	NTC01GW0601
samp_date	3/12/2007
lab_id	C7C130264013
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1	U	
ACENAPHTHENE	1	U	
ACENAPHTHYLENE	1	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CARBAZOLE	1	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	1	U	
PHENANTHRENE	0.056	J	P
PYRENE	0.2	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: PAH

nsample	NTC01GW0701DL
samp_date	3/11/2007
lab_id	C7C130264006
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	0.95	U	
ACENAPHTHENE	0.95	U	
ACENAPHTHYLENE	0.95	U	
ANTHRACENE	0.19	U	
BENZO(A)ANTHRACENE	0.19	U	
BENZO(A)PYRENE	0.19	U	
BENZO(B)FLUORANTHENE	0.19	U	
BENZO(G,H,I)PERYLENE	0.19	U	
BENZO(K)FLUORANTHENE	0.19	U	
CARBAZOLE	0.95	U	
CHRYSENE	0.19	U	
DIBENZO(A,H)ANTHRACENE	0.19	U	
FLUORANTHENE	0.19	U	
FLUORENE	0.19	U	
INDENO(1,2,3-CD)PYRENE	0.19	U	
NAPHTHALENE	0.95	U	
PHENANTHRENE	0.07	J	P
PYRENE	0.19	U	

nsample	NTC01GW0801DL
samp_date	3/11/2007
lab_id	C7C130264007
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	0.95	U	
ACENAPHTHENE	0.95	U	
ACENAPHTHYLENE	0.95	U	
ANTHRACENE	0.19	U	
BENZO(A)ANTHRACENE	0.19	U	
BENZO(A)PYRENE	0.19	U	
BENZO(B)FLUORANTHENE	0.19	U	
BENZO(G,H,I)PERYLENE	0.19	U	
BENZO(K)FLUORANTHENE	0.19	U	
CARBAZOLE	0.95	U	
CHRYSENE	0.19	U	
DIBENZO(A,H)ANTHRACENE	0.19	U	
FLUORANTHENE	0.19	U	
FLUORENE	0.19	U	
INDENO(1,2,3-CD)PYRENE	0.19	U	
NAPHTHALENE	0.95	U	
PHENANTHRENE	0.093	J	P
PYRENE	0.19	U	

nsample	NTC01GW0901DL
samp_date	3/11/2007
lab_id	C7C130264008
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	0.95	U	
ACENAPHTHENE	0.95	U	
ACENAPHTHYLENE	0.95	U	
ANTHRACENE	0.19	U	
BENZO(A)ANTHRACENE	0.19	U	
BENZO(A)PYRENE	0.19	U	
BENZO(B)FLUORANTHENE	0.19	U	
BENZO(G,H,I)PERYLENE	0.19	U	
BENZO(K)FLUORANTHENE	0.19	U	
CARBAZOLE	0.95	U	
CHRYSENE	0.19	U	
DIBENZO(A,H)ANTHRACENE	0.19	U	
FLUORANTHENE	0.19	U	
FLUORENE	0.025	J	P
INDENO(1,2,3-CD)PYRENE	0.19	U	
NAPHTHALENE	0.95	U	
PHENANTHRENE	0.11	J	P
PYRENE	0.19	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: PAH

nsample	NTC01GW1001DL
samp_date	3/11/2007
lab_id	C7C130264009
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	0.97	U	
ACENAPHTHENE	0.97	U	
ACENAPHTHYLENE	0.97	U	
ANTHRACENE	0.19	U	
BENZO(A)ANTHRACENE	0.19	U	
BENZO(A)PYRENE	0.19	U	
BENZO(B)FLUORANTHENE	0.19	U	
BENZO(G,H,I)PERYLENE	0.19	U	
BENZO(K)FLUORANTHENE	0.19	U	
CARBAZOLE	0.97	U	
CHRYSENE	0.19	U	
DIBENZO(A,H)ANTHRACENE	0.19	U	
FLUORANTHENE	0.19	U	
FLUORENE	0.19	U	
INDENO(1,2,3-CD)PYRENE	0.19	U	
NAPHTHALENE	0.97	U	
PHENANTHRENE	0.086	J	P
PYRENE	0.19	U	

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **MR. B. DAVIS** **DATE:** **APRIL 20, 2007**

FROM: **EDWARD SEDLMYER** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION- VOA/SVOA/PEST/PAH/HERB**

CTO 0013, NTC GREAT LAKES
SDG C6L210188

SAMPLES: 5/Aqueous/VOA/SVOA/PEST/PCB/PAH/HERB

NTC01FD12190602 NTC01GWTW0101 NTC01GWTW0201
NTC01GWTW0301 NTC01TB12190602

OVERVIEW

The sample set for CTO 0013 NTC Great Lakes, SDG C6L210188 consists of five (5) aqueous environmental samples. The samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOA), polynuclear aromatic hydrocarbons (PAH), pesticides (PEST), polychlorinated biphenyls (PCBs), and herbicides (HERB) as listed above. The trip blank was analyzed for VOAs only. One field duplicate pair was associated with this SDG: NTC01GWTW0101 / NTC01FD12190602.

The samples were collected by TetraTech NUS on December 19, 2006 and analyzed by Severn Trent Laboratories, Inc. All analyses were conducted in accordance with USEPA SW 846 Methods 8260B, 8270C, 8081A, 8310, and 8151A analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
• Initial and Continuing Calibration
* • Laboratory Blank Analyses
* • Field Duplicate Results
* • Detection Limits

In addition, sample NTC01GWTW0101 was also validated with regard to the following parameters:

• Surrogate Recoveries
* • Blank Spike/Blank Spike Duplicate Results
* • Matrix Spike/Matrix Spike Duplicate Results
* • Internal Standard Recoveries
* • Compound Quantitation
• Compound Identification

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

Volatile

No qualification of the data was necessary.

Semivolatile

A %D was greater than the 25% quality control limit for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol on instrument 731, on 01/08/07 at 18:43. Only non-detected results were reported for the aforementioned compounds and these were qualified as estimated (UJ), in NTC01GWTW0101.

Hexachlorophene was not calibrated for in the initial or continuing calibrations. The compound was searched for as a TIC. Hexachlorophene was not found in any samples.

The PAHs were reported in both the semivolatile fraction and the PAH fraction. No action was taken on this basis.

Pesticides

Continuing verification %Ds exceeded the 15% quality control limit for heptachlor and 4,4'-DDT on 01/05/07 at 05:29 on the RTX-1701 column. No action was taken on this basis because the RTX-50 column met control limits and no compounds were detected in the associated sample.

PCBs

The surrogate decachlorobiphenyl had a percent recovery greater than the quality control limit for sample NTC01GWTW0101. No action was taken on this basis because no PCBs were detected in the sample.

PAHs

The relative percent difference (RPD) between columns exceeded 25% for the following compounds. The positive results were reported as estimated, (J) for the compounds below:

Sample	Compound	%D
NTC01GWTW0101	Carbazole	85.9%
	Acenaphthene	485.4%
	Fluorene	272.7%
	Anthracene	62.2%
	Pyrene	595.7%
NTC01FD12190602	Carbazole	94.5%
	Naphthalene	25.7%
	Acenapthene	455.1%
	Fluorene	339.9%
	Anthracene	62.2%
	Pyrene	602.6%

HERB

No qualification of the data was necessary.

Additional Comments:

Positive results less than the reporting limit (RL) were qualified as estimated, J, due to uncertainty near the detection limit.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Qualifications were made on continuing calibration of two SVOC compounds that failed to comply with %D quality control criteria.

Other factors affecting data quality: Qualifications were made based on percent difference between detector non-compliances for the PAH fractions.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (October 1999) and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006). The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the DoD QSM."

Tetra Tech NUS

Edward Sedlmyer
Chemist/Data Validator

TetraTech NUS

Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = *Sample Preservation Noncompliance*
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01FD12190602
samp_date	12/19/2006
lab_id	C6L210188005
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	NTC01GWTW0101

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	0.27	J	P
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	0.26	J	P
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	0.76	J	P
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	2.1		

nsample	NTC01FD12190602
samp_date	12/19/2006
lab_id	C6L210188005
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	NTC01GWTW0101

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	0.19	J	P
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1.7		
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	1.2	J	P
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

nsample	NTC01GWTW0101
samp_date	12/19/2006
lab_id	C6L210188001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	0.27	J	P
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	0.32	J	P
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	0.42	J	P
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	0.71	J	P
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	2.3		

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01GWTW0101
samp_date	12/19/2006
lab_id	C6L210188001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	0.26	J	P
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	2.3		
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	0.2	J	P
TOTAL XYLENES	1.6	J	P
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

nsample	NTC01GWTW0201
samp_date	12/19/2006
lab_id	C6L210188002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	2.7	J	P
BENZENE	0.44	J	P
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	0.33	J	P
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01GWTW0201
samp_date	12/19/2006
lab_id	C6L210188002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01GWTW0301
samp_date	12/19/2006
lab_id	C6L210188003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

nsample	NTC01GWTW0301
samp_date	12/19/2006
lab_id	C6L210188003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

nsample	NTC01TB12190602
samp_date	12/19/2006
lab_id	C6L210188004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2,4-TRICHLOROBENZENE	1	U	
1,2-DIBROMO-3-CHLOROPROPANE	1	U	
1,2-DIBROMOETHANE	1	U	
1,2-DICHLOROBENZENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
1,3-DICHLOROBENZENE	1	U	
1,4-DICHLOROBENZENE	1	U	
2-BUTANONE	5	U	
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	U	
ACETONE	5	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	1	U	
CHLOROFORM	1	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
CYCLOHEXANE	1	U	

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: OV

nsample	NTC01TB12190602
samp_date	12/19/2006
lab_id	C6L210188004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
DICHLORODIFLUOROMETHANE	1	U	
ETHYLBENZENE	1	U	
ISOPROPYLBENZENE	1	U	
METHYL ACETATE	1	U	
METHYL CYCLOHEXANE	1	U	
METHYL TERT-BUTYL ETHER	1	U	
METHYLENE CHLORIDE	1	U	
STYRENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
TRICHLOROFLUOROMETHANE	1	U	
VINYL CHLORIDE	1	U	

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: OS

nsample	NTC01FD12190602DL	nsample	NTC01FD12190602DL	nsample	NTC01FD12190602DL
samp_date	12/19/2006	samp_date	12/19/2006	samp_date	12/19/2006
lab_id	C6L210188005	lab_id	C6L210188005	lab_id	C6L210188005
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:	NTC01GWTW0101	DUP_OF:	NTC01GWTW0101	DUP_OF:	NTC01GWTW0101

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	10	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	10	U	
2,4,5-TRICHLOROPHENOL	10	U	
2,4,6-TRICHLOROPHENOL	10	U	
2,4-DICHLOROPHENOL	10	U	
2,4-DIMETHYLPHENOL	10	U	
2,4-DINITROPHENOL	50	U	
2,4-DINITROTOLUENE	10	U	
2,6-DINITROTOLUENE	10	U	
2-CHLORONAPHTHALENE	10	U	
2-CHLOROPHENOL	10	U	
2-METHYLNAPHTHALENE	10	U	
2-METHYLPHENOL	10	U	
2-NITROANILINE	50	U	
2-NITROPHENOL	10	U	
3,3'-DICHLOROBENZIDINE	50	U	
3-NITROANILINE	50	U	
4,6-DINITRO-2-METHYLPHENOL	50	U	
4-BROMOPHENYL PHENYL ETHER	10	U	
4-CHLORO-3-METHYLPHENOL	10	U	
4-CHLOROANILINE	10	U	
4-CHLOROPHENYL PHENYL ETHER	10	U	
4-METHYLPHENOL	10	U	
4-NITROANILINE	50	U	
4-NITROPHENOL	50	U	
ACENAPHTHENE	10	U	
ACENAPHTHYLENE	10	U	
ACETOPHENONE	10	U	
ANTHRACENE	10	U	
ATRAZINE	10	U	
BENZALDEHYDE	1	J	P
BENZO(A)ANTHRACENE	10	U	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	10	U	
BENZO(B)FLUORANTHENE	10	U	
BENZO(G,H,I)PERYLENE	10	U	
BENZO(K)FLUORANTHENE	10	U	
BIS(2-CHLOROETHOXY)METHANE	10	U	
BIS(2-CHLOROETHYL)ETHER	10	U	
BIS(2-ETHYLHEXYL)PHTHALATE	10	U	
BUTYL BENZYL PHTHALATE	10	U	
CAPROLACTAM	10	U	
CARBAZOLE	10	U	
CHRYSENE	10	U	
DIBENZO(A,H)ANTHRACENE	10	U	
DIBENZOFURAN	10	U	
DIETHYL PHTHALATE	4	J	P
DIMETHYL PHTHALATE	10	U	
DI-N-BUTYL PHTHALATE	10	U	
DI-N-OCTYL PHTHALATE	10	U	
FLUORANTHENE	10	U	
FLUORENE	10	U	
HEXACHLOROBENZENE	10	U	
HEXACHLOROBUTADIENE	10	U	
HEXACHLOROCYCLOPENTADIENE	50	U	
HEXACHLOROETHANE	10	U	
INDENO(1,2,3-CD)PYRENE	10	U	
ISOPHORONE	10	U	
NAPHTHALENE	5.2	J	P
NITROBENZENE	10	U	
N-NITROSO-DI-N-PROPYLAMINE	10	U	
N-NITROSODIPHENYLAMINE	10	U	
PENTACHLOROPHENOL	50	U	
PHENANTHRENE	10	U	
PHENOL	10	U	

Parameter	Result	Val Qual	Qual Code
PYRENE	10	U	

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: OS

nsample	NTC01GWTW0101DL
samp_date	12/19/2006
lab_id	C6L210188001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	13	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	13	U	
2,4,5-TRICHLOROPHENOL	13	U	
2,4,6-TRICHLOROPHENOL	13	U	
2,4-DICHLOROPHENOL	13	U	
2,4-DIMETHYLPHENOL	13	U	
2,4-DINITROPHENOL	64	UJ	C
2,4-DINITROTOLUENE	13	U	
2,6-DINITROTOLUENE	13	U	
2-CHLORONAPHTHALENE	13	U	
2-CHLOROPHENOL	13	U	
2-METHYLNAPHTHALENE	13	U	
2-METHYLPHENOL	13	U	
2-NITROANILINE	64	U	
2-NITROPHENOL	13	U	
3,3'-DICHLOROBENZIDINE	64	U	
3-NITROANILINE	64	U	
4,6-DINITRO-2-METHYLPHENOL	64	UJ	C
4-BROMOPHENYL PHENYL ETHER	13	U	
4-CHLORO-3-METHYLPHENOL	13	U	
4-CHLOROANILINE	13	U	
4-CHLOROPHENYL PHENYL ETHER	13	U	
4-METHYLPHENOL	13	U	
4-NITROANILINE	64	U	
4-NITROPHENOL	64	U	
ACENAPHTHENE	13	U	
ACENAPHTHYLENE	13	U	
ACETOPHENONE	13	U	
ANTHRACENE	13	U	
ATRAZINE	13	U	
BENZALDEHYDE	13	U	
BENZO(A)ANTHRACENE	13	U	

nsample	NTC01GWTW0101DL
samp_date	12/19/2006
lab_id	C6L210188001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	13	U	
BENZO(B)FLUORANTHENE	13	U	
BENZO(G,H,I)PERYLENE	13	U	
BENZO(K)FLUORANTHENE	13	U	
BIS(2-CHLOROETHOXY)METHANE	13	U	
BIS(2-CHLOROETHYL)ETHER	13	U	
BIS(2-ETHYLHEXYL)PHTHALATE	13	U	
BUTYL BENZYL PHTHALATE	13	U	
CAPROLACTAM	13	U	
CARBAZOLE	13	U	
CHRYSENE	13	U	
DIBENZO(A,H)ANTHRACENE	13	U	
DIBENZOFURAN	13	U	
DIETHYL PHTHALATE	3.5	J	P
DIMETHYL PHTHALATE	13	U	
DI-N-BUTYL PHTHALATE	13	U	
DI-N-OCTYL PHTHALATE	13	U	
FLUORANTHENE	13	U	
FLUORENE	13	U	
HEXACHLOROBENZENE	13	U	
HEXACHLOROBUTADIENE	13	U	
HEXACHLOROCYCLOPENTADIENE	64	U	
HEXACHLOROETHANE	13	U	
INDENO(1,2,3-CD)PYRENE	13	U	
ISOPHORONE	13	U	
NAPHTHALENE	4.4	J	P
NITROBENZENE	13	U	
N-NITROSO-DI-N-PROPYLAMINE	13	U	
N-NITROSODIPHENYLAMINE	13	U	
PENTACHLOROPHENOL	64	U	
PHENANTHRENE	13	U	
PHENOL	13	U	

nsample	NTC01GWTW0101DL
samp_date	12/19/2006
lab_id	C6L210188001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
PYRENE	13	U	

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: OS

nsample	NTC01GWTW0201DL
samp_date	12/19/2006
lab_id	C6L210188002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	10	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	10	U	
2,4,5-TRICHLOROPHENOL	10	U	
2,4,6-TRICHLOROPHENOL	10	U	
2,4-DICHLOROPHENOL	10	U	
2,4-DIMETHYLPHENOL	10	U	
2,4-DINITROPHENOL	52	U	
2,4-DINITROTOLUENE	10	U	
2,6-DINITROTOLUENE	10	U	
2-CHLORONAPHTHALENE	10	U	
2-CHLOROPHENOL	10	U	
2-METHYLNAPHTHALENE	10	U	
2-METHYLPHENOL	10	U	
2-NITROANILINE	52	U	
2-NITROPHENOL	10	U	
3,3'-DICHLOROBENZIDINE	52	U	
3-NITROANILINE	52	U	
4,6-DINITRO-2-METHYLPHENOL	52	U	
4-BROMOPHENYL PHENYL ETHER	10	U	
4-CHLORO-3-METHYLPHENOL	10	U	
4-CHLOROANILINE	10	U	
4-CHLOROPHENYL PHENYL ETHER	10	U	
4-METHYLPHENOL	10	U	
4-NITROANILINE	52	U	
4-NITROPHENOL	52	U	
ACENAPHTHENE	10	U	
ACENAPHTHYLENE	10	U	
ACETOPHENONE	10	U	
ANTHRACENE	10	U	
ATRAZINE	10	U	
BENZALDEHYDE	10	U	
BENZO(A)ANTHRACENE	10	U	

nsample	NTC01GWTW0201DL
samp_date	12/19/2006
lab_id	C6L210188002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	10	U	
BENZO(B)FLUORANTHENE	10	U	
BENZO(G,H,I)PERYLENE	10	U	
BENZO(K)FLUORANTHENE	10	U	
BIS(2-CHLOROETHOXY)METHANE	10	U	
BIS(2-CHLOROETHYL)ETHER	10	U	
BIS(2-ETHYLHEXYL)PHTHALATE	10	U	
BUTYL BENZYL PHTHALATE	10	U	
CAPROLACTAM	10	U	
CARBAZOLE	10	U	
CHRYSENE	10	U	
DIBENZO(A,H)ANTHRACENE	10	U	
DIBENZOFURAN	10	U	
DIETHYL PHTHALATE	10	U	
DIMETHYL PHTHALATE	10	U	
DI-N-BUTYL PHTHALATE	10	U	
DI-N-OCTYL PHTHALATE	10	U	
FLUORANTHENE	10	U	
FLUORENE	10	U	
HEXACHLOROBENZENE	10	U	
HEXACHLOROBUTADIENE	10	U	
HEXACHLOROCYCLOPENTADIENE	52	U	
HEXACHLOROETHANE	10	U	
INDENO(1,2,3-CD)PYRENE	10	U	
ISOPHORONE	10	U	
NAPHTHALENE	10	U	
NITROBENZENE	10	U	
N-NITROSO-DI-N-PROPYLAMINE	10	U	
N-NITROSODIPHENYLAMINE	10	U	
PENTACHLOROPHENOL	52	U	
PHENANTHRENE	10	U	
PHENOL	10	U	

nsample	NTC01GWTW0201DL
samp_date	12/19/2006
lab_id	C6L210188002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
PYRENE	10	U	

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: OS

nsample	NTC01GWTW0301DL
samp_date	12/19/2006
lab_id	C6L210188003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1-BIPHENYL	11	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	11	U	
2,4,5-TRICHLOROPHENOL	11	U	
2,4,6-TRICHLOROPHENOL	11	U	
2,4-DICHLOROPHENOL	11	U	
2,4-DIMETHYLPHENOL	11	U	
2,4-DINITROPHENOL	54	U	
2,4-DINITROTOLUENE	11	U	
2,6-DINITROTOLUENE	11	U	
2-CHLORONAPHTHALENE	11	U	
2-CHLOROPHENOL	11	U	
2-METHYLNAPHTHALENE	11	U	
2-METHYLPHENOL	11	U	
2-NITROANILINE	54	U	
2-NITROPHENOL	11	U	
3,3'-DICHLOROBENZIDINE	54	U	
3-NITROANILINE	54	U	
4,6-DINITRO-2-METHYLPHENOL	54	U	
4-BROMOPHENYL PHENYL ETHER	11	U	
4-CHLORO-3-METHYLPHENOL	11	U	
4-CHLOROANILINE	11	U	
4-CHLOROPHENYL PHENYL ETHER	11	U	
4-METHYLPHENOL	11	U	
4-NITROANILINE	54	U	
4-NITROPHENOL	54	U	
ACENAPHTHENE	11	U	
ACENAPHTHYLENE	11	U	
ACETOPHENONE	11	U	
ANTHRACENE	11	U	
ATRAZINE	11	U	
BENZALDEHYDE	11	U	
BENZO(A)ANTHRACENE	11	U	

nsample	NTC01GWTW0301DL
samp_date	12/19/2006
lab_id	C6L210188003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	11	U	
BENZO(B)FLUORANTHENE	11	U	
BENZO(G,H,I)PERYLENE	11	U	
BENZO(K)FLUORANTHENE	11	U	
BIS(2-CHLOROETHOXY)METHANE	11	U	
BIS(2-CHLOROETHYL)ETHER	11	U	
BIS(2-ETHYLHEXYL)PHTHALATE	11	U	
BUTYL BENZYL PHTHALATE	11	U	
CAPROLACTAM	11	U	
CARBAZOLE	11	U	
CHRYSENE	11	U	
DIBENZO(A,H)ANTHRACENE	11	U	
DIBENZOFURAN	11	U	
DIETHYL PHTHALATE	11	U	
DIMETHYL PHTHALATE	11	U	
DI-N-BUTYL PHTHALATE	11	U	
DI-N-OCTYL PHTHALATE	11	U	
FLUORANTHENE	11	U	
FLUORENE	11	U	
HEXACHLOROBENZENE	11	U	
HEXACHLOROBUTADIENE	11	U	
HEXACHLOROCYCLOPENTADIENE	54	U	
HEXACHLOROETHANE	11	U	
INDENO(1,2,3-CD)PYRENE	11	U	
ISOPHORONE	11	U	
NAPHTHALENE	11	U	
NITROBENZENE	11	U	
N-NITROSO-DI-N-PROPYLAMINE	11	U	
N-NITROSODIPHENYLAMINE	11	U	
PENTACHLOROPHENOL	54	U	
PHENANTHRENE	11	U	
PHENOL	11	U	

nsample	NTC01GWTW0301DL
samp_date	12/19/2006
lab_id	C6L210188003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
PYRENE	11	U	

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: PEST/PCB

nsample	NTC01FD12190602DL
samp_date	12/19/2006
lab_id	C6L210188005
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	NTC01GWTW0101

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	0.05	U	
4,4'-DDE	0.05	U	
4,4'-DDT	0.05	U	
ALDRIN	0.05	U	
ALPHA-BHC	0.05	U	
ALPHA-CHLORDANE	0.05	U	
AROCLOR-1016	1	U	
AROCLOR-1221	1	U	
AROCLOR-1232	1	U	
AROCLOR-1242	1	U	
AROCLOR-1248	1	U	
AROCLOR-1254	1	U	
AROCLOR-1260	1	U	
BETA-BHC	0.05	U	
DELTA-BHC	0.05	U	
DIELDRIN	0.05	U	
ENDOSULFAN I	0.05	U	
ENDOSULFAN II	0.05	U	
ENDOSULFAN SULFATE	0.05	U	
ENDRIN	0.05	U	
ENDRIN ALDEHYDE	0.05	U	
ENDRIN KETONE	0.05	U	
GAMMA-BHC (LINDANE)	0.05	U	
GAMMA-CHLORDANE	0.05	U	
HEPTACHLOR	0.05	U	
HEPTACHLOR EPOXIDE	0.05	U	
METHOXYCHLOR	0.1	U	
TOXAPHENE	2	U	

nsample	NTC01GWTW0101
samp_date	12/19/2006
lab_id	C6L210188001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	0.05	U	
4,4'-DDE	0.05	U	
4,4'-DDT	0.05	U	
ALDRIN	0.05	U	
ALPHA-BHC	0.05	U	
ALPHA-CHLORDANE	0.05	U	
AROCLOR-1016	1	U	
AROCLOR-1221	1	U	
AROCLOR-1232	1	U	
AROCLOR-1242	1	U	
AROCLOR-1248	1	U	
AROCLOR-1254	1	U	
AROCLOR-1260	1	U	
BETA-BHC	0.05	U	
DELTA-BHC	0.05	U	
DIELDRIN	0.05	U	
ENDOSULFAN I	0.05	U	
ENDOSULFAN II	0.05	U	
ENDOSULFAN SULFATE	0.05	U	
ENDRIN	0.05	U	
ENDRIN ALDEHYDE	0.05	U	
ENDRIN KETONE	0.05	U	
GAMMA-BHC (LINDANE)	0.05	U	
GAMMA-CHLORDANE	0.05	U	
HEPTACHLOR	0.05	U	
HEPTACHLOR EPOXIDE	0.05	U	
METHOXYCHLOR	0.1	U	
TOXAPHENE	2	U	

nsample	NTC01GWTW0201DL
samp_date	12/19/2006
lab_id	C6L210188002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	0.05	U	
4,4'-DDE	0.05	U	
4,4'-DDT	0.05	U	
ALDRIN	0.05	U	
ALPHA-BHC	0.05	U	
ALPHA-CHLORDANE	0.05	U	
AROCLOR-1016	0.99	U	
AROCLOR-1221	0.99	U	
AROCLOR-1232	0.99	U	
AROCLOR-1242	0.99	U	
AROCLOR-1248	0.99	U	
AROCLOR-1254	0.99	U	
AROCLOR-1260	0.99	U	
BETA-BHC	0.05	U	
DELTA-BHC	0.05	U	
DIELDRIN	0.05	U	
ENDOSULFAN I	0.05	U	
ENDOSULFAN II	0.05	U	
ENDOSULFAN SULFATE	0.05	U	
ENDRIN	0.05	U	
ENDRIN ALDEHYDE	0.05	U	
ENDRIN KETONE	0.05	U	
GAMMA-BHC (LINDANE)	0.05	U	
GAMMA-CHLORDANE	0.05	U	
HEPTACHLOR	0.05	U	
HEPTACHLOR EPOXIDE	0.05	U	
METHOXYCHLOR	0.099	U	
TOXAPHENE	2	U	

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: PEST/PCB

nsample	NTC01GWTW0301
samp_date	12/19/2006
lab_id	C6L210188003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
4,4'-DDD	0.05	U	
4,4'-DDE	0.05	U	
4,4'-DDT	0.05	U	
ALDRIN	0.05	U	
ALPHA-BHC	0.05	U	
ALPHA-CHLORDANE	0.05	U	
AROCLOR-1016	1	U	
AROCLOR-1221	1	U	
AROCLOR-1232	1	U	
AROCLOR-1242	1	U	
AROCLOR-1248	1	U	
AROCLOR-1254	1	U	
AROCLOR-1260	1	U	
BETA-BHC	0.05	U	
DELTA-BHC	0.05	U	
DIELDRIN	0.05	U	
ENDOSULFAN I	0.05	U	
ENDOSULFAN II	0.05	U	
ENDOSULFAN SULFATE	0.05	U	
ENDRIN	0.05	U	
ENDRIN ALDEHYDE	0.05	U	
ENDRIN KETONE	0.05	U	
GAMMA-BHC (LINDANE)	0.05	U	
GAMMA-CHLORDANE	0.05	U	
HEPTACHLOR	0.05	U	
HEPTACHLOR EPOXIDE	0.05	U	
METHOXYCHLOR	0.1	U	
TOXAPHENE	2	U	

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: PAH

nsample	NTC01FD12190602DL
samp_date	12/19/2006
lab_id	C6L210188005
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	NTC01GWTW0101

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1.5		
ACENAPHTHENE	0.23	J	PU
ACENAPHTHYLENE	5.9		
ANTHRACENE	0.039	J	PU
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CARBAZOLE	0.17	J	PU
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.23	J	U
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	6.8	J	U
PHENANTHRENE	0.32		
PYRENE	0.043	J	PU

nsample	NTC01GWTW0101DL
samp_date	12/19/2006
lab_id	C6L210188001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1.3		
ACENAPHTHENE	0.19	J	PU
ACENAPHTHYLENE	5		
ANTHRACENE	0.035	J	PU
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CARBAZOLE	0.15	J	PU
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.23	J	U
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	5.9		
PHENANTHRENE	0.35		
PYRENE	0.039	J	PU

nsample	NTC01GWTW0201DL
samp_date	12/19/2006
lab_id	C6L210188002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1	U	
ACENAPHTHENE	1	U	
ACENAPHTHYLENE	1	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CARBAZOLE	1	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.025	J	P
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	1	U	
PHENANTHRENE	0.12	J	P
PYRENE	0.2	U	

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: PAH

nsample	NTC01GWTW0301DL
samp_date	12/19/2006
lab_id	C6L210188003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1	U	
ACENAPHTHENE	1	U	
ACENAPHTHYLENE	1	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CARBAZOLE	1	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.029	J	P
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	1	U	
PHENANTHRENE	0.14	J	P
PYRENE	0.2	U	

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: HERB

nsample	NTC01FD12190602DL
samp_date	12/19/2006
lab_id	C6L210188005
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	NTC01GWTW0101

Parameter	Result	Val Qual	Qual Code
2,4,5-T	0.98	U	
2,4,5-TP (SILVEX)	0.98	U	
2,4-D	3.9	U	
PENTACHLOROPHENOL	0.98	U	

nsample	NTC01GWTW0101DL
samp_date	12/19/2006
lab_id	C6L210188001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	1.1	U	
2,4,5-TP (SILVEX)	1.1	U	
2,4-D	4.3	U	
PENTACHLOROPHENOL	1.1	U	

nsample	NTC01GWTW0201DL
samp_date	12/19/2006
lab_id	C6L210188002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	1.1	U	
2,4,5-TP (SILVEX)	1.1	U	
2,4-D	4.6	U	
PENTACHLOROPHENOL	1.1	U	

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: HERB

nsample	NTC01GWTW0301DL
samp_date	12/19/2006
lab_id	C6L210188003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-T	1.1	U	
2,4,5-TP (SILVEX)	1.1	U	
2,4-D	4.3	U	
PENTACHLOROPHENOL	1.1	U	

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**B. DAVIS**	**DATE:**	**APRIL 13, 2007**
FROM:	**TERRI L. SOLOMON**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC LIMITED DATA VALIDATION –PAH**
CTO – 0013 NTC GREAT LAKES
SAMPLE DELIVERY GROUP (SDG) – C7C150193

SAMPLES: 1/Aqueous/

NTC01GW0401

Overview

The sample set for CTO 0013, NTC Great Lakes, SDG C7C150193, consists of one (1) aqueous environmental sample. No field duplicate pairs were included within this SDG.

The sample was analyzed for polynuclear aromatic hydrocarbons (PAHs). The sample was collected by Tetra Tech NUS on March 14, 2007 and analyzed by Severn Trent Laboratories - Pittsburgh under Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria. PAH analyses were conducted using SW846 method 8310.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Initial / Continuing Calibration Results
* • Laboratory Blank Analyses
* • Detection Limits

* - All quality control criteria were met for this parameter.

Notes

Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) for the organic analyses were qualified as estimated, "J".

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Review", Oct 1999, and the DOD document entitled "Quality System Manual (QSM) for Environmental Laboratories" (Jan 2006).

The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the DOD QSM and the Quality Assurance Project Plan (QAPP)."

Terri L. Solomon

Tetra Tech NUS
Terri L. Solomon
Environmental Scientist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS-GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O - Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DOT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00295

SDG: C7C150193 MEDIA: WATER DATA FRACTION: PAH

nsample	NTC01GW0401
samp_date	3/14/2007
lab_id	C7C150193001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	1	U	
ACENAPHTHENE	1	U	
ACENAPHTHYLENE	1	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CARBAZOLE	1	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.039	J	P
FLUORENE	0.028	J	P
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	1	U	
PHENANTHRENE	0.18	J	P
PYRENE	0.043	J	P

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**B. DAVIS**	**DATE:**	**APRIL 17, 2007**
FROM:	**MATTHEW D. KRAUS**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – TAL METALS/MISCELLANEOUS**
NTC GREAT LAKES – CTO 0013
SDG – C6L190179

SAMPLES: 24/Soild/

NTC01FD12180601	NTC01FD12180602	NTC01SB0880708
NTC01SB0891112	NTC01SB0900812	NTC01SB0910812
NTC01SB0921516	NTC01SB0930810	NTC01SB0941416
NTC01SB0950810	NTC01SB0961012	NTC01SB1010406
NTC01SB1020408	NTC01SB1031919	NTC01SD0100
NTC01SD0101	NTC01SD0200	NTC01SD0201
NTC01SD0300	NTC01SD0301	NTC01SD0400
NTC01SD0401	NTC01SD0500	NTC01SD0501

4/Aqueous/

NTC01FD12170601	NTC01SW0100	NTC01SW0200
NTC01SW0300		

Overview

The sample set for NTC Great Lakes, CTO 0013, SDG C6L190179, consists of twenty-four solid and four aqueous environmental samples. Three field duplicate pairs (NTC01FD12170601 / NTC01SW0300), (NTC01FD12180601 / NTC01SD0400) and (NTC01FD12180602 / NTC01SB0900812) are included in this SDG.

All samples were analyzed for target analyte list (TAL) metals and cyanide. Soil samples were also analyzed for percent solids, pH and total organic carbon (TOC). In addition, six soil samples were analyzed for grain size. Samples were collected by Tetra Tech NUS on December 17-18, 2006 and analyzed by Severn Trent Laboratories, Inc. under Naval Facilities Engineering Service Center (NFESC) Quality Assurance / Quality Control (QA/QC) criteria.

Metals, mercury and cyanide analyses were conducted using SW-846 Methods 6010B, 7471A and 9012A, respectively. The TOC analyses were conducted via the Walkley-Black Method.

Metals, mercury, cyanide and TOC analyses were conducted using Inductively Coupled Plasma – Atomic Emission Spectrometry (ICP-AES), Cold Vapor Atomic Absorption (CVAA), automated analyzer and titrimetric methodology, respectively.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Calibration Recoveries
  • Laboratory Method/Preparation Blank Analyses
  • Field Duplicate Precision Results
* • Detection Limits

Samples NTC01FD12180601, NTC01SD0400, NTC01FD12180602 and NTC01SB0900812 were evaluated for the following parameters in addition to the parameters listed above:

* • ICP Interference Check Sample Results
  • Matrix Spike/Matrix Spike Duplicate Recoveries
* • Laboratory Control Sample Recoveries
* • Serial Dilution Results
* • Analyte Quantitation

* - All quality control criteria were met for this parameter.

Laboratory Blank Analyses

The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level (aq)	Action Level (s)
Aluminum (1)	30.1 µg/L	150 µg/L	N/A
Barium	0.50 µg/L	N/A	0.25 mg/kg
Barium (1)	1.40 µg/L	7.00 µg/L	N/A
Beryllium	2.10 µg/L	10.5 µg/L	1.05 mg/kg
Calcium	14.5 µg/L	72.5 µg/L	7.25 mg/kg
Chromium (1)	0.73 µg/L	3.65 µg/L	N/A
Chromium (2)	0.07 mg/kg	N/A	0.35 mg/kg
Cobalt	0.60 µg/L	3.00 µg/L	0.30 mg/kg
Iron	30.1 µg/L	150 µg/L	15.0 mg/kg
Magnesium (2)	1.20 mg/kg	N/A	6.00 mg/kg
Manganese	0.50 µg/L	2.50 µg/L	0.25 mg/kg
Mercury	0.03 µg/L	N/A	0.02 mg/kg
Mercury (1)	0.05 µg/L	0.25 µg/L	N/A
Nickel (2)	0.08 mg/kg	N/A	0.40 mg/kg
Potassium	134 µg/L	670 µg/L	67.0 mg/kg
Silver	0.50 µg/L	2.50 µg/L	0.25 mg/kg
Sodium (2)	12.1 mg/kg	N/A	60.5 mg/kg
Zinc	3.30 µg/L	N/A	1.65 mg/kg
Zinc (1)	4.00 µg/L	20.0 µg/L	N/A

(1) Maximum contaminant level was found in the aqueous laboratory preparation blank.
(2) Maximum contaminant level was found in the soil laboratory preparation blank.

An action level of 5X the maximum concentration was used to evaluate the sample data for blank contamination. Sample aliquot, percent solids, and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Beryllium, chromium, mercury, silver and zinc were qualified due to laboratory blank contamination.

Matrix Spike / Matrix Spike Duplicate Recoveries

The matrix spike (MS) and matrix spike duplicate (MSD) percent recoveries for antimony were less than the lower (75%) quality control limit in samples NTC01FD12180601 and NTC01SD0400 affecting all sediment samples. Positive and non-detected results reported for antimony from the sediment matrix were qualified as estimated, "J" or "UJ", respectively.

The MS and MSD percent recoveries for calcium and magnesium were slightly greater than the upper (125%) quality control limit at 134.0% and 129.1%, respectively, in sample NTC01SD0400. The positive results reported for calcium and magnesium were qualified as estimated, "J", in sample NTC01SD0400 only because the field duplicate of that sample (NTC01FD12180601) yielded MS/MSD percent recoveries for calcium and magnesium that were within quality control limits.

Field Duplicate Precision Results

Field duplicate imprecision (sample concentrations > 5X CRDL accompanied by > 50% RPD) was noted for mercury in the field duplicate pair (NTC01FD12180601 / NTC01SD0400) affecting all sediment samples. The positive results reported for mercury from sediment samples were qualified as estimated, "J".

Field duplicate imprecision (sample concentrations > 5X CRDL accompanied by > 50% RPD) was noted for chromium, copper, iron, magnesium, manganese, mercury, nickel and zinc in the field duplicate pair (NTC01FD12180602 / NTC01SB0900812) affecting all soil samples. Positive results reported for the aforementioned analytes from soil samples were qualified as estimated, "J".

Field duplicate imprecision (difference between sample results > 4X CRDL when one or both sample results are < 5X CRDL) was noted for barium, lead and silver in the field duplicate pair (NTC01FD12180602 / NTC01SB0900812) affecting all soil samples. Positive and non-detected results reported from soil samples for the aforementioned analytes which were not previously qualified due to blank contamination were qualified as estimated, "J" or "UJ", respectively.

Notes

The non-detected result for cadmium and thallium in sample NTC01SB089112 was reported from a 2X dilution resulting in an elevated detection limit.

The original data package was missing the first page of the chain-of-custody (COC) report. The laboratory was contacted and provided the COC page at a later date.

Executive Summary

Laboratory Performance: Several analytes were qualified due to laboratory blank contamination.

Other Factors Affecting Data Quality: Antimony, calcium and magnesium were qualified due to matrix spike noncompliance. Several analytes were qualified due to field duplicate imprecision.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Data Review", October 2004 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006).

The text of this report has been formulated to address only those problem areas affecting data quality.

TO: **Davis, B. – PAGE 4**
DATE: **APRIL 17, 2007**

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the DoD QSM Guidelines and the Quality Assurance Project Plan (QAPP)."

Tetra Tech NUS
Matthew D. Kraus
Environmental Chemist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C – Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: M

nsample	NTC01FD12170601	nsample	NTC01SW0100	nsample	NTC01SW0200
samp_date	12/17/2006	samp_date	12/17/2006	samp_date	12/17/2006
lab_id	C6L190179001	lab_id	C6L190179002	lab_id	C6L190179003
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:	NTC01SW0300	DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	224		
ANTIMONY	2.4	U	
ARSENIC	2.3	U	
BARIUM	49.3		
BERYLLIUM	1.6	U	
CADMIUM	0.44	U	
CALCIUM	83600		
CHROMIUM	0.54	U	
COBALT	0.54	U	
COPPER	1.4	U	
IRON	462		
LEAD	1.8	U	
MAGNESIUM	30400		
MANGANESE	69.2		
MERCURY	0.015	U	
NICKEL	1.6		
POTASSIUM	3440		
SELENIUM	2.3	U	
SILVER	0.47	U	
SODIUM	226000		
THALLIUM	2.6	U	
VANADIUM	0.86		
ZINC	17.6	U	A

Parameter	Result	Val Qual	Qual Code
ALUMINUM	386		
ANTIMONY	2.4	U	
ARSENIC	2.3	U	
BARIUM	48.8		
BERYLLIUM	1.8	U	A
CADMIUM	0.44	U	
CALCIUM	83300		
CHROMIUM	1.2	U	A
COBALT	0.54	U	
COPPER	1.5		
IRON	677		
LEAD	2.1		
MAGNESIUM	30600		
MANGANESE	74.9		
MERCURY	0.052		
NICKEL	2.3		
POTASSIUM	3670		
SELENIUM	2.3	U	
SILVER	0.67	U	A
SODIUM	227000		
THALLIUM	5.1		
VANADIUM	1.5		
ZINC	18.5	U	A

Parameter	Result	Val Qual	Qual Code
ALUMINUM	407		
ANTIMONY	3.2		
ARSENIC	2.3	U	
BARIUM	49.8		
BERYLLIUM	1.7	U	A
CADMIUM	0.44	U	
CALCIUM	85000		
CHROMIUM	1.7	U	A
COBALT	0.54	U	
COPPER	1.4	U	
IRON	671		
LEAD	2.1		
MAGNESIUM	31000		
MANGANESE	76.3		
MERCURY	0.052		
NICKEL	2.6		
POTASSIUM	3570		
SELENIUM	2.3	U	
SILVER	0.49	U	A
SODIUM	231000		
THALLIUM	2.6	U	
VANADIUM	1.4		
ZINC	18.7	U	A

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: M

nsample	NTC01SW0300
samp_date	12/17/2006
lab_id	C6L190179004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	273		
ANTIMONY	3.6		
ARSENIC	2.3	U	
BARIUM	49.1		
BERYLLIUM	1.6	U	
CADMIUM	0.44	U	
CALCIUM	83700		
CHROMIUM	0.98	U	A
COBALT	0.54	U	
COPPER	1.4	U	
IRON	499		
LEAD	1.8	U	
MAGNESIUM	30600		
MANGANESE	69.5		
MERCURY	0.022	U	A
NICKEL	2.2		
POTASSIUM	3470		
SELENIUM	2.3	U	
SILVER	0.73	U	A
SODIUM	228000		
THALLIUM	2.6	U	
VANADIUM	1.4		
ZINC	17.2	U	A

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: M

nsample	NTC01FD12180601	nsample	NTC01FD12180602	nsample	NTC01SB0880708
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179005	lab_id	C6L190179006	lab_id	C6L190179007
qc_type	NM	qc_type	NM	qc_type	NM
units	MG/KG	units	MG/KG	units	MG/KG
Pct_Solids	38.0	Pct_Solids	78.0	Pct_Solids	81.0
DUP_OF:	NTC01SD0400	DUP_OF:	NTC01SB0900812	DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	11800		
ANTIMONY	2	J	D
ARSENIC	10.1		
BARIUM	101		
BERYLLIUM	1.4	U	A
CADMIUM	0.12	U	
CALCIUM	42800		
CHROMIUM	29.3		
COBALT	12.8		
COPPER	71.3		
IRON	28500		
LEAD	51		
MAGNESIUM	25100		
MANGANESE	1200		
MERCURY	0.24	J	G
NICKEL	29.4		
POTASSIUM	1760		
SELENIUM	2.5		
SILVER	0.37	U	A
SODIUM	820		
THALLIUM	0.69	U	
VANADIUM	31		
ZINC	304		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	5160		
ANTIMONY	0.31	U	
ARSENIC	6.6		
BARIUM	54.1	J	G
BERYLLIUM	2.4		
CADMIUM	0.057	U	
CALCIUM	22100		
CHROMIUM	9.6	J	G
COBALT	5.9		
COPPER	24.5	J	G
IRON	23500	J	G
LEAD	54.9	J	G
MAGNESIUM	3490	J	G
MANGANESE	171	J	G
MERCURY	0.14	J	G
NICKEL	22	J	G
POTASSIUM	810		
SELENIUM	3.4		
SILVER	0.23	U	A
SODIUM	170		
THALLIUM	0.34	U	
VANADIUM	21.9		
ZINC	101	J	G

Parameter	Result	Val Qual	Qual Code
ALUMINUM	7660		
ANTIMONY	12.3		
ARSENIC	8.4		
BARIUM	55.3	J	G
BERYLLIUM	0.77	U	A
CADMIUM	0.054	U	
CALCIUM	45300		
CHROMIUM	16.7	J	G
COBALT	9.3		
COPPER	19.2	J	G
IRON	19800	J	G
LEAD	30.1	J	G
MAGNESIUM	23400	J	G
MANGANESE	530	J	G
MERCURY	0.43	J	G
NICKEL	20.1	J	G
POTASSIUM	1270		
SELENIUM	0.94		
SILVER	0.12	U	A
SODIUM	128		
THALLIUM	0.32	U	
VANADIUM	18.9		
ZINC	124	J	G

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: M

nsample	NTC01SB0891112
samp_date	12/18/2006
lab_id	C6L190179008
qc_type	NM
units	MG/KG
Pct_Solids	79.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	6570		
ARSENIC	19.6		
BARIUM	355	J	G
BERYLLIUM	1.1	U	A
CALCIUM	23700		
CHROMIUM	29.3	J	G
COBALT	11		
COPPER	112	J	G
MAGNESIUM	7370	J	G
MANGANESE	425	J	G
MERCURY	0.72	J	G
NICKEL	45.1	J	G
POTASSIUM	752		
SILVER	17.3	J	G
SODIUM	464		
VANADIUM	28.8		
ZINC	426	J	G

nsample	NTC01SB0891112DL
samp_date	12/18/2006
lab_id	C6L190179008
qc_type	NM
units	MG/KG
Pct_Solids	79.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ANTIMONY	7.5		
CADMIUM	0.11	U	
IRON	69100	J	G
LEAD	445	J	G
SELENIUM	5.7		
THALLIUM	0.73		

nsample	NTC01SB0900812
samp_date	12/18/2006
lab_id	C6L190179009
qc_type	NM
units	MG/KG
Pct_Solids	78.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	8470		
ANTIMONY	21.4		
ARSENIC	11		
BARIUM	386	J	G
BERYLLIUM	1.8		
CADMIUM	1		
CALCIUM	24600		
CHROMIUM	27.8	J	G
COBALT	10.1		
COPPER	829	J	G
IRON	53100	J	G
MAGNESIUM	6730	J	G
MANGANESE	587	J	G
MERCURY	0.59	J	G
NICKEL	37.7	J	G
POTASSIUM	1240		
SELENIUM	4.2		
SILVER	16.1	J	G
SODIUM	871		
THALLIUM	0.33	U	
VANADIUM	25.5		
ZINC	1310	J	G

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: M

nsample	NTC01SB0900812DL
samp_date	12/18/2006
lab_id	C6L190179009
qc_type	NM
units	MG/KG
Pct_Solids	78.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	1410	J	G

nsample	NTC01SB0910812
samp_date	12/18/2006
lab_id	C6L190179010
qc_type	NM
units	MG/KG
Pct_Solids	82.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	9840		
ANTIMONY	0.29	U	
ARSENIC	6.4		
BARIUM	116	J	G
BERYLLIUM	1.2	U	A
CADMIUM	0.054	U	
CALCIUM	10200		
CHROMIUM	18.3	J	G
COBALT	10.8		
COPPER	28.4	J	G
IRON	19900	J	G
LEAD	32.9	J	G
MAGNESIUM	6650	J	G
MANGANESE	930	J	G
MERCURY	0.075	J	G
NICKEL	19.4	J	G
POTASSIUM	1010		
SELENIUM	1.1		
SILVER	0.61	J	G
SODIUM	250		
THALLIUM	0.32	U	
VANADIUM	23		
ZINC	113	J	G

nsample	NTC01SB0921516
samp_date	12/18/2006
lab_id	C6L190179011
qc_type	NM
units	MG/KG
Pct_Solids	58.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	10300		
ANTIMONY	0.6		
ARSENIC	16		
BARIUM	165	J	G
BERYLLIUM	1.3	U	A
CADMIUM	0.076	U	
CALCIUM	50900		
CHROMIUM	27.9	J	G
COBALT	10.6		
COPPER	63.1	J	G
IRON	25600	J	G
LEAD	188	J	G
MAGNESIUM	22100	J	G
MANGANESE	433	J	G
MERCURY	0.19	J	G
NICKEL	27.1	J	G
POTASSIUM	1880		
SELENIUM	1.5		
SILVER	0.54	J	G
SODIUM	441		
THALLIUM	0.45	U	
VANADIUM	27.2		
ZINC	333	J	G

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: M

nsample	NTC01SB0930810
samp_date	12/18/2006
lab_id	C6L190179012
qc_type	NM
units	MG/KG
Pct_Solids	83.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	2750		
ANTIMONY	0.88		
ARSENIC	4.4		
BARIUM	46	J	G
BERYLLIUM	1.5		
CADMIUM	0.14		
CALCIUM	9620		
CHROMIUM	7.8	J	G
COBALT	4.2		
COPPER	37.5	J	G
IRON	13600	J	G
LEAD	42.6	J	G
MAGNESIUM	1420	J	G
MANGANESE	105	J	G
MERCURY	0.21	J	G
NICKEL	11.6	J	G
POTASSIUM	420		
SELENIUM	1.6		
SILVER	0.79	J	G
SODIUM	202		
THALLIUM	0.31	U	
VANADIUM	13.8		
ZINC	105	J	G

nsample	NTC01SB0941416
samp_date	12/18/2006
lab_id	C6L190179013
qc_type	NM
units	MG/KG
Pct_Solids	64.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	6400		
ANTIMONY	6.7		
ARSENIC	8.1		
BARIUM	209	J	G
BERYLLIUM	2.7		
CADMIUM	0.39		
CALCIUM	10700		
CHROMIUM	20.6	J	G
COBALT	7.5		
COPPER	51.7	J	G
IRON	28600	J	G
LEAD	160	J	G
MAGNESIUM	3960	J	G
MANGANESE	332	J	G
MERCURY	0.75	J	G
NICKEL	26.7	J	G
POTASSIUM	1160		
SELENIUM	3		
SILVER	4.4	J	G
SODIUM	359		
THALLIUM	0.41	U	
VANADIUM	32.2		
ZINC	367	J	G

nsample	NTC01SB0950810
samp_date	12/18/2006
lab_id	C6L190179014
qc_type	NM
units	MG/KG
Pct_Solids	37.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	6970		
ANTIMONY	0.65	U	
ARSENIC	6.4		
BARIUM	63.6	J	G
BERYLLIUM	5.7		
CADMIUM	0.52		
CALCIUM	2840		
CHROMIUM	15.4	J	G
COBALT	9.8		
COPPER	38.9	J	G
IRON	20800	J	G
LEAD	68.1	J	G
MAGNESIUM	855	J	G
MANGANESE	61.6	J	G
MERCURY	0.13	J	G
NICKEL	45.9	J	G
POTASSIUM	1390		
SELENIUM	4.3		
SILVER	0.37	U	A
SODIUM	304		
THALLIUM	1.5		
VANADIUM	122		
ZINC	343	J	G

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: M

nsample	NTC01SB0961012	nsample	NTC01SB1010406	nsample	NTC01SB1020408
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179015	lab_id	C6L190179016	lab_id	C6L190179017
qc_type	NM	qc_type	NM	qc_type	NM
units	MG/KG	units	MG/KG	units	MG/KG
Pct_Solids	82.0	Pct_Solids	86.0	Pct_Solids	50.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	8640		
ANTIMONY	0.54		
ARSENIC	14.5		
BARIUM	106	J	G
BERYLLIUM	1.1	U	A
CADMIUM	0.054	U	
CALCIUM	39300		
CHROMIUM	16.7	J	G
COBALT	9.8		
COPPER	61	J	G
IRON	19200	J	G
LEAD	212	J	G
MAGNESIUM	19100	J	G
MANGANESE	523	J	G
MERCURY	0.17	J	G
NICKEL	23.3	J	G
POTASSIUM	1490		
SELENIUM	1.2		
SILVER	0.3	U	A
SODIUM	268		
THALLIUM	0.32	U	
VANADIUM	22.4		
ZINC	248	J	G

Parameter	Result	Val Qual	Qual Code
ALUMINUM	3750		
ANTIMONY	0.28	U	
ARSENIC	8.1		
BARIUM	50.8	J	G
BERYLLIUM	1.2	U	A
CADMIUM	0.051	U	
CALCIUM	8080		
CHROMIUM	6	J	G
COBALT	4.3		
COPPER	22.9	J	G
IRON	11400	J	G
LEAD	30.1	J	G
MAGNESIUM	1790	J	G
MANGANESE	93.5	J	G
MERCURY	0.21	J	G
NICKEL	13.3	J	G
POTASSIUM	421		
SELENIUM	1.2		
SILVER	0.34	J	G
SODIUM	154		
THALLIUM	0.3	U	
VANADIUM	15.7		
ZINC	103	J	G

Parameter	Result	Val Qual	Qual Code
ALUMINUM	7300		
ANTIMONY	0.48	U	
ARSENIC	18.9		
BARIUM	58.6	J	G
BERYLLIUM	5.2		
CADMIUM	1.1		
CALCIUM	4870		
CHROMIUM	12.6	J	G
COBALT	5.5		
COPPER	25.8	J	G
IRON	16000	J	G
LEAD	11.9	J	G
MAGNESIUM	1360	J	G
MANGANESE	59.1	J	G
MERCURY	0.11	J	G
NICKEL	21.1	J	G
POTASSIUM	1400		
SELENIUM	4.2		
SILVER	0.093	UJ	G
SODIUM	204		
THALLIUM	1.2		
VANADIUM	47.4		
ZINC	50.1	J	G

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: M

nsample	NTC01SB1031919
samp_date	12/18/2006
lab_id	C6L190179018
qc_type	NM
units	MG/KG
Pct_Solids	86.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	7290		
ANTIMONY	0.28	U	
ARSENIC	8.1		
BARIUM	35.9	J	G
BERYLLIUM	0.74	U	A
CADMIUM	0.051	U	
CALCIUM	66300		
CHROMIUM	14.5	J	G
COBALT	8.7		
COPPER	22	J	G
IRON	17700	J	G
LEAD	19.7	J	G
MAGNESIUM	36600	J	G
MANGANESE	499	J	G
MERCURY	0.014	U	A
NICKEL	24.1	J	G
POTASSIUM	1610		
SELENIUM	0.83		
SILVER	0.063	U	A
SODIUM	214		
THALLIUM	0.3	U	
VANADIUM	17.2		
ZINC	44.9	J	G

nsample	NTC01SD0100
samp_date	12/18/2006
lab_id	C6L190179019
qc_type	NM
units	MG/KG
Pct_Solids	66.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	3530		
ANTIMONY	0.46	J	D
ARSENIC	3.3		
BARIUM	45.5		
BERYLLIUM	0.76	U	A
CADMIUM	0.066	U	
CHROMIUM	13.8		
COBALT	3.7		
COPPER	34.3		
IRON	11700		
LEAD	30.1		
MAGNESIUM	52100		
MANGANESE	355		
MERCURY	0.058	J	G
NICKEL	10.2		
POTASSIUM	590		
SELENIUM	0.35	U	
SILVER	0.1	U	A
SODIUM	559		
THALLIUM	0.39	U	
VANADIUM	11		
ZINC	158		

nsample	NTC01SD0100DL
samp_date	12/18/2006
lab_id	C6L190179019
qc_type	NM
units	MG/KG
Pct_Solids	66.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
CALCIUM	116000		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: M

nsample	NTC01SD0101	nsample	NTC01SD0200	nsample	NTC01SD0201
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179020	lab_id	C6L190179021	lab_id	C6L190179022
qc_type	NM	qc_type	NM	qc_type	NM
units	MG/KG	units	MG/KG	units	MG/KG
Pct_Solids	57.0	Pct_Solids	37.0	Pct_Solids	55.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	6130		
ANTIMONY	0.42	UJ	D
ARSENIC	6.8		
BARIUM	50.7		
BERYLLIUM	1	U	A
CADMIUM	0.48		
CALCIUM	74600		
CHROMIUM	44.2		
COBALT	7.9		
COPPER	83.3		
IRON	18700		
LEAD	113		
MAGNESIUM	41700		
MANGANESE	530		
MERCURY	0.17	J	G
NICKEL	21.1		
POTASSIUM	925		
SELENIUM	1.1		
SILVER	0.35	U	A
SODIUM	1290		
THALLIUM	0.46	U	
VANADIUM	19		
ZINC	439		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	8920		
ANTIMONY	2.1	J	D
ARSENIC	8.1		
BARIUM	78.5		
BERYLLIUM	1.3	U	A
CADMIUM	0.12	U	
CALCIUM	39600		
CHROMIUM	24.7		
COBALT	10.9		
COPPER	52.7		
IRON	23900		
LEAD	42.3		
MAGNESIUM	22300		
MANGANESE	654		
MERCURY	0.3	J	G
NICKEL	24.5		
POTASSIUM	1390		
SELENIUM	1.9		
SILVER	0.39	U	A
SODIUM	765		
THALLIUM	0.7	U	
VANADIUM	25.7		
ZINC	294		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	7920		
ANTIMONY	0.43	UJ	D
ARSENIC	7.7		
BARIUM	50.9		
BERYLLIUM	0.99	U	A
CADMIUM	0.08	U	
CALCIUM	34100		
CHROMIUM	19.5		
COBALT	10.9		
COPPER	29.3		
IRON	15100		
LEAD	53.4		
MAGNESIUM	21400		
MANGANESE	354		
MERCURY	0.16	J	G
NICKEL	24.6		
POTASSIUM	1130		
SELENIUM	1.1		
SILVER	0.38	U	A
SODIUM	266		
THALLIUM	0.47	U	
VANADIUM	20.3		
ZINC	136		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: M

nsample	NTC01SD0300	nsample	NTC01SD0301	nsample	NTC01SD0400
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179023	lab_id	C6L190179024	lab_id	C6L190179025
qc_type	NM	qc_type	NM	qc_type	NM
units	MG/KG	units	MG/KG	units	MG/KG
Pct_Solids	54.0	Pct_Solids	74.0	Pct_Solids	44.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	7760		
ANTIMONY	0.44	UJ	D
ARSENIC	8.4		
BARIUM	65.9		
BERYLLIUM	1.3	U	A
CADMIUM	0.081	U	
CALCIUM	33700		
CHROMIUM	17.6		
COBALT	9.3		
COPPER	40.1		
IRON	20100		
LEAD	54		
MAGNESIUM	18800		
MANGANESE	555		
MERCURY	0.11	J	G
NICKEL	22.2		
POTASSIUM	1220		
SELENIUM	1.4		
SILVER	0.42	U	A
SODIUM	239		
THALLIUM	0.48	U	
VANADIUM	23.5		
ZINC	213		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	7980		
ANTIMONY	0.33	UJ	D
ARSENIC	9.4		
BARIUM	71.4		
BERYLLIUM	1.2	U	A
CADMIUM	0.06	U	
CALCIUM	32600		
CHROMIUM	16.2		
COBALT	11.3		
COPPER	82.5		
IRON	19900		
LEAD	53.1		
MAGNESIUM	18100		
MANGANESE	513		
MERCURY	0.1	J	G
NICKEL	26.4		
POTASSIUM	1300		
SELENIUM	1.2		
SILVER	0.39		
SODIUM	247		
THALLIUM	0.35	U	
VANADIUM	21.4		
ZINC	362		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	8970		
ANTIMONY	2.1	J	D
ARSENIC	7.9		
BARIUM	71.2		
BERYLLIUM	1.2	U	A
CADMIUM	0.099	U	
CALCIUM	29300	J	D
CHROMIUM	21.5		
COBALT	9.6		
COPPER	48.3		
IRON	21400		
LEAD	34.1		
MAGNESIUM	17800	J	D
MANGANESE	912		
MERCURY	0.13	J	G
NICKEL	22.4		
POTASSIUM	1410		
SELENIUM	1.6		
SILVER	0.22	U	A
SODIUM	579		
THALLIUM	0.63		
VANADIUM	22.9		
ZINC	213		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: M

nsample	NTC01SD0401	nsample	NTC01SD0500	nsample	NTC01SD0500DL
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179026	lab_id	C6L190179027	lab_id	C6L190179027
qc_type	NM	qc_type	NM	qc_type	NM
units	MG/KG	units	MG/KG	units	MG/KG
Pct_Solids	44.0	Pct_Solids	88.0	Pct_Solids	88.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	9530		
ANTIMONY	1.3	J	D
ARSENIC	9.1		
BARIUM	76.1		
BERYLLIUM	1.4	U	A
CADMIUM	0.1	U	
CALCIUM	35500		
CHROMIUM	23.8		
COBALT	10.3		
COPPER	51.6		
IRON	23800		
LEAD	46.6		
MAGNESIUM	20800		
MANGANESE	719		
MERCURY	0.23	J	G
NICKEL	24		
POTASSIUM	1370		
SELENIUM	1.9		
SILVER	0.3	U	A
SODIUM	629		
THALLIUM	0.63		
VANADIUM	26.4		
ZINC	250		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	1180		
ANTIMONY	0.45	J	D
ARSENIC	2.1		
BARIUM	10.3		
BERYLLIUM	0.73	U	A
CADMIUM	0.05	U	
CHROMIUM	3.2		
COBALT	2.2		
COPPER	55.2		
IRON	5290		
LEAD	33		
MAGNESIUM	67100		
MANGANESE	257		
MERCURY	0.015	U	A
NICKEL	5.6		
POTASSIUM	297		
SELENIUM	0.26	U	
SILVER	0.076	U	A
SODIUM	271		
THALLIUM	0.3	U	
VANADIUM	4.9		
ZINC	400		

Parameter	Result	Val Qual	Qual Code
CALCIUM	117000		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: M

nsample	NTC01SD0501
samp_date	12/18/2006
lab_id	C6L190179028
qc_type	NM
units	MG/KG
Pct_Solids	37.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	5350		
ANTIMONY	1.2	J	D
ARSENIC	6.4		
BARIUM	69.9		
BERYLLIUM	1.1	U	A
CADMIUM	0.12	U	
CALCIUM	20700		
CHROMIUM	16.9		
COBALT	7.6		
COPPER	36.7		
IRON	14100		
LEAD	46.8		
MAGNESIUM	11600		
MANGANESE	261		
MERCURY	0.25	J	G
NICKEL	16.4		
POTASSIUM	875		
SELENIUM	1.4		
SILVER	0.5	U	A
SODIUM	679		
THALLIUM	0.7	U	
VANADIUM	17		
ZINC	180		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: MISC

nsample	NTC01FD12170601
samp_date	12/17/2006
lab_id	C6L190179001
qc_type	NM
Pct_Solids	
DUP_OF:	NTC01SW0300

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	10	U	

nsample	NTC01SW0100
samp_date	12/17/2006
lab_id	C6L190179002
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	10	U	

nsample	NTC01SW0200
samp_date	12/17/2006
lab_id	C6L190179003
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	10	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: WATER DATA FRACTION: MISC

nsample	NTC01SW0300
samp_date	12/17/2006
lab_id	C6L190179004
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	10	U	

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: MISC

nsample	NTC01FD12180601	nsample	NTC01FD12180602	nsample	NTC01SB0880708
samp_date	12/18/2006	samp_date	12/18/2006	samp_date	12/18/2006
lab_id	C6L190179005	lab_id	C6L190179006	lab_id	C6L190179007
qc_type	NM	qc_type	NM	qc_type	NM
Pct_Solids	38.0	Pct_Solids	78.0	Pct_Solids	81.0
DUP_OF:	NTC01SD0400	DUP_OF:	NTC01SB0900812	DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	1.3	U	
PERCENT SOLIDS	%	37.7		
PH	S.U.	7.2		
TOTAL ORGANIC CARBON	MG/KG	48900		

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.64	U	
PERCENT SOLIDS	%	77.5		
PH	S.U.	7.5		
TOTAL ORGANIC CARBON	MG/KG	32200		

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.62	U	
PERCENT SOLIDS	%	81.3		
PH	S.U.	7.4		
TOTAL ORGANIC CARBON	MG/KG	16000		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: MISC

nsample	NTC01SB0891112
samp_date	12/18/2006
lab_id	C6L190179008
qc_type	NM
Pct_Solids	79.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.63	U	
PERCENT SOLIDS	%	78.8		
PH	S.U.	7.6		
TOTAL ORGANIC CARBON	MG/KG	23300		

nsample	NTC01SB0900812
samp_date	12/18/2006
lab_id	C6L190179009
qc_type	NM
Pct_Solids	78.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.64	U	
HYDROMETER-0.0015MM	%	4.2		
HYDROMETER-0.005MM	%	2.1		
HYDROMETER-0.030MM	%	21.4		
PERCENT CLAY	%	7.7		
PERCENT COARSE SAND	%	9.5		
PERCENT FINE SAND	%	16.1		
PERCENT GRAVEL	%	20.5		
PERCENT MEDIUM SAND	%	8.9		
PERCENT SILT	%	37.3		
PERCENT SOLIDS	%	78.5		
PH	S.U.	7.6		
SIEVE 1"	%	0		
SIEVE 1-1/2"	%	0		
SIEVE 2"	%	0		
SIEVE 3"	%	0		
SIEVE 3/4"	%	0		
SIEVE 3/8"	%	6.9		
SIEVE NO. 004	%	13.6		
SIEVE NO. 010	%	9.5		
SIEVE NO. 020	%	4.7		
SIEVE NO. 040	%	4.2		
SIEVE NO. 060	%	4		
SIEVE NO. 080	%	3.5		
SIEVE NO. 100	%	1.4		
SIEVE NO. 200	%	7.2		
TOTAL ORGANIC CARBON	MG/KG	35900		

nsample	NTC01SB0910812
samp_date	12/18/2006
lab_id	C6L190179010
qc_type	NM
Pct_Solids	82.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.61	U	
PERCENT SOLIDS	%	81.9		
PH	S.U.	8.2		
TOTAL ORGANIC CARBON	MG/KG	21200		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: MISC

nsample	NTC01SB0921516
samp_date	12/18/2006
lab_id	C6L190179011
qc_type	NM
Pct_Solids	58.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.86	U	
PERCENT SOLIDS	%	57.9		
PH	S.U.	8.2		
TOTAL ORGANIC CARBON	MG/KG	12700		

nsample	NTC01SB0930810
samp_date	12/18/2006
lab_id	C6L190179012
qc_type	NM
Pct_Solids	83.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.6	U	
PERCENT SOLIDS	%	83.4		
PH	S.U.	8		
TOTAL ORGANIC CARBON	MG/KG	13200		

nsample	NTC01SB0941416
samp_date	12/18/2006
lab_id	C6L190179013
qc_type	NM
Pct_Solids	64.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	2.9		
PERCENT SOLIDS	%	63.9		
PH	S.U.	8.1		
TOTAL ORGANIC CARBON	MG/KG	29900		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: MISC

nsample	NTC01SB0950810
samp_date	12/18/2006
lab_id	C6L190179014
qc_type	NM
Pct_Solids	37.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	1.3	U	
HYDROMETER-0.0015MM	%	9.2		
HYDROMETER-0.005MM	%	0		
HYDROMETER-0.030MM	%	18.6		
PERCENT CLAY	%	5.1		
PERCENT COARSE SAND	%	3.3		
PERCENT FINE SAND	%	31.8		
PERCENT GRAVEL	%	3.9		
PERCENT MEDIUM SAND	%	9.9		
PERCENT SILT	%	46.1		
PERCENT SOLIDS	%	37.1		
PH	S.U.	7		
SIEVE 1"	%	0		
SIEVE 1-1/2"	%	0		
SIEVE 2"	%	0		
SIEVE 3"	%	0		
SIEVE 3/4"	%	0		
SIEVE 3/8"	%	2.1		
SIEVE NO. 004	%	1.7		
SIEVE NO. 010	%	3.3		
SIEVE NO. 020	%	4.5		
SIEVE NO. 040	%	5.3		
SIEVE NO. 060	%	6.4		
SIEVE NO. 080	%	6.7		
SIEVE NO. 100	%	3.2		
SIEVE NO. 200	%	15.4		
TOTAL ORGANIC CARBON	MG/KG	29400		

nsample	NTC01SB0961012
samp_date	12/18/2006
lab_id	C6L190179015
qc_type	NM
Pct_Solids	82.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.61	U	
PERCENT SOLIDS	%	81.5		
PH	S.U.	10.1		
TOTAL ORGANIC CARBON	MG/KG	10700		

nsample	NTC01SB1010406
samp_date	12/18/2006
lab_id	C6L190179016
qc_type	NM
Pct_Solids	86.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.58	U	
PERCENT SOLIDS	%	86.4		
PH	S.U.	8		
TOTAL ORGANIC CARBON	MG/KG	20100		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: MISC

nsample	NTC01SB1020408
samp_date	12/18/2006
lab_id	C6L190179017
qc_type	NM
Pct_Solids	50.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.99	U	
HYDROMETER-0.0015MM	%	15		
HYDROMETER-0.005MM	%	4.7		
HYDROMETER-0.030MM	%	20.7		
PERCENT CLAY	%	11		
PERCENT COARSE SAND	%	3.1		
PERCENT FINE SAND	%	21.5		
PERCENT GRAVEL	%	3.6		
PERCENT MEDIUM SAND	%	4.5		
PERCENT SILT	%	56.3		
PERCENT SOLIDS	%	50.3		
PH	S.U.	7.3		
SIEVE 1"	%	0		
SIEVE 1-1/2"	%	0		
SIEVE 2"	%	0		
SIEVE 3"	%	0		
SIEVE 3/4"	%	0		
SIEVE 3/8"	%	1.3		
SIEVE NO. 004	%	2.3		
SIEVE NO. 010	%	3.1		
SIEVE NO. 020	%	2.1		
SIEVE NO. 040	%	2.3		
SIEVE NO. 060	%	3.4		
SIEVE NO. 080	%	4.4		
SIEVE NO. 100	%	2.1		
SIEVE NO. 200	%	11.7		
TOTAL ORGANIC CARBON	MG/KG	26500		

nsample	NTC01SB1031919
samp_date	12/18/2006
lab_id	C6L190179018
qc_type	NM
Pct_Solids	86.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.58	U	
PERCENT SOLIDS	%	86.4		
PH	S.U.	8.2		
TOTAL ORGANIC CARBON	MG/KG	5360		

nsample	NTC01SD0100
samp_date	12/18/2006
lab_id	C6L190179019
qc_type	NM
Pct_Solids	66.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.76	U	
HYDROMETER-0.0015MM	%	0.5		
HYDROMETER-0.005MM	%	0.5		
HYDROMETER-0.030MM	%	6.8		
PERCENT CLAY	%	2.7		
PERCENT COARSE SAND	%	20.5		
PERCENT FINE SAND	%	10		
PERCENT GRAVEL	%	9.5		
PERCENT MEDIUM SAND	%	47.4		
PERCENT SILT	%	10		
PERCENT SOLIDS	%	66.2		
PH	S.U.	7.7		
SIEVE 1"	%	0		
SIEVE 1-1/2"	%	0		
SIEVE 2"	%	0		
SIEVE 3"	%	0		
SIEVE 3/4"	%	0		
SIEVE 3/8"	%	1.5		
SIEVE NO. 004	%	8		
SIEVE NO. 010	%	20.5		
SIEVE NO. 020	%	27.8		
SIEVE NO. 040	%	19.7		
SIEVE NO. 060	%	6.7		
SIEVE NO. 080	%	1.8		
SIEVE NO. 100	%	0.3		
SIEVE NO. 200	%	1.2		
TOTAL ORGANIC CARBON	MG/KG	8830		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: MISC

nsample	NTC01SD0101
samp_date	12/18/2006
lab_id	C6L190179020
qc_type	NM
Pct_Solids	57.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.88	U	
PERCENT SOLIDS	%	56.6		
PH	S.U.	8.3		
TOTAL ORGANIC CARBON	MG/KG	33400		

nsample	NTC01SD0200
samp_date	12/18/2006
lab_id	C6L190179021
qc_type	NM
Pct_Solids	37.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	1.3	U	
PERCENT SOLIDS	%	37.2		
PH	S.U.	7.2		
TOTAL ORGANIC CARBON	MG/KG	54300		

nsample	NTC01SD0201
samp_date	12/18/2006
lab_id	C6L190179022
qc_type	NM
Pct_Solids	55.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.9	U	
HYDROMETER-0.0015MM	%	5.1		
HYDROMETER-0.005MM	%	6.3		
HYDROMETER-0.030MM	%	13.9		
PERCENT CLAY	%	23		
PERCENT COARSE SAND	%	9.3		
PERCENT FINE SAND	%	20		
PERCENT GRAVEL	%	7.2		
PERCENT MEDIUM SAND	%	12.5		
PERCENT SILT	%	28.1		
PERCENT SOLIDS	%	55.3		
PH	S.U.	7.4		
SIEVE 1"	%	0		
SIEVE 1-1/2"	%	0		
SIEVE 2"	%	0		
SIEVE 3"	%	0		
SIEVE 3/4"	%	0		
SIEVE 3/8"	%	0		
SIEVE NO. 004	%	7.2		
SIEVE NO. 010	%	9.3		
SIEVE NO. 020	%	6.6		
SIEVE NO. 040	%	5.9		
SIEVE NO. 060	%	8.4		
SIEVE NO. 080	%	5.9		
SIEVE NO. 100	%	1.3		
SIEVE NO. 200	%	4.4		
TOTAL ORGANIC CARBON	MG/KG	21800		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: MISC

nsample	NTC01SD0300
samp_date	12/18/2006
lab_id	C6L190179023
qc_type	NM
Pct_Solids	54.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.92	U	
PERCENT SOLIDS	%	54.4		
PH	S.U.	7.3		
TOTAL ORGANIC CARBON	MG/KG	26800		

nsample	NTC01SD0301
samp_date	12/18/2006
lab_id	C6L190179024
qc_type	NM
Pct_Solids	74.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.68	U	
PERCENT SOLIDS	%	73.6		
PH	S.U.	7.8		
TOTAL ORGANIC CARBON	MG/KG	18100		

nsample	NTC01SD0400
samp_date	12/18/2006
lab_id	C6L190179025
qc_type	NM
Pct_Solids	44.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	1.1	U	
PERCENT SOLIDS	%	44.3		
PH	S.U.	7		
TOTAL ORGANIC CARBON	MG/KG	39300		

PROJ_NO: 00295

SDG: C6L190179 MEDIA: SOIL DATA FRACTION: MISC

nsample	NTC01SD0401
samp_date	12/18/2006
lab_id	C6L190179026
qc_type	NM
Pct_Solids	44.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	1.1	U	
PERCENT SOLIDS	%	44		
PH	S.U.	6.9		
TOTAL ORGANIC CARBON	MG/KG	45600		

nsample	NTC01SD0500
samp_date	12/18/2006
lab_id	C6L190179027
qc_type	NM
Pct_Solids	88.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.57	U	
HYDROMETER-0.0015MM	%	0.1		
HYDROMETER-0.005MM	%	0		
HYDROMETER-0.030MM	%	1.8		
PERCENT CLAY	%	1.4		
PERCENT COARSE SAND	%	15.7		
PERCENT FINE SAND	%	20.4		
PERCENT GRAVEL	%	39.6		
PERCENT MEDIUM SAND	%	19.7		
PERCENT SILT	%	3.2		
PERCENT SOLIDS	%	87.7		
PH	S.U.	8.1		
SIEVE 1"	%	0		
SIEVE 1-1/2"	%	0		
SIEVE 2"	%	0		
SIEVE 3"	%	0		
SIEVE 3/4"	%	0		
SIEVE 3/8"	%	20		
SIEVE NO. 004	%	19.6		
SIEVE NO. 010	%	15.7		
SIEVE NO. 020	%	9.5		
SIEVE NO. 040	%	10.3		
SIEVE NO. 060	%	12.5		
SIEVE NO. 080	%	5.4		
SIEVE NO. 100	%	0.9		
SIEVE NO. 200	%	1.6		
TOTAL ORGANIC CARBON	MG/KG	2200		

nsample	NTC01SD0501
samp_date	12/18/2006
lab_id	C6L190179028
qc_type	NM
Pct_Solids	37.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	1.3	U	
PERCENT SOLIDS	%	37.4		
PH	S.U.	7.1		
TOTAL ORGANIC CARBON	MG/KG	54400		

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**B. DAVIS**	**DATE:**	**APRIL 18, 2007**
FROM:	**MATTHEW D. KRAUS**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – TAL METALS/MISCELLANEOUS**
NTC GREAT LAKES – CTO 0013
SDG – C6L200201

SAMPLES: 5/Soil/

NTC01FD12190601	NTC01SB0970304	NTC01SB0981516
NTC01SB0991012	NTC01SB1001012	

3/Aqueous/

NTC01RB12190601	NTC01SW0400	NTC01SW0500

Overview

The sample set for NTC Great Lakes, CTO 0013, SDG C6L200201, consists of five soil and two aqueous environmental samples and a rinsate blank. One field duplicate pair (NTC01FD12190601 / NTC01SB0991012) is included in this SDG.

All samples were analyzed for target analyte list (TAL) metals and cyanide. Soil samples were also analyzed for percent solids, pH and total organic carbon (TOC). Sample NTC01SB0991012 was analyzed for grain size. Samples were collected by Tetra Tech NUS on December 18-19, 2006 and analyzed by Severn Trent Laboratories, Inc. under Naval Facilities Engineering Service Center (NFESC) Quality Assurance / Quality Control (QA/QC) criteria.

Metals, mercury and cyanide analyses were conducted using SW-846 Methods 6010B, 7471A and 9012A, respectively. TOC analyses were conducted via the Walkley-Black Method.

Metals, mercury, cyanide and TOC analyses were conducted using Inductively Coupled Plasma – Atomic Emission Spectrometry (ICP-AES), Cold Vapor Atomic Absorption (CVAA), automated analyzer and titrimetric methodology, respectively.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Calibration Recoveries
• Laboratory Method/Preparation Blank Analyses
• Field Duplicate Precision Results
* • Detection Limits

* - All quality control criteria were met for this parameter.

Sample NTC01SW0500 was evaluated for the following parameters in addition to the parameters listed above:

* • ICP Interference Check Sample Results
* • Matrix Spike/Matrix Spike Duplicate Recoveries
* • Laboratory Control Sample Recoveries
* • Serial Dilution Results
* • Analyte Quantitation

* - All quality control criteria were met for this parameter.

Laboratory Blank Analyses

The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level (aq)	Action Level (s)
Aluminum	95.9 µg/L	480 µg/L	48.0 mg/kg
Barium	0.40 µg/L	2.00 µg/L	N/A
Barium (2)	0.04 mg/kg	N/A	0.20 mg/kg
Calcium (1)	9.80 µg/L	49.0 µg/L	N/A
Calcium (2)	1.50 mg/kg	N/A	7.50 mg/kg
Chromium (2)	0.11 mg/kg	N/A	0.55 mg/kg
Iron	25.1 µg/L	126 µg/L	12.6 mg/kg
Lead (2)	0.21 mg/kg	N/A	1.05 mg/kg
Magnesium	14.9 µg/L	74.5 µg/L	7.45 mg/kg
Manganese	0.50 µg/L	2.50 µg/L	0.25 mg/kg
Nickel	0.70 µg/L	3.50 µg/L	0.35 mg/kg
Potassium	110 µg/L	550 µg/L	N/A
Potassium (2)	11.4 mg/kg	N/A	55.4 mg/kg
Selenium	4.10 µg/L	20.5 µg/L	2.05 mg/kg
Silver	1.00 µg/L	5.00 µg/L	0.50 mg/kg
Sodium	111 µg/L	555 µg/L	55.5 mg/kg
Thallium	7.10 µg/L	35.5 µg/L	3.55 mg/kg
Zinc	3.70 µg/L	18.5 µg/L	1.85 mg/kg

(1) Maximum contaminant level was found in the aqueous laboratory preparation blank.
(2) Maximum contaminant level was found in the soil laboratory preparation blank.

An action level of 5X the maximum concentration was used to evaluate the sample data for blank contamination. Sample aliquot, percent solids, and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Aluminum, nickel, selenium, silver, thallium and zinc were qualified due to laboratory blank contamination.

Field Duplicate Precision Results

Field duplicate imprecision (sample concentrations > 5X CRDL accompanied by > 50% RPD) was noted for copper, chromium, iron, magnesium, manganese, nickel, TOC and zinc in the field duplicate pair (NTC01FD12190601 / NTC01SB0991012) affecting all soil samples. The positive results reported for the aforementioned compounds were qualified as estimated, "J".

Notes

The non-detected results for cadmium and thallium in sample NTC01SB0981516 were reported from a 2X dilution resulting in elevated detection limits.

The matrix spike (MS) and matrix spike duplicate (MSD) percent recoveries for sodium were not calculated for the MS/MSD analyses of sample NTC01SW0500 because the concentration of sodium in the sample was greater than 4X the amount of spike added.

The serial dilution of sample NTC01SW0500 yielded percent differences greater than 10% for aluminum, chromium, copper, iron, lead, nickel, selenium, silver, vanadium and zinc; however, all of the original concentrations for those compounds were less than 50X the respective instrument detection limits (IDLs) therefore no validation action was necessary.

The rinsate blank was not used to establish blank action levels and was not qualified due to laboratory blank contamination.

Executive Summary

Laboratory Performance: Several analytes were qualified due to laboratory blank contamination.

Other Factors Affecting Data Quality: Several analytes were qualified due to field duplicate imprecision.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Data Review", October 2004 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006).

The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the DoD QSM Guidelines and the Quality Assurance Project Plan (QAPP)."

Matthew D. Kraus

Tetra Tech NUS
Matthew D. Kraus
Environmental Chemist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C – Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: M

nsample	NTC01FD12190601	nsample	NTC01FD12190601DL	nsample	NTC01SB0970304
samp_date	12/19/2006	samp_date	12/19/2006	samp_date	12/19/2006
lab_id	C6L200201002	lab_id	C6L200201002	lab_id	C6L200201004
qc_type	NM	qc_type	NM	qc_type	NM
units	MG/KG	units	MG/KG	units	MG/KG
Pct_Solids	82.0	Pct_Solids	82.0	Pct_Solids	74.0
DUP_OF:	NTC01SB0991012	DUP_OF:	NTC01SB0991012	DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	6620		
ANTIMONY	1.5		
ARSENIC	9.5		
BARIUM	131		
BERYLLIUM	1.3		
CADMIUM	0.053	U	
CALCIUM	28500		
CHROMIUM	42.9	J	G
COBALT	8.2		
IRON	40600	J	G
LEAD	117		
MAGNESIUM	10900	J	G
MANGANESE	512	J	G
MERCURY	0.48		
NICKEL	26.2	J	G
POTASSIUM	911		
SELENIUM	3		
SILVER	3.7		
SODIUM	597		
THALLIUM	0.55	U	A
VANADIUM	28.8		
ZINC	246	J	G

Parameter	Result	Val Qual	Qual Code
COPPER	1530	J	G

Parameter	Result	Val Qual	Qual Code
ALUMINUM	7680		
ANTIMONY	5.2		
ARSENIC	6.2		
BARIUM	146		
BERYLLIUM	0.8		
CADMIUM	1.2		
CALCIUM	10700		
CHROMIUM	21.2	J	G
COBALT	3.7		
COPPER	58.8	J	G
IRON	14500	J	G
LEAD	355		
MAGNESIUM	3160	J	G
MANGANESE	163	J	G
MERCURY	0.23		
NICKEL	13.3	J	G
POTASSIUM	569		
SELENIUM	1.2	U	A
SILVER	4.6		
SODIUM	229		
THALLIUM	0.35	U	
VANADIUM	14.7		
ZINC	410	J	G

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: M

nsample	NTC01SB0981516
samp_date	12/19/2006
lab_id	C6L200201005
qc_type	NM
units	MG/KG
Pct_Solids	71.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	7790		
ARSENIC	8.3		
BARIUM	222		
BERYLLIUM	1.5		
CALCIUM	16800		
CHROMIUM	55.9	J	G
COBALT	13		
COPPER	189	J	G
MAGNESIUM	2480	J	G
MANGANESE	612	J	G
MERCURY	0.056		
NICKEL	52.7	J	G
POTASSIUM	1130		
SILVER	4.5		
SODIUM	1240		
VANADIUM	23.5		
ZINC	779	J	G

nsample	NTC01SB0981516DL
samp_date	12/19/2006
lab_id	C6L200201005
qc_type	NM
units	MG/KG
Pct_Solids	71.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ANTIMONY	9.2		
CADMIUM	0.12	U	
IRON	102000	J	G
LEAD	766		
SELENIUM	4.5	U	A
THALLIUM	0.73	U	

nsample	NTC01SB0991012
samp_date	12/19/2006
lab_id	C6L200201006
qc_type	NM
units	MG/KG
Pct_Solids	82.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	5110		
ANTIMONY	0.53		
ARSENIC	9.7		
BARIUM	101		
BERYLLIUM	1.8		
CADMIUM	0.054	U	
CALCIUM	20400		
CHROMIUM	10.4	J	G
COBALT	5.5		
COPPER	27.9	J	G
IRON	19100	J	G
LEAD	185		
MAGNESIUM	6080	J	G
MANGANESE	1000	J	G
MERCURY	0.51		
NICKEL	13.8	J	G
POTASSIUM	996		
SELENIUM	1.8	U	A
SODIUM	745		
THALLIUM	0.32	U	
VANADIUM	34.6		
ZINC	65	J	G

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: M

nsample	NTC01SB0991012DL	nsample	NTC01SB1001012
samp_date	12/19/2006	samp_date	12/19/2006
lab_id	C6L200201006	lab_id	C6L200201007
qc_type	NM	qc_type	NM
units	MG/KG	units	MG/KG
Pct_Solids	82.0	Pct_Solids	79.0
DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
SILVER	709		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	9120		
ANTIMONY	1.6		
ARSENIC	8.6		
BARIUM	63.7		
BERYLLIUM	1.6		
CADMIUM	2.3		
CALCIUM	26000		
CHROMIUM	20.8	J	G
COBALT	9.2		
COPPER	55	J	G
IRON	27100	J	G
LEAD	102		
MAGNESIUM	11200	J	G
MANGANESE	747	J	G
MERCURY	0.23		
NICKEL	44.7	J	G
POTASSIUM	958		
SELENIUM	2.1	U	A
SILVER	0.47	U	A
SODIUM	648		
THALLIUM	0.33	U	
VANADIUM	56.1		
ZINC	2170	J	G

PROJ_NO: 00295

SDG: C6L200201 MEDIA: WATER DATA FRACTION: M

nsample	NTC01RB12190601	nsample	NTC01SW0400	nsample	NTC01SW0500
samp_date	12/19/2006	samp_date	12/19/2006	samp_date	12/18/2006
lab_id	C6L200201003	lab_id	C6L200201008	lab_id	C6L200201001
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	21.5	U	
ANTIMONY	2.4	U	
ARSENIC	2.3	U	
BARIUM	0.43		
BERYLLIUM	1.6	U	
CADMIUM	0.44	U	
CALCIUM	36		
CHROMIUM	0.54	U	
COBALT	0.54	U	
COPPER	1.4	U	
IRON	20.5		
LEAD	1.8	U	
MAGNESIUM	7.9		
MANGANESE	0.16	U	
MERCURY	0.015	U	
NICKEL	0.71	U	
POTASSIUM	98.9		
SELENIUM	3.3		
SILVER	0.76		
SODIUM	106	U	
THALLIUM	4.6		
VANADIUM	0.61	U	
ZINC	4.1		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	311	U	A
ANTIMONY	2.4	U	
ARSENIC	2.3	U	
BARIUM	51.8		
BERYLLIUM	1.6	U	
CADMIUM	0.44	U	
CALCIUM	91300		
CHROMIUM	1.2		
COBALT	0.54	U	
COPPER	1.8		
IRON	524		
LEAD	1.8	U	
MAGNESIUM	33700		
MANGANESE	86		
MERCURY	0.015	U	
NICKEL	3	U	A
POTASSIUM	3510		
SELENIUM	2.4	U	A
SILVER	0.67	U	A
SODIUM	242000		
THALLIUM	2.6	U	
VANADIUM	0.73		
ZINC	18.2	U	A

Parameter	Result	Val Qual	Qual Code
ALUMINUM	296	U	A
ANTIMONY	2.4	U	
ARSENIC	2.3	U	
BARIUM	52.4		
BERYLLIUM	1.6	U	
CADMIUM	0.44	U	
CALCIUM	88300		
CHROMIUM	1.4		
COBALT	0.54	U	
COPPER	2.6		
IRON	505		
LEAD	2		
MAGNESIUM	32700		
MANGANESE	77.1		
MERCURY	0.015	U	
NICKEL	2.3	U	A
POTASSIUM	3600		
SELENIUM	4.5	U	A
SILVER	0.93	U	A
SODIUM	253000		
THALLIUM	2.6	U	
VANADIUM	0.8		
ZINC	18.7		

PROJ_NO: 00295

SDG: C6L200201 MEDIA: WATER DATA FRACTION: MISC

nsample	NTC01RB12190601	nsample	NTC01SW0400	nsample	NTC01SW0500
samp_date	12/19/2006	samp_date	12/19/2006	samp_date	12/18/2006
lab_id	C6L200201003	lab_id	C6L200201008	lab_id	C6L200201001
qc_type	NM	qc_type	NM	qc_type	NM
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	10	U	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	10	U	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	10	U	

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: MISC

nsample	NTC01FD12190601
samp_date	12/19/2006
lab_id	C6L200201002
qc_type	NM
Pct_Solids	82.0
DUP_OF:	NTC01SB0991012

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.61	U	
PERCENT SOLIDS	%	82.5		
PH	S.U.	8.4		
TOTAL ORGANIC CARBON	MG/KG	38700	J	G

nsample	NTC01SB0970304
samp_date	12/19/2006
lab_id	C6L200201004
qc_type	NM
Pct_Solids	74.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.67	U	
PERCENT SOLIDS	%	74.4		
PH	S.U.	7.8		
TOTAL ORGANIC CARBON	MG/KG	32200	J	G

nsample	NTC01SB0981516
samp_date	12/19/2006
lab_id	C6L200201005
qc_type	NM
Pct_Solids	71.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.7	U	
PERCENT SOLIDS	%	71.4		
PH	S.U.	9.4		
TOTAL ORGANIC CARBON	MG/KG	33400	J	G

PROJ_NO: 00295

SDG: C6L200201 MEDIA: SOIL DATA FRACTION: MISC

nsample	NTC01SB0991012
samp_date	12/19/2006
lab_id	C6L200201006
qc_type	NM
Pct_Solids	82.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.61	U	
HYDROMETER-0.0015MM	%	7.9		
HYDROMETER-0.005MM	%	4.1		
HYDROMETER-0.030MM	%	17.4		
PERCENT CLAY	%	14.6		
PERCENT COARSE SAND	%	8		
PERCENT FINE SAND	%	17.8		
PERCENT GRAVEL	%	11.1		
PERCENT MEDIUM SAND	%	10.6		
PERCENT SILT	%	38		
PERCENT SOLIDS	%	81.6		
PH	S.U.	9.2		
SIEVE 1"	%	0		
SIEVE 1-1/2"	%	0		
SIEVE 2"	%	0		
SIEVE 3"	%	0		
SIEVE 3/4"	%	0		
SIEVE 3/8"	%	6.7		
SIEVE NO. 004	%	4.4		
SIEVE NO. 010	%	8		
SIEVE NO. 020	%	5.3		
SIEVE NO. 040	%	5.2		
SIEVE NO. 060	%	5		
SIEVE NO. 080	%	3.7		
SIEVE NO. 100	%	2		
SIEVE NO. 200	%	7.1		
TOTAL ORGANIC CARBON	MG/KG	21600	J	G

nsample	NTC01SB1001012
samp_date	12/19/2006
lab_id	C6L200201007
qc_type	NM
Pct_Solids	79.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.64	U	
PERCENT SOLIDS	%	78.6		
PH	S.U.	6.8		
TOTAL ORGANIC CARBON	MG/KG	14300	J	G

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**B. DAVIS**	**DATE:**	**APRIL 18, 2007**
FROM:	**MATTHEW D. KRAUS**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – TAL METALS/MISCELLANEOUS**
NTC GREAT LAKES – CTO 0013
SDG – C7C130264

SAMPLES: 11/Aqueous/

NTC01FD03110701	NTC01GW0101	NTC01GW0201
NTC01GW0301	NTC01GW0401	NTC01GW0501
NTC01GW0601	NTC01GW0701	NTC01GW0801
NTC01GW0901	NTC01GW1001	

3/Soil/

NTC01SB2050414	NTC01SB2072838	NTC01SB2090717

Overview

The sample set for NTC Great Lakes, CTO 0013, SDG C7C130264 consists of eleven aqueous and three soil environmental samples. One field duplicate pair (NTC01FD03110701 / NTC01GW0101) is included in this SDG.

All aqueous samples were analyzed for target analyte list (TAL) metals and cyanide. Samples NTC01GW0301 and NTC01GW0601 were also analyzed for dissolved metals. The soil samples were analyzed for percent solids, grain size and total organic carbon (TOC). All samples were collected by Tetra Tech NUS on March 7-12, 2007 and analyzed by Severn Trent Laboratories, Inc. under Naval Facilities Engineering Service Center (NFESC) Quality Assurance / Quality Control (QA/QC) criteria.

Metals, mercury and cyanide were analyzed in accordance with SW-846 Methods 6010B, 7470A and 9012A, respectively. TOC soil samples were analyzed via the Walkley-Black Method and the aqueous TOC samples were analzyed via EPA Method 415.1.

Metals, mercury, cyanide and TOC analyses were conducted using Inductively Coupled Plasma – Atomic Emission Spectrometry (ICP-AES), Cold Vapor Atomic Absorption (CVAA), automated analyzer and titrimetric/automated analyzer methodologies, respectively.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Calibration Recoveries
• Laboratory Method/Preparation Blank Analyses
* • Field Duplicate Precision Results
• Reporting Limits

Sample NTCFD03110701 was evaluated for the following parameters in addition to the parameters listed above:

- ICP Interference Check Sample Results
- * Matrix Spike/Matrix Spike Duplicate Recoveries
- * Laboratory Control Sample Recoveries
- * Serial Dilution Results
- * Analyte Quantitation

* - All quality control criteria were met for this parameter.

Laboratory Blank Analyses

The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Aluminum (1)	12.0 µg/L	60.0 µg/L
Beryllium	0.60 µg/L	3.00 µg/L
Cobalt	0.60 µg/L	3.00 µg/L
Magnesium (1)	16.0 µg/L	80.0 µg/L
Manganese	0.50 µg/L	2.50 µg/L
TOC (1)	223 mg/kg	1115 mg/kg
Zinc (1)	5.40 µg/L	27.0 µg/L

(1) Maximum contaminant level was found in a laboratory preparation blank.

An action level of 5X the maximum concentration was used to evaluate the sample data for blank contamination. Sample aliquot, percent solids, and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Aluminum, cobalt and zinc were qualified due to laboratory blank contamination.

ICP Interference Check Sample Results

The interfering analyte calcium was present in sample NTC01FD03110701 at a concentration that was comparable to the level of calcium in the Interference Check Sample (ICS) solution. Several analytes, namely, barium, cadmium, chromium, copper, manganese, nickel, potassium, sodium, thallium, vanadium and zinc were present in the ICS solution at a concentration that exceeded the absolute value of the Instrument Detection Limit (IDL). Interference effects exist for cadmium, chromium, copper, nickel, thallium and vanadium in the affected sample. The positive results reported for chromium, copper, nickel and vanadium were qualified as estimated, "J". The non-detected results reported for cadmium and thallium were qualified as estimated, "UJ".

Notes

Originally, most of the non-detected results were reported to the reporting limit (RL) instead of the method detection limit (MDL) in the electronic data deliverable (EDD). The reported non-detected results were changed to reflect the MDL in the database by the data validator.

The laboratory incorrectly flagged sodium as being outside of quality control limits for all serial dilutions analyzed in this SDG. The incorrect qualifiers were removed from the database by the data validator.

Executive Summary

Laboratory Performance: Several analytes were qualified due to laboratory blank contamination. The laboratory incorrectly reported non-detected results to the RL instead of the MDL. The laboratory incorrectly qualified several sodium results due to serial dilution noncompliance.

Other Factors Affecting Data Quality: Several analytes were qualified due to ICP interference.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Data Review", October 2004 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006).

The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the DoD QSM Guidelines and the Quality Assurance Project Plan (QAPP)."

Tetra Tech NUS
Matthew D. Kraus
Environmental Chemist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C – Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: MF

nsample	NTC01GW0301	nsample	NTC01GW0301DL	nsample	NTC01GW0601
samp_date	3/12/2007	samp_date	3/12/2007	samp_date	3/12/2007
lab_id	C7C130264010	lab_id	C7C130264010	lab_id	C7C130264013
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	16.1	U	A
ANTIMONY	1.9	U	
ARSENIC	1.5	U	
BARIUM	76.3		
BERYLLIUM	0.33	U	
CADMIUM	0.51	U	
CALCIUM	116000		
CHROMIUM	0.74	U	
COBALT	5		
COPPER	0.73	U	
LEAD	2.5	U	
MAGNESIUM	117000		
MANGANESE	165		
MERCURY	0.2	U	
NICKEL	12.2		
POTASSIUM	3650		
SELENIUM	3.3	U	
SILVER	0.59		
SODIUM	15300		
THALLIUM	5.7	U	
VANADIUM	4.8		
ZINC	6.6	U	A

Parameter	Result	Val Qual	Qual Code
IRON	33.3	U	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	19.2	U	A
ANTIMONY	1.9	U	
ARSENIC	1.5	U	
BARIUM	178		
BERYLLIUM	0.33	U	
CADMIUM	0.51	U	
CHROMIUM	0.74	U	
COBALT	8.5		
COPPER	1.2		
IRON	33.3	U	
LEAD	2.5	U	
MAGNESIUM	353000		
MANGANESE	293		
MERCURY	0.2	U	
NICKEL	23.4		
POTASSIUM	10900		
SELENIUM	3.3	U	
SILVER	0.73		
THALLIUM	5.7	U	
VANADIUM	5.3		
ZINC	13.1	U	A

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: MF

nsample	NTC01GW0601DL
samp_date	3/12/2007
lab_id	C7C130264013
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
CALCIUM	645000		
SODIUM	629000		

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: M

nsample	NTC01FD03110701	nsample	NTC01GW0101	nsample	NTC01GW0201
samp_date	3/12/2007	samp_date	3/11/2007	samp_date	3/11/2007
lab_id	C7C130264015	lab_id	C7C130264004	lab_id	C7C130264005
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:	NTC01GW0101	DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	57.4	U	A
ANTIMONY	3.2	U	
ARSENIC	3.3	U	
BARIUM	51.3		
BERYLLIUM	0.42	U	
CADMIUM	0.70	UJ	K
CALCIUM	500000		
CHROMIUM	1.1	J	K
COBALT	0.9	U	A
COPPER	5.4	J	K
IRON	460		
LEAD	1.6	U	
MAGNESIUM	144000		
MANGANESE	372		
MERCURY	0.055	U	
NICKEL	12	J	K
POTASSIUM	11000		
SELENIUM	10.7		
SILVER	0.58		
SODIUM	42900		
THALLIUM	4.2	UJ	K
VANADIUM	8.4	J	K
ZINC	272		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	73.4		
ANTIMONY	3.2	U	
ARSENIC	3.3	U	
BARIUM	51.5		
BERYLLIUM	0.42	U	
CADMIUM	0.70	U	
CALCIUM	506000		
CHROMIUM	0.93	U	
COBALT	0.92	U	A
COPPER	5.4		
IRON	527		
LEAD	1.6	U	
MAGNESIUM	146000		
MANGANESE	376		
MERCURY	0.055	U	
NICKEL	12.4		
POTASSIUM	11000		
SELENIUM	13.5		
SILVER	0.30	U	
SODIUM	43000		
THALLIUM	4.2	U	
VANADIUM	7.9		
ZINC	309		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	28	U	A
ANTIMONY	3.2	U	
ARSENIC	3.3	U	
BARIUM	53.6		
BERYLLIUM	0.42	U	
CADMIUM	0.70	U	
CALCIUM	112000		
CHROMIUM	0.93	U	
COBALT	0.53	U	
COPPER	1.2	U	
IRON	2100		
LEAD	1.6	U	
MAGNESIUM	94300		
MANGANESE	48.9		
MERCURY	0.055	U	
NICKEL	1.2	U	
POTASSIUM	2530		
SELENIUM	2.6	U	
SILVER	0.30	U	
SODIUM	22500		
THALLIUM	4.2	U	
VANADIUM	3.7		
ZINC	36.3		

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: M

nsample	NTC01GW0301	nsample	NTC01GW0401	nsample	NTC01GW0501
samp_date	3/12/2007	samp_date	3/12/2007	samp_date	3/12/2007
lab_id	C7C130264010	lab_id	C7C130264011	lab_id	C7C130264012
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	8650		
ANTIMONY	3.2	U	
ARSENIC	3.3		
BARIUM	119		
BERYLLIUM	0.42	U	
CADMIUM	0.70	U	
CALCIUM	144000		
CHROMIUM	14.1		
COBALT	11		
COPPER	12.4		
IRON	11400		
LEAD	5.8		
MAGNESIUM	133000		
MANGANESE	366		
MERCURY	0.055	U	
NICKEL	27.4		
POTASSIUM	7720		
SELENIUM	2.6	U	
SILVER	0.38		
SODIUM	16500		
THALLIUM	4.2	U	
VANADIUM	20.7		
ZINC	55		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	73		
ANTIMONY	3.2	U	
ARSENIC	3.3	U	
BARIUM	74.2		
BERYLLIUM	0.42	U	
CADMIUM	0.70	U	
CALCIUM	120000		
CHROMIUM	0.93	U	
COBALT	3.6		
COPPER	1.2	U	
IRON	18.0	U	
LEAD	1.6	U	
MAGNESIUM	128000		
MANGANESE	123		
MERCURY	0.055	U	
NICKEL	10.2		
POTASSIUM	6630		
SELENIUM	2.6	U	
SILVER	0.30	U	
SODIUM	41500		
THALLIUM	4.2	U	
VANADIUM	4.1		
ZINC	7.4	U	A

Parameter	Result	Val Qual	Qual Code
ALUMINUM	144		
ANTIMONY	3.2	U	
ARSENIC	3.3	U	
BARIUM	54		
BERYLLIUM	0.42	U	
CADMIUM	0.70	U	
CALCIUM	85200		
CHROMIUM	0.93	U	
COBALT	0.85	U	A
COPPER	1.6		
IRON	106		
LEAD	1.6	U	
MAGNESIUM	42000		
MANGANESE	33.2		
MERCURY	0.055	U	
NICKEL	1.9		
POTASSIUM	1750		
SELENIUM	2.6	U	
SILVER	0.30	U	
SODIUM	69600		
THALLIUM	4.2	U	
VANADIUM	1.6		
ZINC	8.3	U	A

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: M

nsample	NTC01GW0601	nsample	NTC01GW0601DL	nsample	NTC01GW0701
samp_date	3/12/2007	samp_date	3/12/2007	samp_date	3/11/2007
lab_id	C7C130264013	lab_id	C7C130264013	lab_id	C7C130264006
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	2980		
ANTIMONY	3.2	U	
ARSENIC	3.3	U	
BARIUM	216		
BERYLLIUM	0.42	U	
CADMIUM	0.70	U	
CHROMIUM	5		
COBALT	12.1		
COPPER	7.4		
IRON	3650		
LEAD	4.4		
MAGNESIUM	349000		
MANGANESE	455		
MERCURY	0.055	U	
NICKEL	33.4		
POTASSIUM	13800		
SELENIUM	2.6	U	
SILVER	0.61		
THALLIUM	4.2	U	
VANADIUM	10.7		
ZINC	27.2		

Parameter	Result	Val Qual	Qual Code
CALCIUM	634000		
SODIUM	601000		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	50.2	U	A
ANTIMONY	3.2	U	
ARSENIC	3.3	U	
BARIUM	59.2		
BERYLLIUM	0.42	U	
CADMIUM	0.70	U	
CALCIUM	38900		
CHROMIUM	0.93	U	
COBALT	0.53	U	
COPPER	1.2	U	
IRON	647		
LEAD	1.6	U	
MAGNESIUM	46400		
MANGANESE	9.4		
MERCURY	0.055	U	
NICKEL	1.2	U	
POTASSIUM	2130		
SELENIUM	2.6	U	
SILVER	0.30	U	
SODIUM	41700		
THALLIUM	4.2	U	
VANADIUM	2.6		
ZINC	6.3	U	A

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: M

nsample	NTC01GW0801	nsample	NTC01GW0901	nsample	NTC01GW1001
samp_date	3/11/2007	samp_date	3/11/2007	samp_date	3/11/2007
lab_id	C7C130264007	lab_id	C7C130264008	lab_id	C7C130264009
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	68.3		
ANTIMONY	3.2	U	
ARSENIC	3.3	U	
BARIUM	87.7		
BERYLLIUM	0.42	U	
CADMIUM	0.70	U	
CALCIUM	221000		
CHROMIUM	2		
COBALT	12.1		
COPPER	1.2		
IRON	1150		
LEAD	1.6	U	
MAGNESIUM	82100		
MANGANESE	4510		
MERCURY	0.055	U	
NICKEL	12.4		
POTASSIUM	5720		
SELENIUM	2.6	U	
SILVER	1.6		
SODIUM	25200		
THALLIUM	4.2	U	
VANADIUM	3.6		
ZINC	64.4		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	53.8	U	A
ANTIMONY	3.2	U	
ARSENIC	3.3	U	
BARIUM	58.8		
BERYLLIUM	0.42	U	
CADMIUM	0.70	U	
CALCIUM	135000		
CHROMIUM	1.8		
COBALT	3.1		
COPPER	1.2	U	
IRON	980		
LEAD	1.6	U	
MAGNESIUM	65000		
MANGANESE	5070		
MERCURY	0.055	U	
NICKEL	2.9		
POTASSIUM	1500		
SELENIUM	2.6	U	
SILVER	1.5		
SODIUM	24200		
THALLIUM	4.2	U	
VANADIUM	4.2		
ZINC	7.4	U	A

Parameter	Result	Val Qual	Qual Code
ALUMINUM	160		
ANTIMONY	3.2	U	
ARSENIC	3.3	U	
BARIUM	29.3		
BERYLLIUM	0.42	U	
CADMIUM	0.70	U	
CALCIUM	177000		
CHROMIUM	0.93	U	
COBALT	6.9		
COPPER	1.8		
IRON	127		
LEAD	1.6	U	
MAGNESIUM	93800		
MANGANESE	651		
MERCURY	0.055	U	
NICKEL	5.5		
POTASSIUM	3170		
SELENIUM	2.6	U	
SILVER	0.32		
SODIUM	19800		
THALLIUM	4.2	U	
VANADIUM	4.8		
ZINC	10.9	U	A

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: MF

nsample	NTC01GW0301	nsample	NTC01GW0301DL	nsample	NTC01GW0601
samp_date	3/12/2007	samp_date	3/12/2007	samp_date	3/12/2007
lab_id	C7C130264010	lab_id	C7C130264010	lab_id	C7C130264013
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	16.1	U	A
ANTIMONY	1.9	U	
ARSENIC	1.5	U	
BARIUM	76.3		
BERYLLIUM	0.33	U	
CADMIUM	0.51	U	
CALCIUM	116000		
CHROMIUM	0.74	U	
COBALT	5		
COPPER	0.73	U	
LEAD	2.5	U	
MAGNESIUM	117000		
MANGANESE	165		
MERCURY	0.2	U	
NICKEL	12.2		
POTASSIUM	3650		
SELENIUM	3.3	U	
SILVER	0.59		
SODIUM	15300		
THALLIUM	5.7	U	
VANADIUM	4.8		
ZINC	6.6	U	A

Parameter	Result	Val Qual	Qual Code
IRON	33.3	U	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	19.2	U	A
ANTIMONY	1.9	U	
ARSENIC	1.5	U	
BARIUM	178		
BERYLLIUM	0.33	U	
CADMIUM	0.51	U	
CHROMIUM	0.74	U	
COBALT	8.5		
COPPER	1.2		
IRON	33.3	U	
LEAD	2.5	U	
MAGNESIUM	353000		
MANGANESE	293		
MERCURY	0.2	U	
NICKEL	23.4		
POTASSIUM	10900		
SELENIUM	3.3	U	
SILVER	0.73		
THALLIUM	5.7	U	
VANADIUM	5.3		
ZINC	13.1	U	A

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: MF

nsample	NTC01GW0601DL
samp_date	3/12/2007
lab_id	C7C130264013
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
CALCIUM	645000		
SODIUM	629000		

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: MISC

nsample	NTC01FD03110701	nsample	NTC01GW0101	nsample	NTC01GW0201
samp_date	3/12/2007	samp_date	3/11/2007	samp_date	3/11/2007
lab_id	C7C130264015	lab_id	C7C130264004	lab_id	C7C130264005
qc_type	NM	qc_type	NM	qc_type	NM
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:	NTC01GW0101	DUP_OF:		DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	1.7	U	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	1.7	U	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	1.7	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: MISC

nsample	NTC01GW0301
samp_date	3/12/2007
lab_id	C7C130264010
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	1.7	U	

nsample	NTC01GW0401
samp_date	3/12/2007
lab_id	C7C130264011
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	1.7	U	

nsample	NTC01GW0501
samp_date	3/12/2007
lab_id	C7C130264012
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	1.7	U	
TOTAL ORGANIC CARBON	MG/L	2.9		

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: MISC

nsample	NTC01GW0601
samp_date	3/12/2007
lab_id	C7C130264013
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	1.7	U	

nsample	NTC01GW0701
samp_date	3/11/2007
lab_id	C7C130264006
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	1.7	U	
TOTAL ORGANIC CARBON	MG/L	1.4		

nsample	NTC01GW0801
samp_date	3/11/2007
lab_id	C7C130264007
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	1.7	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: WATER DATA FRACTION: MISC

nsample	NTC01GW0901
samp_date	3/11/2007
lab_id	C7C130264008
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	1.7	U	
TOTAL ORGANIC CARBON	MG/L	2		

nsample	NTC01GW1001
samp_date	3/11/2007
lab_id	C7C130264009
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	1.7	U	

PROJ_NO: 00295

SDG: C7C130264 MEDIA: SOIL DATA FRACTION: MISC

nsample	NTC01SB2050414	nsample	NTC01SB2072838	nsample	NTC01SB2090717
samp_date	3/7/2007	samp_date	3/7/2007	samp_date	3/8/2007
lab_id	703516	lab_id	703517	lab_id	703518
qc_type	NM	qc_type	NM	qc_type	NM
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
HYDROMETER	%	13.1		
HYDROMETER-0.0015MM	%	6		
HYDROMETER-0.005MM	%	10.8		
HYDROMETER-0.030MM	%	7.2		
PERCENT CLAY	%	42.3		
PERCENT COARSE SAND	%	0.7		
PERCENT FINE SAND	%	10.8		
PERCENT GRAVEL	%	0		
PERCENT MEDIUM SAND	%	2.9		
PERCENT SILT	%	43.2		
PERCENT SOLIDS	%	89.3		
SIEVE 1"	%	0		
SIEVE 1-1/2"	%	0		
SIEVE 2"	%	0		
SIEVE 3"	%	0		
SIEVE 3/4"	%	0		
SIEVE 3/8"	%	0		
SIEVE NO. 004	%	0		
SIEVE NO. 010	%	0.7		
SIEVE NO. 020	%	1.4		
SIEVE NO. 040	%	1.5		
SIEVE NO. 060	%	1.9		
SIEVE NO. 080	%	1.9		
SIEVE NO. 100	%	1.2		
SIEVE NO. 200	%	5.8		
TOTAL ORGANIC CARBON	MG/KG	7610		

Parameter	units	Result	Val Qual	Qual Code
HYDROMETER	%	6.5		
HYDROMETER-0.0015MM	%	4.7		
HYDROMETER-0.005MM	%	5.9		
HYDROMETER-0.030MM	%	4.7		
PERCENT CLAY	%	39.2		
PERCENT COARSE SAND	%	4.1		
PERCENT FINE SAND	%	8.4		
PERCENT GRAVEL	%	5.9		
PERCENT MEDIUM SAND	%	14.7		
PERCENT SILT	%	27.7		
PERCENT SOLIDS	%	74.8		
SIEVE 1"	%	0		
SIEVE 1-1/2"	%	0		
SIEVE 2"	%	0		
SIEVE 3"	%	0		
SIEVE 3/4"	%	0		
SIEVE 3/8"	%	2.7		
SIEVE NO. 004	%	3.1		
SIEVE NO. 010	%	4.1		
SIEVE NO. 020	%	5.9		
SIEVE NO. 040	%	8.8		
SIEVE NO. 060	%	3.5		
SIEVE NO. 080	%	1.7		
SIEVE NO. 100	%	0.7		
SIEVE NO. 200	%	2.6		
TOTAL ORGANIC CARBON	MG/KG	23500		

Parameter	units	Result	Val Qual	Qual Code
HYDROMETER	%	7.8		
HYDROMETER-0.0015MM	%	3.3		
HYDROMETER-0.005MM	%	5.5		
HYDROMETER-0.030MM	%	2.2		
PERCENT CLAY	%	22.2		
PERCENT COARSE SAND	%	10		
PERCENT FINE SAND	%	19		
PERCENT GRAVEL	%	9.9		
PERCENT MEDIUM SAND	%	16.9		
PERCENT SILT	%	22.1		
PERCENT SOLIDS	%	85.2		
SIEVE 1"	%	0		
SIEVE 1-1/2"	%	0		
SIEVE 2"	%	0		
SIEVE 3"	%	0		
SIEVE 3/4"	%	0		
SIEVE 3/8"	%	1.5		
SIEVE NO. 004	%	8.4		
SIEVE NO. 010	%	10		
SIEVE NO. 020	%	9.5		
SIEVE NO. 040	%	7.4		
SIEVE NO. 060	%	6.3		
SIEVE NO. 080	%	4.2		
SIEVE NO. 100	%	1.8		
SIEVE NO. 200	%	6.7		
TOTAL ORGANIC CARBON	MG/KG	10600		

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**B. DAVIS**	**DATE:**	**APRIL 17, 2007**
FROM:	**MATTHEW D. KRAUS**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – TCLP/TAL METALS/MISCELLANEOUS**
NTC GREAT LAKES – CTO 0013
SDGs – C7A080179 / C6L210188

SAMPLES: 1/TCLP/

COMPOSITE SAMPLE

3/Aqueous/

NTC01GWTW0101 NTC01GWTW0201 NTC01GWTW0301

Overview

The sample sets for NTC Great Lakes, CTO 0013, SDGs C7A080129 and C6L210188 consist of one toxicity characteristic leaching procedure (TCLP) and three aqueous environmental samples, respectively.

The TCLP sample was analyzed for semi-volatile organic compounds (SVOC), pesticides, herbicides and metals. All aqueous samples were analyzed for target analyte list (TAL) metals and cyanide. Samples were collected by Tetra Tech NUS on December 17-20, 2007 and analyzed by Severn Trent Laboratories, Inc. under Naval Facilities Engineering Service Center (NFESC) Quality Assurance / Quality Control (QA/QC) criteria.

Metals, mercury, cyanide, SVOC, pesticide and herbicide analyses were conducted using SW-846 Methods 6010B, 7471A, 9012A, 8270C, 8081A and 8151A, respectively. Metals, mercury, cyanide, SVOC and pesticide/heribicide analyses were performed using Inductively Coupled Plasma–Atomic Emission Spectrometry (ICP-AES), Cold Vapor Atomic Absorption (CVAA), automated analyzer, Gas Chromatography / Mass Spectrometry (GC/MS) and GC methodology, respectively.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Calibration Recoveries
• Laboratory Method/Preparation Blank Analyses
* • Detection Limits

* - All quality control criteria were met for this parameter.

Samples COMPOSITE SAMPLE and NTC01GWTW01 were evaluated for the following parameters in addition to the parameters listed above:

** • ICP Interference Check Sample Results
* • Matrix Spike/Matrix Spike Duplicate Recoveries
* • Laboratory Control Sample Recoveries
** • ICP Serial Dilution Results
* • Analyte Quantitation

* - All quality control criteria were met for this parameter.
** - Applies to sample NTC01GWTW01 only.

Laboratory Blank Analyses

The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Aluminum	25.8 µg/L	129 µg/L
Antimony	1.70 µg/L	8.50 µg/L
Arsenic (1) *	0.20 mg/L	1.00 mg/L
Barium (1)	0.93 µg/L	4.65 µg/L
Barium (1) *	0.0055 mg/L	0.028 mg/L
Beryllium	0.30 µg/L	1.50 µg/L
Calcium (1)	10.0 µg/L	50.0 µg/L
Cadmium	0.30 µg/L	1.50 µg/L
Chromium *	0.0027 mg/L	0.014 mg/L
Copper	0.50 µg/L	2.50 µg/L
Iron (1)	12.8 µg/L	64.0 µg/L
Magnesium	12.8 µg/L	64.0 µg/L
Manganese	0.40 µg/L	2.00 µg/L
Mercury *	0.00010 mg/L	0.00050 mg/L
Potassium	232 µg/L	1160 µg/L
Selenium *	0.021 mg/L	0.11 mg/L
Selenium (1)	3.30 µg/L	16.5 µg/L
Thallium	5.20 µg/L	26.0 µg/L
Zinc (1)	4.10 µg/L	20.5 µg/L

(1) Maximum contaminant level was found in the laboratory preparation blank.
* Affects sample COMPOSITE SAMPLE only.

An action level of 5X the maximum concentration was used to evaluate the sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Aluminum, antimony, arsenic, copper, mercury, selenium, thallium and zinc were qualified due to laboratory blank contamination.

ICP Serial Dilution Results

The ICP serial dilution percent difference for potassium in sample NTC01GWTW0101P was > 10% and the original sample concentration was greater than 50X the Instrument Detection Limit (IDL). The positive results reported for potassium were qualified as estimated, "J".

Notes

The matrix spike (MS) and matrix spike duplicate (MSD) percent recoveries for iron and sodium found in sample NTC01GWTW0101S were not calculated because the original concentrations of iron and sodium were > 4X the amount of spike added.

Executive Summary

Laboratory Performance: Several analytes were qualified due to laboratory blank contamination.

Other Factors Affecting Data Quality: Potassium was qualified due to ICP serial dilution noncompliance.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Data Review", October 2004, the "National Functional Guidelines for Organic Data Review", October 1999, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006).

The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the DoD QSM Guidelines and the Quality Assurance Project Plan (QAPP)."

Matthew D. Kraus

Tetra Tech NUS
Matthew D. Kraus
Environmental Chemist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C – Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: M

nsample	NTC01GWTW0101	nsample	NTC01GWTW0201	nsample	NTC01GWTW0301
samp_date	12/19/2006	samp_date	12/19/2006	samp_date	12/19/2006
lab_id	C6L210188001	lab_id	C6L210188002	lab_id	C6L210188003
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	132		
ANTIMONY	1.4	U	
ARSENIC	2.4		
BARIUM	566		
BERYLLIUM	0.12	U	
CADMIUM	0.23	U	
CALCIUM	53400		
CHROMIUM	1.6		
COBALT	3.6		
COPPER	2	U	A
IRON	17600		
LEAD	8.4		
MAGNESIUM	69600		
MANGANESE	104		
MERCURY	0.015	U	
NICKEL	3.5		
POTASSIUM	42000	J	I
SELENIUM	3.8	U	A
SILVER	0.67	U	
SODIUM	380000		
THALLIUM	6.1	U	A
VANADIUM	2.8		
ZINC	19	U	A

Parameter	Result	Val Qual	Qual Code
ALUMINUM	90.2	U	A
ANTIMONY	2.3	U	A
ARSENIC	2.4		
BARIUM	99.7		
BERYLLIUM	0.12	U	
CADMIUM	0.23	U	
CALCIUM	14300		
CHROMIUM	0.85		
COBALT	0.53	U	
COPPER	0.55	U	A
IRON	198		
LEAD	2		
MAGNESIUM	25300		
MANGANESE	57.3		
MERCURY	0.015	U	
NICKEL	2.5		
POTASSIUM	22300	J	I
SELENIUM	4	U	A
SILVER	0.67	U	
SODIUM	367000		
THALLIUM	5.9	U	A
VANADIUM	1.7	U	
ZINC	6.8	U	A

Parameter	Result	Val Qual	Qual Code
ALUMINUM	27.9	U	A
ANTIMONY	1.4	U	
ARSENIC	1.7	U	
BARIUM	566		
BERYLLIUM	0.12	U	
CADMIUM	0.23	U	
CALCIUM	44300		
CHROMIUM	0.65		
COBALT	0.53	U	
COPPER	0.39	U	
IRON	3290		
LEAD	1.2		
MAGNESIUM	106000		
MANGANESE	39.6		
MERCURY	0.015	U	
NICKEL	1.1	U	
POTASSIUM	30700	J	I
SELENIUM	1.8	U	
SILVER	0.67	U	
SODIUM	75800		
THALLIUM	2.9	U	
VANADIUM	3.1		
ZINC	7.3	U	A

PROJ_NO: 00295

SDG: C6L210188 MEDIA: WATER DATA FRACTION: MISC

nsample	NTC01GWTW0101
samp_date	12/19/2006
lab_id	C6L210188001
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	10	U	

nsample	NTC01GWTW0201
samp_date	12/19/2006
lab_id	C6L210188002
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	10	U	

nsample	NTC01GWTW0301
samp_date	12/19/2006
lab_id	C6L210188003
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	UG/L	10	U	

PROJ_NO: 00295

SDG: C7A080179 MEDIA: TCLP DATA FRACTION: TCLPS

nsample	COMPOSITE SAMPLE
samp_date	1/8/2007
lab_id	C7A080179001
qc_type	NM
units	MG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,4-DICHLOROBENZENE	0.05	U	
2,4,5-TRICHLOROPHENOL	0.05	U	
2,4,6-TRICHLOROPHENOL	0.05	U	
2,4-DINITROTOLUENE	0.05	U	
HEXACHLOROBENZENE	0.05	U	
HEXACHLOROBUTADIENE	0.05	U	
HEXACHLOROETHANE	0.05	U	
NITROBENZENE	0.05	U	
PENTACHLOROPHENOL	0.25	U	
PYRIDINE	0.1	U	
TOTAL METHYLPHENOL	0.05	U	

PROJ_NO: 00295

SDG: C7A080179 MEDIA: TCLP DATA FRACTION: TCLPP

nsample	COMPOSITE SAMPLE
samp_date	1/8/2007
lab_id	C7A080179001
qc_type	NM
units	MG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
CHLORDANE	0.005	U	
ENDRIN	0.0005	U	
GAMMA-BHC (LINDANE)	0.0005	U	
HEPTACHLOR	0.0005	U	
HEPTACHLOR EPOXIDE	0.0005	U	
METHOXYCHLOR	0.001	U	
TOXAPHENE	0.02	U	

PROJ_NO: 00295

SDG: C7A080179 MEDIA: TCLP DATA FRACTION: TCLPH

nsample	COMPOSITE SAMPLE
samp_date	1/8/2007
lab_id	C7A080179001
qc_type	NM
units	MG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2,4,5-TP (SILVEX)	0.01	U	
2,4-D	0.04	U	

PROJ_NO: 00295

SDG: C7A080179 MEDIA: TCLP DATA FRACTION: TCLPM

nsample	COMPOSITE SAMPLE
samp_date	1/8/2007
lab_id	C7A080179001
qc_type	NM
units	MG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ARSENIC	0.17	U	A
BARIUM	0.68		
CADMIUM	0.01		
CHROMIUM	0.00073	U	
LEAD	0.066		
MERCURY	0.000063	U	A
SELENIUM	0.018	U	
SILVER	0.0015	U	

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**B. DAVIS**	**DATE:**	**APRIL 3, 2007**
FROM:	**TERRI L. SOLOMON**	**COPIES:**	**DV FILE**

SUBJECT: **MISCELLANEOUS LIMITED DATA VALIDATION –IGNIGHTABILITY, PAINT FILTER, PERCENT SOLIDS, SULFIDE, FLASHPOINT**
CTO – 0013 NTC GREAT LAKES
SAMPLE DELIVERY GROUPs (SDGs) – C7C130197 / C7C130125

SAMPLES: 2/Composites/

NTC01GWTW0101 Composite

Overview

The sample set for CTO 0013, NTC Great Lakes, SDGs C7C130197 / C7C130125, consists of two (2) composite samples. No field duplicate pairs were included within this SDG.

Sample NTC01GWTW0101 was analyzed for flashpoint. The Composite sample was analyzed for ignightability, paint filter, percent solids and sulfide. The samples were composited on December 19, 2006 and January 8, 2007 and analyzed by Severn Trent Laboratories - Pittsburgh under Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria. Ignightability analyses were conducted using SW-846 Section 7 methods / SW-846 1010. Paint filter analyses were conducted using SW-846 method 9095. Sulfide analyses were conducted using SW846 method 9030B. Percent Solids analyses were conducted using 160.3 MOD.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Calibration Verification Results
* • Laboratory Blank Analyses
* • Detection Limits

* - All quality control criteria were met for this parameter.

Notes

None.

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Review", October 2004, and the DOD document entitled "Quality System Manual (QSM) for Environmental Laboratories" (Jan 2006).

The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the DOD QSM and the Quality Assurance Project Plan (QAPP)."

Terri L. Solomon

Tetra Tech NUS
Terri L. Solomon
Environmental Scientist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS-GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O - Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DOT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00295

SDG: C7C130125 MEDIA: WATER DATA FRACTION: MISC

nsample	NTC01GWTW0101
samp_date	12/19/2006
lab_id	C7C130125001
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
FLASHPOINT	F	>200		

PROJ_NO: 00295

SDG: C7C130197 MEDIA: SOIL DATA FRACTION: MISC

nsample	Composite
samp_date	1/8/2007
lab_id	C7C130197001
qc_type	NM
Pct_Solids	80.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
IGNITABILITY	S.U.	NO	U	
PAINT FILTER	S.U.	ND	U	
PERCENT SOLIDS	%	80.3		
SULFIDE	MG/KG	37.4	U	

APPENDIX D

LABORATORY ANALYTICAL SUMMARY SHEETS

NS Great Lakes, IL

Flashpoint

Lab Name:	STL PITTSBURGH	**Method:**	SW846 1010
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C7C130125
Matrix:	WATER		

Pensky-Martens Flashpoint

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01GWTW0101	C7C130125 001	JQXE41AA	>200	deg F			1	3/14/2007 - 3/14/2007 00:00	7073352

NS Great Lakes, IL

Ignitability

Lab Name:	STL PITTSBURGH	**Method:**	SW846 SECTION 7
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C7C130197
Matrix:	SOLID		

Ignitability

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
Composite	C7C130197 001	JQXX21AA	NO	No Units	--	--	1	3/16/2007 - 3/16/2007 00:00	7075189

NS Great Lakes, IL

Paint Filter Test

Lab Name:	STL PITTSBURGH	**Method:**	SW846 9095
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C7C130197
Matrix:	SOLID		

Paint Filter Test

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
Composite	C7C130197 001	JQXX21AD	ND CNF	No Units			1	3/13/2007 - 3/13/2007 00:00	7072242

NS Great Lakes, IL

Percent Solids

Lab Name:	STL PITTSBURGH	**Method:**	MCAWW 160.3 MOD
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C7C130197
Matrix:	SOLID		

Total Residue as Percent Solids

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
Composite	C7C130197 001	JQXX21AE	80.3	%	0.0		1	3/13/2007 - 3/14/2007 08:34	7072300

NS Great Lakes, IL

Total Sulfide

Lab Name:	STL PITTSBURGH	**Method:**	SW846 9030B/9034
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C7C130197
Matrix:	SOLID		

Sulfides, Total

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
Composite	C7C130197 001	JQXX21AC	ND	mg/kg	15.3	37.4	1	3/15/2007 - 3/16/2007 00:00	7074152

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0401

HPLC

Lot-Sample #...:	C7C150193-001	**Work Order #...:**	JQ4XP1AA	**Matrix.....:**	WATER
Date Sampled...:	03/14/07	**Date Received..:**	03/15/07	**MS Run #.....:**	
Prep Date.....:	03/15/07	**Analysis Date..:**	03/17/07		
Prep Batch #...:	7074433	**Analysis Time..:**	08:03		
Dilution Factor:	1	**Initial Wgt/Vol:**	1000 mL	**Final Wgt/Vol..:**	1 mL
Analyst ID.....:	014878	**Instrument ID..:**	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1.0	ug/L	0.12
Acenaphthylene	ND	1.0	ug/L	0.11
Acenaphthene	ND	1.0	ug/L	0.11
Fluorene	**0.028 J**	**0.20**	**ug/L**	**0.022**
Phenanthrene	**0.18 J**	**0.20**	**ug/L**	**0.024**
Anthracene	ND	0.20	ug/L	0.024
Fluoranthene	**0.039 J,PG**	**0.20**	**ug/L**	**0.025**
Pyrene	**0.043 J,PG**	**0.20**	**ug/L**	**0.025**
Benzo(a)anthracene	ND	0.20	ug/L	0.026
Chrysene	ND	0.20	ug/L	0.025
Benzo(b)fluoranthene	ND	0.20	ug/L	0.029
Benzo(k)fluoranthene	ND	0.20	ug/L	0.029
Benzo(a)pyrene	ND	0.20	ug/L	0.028
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	0.023
Dibenzo(a,h)anthracene	ND	0.20	ug/L	0.023
Benzo(ghi)perylene	ND	0.20	ug/L	0.025
Carbazole	ND	1.0	ug/L	0.11
2-Methylnaphthalene	ND	1.0	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	96	(78 - 125)
Terphenyl-d14	92	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLQ8W **Client ID:** NTC01FD12170601

Matrix: Water **Units:** ug/L **Prep Date:** 12/29/2007 **Prep Batch:** 6362274

Weight: NA **Volume:** 50 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	21.5	200	224		1	ICPST	1/2/2007	19:29
Antimony	206.84	2.4	10.0	2.4	U	1	ICPST	1/2/2007	19:29
Arsenic	189.04	2.3	10.0	2.3	U	1	ICPST	1/2/2007	19:29
Barium	493.41	0.28	200	49.3	B	1	ICPST	1/2/2007	19:29
Beryllium	313.04	1.6	5.0	1.6	U	1	ICPST	1/2/2007	19:29
Cadmium	226.50	0.44	5.0	0.44	U	1	ICPST	1/2/2007	19:29
Calcium	317.93	6.2	5000	83600		1	ICPST	1/2/2007	19:29
Chromium	267.72	0.54	5.0	0.54	U	1	ICPST	1/2/2007	19:29
Cobalt	228.62	0.54	50.0	0.54	U	1	ICPST	1/2/2007	19:29
Copper	324.75	1.4	25.0	1.4	U	1	ICPST	1/2/2007	19:29
Iron	271.44	16.7	100	462		1	ICPST	1/2/2007	19:29
Lead	220.35	1.8	3.0	1.8	U	1	ICPST	1/2/2007	19:29
Magnesium	279.08	7.6	5000	30400		1	ICPST	1/2/2007	19:29
Manganese	257.61	0.16	15.0	69.2		1	ICPST	1/2/2007	19:29
Nickel	231.60	0.71	40.0	1.6	B	1	ICPST	1/2/2007	19:29
Potassium	766.49	10.6	5000	3440	B	1	ICPST	1/2/2007	19:29
Selenium	220.35	2.3	5.0	2.3	U	1	ICPST	1/2/2007	19:29
Silver	328.07	0.47	5.0	0.47	U	1	ICPST	1/2/2007	19:29
Sodium	330.23	106	5000	226000		1	ICPST	1/2/2007	19:29
Thallium	190.86	2.6	10.0	2.6	U	1	ICPST	1/2/2007	19:29
Vanadium	292.40	0.61	50.0	0.86	B	1	ICPST	1/2/2007	19:29
Zinc	206.2	1.1	20.0	17.6	B	1	ICPST	1/2/2007	19:29

Comments: Lot #: C6L190179 Sample #: 1

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLQ8W **Client ID:** NTC01FD12170601

Matrix: Water **Units:** ug/L **Prep Date:** 1/3/2007 **Prep Batch:** 7003029

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.015	0.20	0.015	U	1	CVAA	1/3/2007	9:52

Comments: Lot #: C6L190179 Sample #: 1

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLQ98 **Client ID:** NTC01FD12180601

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 62.326

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	5.7	53.1	11800		1	ICPST	1/2/2007	15:37
Antimony	206.84	0.64	2.7	2.0	BN	1	ICPST	1/2/2007	15:37
Arsenic	189.04	0.61	2.7	10.1		1	ICPST	1/2/2007	15:37
Barium	493.41	0.074	53.1	101		1	ICPST	1/2/2007	15:37
Beryllium	313.04	0.42	1.3	1.4		1	ICPST	1/2/2007	15:37
Cadmium	226.50	0.12	1.3	0.12	U	1	ICPST	1/2/2007	15:37
Calcium	317.93	1.6	1330	42800		1	ICPST	1/2/2007	15:37
Chromium	267.72	0.14	1.3	29.3		1	ICPST	1/2/2007	15:37
Cobalt	228.62	0.14	13.3	12.8	B	1	ICPST	1/2/2007	15:37
Copper	324.75	0.37	6.6	71.3		1	ICPST	1/2/2007	15:37
Iron	271.44	4.4	26.5	28500		1	ICPST	1/2/2007	15:37
Lead	220.35	0.48	0.80	51.0		1	ICPST	1/2/2007	15:37
Magnesium	279.08	2.0	1330	25100		1	ICPST	1/2/2007	15:37
Manganese	257.61	0.042	4.0	1200		1	ICPST	1/2/2007	15:37
Nickel	231.60	0.19	10.6	29.4		1	ICPST	1/2/2007	15:37
Potassium	766.49	2.8	1330	1760		1	ICPST	1/2/2007	15:37
Selenium	220.35	0.61	1.3	2.5		1	ICPST	1/2/2007	15:37
Silver	328.07	0.12	1.3	0.37	B	1	ICPST	1/2/2007	15:37
Sodium	330.23	28.1	1330	820	B	1	ICPST	1/2/2007	15:37
Thallium	190.86	0.69	2.7	0.69	U	1	ICPST	1/2/2007	15:37
Vanadium	292.40	0.16	13.3	31.0		1	ICPST	1/2/2007	15:37
Zinc	206.2	0.29	5.3	304		1	ICPST	1/2/2007	15:37

Comments: Lot #: C6L190179 Sample #: 5

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLQ98 **Client ID:** NTC01FD12180601

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 62.326

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0066	0.088	0.24		1	CVAA	1/4/2007	16:22

Comments: Lot #: C6L190179 Sample #: 5

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRAQ **Client ID:** NTC01FD12180602

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 22.474

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.8	25.8	5160		1	ICPST	1/2/2007	16:16
Antimony	206.84	0.31	1.3	0.31	UN	1	ICPST	1/2/2007	16:16
Arsenic	189.04	0.30	1.3	6.6		1	ICPST	1/2/2007	16:16
Barium	493.41	0.036	25.8	54.1		1	ICPST	1/2/2007	16:16
Beryllium	313.04	0.21	0.64	2.4		1	ICPST	1/2/2007	16:16
Cadmium	226.50	0.057	0.64	0.057	U	1	ICPST	1/2/2007	16:16
Calcium	317.93	0.80	645	22100		1	ICPST	1/2/2007	16:16
Chromium	267.72	0.070	0.64	9.6		1	ICPST	1/2/2007	16:16
Cobalt	228.62	0.070	6.4	5.9	B	1	ICPST	1/2/2007	16:16
Copper	324.75	0.18	3.2	24.5		1	ICPST	1/2/2007	16:16
Iron	271.44	2.2	12.9	23500		1	ICPST	1/2/2007	16:16
Lead	220.35	0.23	0.39	54.9		1	ICPST	1/2/2007	16:16
Magnesium	279.08	0.98	645	3490		1	ICPST	1/2/2007	16:16
Manganese	257.61	0.021	1.9	171		1	ICPST	1/2/2007	16:16
Nickel	231.60	0.092	5.2	22.0		1	ICPST	1/2/2007	16:16
Potassium	766.49	1.4	645	810		1	ICPST	1/2/2007	16:16
Selenium	220.35	0.30	0.64	3.4		1	ICPST	1/2/2007	16:16
Silver	328.07	0.061	0.64	0.23	B	1	ICPST	1/2/2007	16:16
Sodium	330.23	13.7	645	170	B	1	ICPST	1/2/2007	16:16
Thallium	190.86	0.34	1.3	0.34	U	1	ICPST	1/2/2007	16:16
Vanadium	292.40	0.079	6.4	21.9		1	ICPST	1/2/2007	16:16
Zinc	206.2	0.14	2.6	101		1	ICPST	1/2/2007	16:16

Comments: Lot #: C6L190179 Sample #: 6

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRAQ **Client ID:** NTC01FD12180602

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 22.474

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0032	0.043	0.14		1	CVAA	1/4/2007	16:24

Comments: Lot #: C6L190179 Sample #: 6

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRAW **Client ID:** NTC01SB0880708

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 18.74

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.6	24.6	7660		1	ICPST	1/2/2007	16:21
Antimony	206.84	0.30	1.2	12.3	N	1	ICPST	1/2/2007	16:21
Arsenic	189.04	0.28	1.2	8.4		1	ICPST	1/2/2007	16:21
Barium	493.41	0.034	24.6	55.3		1	ICPST	1/2/2007	16:21
Beryllium	313.04	0.20	0.62	0.77		1	ICPST	1/2/2007	16:21
Cadmium	226.50	0.054	0.62	0.054	U	1	ICPST	1/2/2007	16:21
Calcium	317.93	0.76	615	45300		1	ICPST	1/2/2007	16:21
Chromium	267.72	0.066	0.62	16.7		1	ICPST	1/2/2007	16:21
Cobalt	228.62	0.066	6.2	9.3		1	ICPST	1/2/2007	16:21
Copper	324.75	0.17	3.1	19.2		1	ICPST	1/2/2007	16:21
Iron	271.44	2.1	12.3	19800		1	ICPST	1/2/2007	16:21
Lead	220.35	0.22	0.37	30.1		1	ICPST	1/2/2007	16:21
Magnesium	279.08	0.94	615	23400		1	ICPST	1/2/2007	16:21
Manganese	257.61	0.020	1.8	530		1	ICPST	1/2/2007	16:21
Nickel	231.60	0.087	4.9	20.1		1	ICPST	1/2/2007	16:21
Potassium	766.49	1.3	615	1270		1	ICPST	1/2/2007	16:21
Selenium	220.35	0.28	0.62	0.94		1	ICPST	1/2/2007	16:21
Silver	328.07	0.058	0.62	0.12	B	1	ICPST	1/2/2007	16:21
Sodium	330.23	13.0	615	128	B	1	ICPST	1/2/2007	16:21
Thallium	190.86	0.32	1.2	0.32	U	1	ICPST	1/2/2007	16:21
Vanadium	292.40	0.075	6.2	18.9		1	ICPST	1/2/2007	16:21
Zinc	206.2	0.14	2.5	124		1	ICPST	1/2/2007	16:21

Comments: Lot #: C6L190179 Sample #: 7

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRAW **Client ID:** NTC01SB0880708

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 18.74

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0031	0.041	0.43		1	CVAA	1/4/2007	16:25

Comments: Lot #: C6L190179 Sample #: 7

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRA6 **Client ID:** NTC01SB0891112

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 21.163

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.7	25.4	6570		1	ICPST	1/2/2007	16:10
Antimony	206.84	0.61	2.5	7.5	N	2	ICPST	1/3/2007	10:35
Arsenic	189.04	0.29	1.3	19.6		1	ICPST	1/2/2007	16:10
Barium	493.41	0.036	25.4	355		1	ICPST	1/2/2007	16:10
Beryllium	313.04	0.20	0.63	1.1		1	ICPST	1/2/2007	16:10
Cadmium	226.50	0.11	1.3	0.11	U	2	ICPST	1/3/2007	10:35
Calcium	317.93	0.79	634	23700		1	ICPST	1/2/2007	16:10
Chromium	267.72	0.068	0.63	29.3		1	ICPST	1/2/2007	16:10
Cobalt	228.62	0.068	6.3	11.0		1	ICPST	1/2/2007	16:10
Copper	324.75	0.18	3.2	112		1	ICPST	1/2/2007	16:10
Iron	271.44	4.2	25.4	69100		2	ICPST	1/3/2007	10:35
Lead	220.35	0.46	0.76	445		2	ICPST	1/3/2007	10:35
Magnesium	279.08	0.96	634	7370		1	ICPST	1/2/2007	16:10
Manganese	257.61	0.020	1.9	425		1	ICPST	1/2/2007	16:10
Nickel	231.60	0.090	5.1	45.1		1	ICPST	1/2/2007	16:10
Potassium	766.49	1.3	634	752		1	ICPST	1/2/2007	16:10
Selenium	220.35	0.58	1.3	5.7		2	ICPST	1/3/2007	10:35
Silver	328.07	0.060	0.63	17.3		1	ICPST	1/2/2007	16:10
Sodium	330.23	13.4	634	464	B	1	ICPST	1/2/2007	16:10
Thallium	190.86	0.66	2.5	0.73	B	2	ICPST	1/4/2007	11:43
Vanadium	292.40	0.077	6.3	28.8		1	ICPST	1/2/2007	16:10
Zinc	206.2	0.14	2.5	426		1	ICPST	1/2/2007	16:10

Comments: Lot #: C6L190179 Sample #: 8

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRA6 **Client ID:** NTC01SB0891112

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 21.163

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0032	0.042	0.72		1	CVAA	1/4/2007	16:27

Comments: Lot #: C6L190179 Sample #: 8

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRCA **Client ID:** NTC01SB0900812

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 21.541

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.7	25.5	8470		1	ICPST	1/2/2007	16:49
Antimony	206.84	0.31	1.3	21.4	N	1	ICPST	1/2/2007	16:49
Arsenic	189.04	0.29	1.3	11.0		1	ICPST	1/2/2007	16:49
Barium	493.41	0.036	25.5	386		1	ICPST	1/2/2007	16:49
Beryllium	313.04	0.20	0.64	1.8		1	ICPST	1/2/2007	16:49
Cadmium	226.50	0.056	0.64	1.0		1	ICPST	1/2/2007	16:49
Calcium	317.93	0.79	637	24600		1	ICPST	1/2/2007	16:49
Chromium	267.72	0.069	0.64	27.8		1	ICPST	1/2/2007	16:49
Cobalt	228.62	0.069	6.4	10.1		1	ICPST	1/2/2007	16:49
Copper	324.75	0.18	3.2	829		1	ICPST	1/2/2007	16:49
Iron	271.44	2.1	12.7	53100		1	ICPST	1/2/2007	16:49
Lead	220.35	1.1	1.9	1410		5	ICPST	1/3/2007	10:40
Magnesium	279.08	0.97	637	6730		1	ICPST	1/2/2007	16:49
Manganese	257.61	0.020	1.9	587		1	ICPST	1/2/2007	16:49
Nickel	231.60	0.090	5.1	37.7		1	ICPST	1/2/2007	16:49
Potassium	766.49	1.4	637	1240		1	ICPST	1/2/2007	16:49
Selenium	220.35	0.29	0.64	4.2		1	ICPST	1/2/2007	16:49
Silver	328.07	0.060	0.64	16.1		1	ICPST	1/2/2007	16:49
Sodium	330.23	13.5	637	871		1	ICPST	1/2/2007	16:49
Thallium	190.86	0.33	1.3	0.33	U	1	ICPST	1/2/2007	16:49
Vanadium	292.40	0.078	6.4	25.5		1	ICPST	1/2/2007	16:49
Zinc	206.2	0.14	2.5	1310		1	ICPST	1/2/2007	16:49

Comments: Lot #: C6L190179 Sample #: 9

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRCA **Client ID:** NTC01SB0900812

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 21.541

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0032	0.042	0.59		1	CVAA	1/4/2007	16:29

Comments: Lot #: C6L190179 Sample #: 9

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRCQ **Client ID:** NTC01SB0910812

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 18.085

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.6	24.4	9840		1	ICPST	1/2/2007	16:54
Antimony	206.84	0.29	1.2	0.29	UN	1	ICPST	1/2/2007	16:54
Arsenic	189.04	0.28	1.2	6.4		1	ICPST	1/2/2007	16:54
Barium	493.41	0.034	24.4	116		1	ICPST	1/2/2007	16:54
Beryllium	313.04	0.20	0.61	1.2		1	ICPST	1/2/2007	16:54
Cadmium	226.50	0.054	0.61	0.054	U	1	ICPST	1/2/2007	16:54
Calcium	317.93	0.76	610	10200		1	ICPST	1/2/2007	16:54
Chromium	267.72	0.066	0.61	18.3		1	ICPST	1/2/2007	16:54
Cobalt	228.62	0.066	6.1	10.8		1	ICPST	1/2/2007	16:54
Copper	324.75	0.17	3.1	28.4		1	ICPST	1/2/2007	16:54
Iron	271.44	2.0	12.2	19900		1	ICPST	1/2/2007	16:54
Lead	220.35	0.22	0.37	32.9		1	ICPST	1/2/2007	16:54
Magnesium	279.08	0.93	610	6650		1	ICPST	1/2/2007	16:54
Manganese	257.61	0.020	1.8	930		1	ICPST	1/2/2007	16:54
Nickel	231.60	0.087	4.9	19.4		1	ICPST	1/2/2007	16:54
Potassium	766.49	1.3	610	1010		1	ICPST	1/2/2007	16:54
Selenium	220.35	0.28	0.61	1.1		1	ICPST	1/2/2007	16:54
Silver	328.07	0.057	0.61	0.61	B	1	ICPST	1/2/2007	16:54
Sodium	330.23	12.9	610	250	B	1	ICPST	1/2/2007	16:54
Thallium	190.86	0.32	1.2	0.32	U	1	ICPST	1/2/2007	16:54
Vanadium	292.40	0.074	6.1	23.0		1	ICPST	1/2/2007	16:54
Zinc	206.2	0.13	2.4	113		1	ICPST	1/2/2007	16:54

Comments: Lot #: C6L190179 Sample #: 10

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRCQ **Client ID:** NTC01SB0910812

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 18.085

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0031	0.041	0.075		1	CVAA	1/4/2007	16:30

Comments: Lot #: C6L190179 Sample #: 10

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRC0 **Client ID:** NTC01SB0921516

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 42.121

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	3.7	34.6	10300		1	ICPST	1/2/2007	16:27
Antimony	206.84	0.41	1.7	0.60	BN	1	ICPST	1/2/2007	16:27
Arsenic	189.04	0.40	1.7	16.0		1	ICPST	1/2/2007	16:27
Barium	493.41	0.048	34.6	165		1	ICPST	1/2/2007	16:27
Beryllium	313.04	0.28	0.86	1.3		1	ICPST	1/2/2007	16:27
Cadmium	226.50	0.076	0.86	0.076	U	1	ICPST	1/2/2007	16:27
Calcium	317.93	1.1	864	50900		1	ICPST	1/2/2007	16:27
Chromium	267.72	0.093	0.86	27.9		1	ICPST	1/2/2007	16:27
Cobalt	228.62	0.093	8.6	10.6		1	ICPST	1/2/2007	16:27
Copper	324.75	0.24	4.3	63.1		1	ICPST	1/2/2007	16:27
Iron	271.44	2.9	17.3	25600		1	ICPST	1/2/2007	16:27
Lead	220.35	0.31	0.52	188		1	ICPST	1/2/2007	16:27
Magnesium	279.08	1.3	864	22100		1	ICPST	1/2/2007	16:27
Manganese	257.61	0.028	2.6	433		1	ICPST	1/2/2007	16:27
Nickel	231.60	0.12	6.9	27.1		1	ICPST	1/2/2007	16:27
Potassium	766.49	1.8	864	1880		1	ICPST	1/2/2007	16:27
Selenium	220.35	0.40	0.86	1.5		1	ICPST	1/2/2007	16:27
Silver	328.07	0.081	0.86	0.54	B	1	ICPST	1/2/2007	16:27
Sodium	330.23	18.3	864	441	B	1	ICPST	1/2/2007	16:27
Thallium	190.86	0.45	1.7	0.45	U	1	ICPST	1/2/2007	16:27
Vanadium	292.40	0.11	8.6	27.2		1	ICPST	1/2/2007	16:27
Zinc	206.2	0.19	3.5	333		1	ICPST	1/2/2007	16:27

Comments: Lot #: C6L190179 Sample #: 11

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRC0 **Client ID:** NTC01SB0921516

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 42.121

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0043	0.058	0.19		1	CVAA	1/4/2007	16:32

Comments: Lot #: C6L190179 Sample #: 11

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRC4 **Client ID:** NTC01SB0930810

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 16.562

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.6	24.0	2750		1	ICPST	1/2/2007	16:32
Antimony	206.84	0.29	1.2	0.88	BN	1	ICPST	1/2/2007	16:32
Arsenic	189.04	0.28	1.2	4.4		1	ICPST	1/2/2007	16:32
Barium	493.41	0.034	24.0	46.0		1	ICPST	1/2/2007	16:32
Beryllium	313.04	0.19	0.60	1.5		1	ICPST	1/2/2007	16:32
Cadmium	226.50	0.053	0.60	0.14	B	1	ICPST	1/2/2007	16:32
Calcium	317.93	0.74	599	9620		1	ICPST	1/2/2007	16:32
Chromium	267.72	0.065	0.60	7.8		1	ICPST	1/2/2007	16:32
Cobalt	228.62	0.065	6.0	4.2	B	1	ICPST	1/2/2007	16:32
Copper	324.75	0.17	3.0	37.5		1	ICPST	1/2/2007	16:32
Iron	271.44	2.0	12.0	13600		1	ICPST	1/2/2007	16:32
Lead	220.35	0.22	0.36	42.6		1	ICPST	1/2/2007	16:32
Magnesium	279.08	0.91	599	1420		1	ICPST	1/2/2007	16:32
Manganese	257.61	0.019	1.8	105		1	ICPST	1/2/2007	16:32
Nickel	231.60	0.085	4.8	11.6		1	ICPST	1/2/2007	16:32
Potassium	766.49	1.3	599	420	B	1	ICPST	1/2/2007	16:32
Selenium	220.35	0.28	0.60	1.6		1	ICPST	1/2/2007	16:32
Silver	328.07	0.056	0.60	0.79		1	ICPST	1/2/2007	16:32
Sodium	330.23	12.7	599	202	B	1	ICPST	1/2/2007	16:32
Thallium	190.86	0.31	1.2	0.31	U	1	ICPST	1/2/2007	16:32
Vanadium	292.40	0.073	6.0	13.8		1	ICPST	1/2/2007	16:32
Zinc	206.2	0.13	2.4	105		1	ICPST	1/2/2007	16:32

Comments: Lot #: C6L190179 Sample #: 12

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRC4 **Client ID:** NTC01SB0930810

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 16.562

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0030	0.040	0.21		1	CVAA	1/4/2007	16:34

Comments: Lot #: C6L190179 Sample #: 12

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRC6 **Client ID:** NTC01SB0941416

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 36.102

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	3.4	31.3	6400		1	ICPST	1/2/2007	16:38
Antimony	206.84	0.38	1.6	6.7	N	1	ICPST	1/2/2007	16:38
Arsenic	189.04	0.36	1.6	8.1		1	ICPST	1/2/2007	16:38
Barium	493.41	0.044	31.3	209		1	ICPST	1/2/2007	16:38
Beryllium	313.04	0.25	0.78	2.7		1	ICPST	1/2/2007	16:38
Cadmium	226.50	0.069	0.78	0.39	B	1	ICPST	1/2/2007	16:38
Calcium	317.93	0.97	782	10700		1	ICPST	1/2/2007	16:38
Chromium	267.72	0.085	0.78	20.6		1	ICPST	1/2/2007	16:38
Cobalt	228.62	0.085	7.8	7.5	B	1	ICPST	1/2/2007	16:38
Copper	324.75	0.22	3.9	51.7		1	ICPST	1/2/2007	16:38
Iron	271.44	2.6	15.6	28600		1	ICPST	1/2/2007	16:38
Lead	220.35	0.28	0.47	160		1	ICPST	1/2/2007	16:38
Magnesium	279.08	1.2	782	3960		1	ICPST	1/2/2007	16:38
Manganese	257.61	0.025	2.3	332		1	ICPST	1/2/2007	16:38
Nickel	231.60	0.11	6.3	26.7		1	ICPST	1/2/2007	16:38
Potassium	766.49	1.7	782	1160		1	ICPST	1/2/2007	16:38
Selenium	220.35	0.36	0.78	3.0		1	ICPST	1/2/2007	16:38
Silver	328.07	0.074	0.78	4.4		1	ICPST	1/2/2007	16:38
Sodium	330.23	16.6	782	359	B	1	ICPST	1/2/2007	16:38
Thallium	190.86	0.41	1.6	0.41	U	1	ICPST	1/2/2007	16:38
Vanadium	292.40	0.095	7.8	32.2		1	ICPST	1/2/2007	16:38
Zinc	206.2	0.17	3.1	367		1	ICPST	1/2/2007	16:38

Comments: Lot #: C6L190179 Sample #: 13

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRC6 **Client ID:** NTC01SB0941416

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 36.102

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0039	0.052	0.75		1	CVAA	1/4/2007	16:39

Comments: Lot #: C6L190179 Sample #: 13

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRC8 **Client ID:** NTC01SB0950810

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 62.921

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	5.8	53.9	6970		1	ICPST	1/2/2007	16:43
Antimony	206.84	0.65	2.7	0.65	UN	1	ICPST	1/2/2007	16:43
Arsenic	189.04	0.62	2.7	6.4		1	ICPST	1/2/2007	16:43
Barium	493.41	0.076	53.9	63.6		1	ICPST	1/2/2007	16:43
Beryllium	313.04	0.43	1.3	5.7		1	ICPST	1/2/2007	16:43
Cadmium	226.50	0.12	1.3	0.52	B	1	ICPST	1/2/2007	16:43
Calcium	317.93	1.7	1350	2840		1	ICPST	1/2/2007	16:43
Chromium	267.72	0.15	1.3	15.4		1	ICPST	1/2/2007	16:43
Cobalt	228.62	0.15	13.5	9.8	B	1	ICPST	1/2/2007	16:43
Copper	324.75	0.38	6.7	38.9		1	ICPST	1/2/2007	16:43
Iron	271.44	4.5	27.0	20800		1	ICPST	1/2/2007	16:43
Lead	220.35	0.49	0.81	68.1		1	ICPST	1/2/2007	16:43
Magnesium	279.08	2.0	1350	855	B	1	ICPST	1/2/2007	16:43
Manganese	257.61	0.043	4.0	61.6		1	ICPST	1/2/2007	16:43
Nickel	231.60	0.19	10.8	45.9		1	ICPST	1/2/2007	16:43
Potassium	766.49	2.9	1350	1390		1	ICPST	1/2/2007	16:43
Selenium	220.35	0.62	1.3	4.3		1	ICPST	1/2/2007	16:43
Silver	328.07	0.13	1.3	0.37	B	1	ICPST	1/2/2007	16:43
Sodium	330.23	28.6	1350	304	B	1	ICPST	1/2/2007	16:43
Thallium	190.86	0.70	2.7	1.5	B	1	ICPST	1/2/2007	16:43
Vanadium	292.40	0.16	13.5	122		1	ICPST	1/2/2007	16:43
Zinc	206.2	0.30	5.4	343		1	ICPST	1/2/2007	16:43

Comments: Lot #: C6L190179 Sample #: 14

5.04.5

U Result is less than the IDL

B Result is between IDL and RL

E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRC8 **Client ID:** NTC01SB0950810

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 62.921

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0067	0.090	0.13		1	CVAA	1/4/2007	16:41

Comments: Lot #: C6L190179 Sample #: 14

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRDC **Client ID:** NTC01SB0961012

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 18.464

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.6	24.5	8640		1	ICPST	1/2/2007	17:16
Antimony	206.84	0.29	1.2	0.54	BN	1	ICPST	1/2/2007	17:16
Arsenic	189.04	0.28	1.2	14.5		1	ICPST	1/2/2007	17:16
Barium	493.41	0.034	24.5	106		1	ICPST	1/2/2007	17:16
Beryllium	313.04	0.20	0.61	1.1		1	ICPST	1/2/2007	17:16
Cadmium	226.50	0.054	0.61	0.054	U	1	ICPST	1/2/2007	17:16
Calcium	317.93	0.76	613	39300		1	ICPST	1/2/2007	17:16
Chromium	267.72	0.066	0.61	16.7		1	ICPST	1/2/2007	17:16
Cobalt	228.62	0.066	6.1	9.8		1	ICPST	1/2/2007	17:16
Copper	324.75	0.17	3.1	61.0		1	ICPST	1/2/2007	17:16
Iron	271.44	2.0	12.3	19200		1	ICPST	1/2/2007	17:16
Lead	220.35	0.22	0.37	212		1	ICPST	1/2/2007	17:16
Magnesium	279.08	0.93	613	19100		1	ICPST	1/2/2007	17:16
Manganese	257.61	0.020	1.8	523		1	ICPST	1/2/2007	17:16
Nickel	231.60	0.087	4.9	23.3		1	ICPST	1/2/2007	17:16
Potassium	766.49	1.3	613	1490		1	ICPST	1/2/2007	17:16
Selenium	220.35	0.28	0.61	1.2		1	ICPST	1/2/2007	17:16
Silver	328.07	0.058	0.61	0.30	B	1	ICPST	1/2/2007	17:16
Sodium	330.23	13.0	613	268	B	1	ICPST	1/2/2007	17:16
Thallium	190.86	0.32	1.2	0.32	U	1	ICPST	1/2/2007	17:16
Vanadium	292.40	0.075	6.1	22.4		1	ICPST	1/2/2007	17:16
Zinc	206.2	0.13	2.5	248		1	ICPST	1/2/2007	17:16

Comments: Lot #: C6L190179 Sample #: 15

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRDC **Client ID:** NTC01SB0961012

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 18.464

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0031	0.041	0.17		1	CVAA	1/4/2007	16:43

Comments: Lot #: C6L190179 Sample #: 15

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRDF **Client ID:** NTC01SB1010406

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 13.592

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.5	23.1	3750		1	ICPST	1/2/2007	17:22
Antimony	206.84	0.28	1.2	0.28	UN	1	ICPST	1/2/2007	17:22
Arsenic	189.04	0.27	1.2	8.1		1	ICPST	1/2/2007	17:22
Barium	493.41	0.032	23.1	50.8		1	ICPST	1/2/2007	17:22
Beryllium	313.04	0.19	0.58	1.2		1	ICPST	1/2/2007	17:22
Cadmium	226.50	0.051	0.58	0.051	U	1	ICPST	1/2/2007	17:22
Calcium	317.93	0.72	579	8080		1	ICPST	1/2/2007	17:22
Chromium	267.72	0.062	0.58	6.0		1	ICPST	1/2/2007	17:22
Cobalt	228.62	0.062	5.8	4.3	B	1	ICPST	1/2/2007	17:22
Copper	324.75	0.16	2.9	22.9		1	ICPST	1/2/2007	17:22
Iron	271.44	1.9	11.6	11400		1	ICPST	1/2/2007	17:22
Lead	220.35	0.21	0.35	30.1		1	ICPST	1/2/2007	17:22
Magnesium	279.08	0.88	579	1790		1	ICPST	1/2/2007	17:22
Manganese	257.61	0.019	1.7	93.5		1	ICPST	1/2/2007	17:22
Nickel	231.60	0.082	4.6	13.3		1	ICPST	1/2/2007	17:22
Potassium	766.49	1.2	579	421	B	1	ICPST	1/2/2007	17:22
Selenium	220.35	0.27	0.58	1.2		1	ICPST	1/2/2007	17:22
Silver	328.07	0.054	0.58	0.34	B	1	ICPST	1/2/2007	17:22
Sodium	330.23	12.3	579	154	B	1	ICPST	1/2/2007	17:22
Thallium	190.86	0.30	1.2	0.30	U	1	ICPST	1/2/2007	17:22
Vanadium	292.40	0.071	5.8	15.7		1	ICPST	1/2/2007	17:22
Zinc	206.2	0.13	2.3	103		1	ICPST	1/2/2007	17:22

Comments: Lot #: C6L190179 Sample #: 16

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRDF **Client ID:** NTC01SB1010406

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 13.592

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0029	0.039	0.21		1	CVAA	1/4/2007	16:44

Comments: Lot #: C6L190179 Sample #: 16

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRDG **Client ID:** NTC01SB1020408

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 49.696

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	4.3	39.8	7300		1	ICPST	1/2/2007	17:27
Antimony	206.84	0.48	2.0	0.48	UN	1	ICPST	1/2/2007	17:27
Arsenic	189.04	0.46	2.0	18.9		1	ICPST	1/2/2007	17:27
Barium	493.41	0.056	39.8	58.6		1	ICPST	1/2/2007	17:27
Beryllium	313.04	0.32	0.99	5.2		1	ICPST	1/2/2007	17:27
Cadmium	226.50	0.087	0.99	1.1		1	ICPST	1/2/2007	17:27
Calcium	317.93	1.2	994	4870		1	ICPST	1/2/2007	17:27
Chromium	267.72	0.11	0.99	12.6		1	ICPST	1/2/2007	17:27
Cobalt	228.62	0.11	9.9	5.5	B	1	ICPST	1/2/2007	17:27
Copper	324.75	0.28	5.0	25.8		1	ICPST	1/2/2007	17:27
Iron	271.44	3.3	19.9	16000		1	ICPST	1/2/2007	17:27
Lead	220.35	0.36	0.60	11.9		1	ICPST	1/2/2007	17:27
Magnesium	279.08	1.5	994	1360		1	ICPST	1/2/2007	17:27
Manganese	257.61	0.032	3.0	59.1		1	ICPST	1/2/2007	17:27
Nickel	231.60	0.14	8.0	21.1		1	ICPST	1/2/2007	17:27
Potassium	766.49	2.1	994	1400		1	ICPST	1/2/2007	17:27
Selenium	220.35	0.46	0.99	4.2		1	ICPST	1/2/2007	17:27
Silver	328.07	0.093	0.99	0.093	U	1	ICPST	1/2/2007	17:27
Sodium	330.23	21.1	994	204	B	1	ICPST	1/2/2007	17:27
Thallium	190.86	0.52	2.0	1.2	B	1	ICPST	1/2/2007	17:27
Vanadium	292.40	0.12	9.9	47.4		1	ICPST	1/2/2007	17:27
Zinc	206.2	0.22	4.0	50.1		1	ICPST	1/2/2007	17:27

Comments: Lot #: C6L190179 Sample #: 17

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRDG **Client ID:** NTC01SB1020408

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 49.696

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0050	0.066	0.11		1	CVAA	1/4/2007	16:46

Comments: Lot #: C6L190179 Sample #: 17

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRDM **Client ID:** NTC01SB1031919

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 13.608

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.5	23.2	7290		1	ICPST	1/2/2007	17:33
Antimony	206.84	0.28	1.2	0.28	UN	1	ICPST	1/2/2007	17:33
Arsenic	189.04	0.27	1.2	8.1		1	ICPST	1/2/2007	17:33
Barium	493.41	0.032	23.2	35.9		1	ICPST	1/2/2007	17:33
Beryllium	313.04	0.19	0.58	0.74		1	ICPST	1/2/2007	17:33
Cadmium	226.50	0.051	0.58	0.051	U	1	ICPST	1/2/2007	17:33
Calcium	317.93	0.72	579	66300		1	ICPST	1/2/2007	17:33
Chromium	267.72	0.063	0.58	14.5		1	ICPST	1/2/2007	17:33
Cobalt	228.62	0.063	5.8	8.7		1	ICPST	1/2/2007	17:33
Copper	324.75	0.16	2.9	22.0		1	ICPST	1/2/2007	17:33
Iron	271.44	1.9	11.6	17700		1	ICPST	1/2/2007	17:33
Lead	220.35	0.21	0.35	19.7		1	ICPST	1/2/2007	17:33
Magnesium	279.08	0.88	579	36600		1	ICPST	1/2/2007	17:33
Manganese	257.61	0.019	1.7	499		1	ICPST	1/2/2007	17:33
Nickel	231.60	0.082	4.6	24.1		1	ICPST	1/2/2007	17:33
Potassium	766.49	1.2	579	1610		1	ICPST	1/2/2007	17:33
Selenium	220.35	0.27	0.58	0.83		1	ICPST	1/2/2007	17:33
Silver	328.07	0.054	0.58	0.063	B	1	ICPST	1/2/2007	17:33
Sodium	330.23	12.3	579	214	B	1	ICPST	1/2/2007	17:33
Thallium	190.86	0.30	1.2	0.30	U	1	ICPST	1/2/2007	17:33
Vanadium	292.40	0.071	5.8	17.2		1	ICPST	1/2/2007	17:33
Zinc	206.2	0.13	2.3	44.9		1	ICPST	1/2/2007	17:33

Comments: Lot #: C6L190179 Sample #: 18

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRDM **Client ID:** NTC01SB1031919

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 13.608

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0029	0.039	0.014	B	1	CVAA	1/4/2007	16:48

Comments: Lot #: C6L190179 Sample #: 18

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRDR **Client ID:** NTC01SD0100

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 33.801

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	3.2	30.2	3530		1	ICPST	1/2/2007	17:39
Antimony	206.84	0.36	1.5	0.46	BN	1	ICPST	1/2/2007	17:39
Arsenic	189.04	0.35	1.5	3.3		1	ICPST	1/2/2007	17:39
Barium	493.41	0.042	30.2	45.5		1	ICPST	1/2/2007	17:39
Beryllium	313.04	0.24	0.76	0.76		1	ICPST	1/2/2007	17:39
Cadmium	226.50	0.066	0.76	0.066	U	1	ICPST	1/2/2007	17:39
Calcium	317.93	1.9	1510	116000		2	ICPST	1/3/2007	10:46
Chromium	267.72	0.082	0.76	13.8		1	ICPST	1/2/2007	17:39
Cobalt	228.62	0.082	7.6	3.7	B	1	ICPST	1/2/2007	17:39
Copper	324.75	0.21	3.8	34.3		1	ICPST	1/2/2007	17:39
Iron	271.44	2.5	15.1	11700		1	ICPST	1/2/2007	17:39
Lead	220.35	0.27	0.45	30.1		1	ICPST	1/2/2007	17:39
Magnesium	279.08	1.1	755	52100		1	ICPST	1/2/2007	17:39
Manganese	257.61	0.024	2.3	355		1	ICPST	1/2/2007	17:39
Nickel	231.60	0.11	6.0	10.2		1	ICPST	1/2/2007	17:39
Potassium	766.49	1.6	755	590	B	1	ICPST	1/2/2007	17:39
Selenium	220.35	0.35	0.76	0.35	U	1	ICPST	1/2/2007	17:39
Silver	328.07	0.071	0.76	0.10	B	1	ICPST	1/2/2007	17:39
Sodium	330.23	16.0	755	559	B	1	ICPST	1/2/2007	17:39
Thallium	190.86	0.39	1.5	0.39	U	1	ICPST	1/2/2007	17:39
Vanadium	292.40	0.092	7.6	11.0		1	ICPST	1/2/2007	17:39
Zinc	206.2	0.17	3.0	158		1	ICPST	1/2/2007	17:39

Comments: Lot #: C6L190179 Sample #: 19

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRDR **Client ID:** NTC01SD0100

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 33.801

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0038	0.050	0.058		1	CVAA	1/4/2007	16:49

Comments: Lot #: C6L190179 Sample #: 19

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRD8 **Client ID:** NTC01SD0101

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 43.441

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	3.8	35.4	6130		1	ICPST	1/2/2007	17:11
Antimony	206.84	0.42	1.8	0.42	UN	1	ICPST	1/2/2007	17:11
Arsenic	189.04	0.41	1.8	6.8		1	ICPST	1/2/2007	17:11
Barium	493.41	0.050	35.4	50.7		1	ICPST	1/2/2007	17:11
Beryllium	313.04	0.28	0.88	1.0		1	ICPST	1/2/2007	17:11
Cadmium	226.50	0.078	0.88	0.48	B	1	ICPST	1/2/2007	17:11
Calcium	317.93	1.1	884	74600		1	ICPST	1/2/2007	17:11
Chromium	267.72	0.095	0.88	44.2		1	ICPST	1/2/2007	17:11
Cobalt	228.62	0.095	8.8	7.9	B	1	ICPST	1/2/2007	17:11
Copper	324.75	0.25	4.4	83.3		1	ICPST	1/2/2007	17:11
Iron	271.44	3.0	17.7	18700		1	ICPST	1/2/2007	17:11
Lead	220.35	0.32	0.53	113		1	ICPST	1/2/2007	17:11
Magnesium	279.08	1.3	884	41700		1	ICPST	1/2/2007	17:11
Manganese	257.61	0.028	2.7	530		1	ICPST	1/2/2007	17:11
Nickel	231.60	0.13	7.1	21.1		1	ICPST	1/2/2007	17:11
Potassium	766.49	1.9	884	925		1	ICPST	1/2/2007	17:11
Selenium	220.35	0.41	0.88	1.1		1	ICPST	1/2/2007	17:11
Silver	328.07	0.083	0.88	0.35	B	1	ICPST	1/2/2007	17:11
Sodium	330.23	18.7	884	1290		1	ICPST	1/2/2007	17:11
Thallium	190.86	0.46	1.8	0.46	U	1	ICPST	1/2/2007	17:11
Vanadium	292.40	0.11	8.8	19.0		1	ICPST	1/2/2007	17:11
Zinc	206.2	0.19	3.5	439		1	ICPST	1/2/2007	17:11

Comments: Lot #: C6L190179 Sample #: 20

5.04.5

U Result is less than the IDL

B Result is between IDL and RL

E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRD8 **Client ID:** NTC01SD0101

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004241

Weight: .6 **Volume:** 100 **Percent Moisture:** 43.441

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0044	0.059	0.17		1	CVAA	1/4/2007	17:10

Comments: Lot #: C6L190179 Sample #: 20

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRFD **Client ID:** NTC01SD0200

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 62.751

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	5.8	53.7	8920		1	ICPST	1/2/2007	17:50
Antimony	206.84	0.64	2.7	2.1	BN	1	ICPST	1/2/2007	17:50
Arsenic	189.04	0.62	2.7	8.1		1	ICPST	1/2/2007	17:50
Barium	493.41	0.075	53.7	78.5		1	ICPST	1/2/2007	17:50
Beryllium	313.04	0.43	1.3	1.3	B	1	ICPST	1/2/2007	17:50
Cadmium	226.50	0.12	1.3	0.12	U	1	ICPST	1/2/2007	17:50
Calcium	317.93	1.7	1340	39600		1	ICPST	1/2/2007	17:50
Chromium	267.72	0.14	1.3	24.7		1	ICPST	1/2/2007	17:50
Cobalt	228.62	0.14	13.4	10.9	B	1	ICPST	1/2/2007	17:50
Copper	324.75	0.38	6.7	52.7		1	ICPST	1/2/2007	17:50
Iron	271.44	4.5	26.8	23900		1	ICPST	1/2/2007	17:50
Lead	220.35	0.48	0.81	42.3		1	ICPST	1/2/2007	17:50
Magnesium	279.08	2.0	1340	22300		1	ICPST	1/2/2007	17:50
Manganese	257.61	0.043	4.0	654		1	ICPST	1/2/2007	17:50
Nickel	231.60	0.19	10.7	24.5		1	ICPST	1/2/2007	17:50
Potassium	766.49	2.8	1340	1390		1	ICPST	1/2/2007	17:50
Selenium	220.35	0.62	1.3	1.9		1	ICPST	1/2/2007	17:50
Silver	328.07	0.13	1.3	0.39	B	1	ICPST	1/2/2007	17:50
Sodium	330.23	28.5	1340	765	B	1	ICPST	1/2/2007	17:50
Thallium	190.86	0.70	2.7	0.70	U	1	ICPST	1/2/2007	17:50
Vanadium	292.40	0.16	13.4	25.7		1	ICPST	1/2/2007	17:50
Zinc	206.2	0.30	5.4	294		1	ICPST	1/2/2007	17:50

Comments: Lot #: C6L190179 Sample #: 21

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRFD **Client ID:** NTC01SD0200

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004241

Weight: .6 **Volume:** 100 **Percent Moisture:** 62.751

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0067	0.089	0.30		1	CVAA	1/4/2007	17:12

Comments: Lot #: C6L190179 Sample #: 21

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRFN **Client ID:** NTC01SD0201

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 44.671

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	3.9	36.1	7920		1	ICPST	1/2/2007	17:55
Antimony	206.84	0.43	1.8	0.43	UN	1	ICPST	1/2/2007	17:55
Arsenic	189.04	0.42	1.8	7.7		1	ICPST	1/2/2007	17:55
Barium	493.41	0.051	36.1	50.9		1	ICPST	1/2/2007	17:55
Beryllium	313.04	0.29	0.90	0.99		1	ICPST	1/2/2007	17:55
Cadmium	226.50	0.080	0.90	0.080	U	1	ICPST	1/2/2007	17:55
Calcium	317.93	1.1	904	34100		1	ICPST	1/2/2007	17:55
Chromium	267.72	0.098	0.90	19.5		1	ICPST	1/2/2007	17:55
Cobalt	228.62	0.098	9.0	10.9		1	ICPST	1/2/2007	17:55
Copper	324.75	0.25	4.5	29.3		1	ICPST	1/2/2007	17:55
Iron	271.44	3.0	18.1	15100		1	ICPST	1/2/2007	17:55
Lead	220.35	0.33	0.54	53.4		1	ICPST	1/2/2007	17:55
Magnesium	279.08	1.4	904	21400		1	ICPST	1/2/2007	17:55
Manganese	257.61	0.029	2.7	354		1	ICPST	1/2/2007	17:55
Nickel	231.60	0.13	7.2	24.6		1	ICPST	1/2/2007	17:55
Potassium	766.49	1.9	904	1130		1	ICPST	1/2/2007	17:55
Selenium	220.35	0.42	0.90	1.1		1	ICPST	1/2/2007	17:55
Silver	328.07	0.085	0.90	0.38	B	1	ICPST	1/2/2007	17:55
Sodium	330.23	19.2	904	266	B	1	ICPST	1/2/2007	17:55
Thallium	190.86	0.47	1.8	0.47	U	1	ICPST	1/2/2007	17:55
Vanadium	292.40	0.11	9.0	20.3		1	ICPST	1/2/2007	17:55
Zinc	206.2	0.20	3.6	136		1	ICPST	1/2/2007	17:55

Comments: Lot #: C6L190179 Sample #: 22

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRFN **Client ID:** NTC01SD0201

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004241

Weight: .6 **Volume:** 100 **Percent Moisture:** 44.671

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0045	0.060	0.16		1	CVAA	1/4/2007	17:14

Comments: Lot #: C6L190179 Sample #: 22

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRF6 **Client ID:** NTC01SD0300

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 45.627

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	4.0	36.8	7760		1	ICPST	1/2/2007	17:44
Antimony	206.84	0.44	1.8	0.44	UN	1	ICPST	1/2/2007	17:44
Arsenic	189.04	0.42	1.8	8.4		1	ICPST	1/2/2007	17:44
Barium	493.41	0.051	36.8	65.9		1	ICPST	1/2/2007	17:44
Beryllium	313.04	0.29	0.92	1.3		1	ICPST	1/2/2007	17:44
Cadmium	226.50	0.081	0.92	0.081	U	1	ICPST	1/2/2007	17:44
Calcium	317.93	1.1	920	33700		1	ICPST	1/2/2007	17:44
Chromium	267.72	0.099	0.92	17.6		1	ICPST	1/2/2007	17:44
Cobalt	228.62	0.099	9.2	9.3		1	ICPST	1/2/2007	17:44
Copper	324.75	0.26	4.6	40.1		1	ICPST	1/2/2007	17:44
Iron	271.44	3.1	18.4	20100		1	ICPST	1/2/2007	17:44
Lead	220.35	0.33	0.55	54.0		1	ICPST	1/2/2007	17:44
Magnesium	279.08	1.4	920	18800		1	ICPST	1/2/2007	17:44
Manganese	257.61	0.029	2.8	555		1	ICPST	1/2/2007	17:44
Nickel	231.60	0.13	7.4	22.2		1	ICPST	1/2/2007	17:44
Potassium	766.49	1.9	920	1220		1	ICPST	1/2/2007	17:44
Selenium	220.35	0.42	0.92	1.4		1	ICPST	1/2/2007	17:44
Silver	328.07	0.086	0.92	0.42	B	1	ICPST	1/2/2007	17:44
Sodium	330.23	19.5	920	239	B	1	ICPST	1/2/2007	17:44
Thallium	190.86	0.48	1.8	0.48	U	1	ICPST	1/2/2007	17:44
Vanadium	292.40	0.11	9.2	23.5		1	ICPST	1/2/2007	17:44
Zinc	206.2	0.20	3.7	213		1	ICPST	1/2/2007	17:44

Comments: Lot #: C6L190179 Sample #: 23

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRF6 **Client ID:** NTC01SD0300

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004241

Weight: .6 **Volume:** 100 **Percent Moisture:** 45.627

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0046	0.061	0.11		1	CVAA	1/4/2007	17:15

Comments: Lot #: C6L190179 Sample #: 23

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRGA **Client ID:** NTC01SD0301

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362295

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 26.403

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.9	27.2	7980		1	ICPST	1/2/2007	18:01
Antimony	206.84	0.33	1.4	0.33	UN	1	ICPST	1/2/2007	18:01
Arsenic	189.04	0.31	1.4	9.4		1	ICPST	1/2/2007	18:01
Barium	493.41	0.038	27.2	71.4		1	ICPST	1/2/2007	18:01
Beryllium	313.04	0.22	0.68	1.2		1	ICPST	1/2/2007	18:01
Cadmium	226.50	0.060	0.68	0.060	U	1	ICPST	1/2/2007	18:01
Calcium	317.93	0.84	679	32600		1	ICPST	1/2/2007	18:01
Chromium	267.72	0.073	0.68	16.2		1	ICPST	1/2/2007	18:01
Cobalt	228.62	0.073	6.8	11.3		1	ICPST	1/2/2007	18:01
Copper	324.75	0.19	3.4	82.5		1	ICPST	1/2/2007	18:01
Iron	271.44	2.3	13.6	19900		1	ICPST	1/2/2007	18:01
Lead	220.35	0.24	0.41	53.1		1	ICPST	1/2/2007	18:01
Magnesium	279.08	1.0	679	18100		1	ICPST	1/2/2007	18:01
Manganese	257.61	0.022	2.0	513		1	ICPST	1/2/2007	18:01
Nickel	231.60	0.096	5.4	26.4		1	ICPST	1/2/2007	18:01
Potassium	766.49	1.4	679	1300		1	ICPST	1/2/2007	18:01
Selenium	220.35	0.31	0.68	1.2		1	ICPST	1/2/2007	18:01
Silver	328.07	0.064	0.68	0.39	B	1	ICPST	1/2/2007	18:01
Sodium	330.23	14.4	679	247	B	1	ICPST	1/2/2007	18:01
Thallium	190.86	0.35	1.4	0.35	U	1	ICPST	1/2/2007	18:01
Vanadium	292.40	0.083	6.8	21.4		1	ICPST	1/2/2007	18:01
Zinc	206.2	0.15	2.7	362		1	ICPST	1/2/2007	18:01

Comments: Lot #: C6L190179 Sample #: 24

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRGA **Client ID:** NTC01SD0301

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004241

Weight: .6 **Volume:** 100 **Percent Moisture:** 26.403

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0034	0.045	0.10		1	CVAA	1/4/2007	17:20

Comments: Lot #: C6L190179 Sample #: 24

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRGC **Client ID:** NTC01SD0400

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362294

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 55.748

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	4.9	45.2	8970		1	ICPST	1/2/2007	18:28
Antimony	206.84	0.54	2.3	2.1	BN	1	ICPST	1/2/2007	18:28
Arsenic	189.04	0.52	2.3	7.9		1	ICPST	1/2/2007	18:28
Barium	493.41	0.063	45.2	71.2		1	ICPST	1/2/2007	18:28
Beryllium	313.04	0.36	1.1	1.2		1	ICPST	1/2/2007	18:28
Cadmium	226.50	0.099	1.1	0.099	U	1	ICPST	1/2/2007	18:28
Calcium	317.93	1.4	1130	29300	N	1	ICPST	1/2/2007	18:28
Chromium	267.72	0.12	1.1	21.5		1	ICPST	1/2/2007	18:28
Cobalt	228.62	0.12	11.3	9.6	B	1	ICPST	1/2/2007	18:28
Copper	324.75	0.32	5.6	48.3		1	ICPST	1/2/2007	18:28
Iron	271.44	3.8	22.6	21400		1	ICPST	1/2/2007	18:28
Lead	220.35	0.41	0.68	34.1		1	ICPST	1/2/2007	18:28
Magnesium	279.08	1.7	1130	17800	N	1	ICPST	1/2/2007	18:28
Manganese	257.61	0.036	3.4	912		1	ICPST	1/2/2007	18:28
Nickel	231.60	0.16	9.0	22.4		1	ICPST	1/2/2007	18:28
Potassium	766.49	2.4	1130	1410		1	ICPST	1/2/2007	18:28
Selenium	220.35	0.52	1.1	1.6		1	ICPST	1/2/2007	18:28
Silver	328.07	0.11	1.1	0.22	B	1	ICPST	1/2/2007	18:28
Sodium	330.23	24.0	1130	579	B	1	ICPST	1/2/2007	18:28
Thallium	190.86	0.59	2.3	0.63	B	1	ICPST	1/2/2007	18:28
Vanadium	292.40	0.14	11.3	22.9		1	ICPST	1/2/2007	18:28
Zinc	206.2	0.25	4.5	213	N	1	ICPST	1/2/2007	18:28

Comments: Lot #: C6L190179 Sample #: 25

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRGC **Client ID:** NTC01SD0400

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004241

Weight: .6 **Volume:** 100 **Percent Moisture:** 55.748

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0056	0.075	0.13		1	CVAA	1/4/2007	17:22

Comments: Lot #: C6L190179 Sample #: 25

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRGJ **Client ID:** NTC01SD0401

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362294

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 55.959

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	4.9	45.4	9530		1	ICPST	1/2/2007	18:50
Antimony	206.84	0.54	2.3	1.3	BN	1	ICPST	1/2/2007	18:50
Arsenic	189.04	0.52	2.3	9.1		1	ICPST	1/2/2007	18:50
Barium	493.41	0.064	45.4	76.1		1	ICPST	1/2/2007	18:50
Beryllium	313.04	0.36	1.1	1.4		1	ICPST	1/2/2007	18:50
Cadmium	226.50	0.10	1.1	0.10	U	1	ICPST	1/2/2007	18:50
Calcium	317.93	1.4	1140	35500	N	1	ICPST	1/2/2007	18:50
Chromium	267.72	0.12	1.1	23.8		1	ICPST	1/2/2007	18:50
Cobalt	228.62	0.12	11.4	10.3	B	1	ICPST	1/2/2007	18:50
Copper	324.75	0.32	5.7	51.6		1	ICPST	1/2/2007	18:50
Iron	271.44	3.8	22.7	23800		1	ICPST	1/2/2007	18:50
Lead	220.35	0.41	0.68	46.6		1	ICPST	1/2/2007	18:50
Magnesium	279.08	1.7	1140	20800	N	1	ICPST	1/2/2007	18:50
Manganese	257.61	0.036	3.4	719		1	ICPST	1/2/2007	18:50
Nickel	231.60	0.16	9.1	24.0		1	ICPST	1/2/2007	18:50
Potassium	766.49	2.4	1140	1370		1	ICPST	1/2/2007	18:50
Selenium	220.35	0.52	1.1	1.9		1	ICPST	1/2/2007	18:50
Silver	328.07	0.11	1.1	0.30	B	1	ICPST	1/2/2007	18:50
Sodium	330.23	24.1	1140	629	B	1	ICPST	1/2/2007	18:50
Thallium	190.86	0.59	2.3	0.63	B	1	ICPST	1/2/2007	18:50
Vanadium	292.40	0.14	11.4	26.4		1	ICPST	1/2/2007	18:50
Zinc	206.2	0.25	4.5	250	N	1	ICPST	1/2/2007	18:50

Comments: Lot #: C6L190179 Sample #: 26

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRGJ **Client ID:** NTC01SD0401

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004241

Weight: .6 **Volume:** 100 **Percent Moisture:** 55.959

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0057	0.076	0.23		1	CVAA	1/4/2007	17:28

Comments: Lot #: C6L190179 Sample #: 26

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRGK **Client ID:** NTC01SD0500

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362294

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 12.296

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.5	22.8	1180		1	ICPST	1/2/2007	18:56
Antimony	206.84	0.27	1.1	0.45	BN	1	ICPST	1/2/2007	18:56
Arsenic	189.04	0.26	1.1	2.1		1	ICPST	1/2/2007	18:56
Barium	493.41	0.032	22.8	10.3	B	1	ICPST	1/2/2007	18:56
Beryllium	313.04	0.18	0.57	0.73		1	ICPST	1/2/2007	18:56
Cadmium	226.50	0.050	0.57	0.050	U	1	ICPST	1/2/2007	18:56
Calcium	317.93	1.4	1140	117000	N	2	ICPST	1/3/2007	10:51
Chromium	267.72	0.062	0.57	3.2		1	ICPST	1/2/2007	18:56
Cobalt	228.62	0.062	5.7	2.2	B	1	ICPST	1/2/2007	18:56
Copper	324.75	0.16	2.9	55.2		1	ICPST	1/2/2007	18:56
Iron	271.44	1.9	11.4	5290		1	ICPST	1/2/2007	18:56
Lead	220.35	0.21	0.34	33.0		1	ICPST	1/2/2007	18:56
Magnesium	279.08	0.87	570	67100	N	1	ICPST	1/2/2007	18:56
Manganese	257.61	0.018	1.7	257		1	ICPST	1/2/2007	18:56
Nickel	231.60	0.081	4.6	5.6		1	ICPST	1/2/2007	18:56
Potassium	766.49	1.2	570	297	B	1	ICPST	1/2/2007	18:56
Selenium	220.35	0.26	0.57	0.26	U	1	ICPST	1/2/2007	18:56
Silver	328.07	0.054	0.57	0.076	B	1	ICPST	1/2/2007	18:56
Sodium	330.23	12.1	570	271	B	1	ICPST	1/2/2007	18:56
Thallium	190.86	0.30	1.1	0.30	U	1	ICPST	1/2/2007	18:56
Vanadium	292.40	0.070	5.7	4.9	B	1	ICPST	1/2/2007	18:56
Zinc	206.2	0.13	2.3	400	N	1	ICPST	1/2/2007	18:56

Comments: Lot #: C6L190179 Sample #: 27

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRGK **Client ID:** NTC01SD0500

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004241

Weight: .6 **Volume:** 100 **Percent Moisture:** 12.296

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0029	0.038	0.015	B	1	CVAA	1/4/2007	17:30

Comments: Lot #: C6L190179 Sample #: 27

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRGL **Client ID:** NTC01SD0501

Matrix: Soil **Units:** mg/kg **Prep Date:** 12/29/2006 **Prep Batch:** 6362294

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 62.594

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	5.7	53.5	5350		1	ICPST	1/2/2007	19:02
Antimony	206.84	0.64	2.7	1.2	BN	1	ICPST	1/2/2007	19:02
Arsenic	189.04	0.61	2.7	6.4		1	ICPST	1/2/2007	19:02
Barium	493.41	0.075	53.5	69.9		1	ICPST	1/2/2007	19:02
Beryllium	313.04	0.43	1.3	1.1	B	1	ICPST	1/2/2007	19:02
Cadmium	226.50	0.12	1.3	0.12	U	1	ICPST	1/2/2007	19:02
Calcium	317.93	1.7	1340	20700	N	1	ICPST	1/2/2007	19:02
Chromium	267.72	0.14	1.3	16.9		1	ICPST	1/2/2007	19:02
Cobalt	228.62	0.14	13.4	7.6	B	1	ICPST	1/2/2007	19:02
Copper	324.75	0.37	6.7	36.7		1	ICPST	1/2/2007	19:02
Iron	271.44	4.5	26.7	14100		1	ICPST	1/2/2007	19:02
Lead	220.35	0.48	0.80	46.8		1	ICPST	1/2/2007	19:02
Magnesium	279.08	2.0	1340	11600	N	1	ICPST	1/2/2007	19:02
Manganese	257.61	0.043	4.0	261		1	ICPST	1/2/2007	19:02
Nickel	231.60	0.19	10.7	16.4		1	ICPST	1/2/2007	19:02
Potassium	766.49	2.8	1340	875	B	1	ICPST	1/2/2007	19:02
Selenium	220.35	0.61	1.3	1.4		1	ICPST	1/2/2007	19:02
Silver	328.07	0.13	1.3	0.50	B	1	ICPST	1/2/2007	19:02
Sodium	330.23	28.3	1340	679	B	1	ICPST	1/2/2007	19:02
Thallium	190.86	0.70	2.7	0.70	U	1	ICPST	1/2/2007	19:02
Vanadium	292.40	0.16	13.4	17.0		1	ICPST	1/2/2007	19:02
Zinc	206.2	0.29	5.3	180	N	1	ICPST	1/2/2007	19:02

Comments: Lot #: C6L190179 Sample #: 28

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLRGL **Client ID:** NTC01SD0501

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004241

Weight: .6 **Volume:** 100 **Percent Moisture:** 62.594

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0067	0.089	0.25		1	CVAA	1/4/2007	17:31

Comments: Lot #: C6L190179 Sample #: 28

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLQ9W **Client ID:** NTC01SW0100

Matrix: Water **Units:** ug/L **Prep Date:** 12/29/2007 **Prep Batch:** 6362274

Weight: NA **Volume:** 50 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	21.5	200	386		1	ICPST	1/2/2007	20:02
Antimony	206.84	2.4	10.0	2.4	U	1	ICPST	1/2/2007	20:02
Arsenic	189.04	2.3	10.0	2.3	U	1	ICPST	1/2/2007	20:02
Barium	493.41	0.28	200	48.8	B	1	ICPST	1/2/2007	20:02
Beryllium	313.04	1.6	5.0	1.8	B	1	ICPST	1/2/2007	20:02
Cadmium	226.50	0.44	5.0	0.44	U	1	ICPST	1/2/2007	20:02
Calcium	317.93	6.2	5000	83300		1	ICPST	1/2/2007	20:02
Chromium	267.72	0.54	5.0	1.2	B	1	ICPST	1/2/2007	20:02
Cobalt	228.62	0.54	50.0	0.54	U	1	ICPST	1/2/2007	20:02
Copper	324.75	1.4	25.0	1.5	B	1	ICPST	1/2/2007	20:02
Iron	271.44	16.7	100	677		1	ICPST	1/2/2007	20:02
Lead	220.35	1.8	3.0	2.1	B	1	ICPST	1/2/2007	20:02
Magnesium	279.08	7.6	5000	30600		1	ICPST	1/2/2007	20:02
Manganese	257.61	0.16	15.0	74.9		1	ICPST	1/2/2007	20:02
Nickel	231.60	0.71	40.0	2.3	B	1	ICPST	1/2/2007	20:02
Potassium	766.49	10.6	5000	3670	B	1	ICPST	1/2/2007	20:02
Selenium	220.35	2.3	5.0	2.3	U	1	ICPST	1/2/2007	20:02
Silver	328.07	0.47	5.0	0.67	B	1	ICPST	1/2/2007	20:02
Sodium	330.23	106	5000	227000		1	ICPST	1/2/2007	20:02
Thallium	190.86	2.6	10.0	5.1	B	1	ICPST	1/2/2007	20:02
Vanadium	292.40	0.61	50.0	1.5	B	1	ICPST	1/2/2007	20:02
Zinc	206.2	1.1	20.0	18.5	B	1	ICPST	1/2/2007	20:02

Comments: Lot #: C6L190179 Sample #: 2

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLQ9W **Client ID:** NTC01SW0100

Matrix: Water **Units:** ug/L **Prep Date:** 1/3/2007 **Prep Batch:** 7003029

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.015	0.20	0.052	B	1	CVAA	1/3/2007	9:53

Comments: Lot #: C6L190179 Sample #: 2

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLQ91 **Client ID:** NTC01SW0200

Matrix: Water **Units:** ug/L **Prep Date:** 12/29/2007 **Prep Batch:** 6362274

Weight: NA **Volume:** 50 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	21.5	200	407		1	ICPST	1/2/2007	19:35
Antimony	206.84	2.4	10.0	3.2	B	1	ICPST	1/2/2007	19:35
Arsenic	189.04	2.3	10.0	2.3	U	1	ICPST	1/2/2007	19:35
Barium	493.41	0.28	200	49.8	B	1	ICPST	1/2/2007	19:35
Beryllium	313.04	1.6	5.0	1.7	B	1	ICPST	1/2/2007	19:35
Cadmium	226.50	0.44	5.0	0.44	U	1	ICPST	1/2/2007	19:35
Calcium	317.93	6.2	5000	85000		1	ICPST	1/2/2007	19:35
Chromium	267.72	0.54	5.0	1.7	B	1	ICPST	1/2/2007	19:35
Cobalt	228.62	0.54	50.0	0.54	U	1	ICPST	1/2/2007	19:35
Copper	324.75	1.4	25.0	1.4	U	1	ICPST	1/2/2007	19:35
Iron	271.44	16.7	100	671		1	ICPST	1/2/2007	19:35
Lead	220.35	1.8	3.0	2.1	B	1	ICPST	1/2/2007	19:35
Magnesium	279.08	7.6	5000	31000		1	ICPST	1/2/2007	19:35
Manganese	257.61	0.16	15.0	76.3		1	ICPST	1/2/2007	19:35
Nickel	231.60	0.71	40.0	2.6	B	1	ICPST	1/2/2007	19:35
Potassium	766.49	10.6	5000	3570	B	1	ICPST	1/2/2007	19:35
Selenium	220.35	2.3	5.0	2.3	U	1	ICPST	1/2/2007	19:35
Silver	328.07	0.47	5.0	0.49	B	1	ICPST	1/2/2007	19:35
Sodium	330.23	106	5000	231000		1	ICPST	1/2/2007	19:35
Thallium	190.86	2.6	10.0	2.6	U	1	ICPST	1/2/2007	19:35
Vanadium	292.40	0.61	50.0	1.4	B	1	ICPST	1/2/2007	19:35
Zinc	206.2	1.1	20.0	18.7	B	1	ICPST	1/2/2007	19:35

Comments: Lot #: C6L190179 Sample #: 3

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLQ91 **Client ID:** NTC01SW0200

Matrix: Water **Units:** ug/L **Prep Date:** 1/3/2007 **Prep Batch:** 7003029

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.015	0.20	0.052	B	1	CVAA	1/3/2007	9:55

Comments: Lot #: C6L190179 Sample #: 3

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLQ92 **Client ID:** NTC01SW0300

Matrix: Water **Units:** ug/L **Prep Date:** 12/29/2007 **Prep Batch:** 6362274

Weight: NA **Volume:** 50 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	21.5	200	273		1	ICPST	1/2/2007	19:40
Antimony	206.84	2.4	10.0	3.6	B	1	ICPST	1/2/2007	19:40
Arsenic	189.04	2.3	10.0	2.3	U	1	ICPST	1/2/2007	19:40
Barium	493.41	0.28	200	49.1	B	1	ICPST	1/2/2007	19:40
Beryllium	313.04	1.6	5.0	1.6	U	1	ICPST	1/2/2007	19:40
Cadmium	226.50	0.44	5.0	0.44	U	1	ICPST	1/2/2007	19:40
Calcium	317.93	6.2	5000	83700		1	ICPST	1/2/2007	19:40
Chromium	267.72	0.54	5.0	0.98	B	1	ICPST	1/2/2007	19:40
Cobalt	228.62	0.54	50.0	0.54	U	1	ICPST	1/2/2007	19:40
Copper	324.75	1.4	25.0	1.4	U	1	ICPST	1/2/2007	19:40
Iron	271.44	16.7	100	499		1	ICPST	1/2/2007	19:40
Lead	220.35	1.8	3.0	1.8	U	1	ICPST	1/2/2007	19:40
Magnesium	279.08	7.6	5000	30600		1	ICPST	1/2/2007	19:40
Manganese	257.61	0.16	15.0	69.5		1	ICPST	1/2/2007	19:40
Nickel	231.60	0.71	40.0	2.2	B	1	ICPST	1/2/2007	19:40
Potassium	766.49	10.6	5000	3470	B	1	ICPST	1/2/2007	19:40
Selenium	220.35	2.3	5.0	2.3	U	1	ICPST	1/2/2007	19:40
Silver	328.07	0.47	5.0	0.73	B	1	ICPST	1/2/2007	19:40
Sodium	330.23	106	5000	228000		1	ICPST	1/2/2007	19:40
Thallium	190.86	2.6	10.0	2.6	U	1	ICPST	1/2/2007	19:40
Vanadium	292.40	0.61	50.0	1.4	B	1	ICPST	1/2/2007	19:40
Zinc	206.2	1.1	20.0	17.2	B	1	ICPST	1/2/2007	19:40

Comments: Lot #: C6L190179 Sample #: 4

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLQ92 **Client ID:** NTC01SW0300

Matrix: Water **Units:** ug/L **Prep Date:** 1/3/2007 **Prep Batch:** 7003029

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.015	0.20	0.022	B	1	CVAA	1/3/2007	9:57

Comments: Lot #: C6L190179 Sample #: 4

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

NS Great Lakes, IL

Cyanide, Total

Lab Name: STL PITTSBURGH **Method:** SW846 9012A

Client Name: Tetra Tech NUS, Inc **SDG Number:** C6L190179

Matrix: WATER

Distillation procedure

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01FD12170601	C6L190179 001	JLQ8W1AA	ND	ug/L	10.0	1	12/26/2006 - 12/26/2006 00:00	6360298
NTC01SW0100	C6L190179 002	JLQ9W1AM	ND	ug/L	10.0	1	12/26/2006 - 12/26/2006 00:00	6360298
NTC01SW0200	C6L190179 003	JLQ911AM	ND	ug/L	10.0	1	12/26/2006 - 12/26/2006 00:00	6360298
NTC01SW0300	C6L190179 004	JLQ921CA	ND	ug/L	10.0	1	12/26/2006 - 12/26/2006 00:00	6360298
NTC01FD12180601	C6L190179 005	JLQ981CC	ND	mg/kg	1.3	1	12/27/2006 - 12/28/2006 00:00	6361144
NTC01FD12180602	C6L190179 006	JLRAQ1CC	ND	mg/kg	0.64	1	12/27/2006 - 12/28/2006 00:00	6361144
NTC01SB0880708	C6L190179 007	JLRAW1A6	ND	mg/kg	0.62	1	12/27/2006 - 12/28/2006 00:00	6361144
NTC01SB0891112	C6L190179 008	JLRA61AH	ND	mg/kg	0.63	1	12/27/2006 - 12/28/2006 00:00	6361144
NTC01SB0900812	C6L190179 009	JLRCA1CD	ND	mg/kg	0.64	1	12/27/2006 - 12/28/2006 00:00	6361144
NTC01SB0910812	C6L190179 010	JLRCQ1A6	ND	mg/kg	0.61	1	12/27/2006 - 12/28/2006 00:00	6361144
NTC01SB0921516	C6L190179 011	JLRC01AH	ND	mg/kg	0.66	1	12/27/2006 - 12/28/2006 00:00	6361144
NTC01SB0930810	C6L190179 012	JLRC41AH	ND	mg/kg	0.60	1	12/27/2006 - 12/28/2006 00:00	6361144
NTC01SB0941416	C6L190179 013	JLRC61AH	2.9	mg/kg	0.78	1	12/27/2006 - 12/28/2006 00:00	6361144
NTC01SB0950810	C6L190179 014	JLRC81CD	ND	mg/kg	1.3	1	12/28/2006 - 12/28/2006 00:00	6362201
NTC01SB0961012	C6L190179 015	JLRDC1AH	ND	mg/kg	0.61	1	12/28/2006 - 12/28/2006 00:00	6362201
NTC01SB1010408	C6L190179 016	JLRDF1AH	ND	mg/kg	0.58	1	12/28/2006 - 12/28/2006 00:00	6362201
NTC01SB1020408	C6L190179 017	JLRDG1CD	ND	mg/kg	0.99	1	12/28/2006 - 12/28/2006 00:00	6362201
NTC01SB1031919	C6L190179 018	JLRDM1AH	ND	mg/kg	0.58	1	12/28/2006 - 12/28/2006 00:00	6362201
NTC01SD0100	C6L190179 019	JLRDR1CD	ND	mg/kg	0.76	1	12/28/2006 - 12/28/2006 00:00	6362201
NTC01SD0101	C6L190179 020	JLRD61CC	ND	mg/kg	0.88	1	12/28/2006 - 12/28/2006 00:00	6362201
NTC01SD0200	C6L190179 021	JLRFD1CC	ND	mg/kg	1.3	1	12/28/2006 - 12/28/2006 00:00	6362201
NTC01SD0201	C6L190179 022	JLRFN1A7	ND	mg/kg	0.90	1	12/28/2006 - 12/28/2006 00:00	6362201
NTC01SD0300	C6L190179 023	JLRF61A6	ND	mg/kg	0.92	1	12/28/2006 - 12/28/2006 00:00	6362201
NTC01SD0301	C6L190179 024	JLRGA1AH	ND	mg/kg	0.68	1	12/28/2006 - 12/28/2006 00:00	6362201

NS Great Lakes, IL

Cyanide, Total

Lab Name: STL PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: SW846 9012A
SDG Number: C6L190179

NTC01SD0400	C6L190179 025	JLRGC1CC	ND	mg/kg	1.1	1	12/28/2006 - 12/28/2006 00:00	6362201
NTC01SD0401	C6L190179 026	JLRGJ1AH	ND	mg/kg	1.1	1	12/28/2006 - 12/28/2006 00:00	6362201
NTC01SD0500	C6L190179 027	JLRGK1AJ	ND	mg/kg	0.57	1	12/28/2006 - 12/28/2006 00:00	6362201
NTC01SD0501	C6L190179 028	JLRGL1AH	ND	mg/kg	1.3	1	12/28/2006 - 12/28/2006 00:00	6362201

NS Great Lakes, IL

Percent Solids

Lab Name:	STL PITTSBURGH	**Method:**	MCAWW 160.3 MOD
Client Name:	Tetra Tech NUS, Inc	**SDG Number:**	C6L190179
Matrix:	SOLID		

Total Residue as Percent Solids

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01FD12180601	C6L190179 005	JLQ981CE	37.7	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01FD12180602	C6L190179 006	JLRAQ1CF	77.5	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SB0880708	C6L190179 007	JLRAW1A9	81.3	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SB0891112	C6L190179 008	JLRA61AL	78.8	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SB0900812	C6L190179 009	JLRCA1CG	78.5	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SB0910812	C6L190179 010	JLRCQ1A9	81.9	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SB0921516	C6L190179 011	JLRC01AL	57.9	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SB0930810	C6L190179 012	JLRC41AL	83.4	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SB0941416	C6L190179 013	JLRC61AL	63.9	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SB0950810	C6L190179 014	JLRC81CG	37.1	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SB0961012	C6L190179 015	JLRDC1AL	81.5	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SB1010406	C6L190179 016	JLRDF1AL	86.4	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SB1020408	C6L190179 017	JLRDG1CG	50.3	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SB1031919	C6L190179 018	JLRDM1AL	86.4	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SD0100	C6L190179 019	JLRDR1CF	66.2	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SD0101	C6L190179 020	JLRD81CE	56.6	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SD0200	C6L190179 021	JLRFD1CE	37.2	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SD0201	C6L190179 022	JLRFN1A9	55.3	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SD0300	C6L190179 023	JLRF61A8	54.4	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SD0301	C6L190179 024	JLRGA1AK	73.6	%		1	12/19/2006 - 12/20/2006 12:31	6353727
NTC01SD0400	C6L190179 025	JLRGC1CE	44.3	%		1	12/19/2006 - 12/20/2006 12:30	6353728
NTC01SD0401	C6L190179 026	JLRGJ1AK	44.0	%		1	12/19/2006 - 12/20/2006 12:30	6353728
NTC01SD0500	C6L190179 027	JLRGK1AL	87.7	%		1	12/19/2006 - 12/20/2006 12:30	6353728
NTC01SD0501	C6L190179 028	JLRGL1AK	37.4	%		1	12/19/2006 - 12/20/2006 12:30	6353728

NS Great Lakes, IL

pH

Lab Name:	STL PITTSBURGH	**Method:**	SW846 9045C
Client Name:	Tetra Tech NUS, Inc	**SDG Number:**	C6L190179
Matrix:	SOLID		

pH - Non-Aqueous

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01FD12180601	C6L190179 005	JLQ981AA	7.2	No Units		1	12/19/2006 - 12/19/2006 19:05	6353684
NTC01FD12180602	C6L190179 006	JLRAQ1AA	7.5	No Units		1	12/19/2006 - 12/19/2006 19:07	6353684
NTC01SB0880708	C6L190179 007	JLRAW1AA	7.4	No Units		1	12/19/2006 - 12/19/2006 19:08	6353684
NTC01SB0891112	C6L190179 008	JLRA61AM	7.6	No Units		1	12/19/2006 - 12/19/2006 19:09	6353684
NTC01SB0900812	C6L190179 009	JLRCA1AA	7.6	No Units		1	12/19/2006 - 12/19/2006 19:10	6353684
NTC01SB0910812	C6L190179 010	JLRCQ1AA	8.2	No Units		1	12/19/2006 - 12/19/2006 19:12	6353684
NTC01SB0921516	C6L190179 011	JLRC01AM	8.2	No Units		1	12/19/2006 - 12/19/2006 19:13	6353684
NTC01SB0930810	C6L190179 012	JLRC41AM	8.0	No Units		1	12/19/2006 - 12/19/2006 19:14	6353684
NTC01SB0941416	C6L190179 013	JLRC61AM	8.1	No Units		1	12/19/2006 - 12/19/2006 19:15	6353684
NTC01SB0950810	C6L190179 014	JLRC81AA	7.0	No Units		1	12/19/2006 - 12/19/2006 19:16	6353684
NTC01SB0961012	C6L190179 015	JLRDC1AM	10.1	No Units		1	12/19/2006 - 12/19/2006 19:18	6353685
NTC01SB1010406	C6L190179 016	JLRDF1AM	8.0	No Units		1	12/19/2006 - 12/19/2006 19:19	6353685
NTC01SB1020406	C6L190179 017	JLRDG1AM	7.3	No Units		1	12/19/2006 - 12/19/2006 19:21	6353685
NTC01SB1031919	C6L190179 018	JLRDM1AM	8.2	No Units		1	12/19/2006 - 12/19/2006 19:20	6353685
NTC01SD0100	C6L190179 019	JLRDR1AA	7.7	No Units		1	12/19/2006 - 12/19/2006 19:22	6353685
NTC01SD0101	C6L190179 020	JLRD61AM	8.3	No Units		1	12/19/2006 - 12/19/2006 19:23	6353685
NTC01SD0200	C6L190179 021	JLRFD1A0	7.2	No Units		1	12/19/2006 - 12/19/2006 19:24	6353685
NTC01SD0201	C6L190179 022	JLRFN1AA	7.4	No Units		1	12/19/2006 - 12/19/2006 19:25	6353685
NTC01SD0300	C6L190179 023	JLRF61AA	7.3	No Units		1	12/19/2006 - 12/19/2006 19:26	6353685
NTC01SD0301	C6L190179 024	JLRGA1AL	7.8	No Units		1	12/19/2006 - 12/19/2006 19:27	6353685
NTC01SD0400	C6L190179 025	JLRGC1AA	7.0	No Units		1	12/19/2006 - 12/19/2006 19:29	6353685
NTC01SD0401	C6L190179 026	JLRGJ1AL	6.9	No Units		1	12/19/2006 - 12/19/2006 19:31	6353685
NTC01SD0500	C6L190179 027	JLRGK1AM	8.1	No Units		1	12/19/2006 - 12/19/2006 19:32	6353685
NTC01SD0501	C6L190179 028	JLRGL1AL	7.1	No Units		1	12/19/2006 - 12/19/2006 19:33	6353685

NS Great Lakes, IL

TOC

Lab Name: STL PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: MSA WALKLEY-B
SDG Number: C6L190179

Carbon, Total Organic "TOC" Walkley Solids

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01FD12180601	C6L190179 005	JLQ981CD	48900	mg/kg	664	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01FD12180602	C6L190179 006	JLRAQ1CD	32200	mg/kg	322	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SB0880708	C6L190179 007	JLRAW1A7	16000	mg/kg	308	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SB0891112	C6L190179 008	JLRA61AJ	23300	mg/kg	317	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SB0900812	C6L190179 009	JLRCA1CE	35900	mg/kg	319	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SB0910812	C6L190179 010	JLRCQ1A7	21200	mg/kg	305	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SB0921516	C6L190179 011	JLRC01AJ	12700	mg/kg	432	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SB0930810	C6L190179 012	JLRC41AJ	13200	mg/kg	300	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SB0941416	C6L190179 013	JLRC61AJ	29900	mg/kg	391	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SB0950810	C6L190179 014	JLRC81CE	29400	mg/kg	674	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SB0961012	C6L190179 015	JLRDC1AJ	10700	mg/kg	307	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SB1010406	C6L190179 016	JLRDF1AJ	20100	mg/kg	289	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SB1020408	C6L190179 017	JLRDG1CE	26500	mg/kg	497	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SB1031919	C6L190179 018	JLRDM1AJ	5360	mg/kg	289	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SD0100	C6L190179 019	JLRDR1CE	8830	mg/kg	378	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SD0101	C6L190179 020	JLRD61CD	33400	mg/kg	442	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SD0200	C6L190179 021	JLRFD1CD	54300	mg/kg	671	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SD0201	C6L190179 022	JLRFN1A8	21800	mg/kg	452	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SD0300	C6L190179 023	JLRF61A7	26800	mg/kg	460	1	1/4/2007 - 1/4/2007 00:00	7004073
NTC01SD0301	C6L190179 024	JLRGA1AJ	18100	mg/kg	340	1	1/4/2007 - 1/4/2007 00:00	7004073
NTC01SD0400	C6L190179 025	JLRGC1CD	39300	mg/kg	565	1	1/2/2007 - 1/2/2007 00:00	7002021
NTC01SD0401	C6L190179 026	JLRGJ1AJ	45600	mg/kg	568	1	1/4/2007 - 1/4/2007 00:00	7004073
NTC01SD0500	C6L190179 027	JLRGK1AK	2200	mg/kg	285	1	1/4/2007 - 1/4/2007 00:00	7004073
NTC01SD0501	C6L190179 028	JLRGL1AJ	54400	mg/kg	668	1	1/4/2007 - 1/4/2007 00:00	7004073

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JMJJ2T **Client ID:** COMPOSTITE SAMPLET

Matrix: TCLP **Units:** mg/L **Prep Date:** 1/12/2007 **Prep Batch:** 7012043

Weight: NA **Volume:** 50 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	**193.7**	**0.014**	**0.50**	**0.17**	**B**	**1**	**ICP**	**1/12/2007**	**17:14**
Barium	**493.41**	**0.00041**	**10.0**	**0.68**	**B**	**1**	**ICP**	**1/12/2007**	**17:14**
Cadmium	**228.80**	**0.0016**	**0.10**	**0.010**	**B**	**1**	**ICP**	**1/12/2007**	**17:14**
Chromium	267.72	0.00073	0.50	0.00073	U	1	ICP	1/12/2007	17:14
Lead	**220.35**	**0.0092**	**0.50**	**0.066**	**B**	**1**	**ICP**	**1/12/2007**	**17:14**
Selenium	196.03	0.018	0.25	0.018	U	1	ICP	1/12/2007	17:14
Silver	328.07	0.0015	0.50	0.0015	U	1	ICP	1/12/2007	17:14

Comments:

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JMJJ2T **Client ID:** COMPOSTITE SAMPLET

Matrix: TCLP **Units:** mg/L **Prep Date:** 1/16/2007 **Prep Batch:** 7016263

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000015	0.00020	0.000063	B	1	CVAA	1/16/2007	17:55

Comments:

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLX8V **Client ID:** NTC01GWTW0101

Prep Date: 1/2/2007 **Prep Batch:** 7002044

Matrix: Water **Units:** ug/L

Percent Moisture: NA

Int. Vol ~~Weight:~~ 50 **Volume:** 50

MBM 1-5-07

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	4.7	200	132	B	1	ICPST	1/3/2007	13:09
Antimony	220.35	1.4	10.0	1.4	U	1	ICPST	1/3/2007	13:09
Arsenic	189.04	1.7	10.0	2.4	B	1	ICPST	1/3/2007	13:09
Barium	493.41	0.16	200	566		1	ICPST	1/3/2007	13:09
Beryllium	313.04	0.12	4.0	0.12	U	1	ICPST	1/3/2007	13:09
Cadmium	226.50	0.23	5.0	0.23	U	1	ICPST	1/3/2007	13:09
Calcium	317.93	6.0	5000	53400		1	ICPST	1/3/2007	13:09
Chromium	267.72	0.38	5.0	1.6	B	1	ICPST	1/3/2007	13:09
Cobalt	228.62	0.53	50.0	3.6	B	1	ICPST	1/3/2007	13:09
Copper	324.75	0.39	25.0	2.0	B	1	ICPST	1/3/2007	13:09
Iron	271.44	10.5	100	17600		1	ICPST	1/3/2007	13:09
Lead	220.35	0.97	3.0	8.4		1	ICPST	1/3/2007	13:09
Magnesium	279.08	6.5	5000	69600		1	ICPST	1/3/2007	13:09
Manganese	257.61	0.12	15.0	104		1	ICPST	1/3/2007	13:09
Nickel	231.60	1.1	40.0	3.5	B	1	ICPST	1/3/2007	13:09
Potassium	766.49	14.2	5000	42000	E	1	ICPST	1/3/2007	13:09
Selenium	220.35	1.8	5.0	3.8	B	1	ICPST	1/3/2007	13:09
Silver	328.07	0.67	5.0	0.67	U	1	ICPST	1/3/2007	13:09
Sodium	330.23	148	5000	380000		1	ICPST	1/3/2007	13:09
Thallium	190.86	2.9	10.0	6.1	B	1	ICPST	1/3/2007	13:09
Vanadium	292.40	1.7	50.0	2.8	B	1	ICPST	1/3/2007	13:09
Zinc	213.86	0.47	20.0	19.0	B	1	ICPST	1/3/2007	13:09

Comments: Lot #: C6L210188 Sample #: 1

Form 1 Equivalent

U Result is less than the IDL

B Result is between IDL and RL

E Serial dilution percent difference not within limits

5.04.5

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLX8V **Client ID:** NTC01GWTW0101

Matrix: Water **Units:** ug/L **Prep Date:** 1/5/2007 **Prep Batch:** 7005016

INT. VOL **Weight:** 100 **Volume:** 100 **Percent Moisture:** NA

1-5-07 HBM

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.015	0.20	0.015	U	1	CVAA	1/5/2007	8:46

Comments: Lot #: C6L210188 Sample #: 1

Form 1 Equivalent

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLX9C **Client ID:** NTC01GWTW0201

Matrix: Water **Units:** ug/L **Prep Date:** 1/2/2007 **Prep Batch:** 7002044

INIT. VOL ~~Weight~~ 50 **Volume:** 50 **Percent Moisture:** NA

MBM 1-5-07

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	4.7	200	90.2	B	1	ICPST	1/3/2007	13:31
Antimony	220.35	1.4	10.0	2.3	B	1	ICPST	1/3/2007	13:31
Arsenic	189.04	1.7	10.0	2.4	B	1	ICPST	1/3/2007	13:31
Barium	493.41	0.16	200	99.7	B	1	ICPST	1/3/2007	13:31
Beryllium	313.04	0.12	4.0	0.12	U	1	ICPST	1/3/2007	13:31
Cadmium	226.50	0.23	5.0	0.23	U	1	ICPST	1/3/2007	13:31
Calcium	317.93	6.0	5000	14300		1	ICPST	1/3/2007	13:31
Chromium	267.72	0.38	5.0	0.85	B	1	ICPST	1/3/2007	13:31
Cobalt	228.62	0.53	50.0	0.53	U	1	ICPST	1/3/2007	13:31
Copper	324.75	0.39	25.0	0.55	B	1	ICPST	1/3/2007	13:31
Iron	271.44	10.5	100	198		1	ICPST	1/3/2007	13:31
Lead	220.35	0.97	3.0	2.0	B	1	ICPST	1/3/2007	13:31
Magnesium	279.08	6.5	5000	25300		1	ICPST	1/3/2007	13:31
Manganese	257.61	0.12	15.0	57.3		1	ICPST	1/3/2007	13:31
Nickel	231.60	1.1	40.0	2.5	B	1	ICPST	1/3/2007	13:31
Potassium	766.49	14.2	5000	22300	E	1	ICPST	1/3/2007	13:31
Selenium	220.35	1.8	5.0	4.0	B	1	ICPST	1/3/2007	13:31
Silver	328.07	0.67	5.0	0.67	U	1	ICPST	1/3/2007	13:31
Sodium	330.23	148	5000	367000		1	ICPST	1/3/2007	13:31
Thallium	190.86	2.9	10.0	5.9	B	1	ICPST	1/3/2007	13:31
Vanadium	292.40	1.7	50.0	1.7	U	1	ICPST	1/3/2007	13:31
Zinc	213.86	0.47	20.0	6.8	B	1	ICPST	1/3/2007	13:31

Comments: Lot #: C6L210188 Sample #: 2

Form 1 Equivalent

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLX9C **Client ID:** NTC01GWTW0201

Matrix: Water **Units:** ug/L **Prep Date:** 1/5/2007 **Prep Batch:** 7005016

Initial Vol ~~**Weight:**~~ 100 **Volume:** 100 **Percent Moisture:** NA

MBM 1-5-07

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.015	0.20	0.015	U	1	CVAA	1/5/2007	8:52

Comments: Lot #: C6L210188 Sample #: 2

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLX9D **Client ID:** NTC01GWTW0301

Matrix: Water **Units:** ug/L **Prep Date:** 1/2/2007 **Prep Batch:** 7002044

INT. VOL ~~Weight:~~ 50 **Volume:** 50 **Percent Moisture:** NA

HBM 1-6-07

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	4.7	200	27.9	B	1	ICPST	1/4/2007	13:53
Antimony	220.35	1.4	10.0	1.4	U	1	ICPST	1/4/2007	13:53
Arsenic	189.04	1.7	10.0	1.7	U	1	ICPST	1/4/2007	13:53
Barium	493.41	0.16	200	566		1	ICPST	1/4/2007	13:53
Beryllium	313.04	0.12	4.0	0.12	U	1	ICPST	1/4/2007	13:53
Cadmium	226.50	0.23	5.0	0.23	U	1	ICPST	1/4/2007	13:53
Calcium	317.93	6.0	5000	44300		1	ICPST	1/4/2007	13:53
Chromium	267.72	0.38	5.0	0.65	B	1	ICPST	1/4/2007	13:53
Cobalt	228.62	0.53	50.0	0.53	U	1	ICPST	1/4/2007	13:53
Copper	324.75	0.39	25.0	0.39	U	1	ICPST	1/4/2007	13:53
Iron	271.44	10.5	100	3290		1	ICPST	1/4/2007	13:53
Lead	220.35	0.97	3.0	1.2	B	1	ICPST	1/4/2007	13:53
Magnesium	279.08	6.5	5000	106000		1	ICPST	1/4/2007	13:53
Manganese	257.61	0.12	15.0	39.6		1	ICPST	1/4/2007	13:53
Nickel	231.60	1.1	40.0	1.1	U	1	ICPST	1/4/2007	13:53
Potassium	766.49	14.2	5000	30700	E	1	ICPST	1/4/2007	13:53
Selenium	220.35	1.8	5.0	1.8	U	1	ICPST	1/4/2007	13:53
Silver	328.07	0.67	5.0	0.67	U	1	ICPST	1/4/2007	13:53
Sodium	330.23	148	5000	75800		1	ICPST	1/4/2007	13:53
Thallium	190.86	2.9	10.0	2.9	U	1	ICPST	1/4/2007	13:53
Vanadium	292.40	1.7	50.0	3.1	B	1	ICPST	1/4/2007	13:53
Zinc	213.86	0.47	20.0	7.3	B	1	ICPST	1/4/2007	13:53

Comments: Lot #: C6L210188 Sample #: 3

Form 1 Equivalent

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

5.04.5

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLX9D **Client ID:** NTC01GWTW0301

Matrix: Water **Units:** ug/L **Prep Date:** 1/5/2007 **Prep Batch:** 7005016

~~**Weight:**~~ 100 **Volume:** 100 **Percent Moisture:** NA

NOT VOL - MBM 1-5-07

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.015	0.20	0.015	U	1	CVAA	1/5/2007	8:53

Comments: Lot #: C6L210188 Sample #: 3

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

NS Great Lakes, IL

Cyanide, Total

Lab Name: STL PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: WATER

Method: SW846 9012A
Lot Number: C6L210188

Distillation procedure

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01GWTW0101	C6L210188 001	JLX8V1AA	ND	ug/L	10.0	1	12/29/2006 - 12/29/2006 00:00	6363080
NTC01GWTW0201	C6L210188 002	JLX9C1AE	ND	ug/L	10.0	1	12/29/2006 - 12/29/2006 00:00	6363080
NTC01GWTW0301	C6L210188 003	JLX9D1AE	ND	ug/L	10.0	1	12/29/2006 - 12/29/2006 00:00	6363080

Tetra Tech NUS, Inc

Client Sample ID: COMPOSITE SAMPLE

TCLP GC/MS Semivolatiles

Lot-Sample #...:	C7A080179-001	Work Order #...:	JMJJ21AA	Matrix.....:	SOLID
Date Sampled...:	01/08/07 16:00	Date Received..:	01/08/07 16:00	MS Run #.....:	7011076
Leach Date.....:	01/11/07	Prep Date.....:	01/11/07	Analysis Date..:	01/12/07
Leach Batch #..:	P701013	Prep Batch #...:	7011140	Analysis Time..:	01:45
Dilution Factor:	1	Initial Wgt/Vol:	200 mL	Final Wgt/Vol..:	1 mL
% Moisture.....:		Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dichlorobenzene	ND	0.050	mg/L	0.0050
2,4-Dinitrotoluene	ND	0.050	mg/L	0.024
Hexachlorobenzene	ND	0.050	mg/L	0.027
Hexachlorobutadiene	ND	0.050	mg/L	0.020
Hexachloroethane	ND	0.050	mg/L	0.028
Nitrobenzene	ND	0.050	mg/L	0.023
Pentachlorophenol	ND	0.25	mg/L	0.011
Pyridine	ND	0.10	mg/L	0.044
2,4,5-Trichloro-phenol	ND	0.050	mg/L	0.021
2,4,6-Trichloro-phenol	ND	0.050	mg/L	0.0093
Cresols (total)	ND	0.050	mg/L	0.025

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	86	(39 - 115)
2-Fluorobiphenyl	89	(35 - 115)
Terphenyl-d14	77	(17 - 129)
2-Fluorophenol	83	(10 - 118)
Phenol-d5	85	(18 - 115)
2,4,6-Tribromophenol	77	(19 - 138)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Tetra Tech NUS, Inc

Client Sample ID: COMPOSITE SAMPLE

TCLP GC Semivolatiles

Lot-Sample #...:	C7A080179-001	Work Order #...:	JMJJ21AC	Matrix.....:	SOLID
Date Sampled...:	01/08/07	Date Received..:	01/08/07	MS Run #.....:	7015187
Leach Date.....:	01/11/07	Prep Date.....:	01/15/07	Analysis Date..:	01/18/07
Leach Batch #..:	P701013	Prep Batch #...:	7015329	Analysis Time..:	07:54
Dilution Factor:	1	Initial Wgt/Vol:	100 mL	Final Wgt/Vol..:	10 mL
% Moisture.....:		Analyst ID.....:	402331	Instrument ID..:	A/B
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Chlordane (technical)	ND	0.0050	mg/L	0.00025
Endrin	ND	0.00050	mg/L	0.00018
Heptachlor	ND	0.00050	mg/L	0.00015
Methoxychlor	ND	0.0010	mg/L	0.00030
Heptachlor epoxide	ND	0.00050	mg/L	0.00023
Lindane	ND	0.00050	mg/L	0.00014
Toxaphene	ND	0.020	mg/L	0.00084

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	90	(10 - 147)
Tetrachloro-m-xylene	77	(39 - 130)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Tetra Tech NUS, Inc

Client Sample ID: COMPOSITE SAMPLE

TCLP GC Semivolatiles

Lot-Sample #...:	C7A080179-001	**Work Order #...:**	JMJJ21AD	**Matrix.....:**	SOLID
Date Sampled...:	01/08/07	**Date Received..:**	01/08/07	**MS Run #.....:**	7011085
Leach Date.....:	01/11/07	**Prep Date.....:**	01/11/07	**Analysis Date..:**	01/13/07
Leach Batch #..:	P701013	**Prep Batch #...:**	7011162	**Analysis Time..:**	15:24
Dilution Factor:	1	**Initial Wgt/Vol:**	100 mL	**Final Wgt/Vol..:**	10 mL
% Moisture.....:		**Analyst ID.....:**	401414	**Instrument ID..:**	M/N
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	0.040	mg/L	0.0044
2,4,5-TP (Silvex)	ND	0.010	mg/L	0.00093

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	95	(53 - 119)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVV8 **Client ID:** NTC01FD12190601

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7003336

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 17.504

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.6	24.2	6620	*	1	ICPST	1/5/2007	11:14
Antimony	206.84	0.29	1.2	1.5	N*	1	ICPST	1/5/2007	11:14
Arsenic	189.04	0.28	1.2	9.5		1	ICPST	1/5/2007	11:14
Barium	493.41	0.034	24.2	131		1	ICPST	1/5/2007	11:14
Beryllium	313.04	0.19	0.61	1.3		1	ICPST	1/5/2007	11:14
Cadmium	226.50	0.053	0.61	0.053	UN	1	ICPST	1/5/2007	11:14
Calcium	317.93	0.75	606	28500	N	1	ICPST	1/5/2007	11:14
Chromium	267.72	0.065	0.61	42.9	N	1	ICPST	1/5/2007	11:14
Cobalt	228.62	0.065	6.1	8.2		1	ICPST	1/5/2007	11:14
Copper	324.75	0.34	6.1	1530	N*	2	ICPST	1/8/2007	15:20
Iron	271.44	2.0	12.1	40600		1	ICPST	1/5/2007	11:14
Lead	220.35	0.22	0.36	117	N*	1	ICPST	1/5/2007	11:14
Magnesium	279.08	0.92	606	10900	N	1	ICPST	1/5/2007	11:14
Manganese	257.61	0.019	1.8	512		1	ICPST	1/5/2007	11:14
Nickel	231.60	0.086	4.8	26.2		1	ICPST	1/5/2007	11:14
Potassium	766.49	1.3	606	911	N	1	ICPST	1/5/2007	11:14
Selenium	220.35	0.28	0.61	3.0		1	ICPST	1/5/2007	11:14
Silver	328.07	0.057	0.61	3.7	*	1	ICPST	1/5/2007	11:14
Sodium	330.23	12.8	606	597	B	1	ICPST	1/5/2007	11:14
Thallium	190.86	0.32	1.2	0.55	B	1	ICPST	1/5/2007	11:14
Vanadium	292.40	0.074	6.1	28.8		1	ICPST	1/5/2007	11:14
Zinc	206.2	0.13	2.4	246	NE	1	ICPST	1/5/2007	11:14

Comments: Lot #: C6L200201 Sample #: 2

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVV8 **Client ID:** NTC01FD12190601

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 17.504

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0030	0.040	0.48	N	1	CVAA	1/4/2007	16:51

Comments: Lot #: C6L200201 Sample #: 2

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVWK **Client ID:** NTC01SB0970304

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7003336

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 25.578

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.9	26.9	7680	*	1	ICPST	1/5/2007	11:25
Antimony	206.84	0.32	1.3	5.2	N*	1	ICPST	1/5/2007	11:25
Arsenic	189.04	0.31	1.3	6.2		1	ICPST	1/5/2007	11:25
Barium	493.41	0.038	26.9	146		1	ICPST	1/5/2007	11:25
Beryllium	313.04	0.21	0.67	0.80		1	ICPST	1/5/2007	11:25
Cadmium	226.50	0.059	0.67	1.2	N	1	ICPST	1/5/2007	11:25
Calcium	317.93	0.83	672	10700	N	1	ICPST	1/5/2007	11:25
Chromium	267.72	0.073	0.67	21.2	N	1	ICPST	1/5/2007	11:25
Cobalt	228.62	0.073	6.7	3.7	B	1	ICPST	1/5/2007	11:25
Copper	324.75	0.19	3.4	58.8	N*	1	ICPST	1/5/2007	11:25
Iron	271.44	2.2	13.4	14500		1	ICPST	1/5/2007	11:25
Lead	220.35	0.24	0.40	355	N*	1	ICPST	1/5/2007	11:25
Magnesium	279.08	1.0	672	3160	N	1	ICPST	1/5/2007	11:25
Manganese	257.61	0.021	2.0	163		1	ICPST	1/5/2007	11:25
Nickel	231.60	0.095	5.4	13.3		1	ICPST	1/5/2007	11:25
Potassium	766.49	1.4	672	569	BN	1	ICPST	1/5/2007	11:25
Selenium	220.35	0.31	0.67	1.2		1	ICPST	1/5/2007	11:25
Silver	328.07	0.063	0.67	4.6	*	1	ICPST	1/5/2007	11:25
Sodium	330.23	14.2	672	229	B	1	ICPST	1/5/2007	11:25
Thallium	190.86	0.35	1.3	0.35	U	1	ICPST	1/5/2007	11:25
Vanadium	292.40	0.082	6.7	14.7		1	ICPST	1/5/2007	11:25
Zinc	206.2	0.15	2.7	410	NE	1	ICPST	1/5/2007	11:25

Comments: Lot #: C6L200201 Sample #: 4

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVWK **Client ID:** NTC01SB0970304

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 25.578

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0034	0.045	0.23	N	1	CVAA	1/4/2007	16:53

Comments: Lot #: C6L200201 Sample #: 4

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVWR **Client ID:** NTC01SB0981516

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7003336

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 28.594

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	3.0	28.0	7790	*	1	ICPST	1/5/2007	11:31
Antimony	206.84	0.67	2.8	9.2	N*	2	ICPST	1/5/2007	18:33
Arsenic	189.04	0.32	1.4	8.3		1	ICPST	1/5/2007	11:31
Barium	493.41	0.039	28.0	222		1	ICPST	1/5/2007	11:31
Beryllium	313.04	0.22	0.70	1.5		1	ICPST	1/5/2007	11:31
Cadmium	226.50	0.12	1.4	0.12	UN	2	ICPST	1/5/2007	18:33
Calcium	317.93	0.87	700	16800	N	1	ICPST	1/5/2007	11:31
Chromium	267.72	0.076	0.70	55.9	N	1	ICPST	1/5/2007	11:31
Cobalt	228.62	0.076	7.0	13.0		1	ICPST	1/5/2007	11:31
Copper	324.75	0.20	3.5	189	N*	1	ICPST	1/5/2007	11:31
Iron	271.44	4.7	28.0	102000		2	ICPST	1/5/2007	18:33
Lead	220.35	0.50	0.84	766	N*	2	ICPST	1/5/2007	18:33
Magnesium	279.08	1.1	700	2480	N	1	ICPST	1/5/2007	11:31
Manganese	257.61	0.022	2.1	612		1	ICPST	1/5/2007	11:31
Nickel	231.60	0.099	5.6	52.7		1	ICPST	1/5/2007	11:31
Potassium	766.49	1.5	700	1130	N	1	ICPST	1/5/2007	11:31
Selenium	220.35	0.64	1.4	4.5		2	ICPST	1/5/2007	18:33
Silver	328.07	0.066	0.70	4.5	*	1	ICPST	1/5/2007	11:31
Sodium	330.23	14.8	700	1240		1	ICPST	1/5/2007	11:31
Thallium	190.86	0.73	2.8	0.73	U	2	ICPST	1/5/2007	18:33
Vanadium	292.40	0.085	7.0	23.5		1	ICPST	1/5/2007	11:31
Zinc	206.2	0.15	2.8	779	NE	1	ICPST	1/5/2007	11:31

Comments: Lot #: C6L200201 Sample #: 5

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVWR **Client ID:** NTC01SB0981516

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 28.594

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0035	0.047	0.056	N	1	CVAA	1/4/2007	16:54

Comments: Lot #: C6L200201 Sample #: 5

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVWX **Client ID:** NTC01SB0991012

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7003336

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 18.434

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.6	24.5	5110	*	1	ICPST	1/5/2007	11:36
Antimony	206.84	0.29	1.2	0.53	BN*	1	ICPST	1/5/2007	11:36
Arsenic	189.04	0.28	1.2	9.7		1	ICPST	1/5/2007	11:36
Barium	493.41	0.034	24.5	101		1	ICPST	1/5/2007	11:36
Beryllium	313.04	0.20	0.61	1.8		1	ICPST	1/5/2007	11:36
Cadmium	226.50	0.054	0.61	0.054	UN	1	ICPST	1/5/2007	11:36
Calcium	317.93	0.76	613	20400	N	1	ICPST	1/5/2007	11:36
Chromium	267.72	0.066	0.61	10.4	N	1	ICPST	1/5/2007	11:36
Cobalt	228.62	0.066	6.1	5.5	B	1	ICPST	1/5/2007	11:36
Copper	324.75	0.17	3.1	27.9	N*	1	ICPST	1/5/2007	11:36
Iron	271.44	2.0	12.3	19100		1	ICPST	1/5/2007	11:36
Lead	220.35	0.22	0.37	185	N*	1	ICPST	1/5/2007	11:36
Magnesium	279.08	0.93	613	6080	N	1	ICPST	1/5/2007	11:36
Manganese	257.61	0.020	1.8	1000		1	ICPST	1/5/2007	11:36
Nickel	231.60	0.087	4.9	13.8		1	ICPST	1/5/2007	11:36
Potassium	766.49	1.3	613	996	N	1	ICPST	1/5/2007	11:36
Selenium	220.35	0.28	0.61	1.8		1	ICPST	1/5/2007	11:36
Silver	328.07	0.29	3.1	709	*	5	ICPST	1/5/2007	18:38
Sodium	330.23	13.0	613	745		1	ICPST	1/5/2007	11:36
Thallium	190.86	0.32	1.2	0.32	U	1	ICPST	1/5/2007	11:36
Vanadium	292.40	0.075	6.1	34.6		1	ICPST	1/5/2007	11:36
Zinc	206.2	0.13	2.5	65.0	NE	1	ICPST	1/5/2007	11:36

Comments: Lot #: C6L200201 Sample #: 6

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVWX **Client ID:** NTC01SB0991012

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 18.434

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0031	0.041	0.51	N	1	CVAA	1/4/2007	17:00

Comments: Lot #: C6L200201 Sample #: 6

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVW9 **Client ID:** NTC01SB1001012

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7003336

Weight: 1.00 **Volume:** 100 **Percent Moisture:** 21.365

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	2.7	25.4	9120	*	1	ICPST	1/5/2007	11:20
Antimony	206.84	0.31	1.3	1.6	N*	1	ICPST	1/5/2007	11:20
Arsenic	189.04	0.29	1.3	8.6		1	ICPST	1/5/2007	11:20
Barium	493.41	0.036	25.4	63.7		1	ICPST	1/5/2007	11:20
Beryllium	313.04	0.20	0.64	1.6		1	ICPST	1/5/2007	11:20
Cadmium	226.50	0.056	0.64	2.3	N	1	ICPST	1/5/2007	11:20
Calcium	317.93	0.79	636	26000	N	1	ICPST	1/5/2007	11:20
Chromium	267.72	0.069	0.64	20.8	N	1	ICPST	1/5/2007	11:20
Cobalt	228.62	0.069	6.4	9.2		1	ICPST	1/5/2007	11:20
Copper	324.75	0.18	3.2	55.0	N*	1	ICPST	1/5/2007	11:20
Iron	271.44	2.1	12.7	27100		1	ICPST	1/5/2007	11:20
Lead	220.35	0.23	0.38	102	N*	1	ICPST	1/5/2007	11:20
Magnesium	279.08	0.97	636	11200	N	1	ICPST	1/5/2007	11:20
Manganese	257.61	0.020	1.9	747		1	ICPST	1/5/2007	11:20
Nickel	231.60	0.090	5.1	44.7		1	ICPST	1/5/2007	11:20
Potassium	766.49	1.3	636	958	N	1	ICPST	1/5/2007	11:20
Selenium	220.35	0.29	0.64	2.1		1	ICPST	1/5/2007	11:20
Silver	328.07	0.060	0.64	0.47	B*	1	ICPST	1/5/2007	11:20
Sodium	330.23	13.5	636	648		1	ICPST	1/5/2007	11:20
Thallium	190.86	0.33	1.3	0.33	U	1	ICPST	1/5/2007	11:20
Vanadium	292.40	0.078	6.4	56.1		1	ICPST	1/5/2007	11:20
Zinc	206.2	0.14	2.5	2170	NE	1	ICPST	1/5/2007	11:20

Comments: Lot #: C6L200201 Sample #: 7

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVW9 **Client ID:** NTC01SB1001012

Matrix: Soil **Units:** mg/kg **Prep Date:** 1/4/2007 **Prep Batch:** 7004237

Weight: .6 **Volume:** 100 **Percent Moisture:** 21.365

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0032	0.042	0.23	N	1	CVAA	1/4/2007	17:05

Comments: Lot #: C6L200201 Sample #: 7

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVWG **Client ID:** NTC01RB12190601

Matrix: Water **Units:** ug/L **Prep Date:** 1/4/2007 **Prep Batch:** 7003337

Weight: NA **Volume:** 50 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	21.5	200	21.5	U	1	ICPST	1/5/2007	12:43
Antimony	206.84	2.4	10.0	2.4	U	1	ICPST	1/5/2007	12:43
Arsenic	189.04	2.3	10.0	2.3	U	1	ICPST	1/5/2007	12:43
Barium	**493.41**	**0.28**	**200**	**0.43**	**B**	**1**	**ICPST**	**1/5/2007**	**12:43**
Beryllium	313.04	1.6	5.0	1.6	U	1	ICPST	1/5/2007	12:43
Cadmium	226.50	0.44	5.0	0.44	U	1	ICPST	1/5/2007	12:43
Calcium	**317.93**	**6.2**	**5000**	**36.0**	**B**	**1**	**ICPST**	**1/5/2007**	**12:43**
Chromium	267.72	0.54	5.0	0.54	U	1	ICPST	1/5/2007	12:43
Cobalt	228.62	0.54	50.0	0.54	U	1	ICPST	1/5/2007	12:43
Copper	324.75	1.4	25.0	1.4	U	1	ICPST	1/5/2007	12:43
Iron	**271.44**	**16.7**	**100**	**20.5**	**B**	**1**	**ICPST**	**1/5/2007**	**12:43**
Lead	220.35	1.8	3.0	1.8	U	1	ICPST	1/5/2007	12:43
Magnesium	**279.08**	**7.6**	**5000**	**7.9**	**B**	**1**	**ICPST**	**1/5/2007**	**12:43**
Manganese	257.61	0.16	15.0	0.16	U	1	ICPST	1/5/2007	12:43
Nickel	231.60	0.71	40.0	0.71	U	1	ICPST	1/5/2007	12:43
Potassium	**766.49**	**10.6**	**5000**	**98.9**	**B**	**1**	**ICPST**	**1/5/2007**	**12:43**
Selenium	**220.35**	**2.3**	**5.0**	**3.3**	**B**	**1**	**ICPST**	**1/5/2007**	**12:43**
Silver	**328.07**	**0.47**	**5.0**	**0.76**	**B**	**1**	**ICPST**	**1/5/2007**	**12:43**
Sodium	330.23	106	5000	106	U	1	ICPST	1/5/2007	12:43
Thallium	**190.86**	**2.6**	**10.0**	**4.6**	**B**	**1**	**ICPST**	**1/5/2007**	**12:43**
Vanadium	292.40	0.61	50.0	0.61	U	1	ICPST	1/5/2007	12:43
Zinc	**206.2**	**1.1**	**20.0**	**4.1**	**B**	**1**	**ICPST**	**1/5/2007**	**12:43**

Comments: Lot #: C6L200201 Sample #: 3

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVWG **Client ID:** NTC01RB12190601

Matrix: Water **Units:** ug/L **Prep Date:** 1/5/2007 **Prep Batch:** 7005016

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.015	0.20	0.015	U	1	CVAA	1/5/2007	8:43

Comments: Lot #: C6L200201 Sample #: 3

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVXK **Client ID:** NTC01SW0400

Matrix: Water **Units:** ug/L **Prep Date:** 1/4/2007 **Prep Batch:** 7003337

Weight: NA **Volume:** 50 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	21.5	200	311		1	ICPST	1/5/2007	13:01
Antimony	206.84	2.4	10.0	2.4	U	1	ICPST	1/5/2007	13:01
Arsenic	189.04	2.3	10.0	2.3	U	1	ICPST	1/5/2007	13:01
Barium	493.41	0.28	200	51.8	B	1	ICPST	1/5/2007	13:01
Beryllium	313.04	1.6	5.0	1.6	U	1	ICPST	1/5/2007	13:01
Cadmium	226.50	0.44	5.0	0.44	U	1	ICPST	1/5/2007	13:01
Calcium	317.93	6.2	5000	91300		1	ICPST	1/5/2007	13:01
Chromium	267.72	0.54	5.0	1.2	B	1	ICPST	1/5/2007	13:01
Cobalt	228.62	0.54	50.0	0.54	U	1	ICPST	1/5/2007	13:01
Copper	324.75	1.4	25.0	1.8	B	1	ICPST	1/5/2007	13:01
Iron	271.44	16.7	100	524		1	ICPST	1/5/2007	13:01
Lead	220.35	1.8	3.0	1.8	U	1	ICPST	1/5/2007	13:01
Magnesium	279.08	7.6	5000	33700		1	ICPST	1/5/2007	13:01
Manganese	257.61	0.16	15.0	86.0		1	ICPST	1/5/2007	13:01
Nickel	231.60	0.71	40.0	3.0	B	1	ICPST	1/5/2007	13:01
Potassium	766.49	10.6	5000	3510	B	1	ICPST	1/5/2007	13:01
Selenium	220.35	2.3	5.0	2.4	B	1	ICPST	1/5/2007	13:01
Silver	328.07	0.47	5.0	0.67	B	1	ICPST	1/5/2007	13:01
Sodium	330.23	106	5000	242000		1	ICPST	1/5/2007	13:01
Thallium	190.86	2.6	10.0	2.6	U	1	ICPST	1/5/2007	13:01
Vanadium	292.40	0.61	50.0	0.73	B	1	ICPST	1/5/2007	13:01
Zinc	206.2	1.1	20.0	18.2	B	1	ICPST	1/5/2007	13:01

Comments: Lot #: C6L200201 Sample #: 8

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVXK **Client ID:** NTC01SW0400

Matrix: Water **Units:** ug/L **Prep Date:** 1/5/2007 **Prep Batch:** 7005016

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.015	0.20	0.015	U	1	CVAA	1/5/2007	8:45

Comments: Lot #: C6L200201 Sample #: 8

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVV4 **Client ID:** NTC01SW0500

Matrix: Water **Units:** ug/L **Prep Date:** 1/4/2007 **Prep Batch:** 7003337

Weight: NA **Volume:** 50 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	21.5	200	296		1	ICPST	1/5/2007	12:21
Antimony	206.84	2.4	10.0	2.4	U	1	ICPST	1/5/2007	12:21
Arsenic	189.04	2.3	10.0	2.3	U	1	ICPST	1/5/2007	12:21
Barium	493.41	0.28	200	52.4	B	1	ICPST	1/5/2007	12:21
Beryllium	313.04	1.6	5.0	1.6	U	1	ICPST	1/5/2007	12:21
Cadmium	226.50	0.44	5.0	0.44	U	1	ICPST	1/5/2007	12:21
Calcium	317.93	6.2	5000	88300		1	ICPST	1/5/2007	12:21
Chromium	267.72	0.54	5.0	1.4	B	1	ICPST	1/5/2007	12:21
Cobalt	228.62	0.54	50.0	0.54	U	1	ICPST	1/5/2007	12:21
Copper	324.75	1.4	25.0	2.6	B	1	ICPST	1/5/2007	12:21
Iron	271.44	16.7	100	505		1	ICPST	1/5/2007	12:21
Lead	220.35	1.8	3.0	2.0	B	1	ICPST	1/5/2007	12:21
Magnesium	279.08	7.6	5000	32700		1	ICPST	1/5/2007	12:21
Manganese	257.61	0.16	15.0	77.1		1	ICPST	1/5/2007	12:21
Nickel	231.60	0.71	40.0	2.3	B	1	ICPST	1/5/2007	12:21
Potassium	766.49	10.6	5000	3600	B	1	ICPST	1/5/2007	12:21
Selenium	220.35	2.3	5.0	4.5	B	1	ICPST	1/5/2007	12:21
Silver	328.07	0.47	5.0	0.93	B	1	ICPST	1/5/2007	12:21
Sodium	330.23	106	5000	253000		1	ICPST	1/5/2007	12:21
Thallium	190.86	2.6	10.0	2.6	U	1	ICPST	1/5/2007	12:21
Vanadium	292.40	0.61	50.0	0.80	B	1	ICPST	1/5/2007	12:21
Zinc	206.2	1.1	20.0	18.7	B	1	ICPST	1/5/2007	12:21

Comments: Lot #: C6L200201 Sample #: 1

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLVV4 **Client ID:** NTC01SW0500

Matrix: Water **Units:** ug/L **Prep Date:** 1/5/2007 **Prep Batch:** 7005016

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.015	0.20	0.015	U	1	CVAA	1/5/2007	8:41

Comments: Lot #: C6L200201 Sample #: 1

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

NS Great Lakes, IL

Cyanide, Total

Lab Name: STL PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: WATER

Method: SW846 9012A
SDG Number: C6L200201

Distillation procedure

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01SW0500	C6L200201 001	JLVV41AA	ND	ug/L	10.0	1	12/27/2006 - 12/28/2006 00:00	6361143
NTC01FD12190601	C6L200201 002	JLVV81CC	ND	mg/kg	0.61	1	12/28/2006 - 12/28/2006 00:00	6362202
NTC01RB12190601	C6L200201 003	JLVWG1AM	ND	ug/L	10.0	1	12/29/2006 - 12/29/2006 00:00	6363080
NTC01SB0970304	C6L200201 004	JLVWK1A6	ND	mg/kg	0.67	1	12/28/2006 - 12/28/2006 00:00	6362202
NTC01SB0981516	C6L200201 005	JLVWR1AH	ND	mg/kg	0.70	1	12/28/2006 - 12/28/2006 00:00	6362202
NTC01SB0991012	C6L200201 006	JLVWX1CD	ND	mg/kg	0.61	1	12/28/2006 - 12/28/2006 00:00	6362202
NTC01SB1001012	C6L200201 007	JLVW91AH	ND	mg/kg	0.64	1	12/28/2006 - 12/28/2006 00:00	6362202
NTC01SW0400	C6L200201 008	JLVXK1AM	ND	ug/L	10.0	1	12/29/2006 - 12/29/2006 00:00	6363080

NS Great Lakes, IL

TOC

Lab Name:	STL PITTSBURGH	**Method:**	MSA WALKLEY-B
Client Name:	Tetra Tech NUS, Inc	**SDG Number:**	C6L200201
Matrix:	SOLID		

Carbon, Total Organic "TOC" Walkley Solids

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01FD12190601	C6L200201 002	JLVV81CD	38700	mg/kg	303	1	1/4/2007 - 1/4/2007 00:00	7004073
NTC01SB0970304	C6L200201 004	JLVWK1A7	32200	mg/kg	336	1	1/4/2007 - 1/4/2007 00:00	7004073
NTC01SB0981516	C6L200201 005	JLVWR1AJ	33400	mg/kg	350	1	1/4/2007 - 1/4/2007 00:00	7004073
NTC01SB0991012	C6L200201 006	JLVWX1CE	21600	mg/kg	307	1	1/4/2007 - 1/4/2007 00:00	7004073
NTC01SB1001012	C6L200201 007	JLVW91AJ	14300	mg/kg	318	1	1/4/2007 - 1/4/2007 00:00	7004073

NS Great Lakes, IL

pH

Lab Name:	STL PITTSBURGH	**Method:**	SW846 9045C
Client Name:	Tetra Tech NUS, Inc	**SDG Number:**	C6L200201
Matrix:	SOLID		

pH - Non-Aqueous

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01FD12190601	C6L200201 002	JLVV61AA	6.4	No Units		1	12/20/2006 - 12/20/2006 21:22	6354549
NTC01SB0970304	C6L200201 004	JLVWK1AA	7.8	No Units		1	12/20/2006 - 12/20/2006 21:19	6354549
NTC01SB0981516	C6L200201 005	JLVWR1AL	9.4	No Units		1	12/20/2006 - 12/20/2006 21:20	6354549
NTC01SB0991012	C6L200201 006	JLVWX1AA	9.2	No Units		1	12/20/2006 - 12/20/2006 21:23	6354549
NTC01SB1001012	C6L200201 007	JLVW91AM	6.8	No Units		1	12/20/2006 - 12/20/2006 21:21	6354549

NS Great Lakes, IL

Percent Solids

Lab Name: STL PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: MCAWW 160.3 MOD
SDG Number: C6L200201

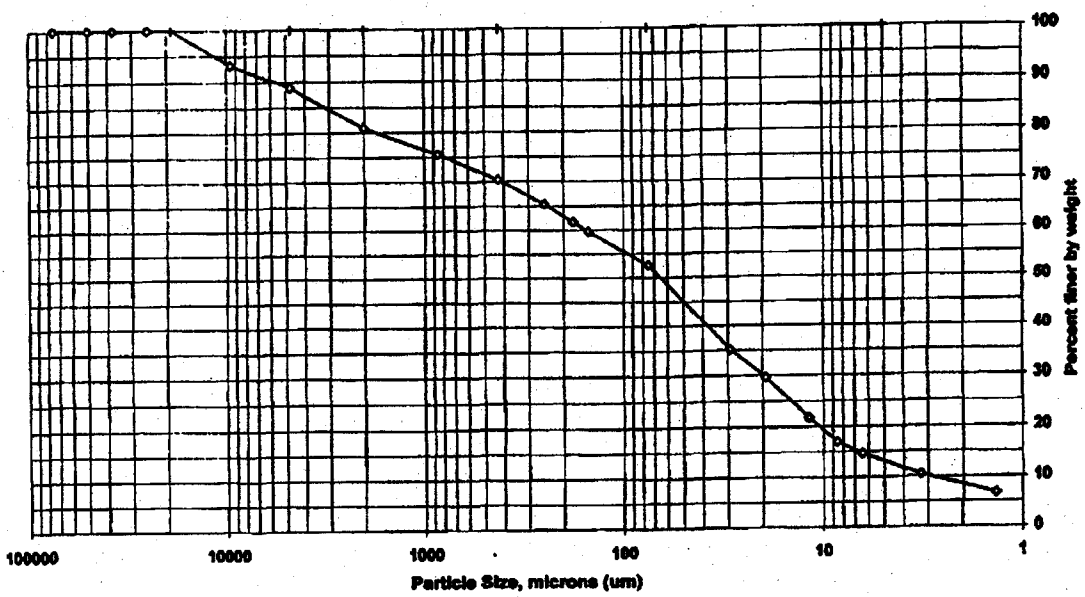
Total Residue as Percent Solids

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01FD12190601	C6L200201 002	JLVV81CE	82.5	%	1.0	1	12/20/2006 - 12/21/2006 08:45	6354541
NTC01SB0970304	C6L200201 004	JLVWK1A8	74.4	%	1.0	1	12/20/2006 - 12/21/2006 08:45	6354541
NTC01SB0981516	C6L200201 005	JLVWR1AK	71.4	%	1.0	1	12/20/2006 - 12/21/2006 08:45	6354541
NTC01SB0991012	C6L200201 006	JLVWX1CG	81.6	%	1.0	1	12/20/2006 - 12/21/2006 08:45	6354541
NTC01SB1001012	C6L200201 007	JLVW91AK	78.6	%	1.0	1	12/20/2006 - 12/21/2006 08:45	6354541

Particle Size of Soils by ASTM D422

Client Code:	STLPAP	SDG:	6L200201	Date Received:	12/21/2006
Sample ID:	NTC01SB0991012	ETR(s):	118099	Start Date:	12/29/2006
Lab ID:	695939			End Date:	1/5/2007

Percent Solids:	92.2%	Non-soil material:	glass
Specific Gravity:	2.650	Shape (> #10):	rounded
Maximum Particle Size:	19 mm	Hardness (> #10):	brittle



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	93.3	6.7
#4	4750	88.9	4.4
#10	2000	80.9	8.0
#20	850	75.6	5.3
#40	425	70.4	5.2
#60	250	65.4	5.0
#80	180	61.7	3.7
#100	150	59.7	2.0
#200	75	52.6	7.1
Hydrometer	29.1	35.2	17.4
I	19.3	29.7	5.5
I	11.8	21.8	7.9
I	8.5	16.9	4.9
I	6.4	14.6	2.4
I	3.3	10.5	4.1
V	1.4	6.7	3.8

Soil Classification	Percent of Total Sample
Gravel	11.1
Sand	36.4
Coarse Sand	8.0
Medium Sand	10.6
Fine Sand	17.8
Silt	38.0
Clay	14.6

Preparation Method: D2217
Dispersion Device: Mechanical mixer with a metal paddle.
Dispersion Period: 1 minute

FSL024:07.29.05:0
STL Burlington

6L200201PS 1/8/2007

Tetra Tech NUS, Inc

Client Sample ID: NTC01RB12190601

GC/MS Volatiles

Lot-Sample #...:	C6L200201-003	Work Order #...:	JLVWG1AG	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6361346
Prep Date.....:	12/27/06	Analysis Date..:	12/27/06		
Prep Batch #...:	6361503	Analysis Time..:	23:50		
Dilution Factor:	1	Initial Wgt/Vol:	5 mL	Final Wgt/Vol..:	5 mL
Analyst ID.....:	034635	Instrument ID..:	HP4		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01RB12190601

GC/MS Volatiles

Lot-Sample #...: C6L200201-003 Work Order #...: JLVWG1AG Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	0.44 J	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	92	(71 - 118)
1,2-Dichloroethane-d4	104	(64 - 135)
4-Bromofluorobenzene	84	(70 - 118)
Dibromofluoromethane	110	(64 - 128)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0400

GC/MS Volatiles

Lot-Sample #...: C6L200201-008	Work Order #...: JLVXK1AG	Matrix.....: WATER
Date Sampled...: 12/19/06	Date Received..: 12/20/06	MS Run #.....: 6361346
Prep Date.....: 12/27/06	Analysis Date..: 12/28/06	
Prep Batch #...: 6361503	Analysis Time..: 00:14	
Dilution Factor: 1	Initial Wgt/Vol: 5 mL	Final Wgt/Vol..: 5 mL
Analyst ID.....: 034635	Instrument ID..: HP4	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	**0.39 J**	**1.0**	**ug/L**	**0.21**
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	**1.7**	**1.0**	**ug/L**	**0.27**
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0400

GC/MS Volatiles

Lot-Sample #...: C6L200201-008 Work Order #...: JLVXK1AG Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	0.34 J	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	89	(71 - 118)
1,2-Dichloroethane-d4	106	(64 - 135)
4-Bromofluorobenzene	83	(70 - 118)
Dibromofluoromethane	110	(64 - 128)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0500

GC/MS Volatiles

Lot-Sample #...: C6L200201-001	Work Order #...: JLVV41A5	Matrix.....: WATER
Date Sampled...: 12/18/06	Date Received..: 12/20/06	MS Run #.....: 6361346
Prep Date.....: 12/27/06	Analysis Date..: 12/27/06	
Prep Batch #...: 6361503	Analysis Time..: 23:26	
Dilution Factor: 1	Initial Wgt/Vol: 5 mL	Final Wgt/Vol..: 5 mL
Analyst ID.....: 034635	Instrument ID..: HP4	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	**0.21 J**	**1.0**	**ug/L**	**0.21**
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	**1.6**	**1.0**	**ug/L**	**0.27**
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0500

GC/MS Volatiles

Lot-Sample #...: C6L200201-001 Work Order #...: JLVV41A5 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	90	(71 - 118)
1,2-Dichloroethane-d4	104	(64 - 135)
4-Bromofluorobenzene	85	(70 - 118)
Dibromofluoromethane	113	(64 - 128)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01TB12190601

GC/MS Volatiles

Lot-Sample #...:	C6L200201-009	Work Order #...:	JLVXL1AA	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6361346
Prep Date.....:	12/27/06	Analysis Date..:	12/28/06		
Prep Batch #...:	6361503	Analysis Time..:	00:37		
Dilution Factor:	1	Initial Wgt/Vol:	5 mL	Final Wgt/Vol..:	5 mL
Analyst ID.....:	034635	Instrument ID..:	HP4		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01TB12190601

GC/MS Volatiles

Lot-Sample #...: C6L200201-009 Work Order #...: JLVXL1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	87	(71 - 118)
1,2-Dichloroethane-d4	109	(64 - 135)
4-Bromofluorobenzene	84	(70 - 118)
Dibromofluoromethane	114	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190601

GC/MS Volatiles

Lot-Sample #...:	C6L200201-002	Work Order #...:	JLVV81AD	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6361311
Prep Date.....:	12/27/06	Analysis Date..:	12/27/06		
Prep Batch #...:	6361444	Analysis Time..:	21:38		
Dilution Factor:	1.01	Initial Wgt/Vol:	4.95 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	18	Analyst ID.....:	034635	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	24	ug/kg	6.1
Benzene	ND	6.1	ug/kg	0.67
Bromodichloromethane	ND	6.1	ug/kg	0.31
Bromoform	ND	6.1	ug/kg	0.75
Bromomethane	ND	6.1	ug/kg	1.1
2-Butanone	ND	6.1	ug/kg	1.7
Carbon disulfide	ND	6.1	ug/kg	0.44
Carbon tetrachloride	ND	6.1	ug/kg	0.31
Chlorobenzene	ND	6.1	ug/kg	1.0
Chloroethane	ND	6.1	ug/kg	1.2
Chloroform	ND	6.1	ug/kg	0.31
Chloromethane	ND	6.1	ug/kg	0.35
Cyclohexane	ND	6.1	ug/kg	0.46
Dibromochloromethane	ND	6.1	ug/kg	0.32
1,2-Dibromo-3-chloro-propane	ND	6.1	ug/kg	0.57
1,2-Dibromoethane	ND	6.1	ug/kg	0.33
1,3-Dichlorobenzene	ND	6.1	ug/kg	1.1
1,4-Dichlorobenzene	ND	6.1	ug/kg	0.84
1,2-Dichlorobenzene	ND	6.1	ug/kg	1.1
Dichlorodifluoromethane	ND	6.1	ug/kg	0.62
1,1-Dichloroethane	ND	6.1	ug/kg	0.35
1,2-Dichloroethane	ND	6.1	ug/kg	0.37
1,1-Dichloroethene	ND	6.1	ug/kg	0.72
cis-1,2-Dichloroethene	ND	6.1	ug/kg	0.91
trans-1,2-Dichloroethene	ND	6.1	ug/kg	0.80
1,2-Dichloropropane	ND	6.1	ug/kg	0.77
cis-1,3-Dichloropropene	ND	6.1	ug/kg	0.35
trans-1,3-Dichloropropene	ND	6.1	ug/kg	0.34
Ethylbenzene	ND	6.1	ug/kg	1.1
2-Hexanone	ND	6.1	ug/kg	1.0
Isopropylbenzene	ND	6.1	ug/kg	1.4
Methyl acetate	ND	6.1	ug/kg	3.1
Methylene chloride	ND	6.1	ug/kg	1.6
Methylcyclohexane	ND	6.1	ug/kg	0.96
4-Methyl-2-pentanone	ND	6.1	ug/kg	1.0
Methyl tert-butyl ether	ND	6.1	ug/kg	0.50

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190601

GC/MS Volatiles

Lot-Sample #...: C6L200201-002 Work Order #...: JLVV81AD Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	6.1	ug/kg	0.98
1,1,2,2-Tetrachloroethane	ND	6.1	ug/kg	0.55
1,2,4-Trichloro-benzene	ND	6.1	ug/kg	1.7
Tetrachloroethene	ND	6.1	ug/kg	0.94
1,1,1-Trichloroethane	ND	6.1	ug/kg	0.33
1,1,2-Trichloroethane	ND	6.1	ug/kg	0.83
Trichloroethene	ND	6.1	ug/kg	1.1
Trichlorofluoromethane	ND	6.1	ug/kg	1.5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	6.1	ug/kg	0.42
Toluene	ND	6.1	ug/kg	0.72
Vinyl chloride	ND	6.1	ug/kg	0.81
Xylenes (total)	ND	18	ug/kg	3.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	71	(52 - 124)
Toluene-d8	98	(72 - 127)
4-Bromofluorobenzene	80	(63 - 120)
Dibromofluoromethane	81	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0970304

GC/MS Volatiles

Lot-Sample #...:	C6L200201-004	Work Order #...:	JLVWK1AC	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6361311
Prep Date.....:	12/27/06	Analysis Date..:	12/27/06		
Prep Batch #...:	6361444	Analysis Time..:	22:02		
Dilution Factor:	1.21	Initial Wgt/Vol:	4.14 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	26	Analyst ID.....:	034635	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	33	ug/kg	8.1
Benzene	ND	8.1	ug/kg	0.89
Bromodichloromethane	ND	8.1	ug/kg	0.41
Bromoform	ND	8.1	ug/kg	0.99
Bromomethane	ND	8.1	ug/kg	1.5
2-Butanone	ND	8.1	ug/kg	2.3
Carbon disulfide	ND	8.1	ug/kg	0.59
Carbon tetrachloride	ND	8.1	ug/kg	0.41
Chlorobenzene	ND	8.1	ug/kg	1.4
Chloroethane	ND	8.1	ug/kg	1.5
Chloroform	ND	8.1	ug/kg	0.41
Chloromethane	ND	8.1	ug/kg	0.47
Cyclohexane	ND	8.1	ug/kg	0.61
Dibromochloromethane	ND	8.1	ug/kg	0.42
1,2-Dibromo-3-chloro-propane	ND	8.1	ug/kg	0.76
1,2-Dibromoethane	ND	8.1	ug/kg	0.44
1,3-Dichlorobenzene	ND	8.1	ug/kg	1.5
1,4-Dichlorobenzene	ND	8.1	ug/kg	1.1
1,2-Dichlorobenzene	ND	8.1	ug/kg	1.5
Dichlorodifluoromethane	ND	8.1	ug/kg	0.82
1,1-Dichloroethane	ND	8.1	ug/kg	0.47
1,2-Dichloroethane	ND	8.1	ug/kg	0.49
1,1-Dichloroethene	ND	8.1	ug/kg	0.96
cis-1,2-Dichloroethene	ND	8.1	ug/kg	1.2
trans-1,2-Dichloroethene	ND	8.1	ug/kg	1.1
1,2-Dichloropropane	ND	8.1	ug/kg	1.0
cis-1,3-Dichloropropene	ND	8.1	ug/kg	0.47
trans-1,3-Dichloropropene	ND	8.1	ug/kg	0.45
Ethylbenzene	ND	8.1	ug/kg	1.5
2-Hexanone	ND	8.1	ug/kg	1.3
Isopropylbenzene	ND	8.1	ug/kg	1.8
Methyl acetate	ND	8.1	ug/kg	4.1
Methylene chloride	ND	8.1	ug/kg	2.2
Methylcyclohexane	ND	8.1	ug/kg	1.3
4-Methyl-2-pentanone	ND	8.1	ug/kg	1.4
Methyl tert-butyl ether	ND	8.1	ug/kg	0.67

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0970304

GC/MS Volatiles

Lot-Sample #...: C6L200201-004 Work Order #...: JLVWK1AC Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	8.1	ug/kg	1.3
1,1,2,2-Tetrachloroethane	ND	8.1	ug/kg	0.73
1,2,4-Trichloro-benzene	ND	8.1	ug/kg	2.2
Tetrachloroethene	ND	8.1	ug/kg	1.2
1,1,1-Trichloroethane	ND	8.1	ug/kg	0.44
1,1,2-Trichloroethane	ND	8.1	ug/kg	1.1
Trichloroethene	ND	8.1	ug/kg	1.4
Trichlorofluoromethane	ND	8.1	ug/kg	2.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.1	ug/kg	0.56
Toluene	ND	8.1	ug/kg	0.96
Vinyl chloride	ND	8.1	ug/kg	1.1
Xylenes (total)	ND	24	ug/kg	4.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	102	(52 - 124)
Toluene-d8	126	(72 - 127)
4-Bromofluorobenzene	92	(63 - 120)
Dibromofluoromethane	119	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0981516

GC/MS Volatiles

Lot-Sample #...:	C6L200201-005	Work Order #...:	JLVWR1AM	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6361311
Prep Date.....:	12/27/06	Analysis Date..:	12/27/06		
Prep Batch #...:	6361444	Analysis Time..:	22:26		
Dilution Factor:	1.15	Initial Wgt/Vol:	4.34 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	29	Analyst ID.....:	034635	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	32	ug/kg	8.1
Benzene	ND	8.1	ug/kg	0.88
Bromodichloromethane	ND	8.1	ug/kg	0.40
Bromoform	ND	8.1	ug/kg	0.98
Bromomethane	ND	8.1	ug/kg	1.5
2-Butanone	3.2 J	8.1	ug/kg	2.3
Carbon disulfide	ND	8.1	ug/kg	0.58
Carbon tetrachloride	ND	8.1	ug/kg	0.40
Chlorobenzene	ND	8.1	ug/kg	1.4
Chloroethane	ND	8.1	ug/kg	1.5
Chloroform	ND	8.1	ug/kg	0.40
Chloromethane	ND	8.1	ug/kg	0.46
Cyclohexane	ND	8.1	ug/kg	0.61
Dibromochloromethane	ND	8.1	ug/kg	0.42
1,2-Dibromo-3-chloro-propane	ND	8.1	ug/kg	0.75
1,2-Dibromoethane	ND	8.1	ug/kg	0.43
1,3-Dichlorobenzene	ND	8.1	ug/kg	1.5
1,4-Dichlorobenzene	ND	8.1	ug/kg	1.1
1,2-Dichlorobenzene	ND	8.1	ug/kg	1.5
Dichlorodifluoromethane	ND	8.1	ug/kg	0.81
1,1-Dichloroethane	ND	8.1	ug/kg	0.46
1,2-Dichloroethane	ND	8.1	ug/kg	0.49
1,1-Dichloroethene	ND	8.1	ug/kg	0.95
cis-1,2-Dichloroethene	ND	8.1	ug/kg	1.2
trans-1,2-Dichloroethene	ND	8.1	ug/kg	1.1
1,2-Dichloropropane	ND	8.1	ug/kg	1.0
cis-1,3-Dichloropropene	ND	8.1	ug/kg	0.46
trans-1,3-Dichloropropene	ND	8.1	ug/kg	0.44
Ethylbenzene	ND	8.1	ug/kg	1.5
2-Hexanone	ND	8.1	ug/kg	1.3
Isopropylbenzene	ND	8.1	ug/kg	1.8
Methyl acetate	ND	8.1	ug/kg	4.0
Methylene chloride	2.3 J	8.1	ug/kg	2.1
Methylcyclohexane	ND	8.1	ug/kg	1.3
4-Methyl-2-pentanone	ND	8.1	ug/kg	1.4
Methyl tert-butyl ether	ND	8.1	ug/kg	0.66

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0981516

GC/MS Volatiles

Lot-Sample #...: C6L200201-005 Work Order #...: JLVWR1AM Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	8.1	ug/kg	1.3
1,1,2,2-Tetrachloroethane	ND	8.1	ug/kg	0.73
1,2,4-Trichloro-benzene	ND	8.1	ug/kg	2.2
Tetrachloroethene	ND	8.1	ug/kg	1.2
1,1,1-Trichloroethane	ND	8.1	ug/kg	0.44
1,1,2-Trichloroethane	ND	8.1	ug/kg	1.1
Trichloroethene	ND	8.1	ug/kg	1.4
Trichlorofluoromethane	ND	8.1	ug/kg	1.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.1	ug/kg	0.56
Toluene	ND	8.1	ug/kg	0.95
Vinyl chloride	ND	8.1	ug/kg	1.1
Xylenes (total)	ND	24	ug/kg	4.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	70	(52 - 124)
Toluene-d8	101	(72 - 127)
4-Bromofluorobenzene	81	(63 - 120)
Dibromofluoromethane	82	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J. Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0991012

GC/MS Volatiles

Lot-Sample #...:	C6L200201-006	Work Order #...:	JLVWX1AE	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6361311
Prep Date.....:	12/27/06	Analysis Date..:	12/27/06		
Prep Batch #...:	6361444	Analysis Time..:	23:14		
Dilution Factor:	1	Initial Wgt/Vol:	5 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	18	Analyst ID.....:	034635	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	25	ug/kg	6.1
Benzene	ND	6.1	ug/kg	0.67
Bromodichloromethane	ND	6.1	ug/kg	0.31
Bromoform	ND	6.1	ug/kg	0.75
Bromomethane	ND	6.1	ug/kg	1.1
2-Butanone	ND	6.1	ug/kg	1.7
Carbon disulfide	ND	6.1	ug/kg	0.44
Carbon tetrachloride	ND	6.1	ug/kg	0.31
Chlorobenzene	ND	6.1	ug/kg	1.0
Chloroethane	ND	6.1	ug/kg	1.2
Chloroform	ND	6.1	ug/kg	0.31
Chloromethane	ND	6.1	ug/kg	0.35
Cyclohexane	ND	6.1	ug/kg	0.46
Dibromochloromethane	ND	6.1	ug/kg	0.32
1,2-Dibromo-3-chloro-propane	ND	6.1	ug/kg	0.57
1,2-Dibromoethane	ND	6.1	ug/kg	0.33
1,3-Dichlorobenzene	ND	6.1	ug/kg	1.1
1,4-Dichlorobenzene	ND	6.1	ug/kg	0.84
1,2-Dichlorobenzene	ND	6.1	ug/kg	1.1
Dichlorodifluoromethane	ND	6.1	ug/kg	0.62
1,1-Dichloroethane	ND	6.1	ug/kg	0.35
1,2-Dichloroethane	ND	6.1	ug/kg	0.37
1,1-Dichloroethene	ND	6.1	ug/kg	0.72
cis-1,2-Dichloroethene	ND	6.1	ug/kg	0.92
trans-1,2-Dichloroethene	ND	6.1	ug/kg	0.80
1,2-Dichloropropane	ND	6.1	ug/kg	0.77
cis-1,3-Dichloropropene	ND	6.1	ug/kg	0.35
trans-1,3-Dichloropropene	ND	6.1	ug/kg	0.34
Ethylbenzene	ND	6.1	ug/kg	1.1
2-Hexanone	ND	6.1	ug/kg	1.0
Isopropylbenzene	ND	6.1	ug/kg	1.4
Methyl acetate	ND	6.1	ug/kg	3.1
Methylene chloride	ND	6.1	ug/kg	1.6
Methylcyclohexane	ND	6.1	ug/kg	0.96
4-Methyl-2-pentanone	ND	6.1	ug/kg	1.0
Methyl tert-butyl ether	ND	6.1	ug/kg	0.50

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0991012

GC/MS Volatiles

Lot-Sample #...: C6L200201-006 Work Order #...: JLVWX1AE Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	6.1	ug/kg	0.98
1,1,2,2-Tetrachloroethane	ND	6.1	ug/kg	0.55
1,2,4-Trichloro-benzene	ND	6.1	ug/kg	1.7
Tetrachloroethene	ND	6.1	ug/kg	0.94
1,1,1-Trichloroethane	ND	6.1	ug/kg	0.33
1,1,2-Trichloroethane	ND	6.1	ug/kg	0.83
Trichloroethene	ND	6.1	ug/kg	1.1
Trichlorofluoromethane	ND	6.1	ug/kg	1.5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	6.1	ug/kg	0.42
Toluene	ND	6.1	ug/kg	0.72
Vinyl chloride	ND	6.1	ug/kg	0.81
Xylenes (total)	ND	18	ug/kg	3.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	92	(52 - 124)
Toluene-d8	123	(72 - 127)
4-Bromofluorobenzene	92	(63 - 120)
Dibromofluoromethane	105	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1001012

GC/MS Volatiles

Lot-Sample #...:	C6L200201-007	Work Order #...:	JLVW91AN	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6361311
Prep Date.....:	12/27/06	Analysis Date..:	12/27/06		
Prep Batch #...:	6361444	Analysis Time..:	23:37		
Dilution Factor:	0.92	Initial Wgt/Vol:	5.41 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	21	Analyst ID.....:	034635	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**59**	**23**	**ug/kg**	**5.9**
Benzene	ND	5.9	ug/kg	0.64
Bromodichloromethane	ND	5.9	ug/kg	0.29
Bromoform	ND	5.9	ug/kg	0.72
Bromomethane	ND	5.9	ug/kg	1.1
2-Butanone	**12**	**5.9**	**ug/kg**	**1.6**
Carbon disulfide	ND	5.9	ug/kg	0.42
Carbon tetrachloride	ND	5.9	ug/kg	0.29
Chlorobenzene	ND	5.9	ug/kg	1.0
Chloroethane	ND	5.9	ug/kg	1.1
Chloroform	ND	5.9	ug/kg	0.29
Chloromethane	ND	5.9	ug/kg	0.34
Cyclohexane	ND	5.9	ug/kg	0.44
Dibromochloromethane	ND	5.9	ug/kg	0.31
1,2-Dibromo-3-chloro-propane	ND	5.9	ug/kg	0.54
1,2-Dibromoethane	ND	5.9	ug/kg	0.31
1,3-Dichlorobenzene	ND	5.9	ug/kg	1.1
1,4-Dichlorobenzene	ND	5.9	ug/kg	0.80
1,2-Dichlorobenzene	ND	5.9	ug/kg	1.1
Dichlorodifluoromethane	ND	5.9	ug/kg	0.59
1,1-Dichloroethane	ND	5.9	ug/kg	0.34
1,2-Dichloroethane	ND	5.9	ug/kg	0.35
1,1-Dichloroethene	ND	5.9	ug/kg	0.69
cis-1,2-Dichloroethene	ND	5.9	ug/kg	0.87
trans-1,2-Dichloroethene	ND	5.9	ug/kg	0.76
1,2-Dichloropropane	ND	5.9	ug/kg	0.73
cis-1,3-Dichloropropene	ND	5.9	ug/kg	0.34
trans-1,3-Dichloropropene	ND	5.9	ug/kg	0.32
Ethylbenzene	ND	5.9	ug/kg	1.1
2-Hexanone	ND	5.9	ug/kg	0.95
Isopropylbenzene	ND	5.9	ug/kg	1.3
Methyl acetate	ND	5.9	ug/kg	2.9
Methylene chloride	**2.1 J**	**5.9**	**ug/kg**	**1.5**
Methylcyclohexane	ND	5.9	ug/kg	0.91
4-Methyl-2-pentanone	ND	5.9	ug/kg	0.99
Methyl tert-butyl ether	ND	5.9	ug/kg	0.48

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1001012

GC/MS Volatiles

Lot-Sample #...: C6L200201-007 Work Order #...: JLVW91AN Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	5.9	ug/kg	0.94
1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg	0.53
1,2,4-Trichloro-benzene	ND	5.9	ug/kg	1.6
Tetrachloroethene	ND	5.9	ug/kg	0.90
1,1,1-Trichloroethane	ND	5.9	ug/kg	0.32
1,1,2-Trichloroethane	ND	5.9	ug/kg	0.79
Trichloroethene	ND	5.9	ug/kg	1.0
Trichlorofluoromethane	ND	5.9	ug/kg	1.4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.9	ug/kg	0.41
Toluene	ND	5.9	ug/kg	0.69
Vinyl chloride	ND	5.9	ug/kg	0.77
Xylenes (total)	ND	18	ug/kg	3.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	76	(52 - 124)
Toluene-d8	102	(72 - 127)
4-Bromofluorobenzene	94	(63 - 120)
Dibromofluoromethane	88	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01RB12190601

GC/MS Semivolatiles

Lot-Sample #...:	C6L200201-003	Work Order #...:	JLVWG1AH	Matrix.....:	WATER
Date Sampled...:	12/19/06 10:19	Date Received..:	12/20/06 10:40	MS Run #.....:	6355183
Prep Date.....:	12/21/06	Analysis Date..:	01/08/07		
Prep Batch #...:	6355281	Analysis Time..:	15:02		
Dilution Factor:	1.12	Initial Wgt/Vol:	890 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	007062	Instrument ID..:	722		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	11	ug/L	7.2
Acenaphthylene	ND	11	ug/L	5.0
Acetophenone	ND	11	ug/L	8.2
Anthracene	ND	11	ug/L	1.7
Atrazine	ND	11	ug/L	3.4
Benzo(a)anthracene	ND	11	ug/L	1.6
Benzo(a)pyrene	ND	11	ug/L	4.1
Benzo(b)fluoranthene	ND	11	ug/L	1.6
Benzo(ghi)perylene	ND	11	ug/L	3.1
Benzo(k)fluoranthene	ND	11	ug/L	3.0
Benzaldehyde	ND	11	ug/L	1.1
1,1'-Biphenyl	ND	11	ug/L	6.0
bis(2-Chloroethoxy) methane	ND	11	ug/L	4.4
bis(2-Chloroethyl)-ether	ND	11	ug/L	2.7
bis(2-Ethylhexyl) phthalate	ND	11	ug/L	1.8
4-Bromophenyl phenyl ether	ND	11	ug/L	1.1
Butyl benzyl phthalate	ND	11	ug/L	3.2
Caprolactam	ND	11	ug/L	1.0
Carbazole	ND	11	ug/L	4.0
4-Chloroaniline	ND	11	ug/L	1.2
4-Chloro-3-methylphenol	ND	11	ug/L	1.2
2-Chloronaphthalene	ND	11	ug/L	6.6
2-Chlorophenol	ND	11	ug/L	3.3
4-Chlorophenyl phenyl ether	ND	11	ug/L	1.6
Chrysene	ND	11	ug/L	1.5
Dibenz(a,h)anthracene	ND	11	ug/L	0.42
Dibenzofuran	ND	11	ug/L	6.8
3,3'-Dichlorobenzidine	ND	56	ug/L	7.7
2,4-Dichlorophenol	ND	11	ug/L	3.8
Diethyl phthalate	ND	11	ug/L	1.6
2,4-Dimethylphenol	ND	11	ug/L	3.9
Dimethyl phthalate	ND	11	ug/L	1.4

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Tetra Tech NUS, Inc

Client Sample ID: NTC01RB12190601

GC/MS Semivolatiles

Lot-Sample #...: C6L200201-003 Work Order #...: JLVWG1AH Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	11	ug/L	1.4
4,6-Dinitro-2-methylphenol	ND	56	ug/L	22
2,4-Dinitrophenol	ND	56	ug/L	25
2,4-Dinitrotoluene	ND	11	ug/L	5.9
2,6-Dinitrotoluene	ND	11	ug/L	1.2
Di-n-octyl phthalate	ND	11	ug/L	1.8
Fluoranthene	ND	11	ug/L	2.0
Fluorene	ND	11	ug/L	1.7
Hexachlorobenzene	ND	11	ug/L	7.6
Hexachlorobutadiene	ND	11	ug/L	9.2
Hexachlorocyclopentadiene	ND	56	ug/L	1.2
Hexachloroethane	ND	11	ug/L	8.0
Indeno(1,2,3-cd)pyrene	ND	11	ug/L	2.6
Isophorone	ND	11	ug/L	7.0
2-Methylnaphthalene	ND	11	ug/L	2.4
2-Methylphenol	ND	11	ug/L	2.9
4-Methylphenol	ND	11	ug/L	1.7
Naphthalene	ND	11	ug/L	2.7
2-Nitroaniline	ND	56	ug/L	9.5
3-Nitroaniline	ND	56	ug/L	11
4-Nitroaniline	ND	56	ug/L	14
Nitrobenzene	ND	11	ug/L	2.6
2-Nitrophenol	ND	11	ug/L	3.8
4-Nitrophenol	ND	56	ug/L	18
N-Nitrosodi-n-propylamine	ND	11	ug/L	4.4
N-Nitrosodiphenylamine	ND	11	ug/L	3.5
2,2'-oxybis(1-Chloropropane)	ND	11	ug/L	7.0
Pentachlorophenol	ND	56	ug/L	24
Phenanthrene	ND	11	ug/L	6.8
Phenol	ND	11	ug/L	3.1
Pyrene	ND	11	ug/L	4.4
2,4,5-Trichlorophenol	ND	11	ug/L	4.4
2,4,6-Trichlorophenol	ND	11	ug/L	3.5

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Tetra Tech NUS, Inc

Client Sample ID: NTC01RB12190601

GC/MS Semivolatiles

Lot-Sample #...: C6L200201-003 Work Order #...: JLVWG1AH Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	74	(19 - 138)
2-Fluorobiphenyl	62	(35 - 115)
2-Fluorophenol	69	(10 - 118)
Nitrobenzene-d5	68	(39 - 115)
Phenol-d5	72	(18 - 115)
Terphenyl-d14	76	(17 - 129)

Tetra Tech NUS, Inc

NTC01RB12190601

GC/MS Semivolatiles

Lot-Sample #: C6L200201-003 **Work Order #:** JLVWG1AH **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0400

GC/MS Semivolatiles

Lot-Sample #...:	C6L200201-008	Work Order #...:	JLVXK1AH	Matrix.....:	WATER
Date Sampled...:	12/19/06 08:58	Date Received..:	12/20/06 10:40	MS Run #.....:	6355183
Prep Date.....:	12/21/06	Analysis Date..:	01/08/07		
Prep Batch #...:	6355281	Analysis Time..:	15:30		
Dilution Factor:	1.1	Initial Wgt/Vol:	910 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	007062	Instrument ID..:	722		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	11	ug/L	7.1
Acenaphthylene	ND	11	ug/L	4.9
Acetophenone	ND	11	ug/L	8.0
Anthracene	ND	11	ug/L	1.6
Atrazine	ND	11	ug/L	3.3
Benzo(a)anthracene	ND	11	ug/L	1.6
Benzo(a)pyrene	ND	11	ug/L	4.0
Benzo(b)fluoranthene	ND	11	ug/L	1.5
Benzo(ghi)perylene	ND	11	ug/L	3.0
Benzo(k)fluoranthene	ND	11	ug/L	2.9
Benzaldehyde	ND	11	ug/L	1.1
1,1'-Biphenyl	ND	11	ug/L	5.9
bis(2-Chloroethoxy) methane	ND	11	ug/L	4.3
bis(2-Chloroethyl)-ether	ND	11	ug/L	2.7
bis(2-Ethylhexyl) phthalate	ND	11	ug/L	1.7
4-Bromophenyl phenyl ether	ND	11	ug/L	1.1
Butyl benzyl phthalate	ND	11	ug/L	3.2
Caprolactam	ND	11	ug/L	0.99
Carbazole	ND	11	ug/L	3.9
4-Chloroaniline	ND	11	ug/L	1.2
4-Chloro-3-methylphenol	ND	11	ug/L	1.2
2-Chloronaphthalene	ND	11	ug/L	6.5
2-Chlorophenol	ND	11	ug/L	3.2
4-Chlorophenyl phenyl ether	ND	11	ug/L	1.6
Chrysene	ND	11	ug/L	1.5
Dibenz(a,h)anthracene	ND	11	ug/L	0.41
Dibenzofuran	ND	11	ug/L	6.7
3,3'-Dichlorobenzidine	ND	55	ug/L	7.6
2,4-Dichlorophenol	ND	11	ug/L	3.7
Diethyl phthalate	ND	11	ug/L	1.6
2,4-Dimethylphenol	ND	11	ug/L	3.9
Dimethyl phthalate	ND	11	ug/L	1.4

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0400

GC/MS Semivolatiles

Lot-Sample #...: C6L200201-008 Work Order #...: JLVXK1AH Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	11	ug/L	1.4
4,6-Dinitro-2-methylphenol	ND	55	ug/L	22
2,4-Dinitrophenol	ND	55	ug/L	24
2,4-Dinitrotoluene	ND	11	ug/L	5.8
2,6-Dinitrotoluene	ND	11	ug/L	1.2
Di-n-octyl phthalate	ND	11	ug/L	1.8
Fluoranthene	ND	11	ug/L	2.0
Fluorene	ND	11	ug/L	1.7
Hexachlorobenzene	ND	11	ug/L	7.5
Hexachlorobutadiene	ND	11	ug/L	9.0
Hexachlorocyclopentadiene	ND	55	ug/L	1.2
Hexachloroethane	ND	11	ug/L	7.9
Indeno(1,2,3-cd)pyrene	ND	11	ug/L	2.6
Isophorone	ND	11	ug/L	6.9
2-Methylnaphthalene	ND	11	ug/L	2.3
2-Methylphenol	ND	11	ug/L	2.9
4-Methylphenol	ND	11	ug/L	1.7
Naphthalene	ND	11	ug/L	2.7
2-Nitroaniline	ND	55	ug/L	9.4
3-Nitroaniline	ND	55	ug/L	11
4-Nitroaniline	ND	55	ug/L	14
Nitrobenzene	ND	11	ug/L	2.6
2-Nitrophenol	ND	11	ug/L	3.8
4-Nitrophenol	ND	55	ug/L	18
N-Nitrosodi-n-propylamine	ND	11	ug/L	4.3
N-Nitrosodiphenylamine	ND	11	ug/L	3.5
2,2'-oxybis(1-Chloropropane)	ND	11	ug/L	6.8
Pentachlorophenol	ND	55	ug/L	23
Phenanthrene	ND	11	ug/L	6.6
Phenol	ND	11	ug/L	3.0
Pyrene	ND	11	ug/L	4.3
2,4,5-Trichlorophenol	ND	11	ug/L	4.3
2,4,6-Trichlorophenol	ND	11	ug/L	3.4

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0400

GC/MS Semivolatiles

Lot-Sample #...: C6L200201-008 Work Order #...: JLVXK1AH Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	98	(19 - 138)
2-Fluorobiphenyl	75	(35 - 115)
2-Fluorophenol	77	(10 - 118)
Nitrobenzene-d5	79	(39 - 115)
Phenol-d5	77	(18 - 115)
Terphenyl-d14	69	(17 - 129)

Tetra Tech NUS, Inc

NTC01SW0400

GC/MS Semivolatiles

Lot-Sample #: C6L200201-008 Work Order #: JLVXK1AH Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0500

GC/MS Semivolatiles

Lot-Sample #...:	C6L200201-001	Work Order #...:	JLVV41A6	Matrix.....:	WATER
Date Sampled...:	12/18/06 12:12	Date Received..:	12/20/06 10:40	MS Run #.....:	6355183
Prep Date.....:	12/21/06	Analysis Date..:	01/08/07		
Prep Batch #...:	6355281	Analysis Time..:	14:34		
Dilution Factor:	1.05	Initial Wgt/Vol:	950 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	007062	Instrument ID..:	722		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	10	ug/L	6.7
Acenaphthylene	ND	10	ug/L	4.7
Acetophenone	ND	10	ug/L	7.7
Anthracene	ND	10	ug/L	1.6
Atrazine	ND	10	ug/L	3.1
Benzo(a)anthracene	ND	10	ug/L	1.5
Benzo(a)pyrene	ND	10	ug/L	3.8
Benzo(b)fluoranthene	ND	10	ug/L	1.5
Benzo(ghi)perylene	ND	10	ug/L	2.9
Benzo(k)fluoranthene	ND	10	ug/L	2.8
Benzaldehyde	ND	10	ug/L	1.1
1,1'-Biphenyl	ND	10	ug/L	5.6
bis(2-Chloroethoxy) methane	ND	10	ug/L	4.2
bis(2-Chloroethyl)-ether	ND	10	ug/L	2.6
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	1.7
4-Bromophenyl phenyl ether	ND	10	ug/L	1.0
Butyl benzyl phthalate	ND	10	ug/L	3.0
Caprolactam	ND	10	ug/L	0.94
Carbazole	ND	10	ug/L	3.8
4-Chloroaniline	ND	10	ug/L	1.1
4-Chloro-3-methylphenol	ND	10	ug/L	1.1
2-Chloronaphthalene	ND	10	ug/L	6.2
2-Chlorophenol	ND	10	ug/L	3.1
4-Chlorophenyl phenyl ether	ND	10	ug/L	1.5
Chrysene	ND	10	ug/L	1.4
Dibenz(a,h)anthracene	ND	10	ug/L	0.39
Dibenzofuran	ND	10	ug/L	6.4
3,3'-Dichlorobenzidine	ND	52	ug/L	7.2
2,4-Dichlorophenol	ND	10	ug/L	3.5
Diethyl phthalate	ND	10	ug/L	1.5
2,4-Dimethylphenol	ND	10	ug/L	3.7
Dimethyl phthalate	ND	10	ug/L	1.3

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0500

GC/MS Semivolatiles

Lot-Sample #...: C6L200201-001 Work Order #...: JLVV41A6 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	10	ug/L	1.3
4,6-Dinitro-2-methylphenol	ND	52	ug/L	21
2,4-Dinitrophenol	ND	52	ug/L	23
2,4-Dinitrotoluene	ND	10	ug/L	5.5
2,6-Dinitrotoluene	ND	10	ug/L	1.2
Di-n-octyl phthalate	ND	10	ug/L	1.7
Fluoranthene	ND	10	ug/L	1.9
Fluorene	ND	10	ug/L	1.6
Hexachlorobenzene	ND	10	ug/L	7.1
Hexachlorobutadiene	ND	10	ug/L	8.6
Hexachlorocyclopentadiene	ND	52	ug/L	1.1
Hexachloroethane	ND	10	ug/L	7.5
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	2.4
Isophorone	ND	10	ug/L	6.6
2-Methylnaphthalene	ND	10	ug/L	2.2
2-Methylphenol	ND	10	ug/L	2.8
4-Methylphenol	ND	10	ug/L	1.6
Naphthalene	ND	10	ug/L	2.5
2-Nitroaniline	ND	52	ug/L	8.9
3-Nitroaniline	ND	52	ug/L	11
4-Nitroaniline	ND	52	ug/L	14
Nitrobenzene	ND	10	ug/L	2.5
2-Nitrophenol	ND	10	ug/L	3.6
4-Nitrophenol	ND	52	ug/L	17
N-Nitrosodi-n-propylamine	ND	10	ug/L	4.1
N-Nitrosodiphenylamine	ND	10	ug/L	3.3
2,2'-oxybis(1-Chloropropane)	ND	10	ug/L	6.5
Pentachlorophenol	ND	52	ug/L	22
Phenanthrene	ND	10	ug/L	6.3
Phenol	ND	10	ug/L	2.9
Pyrene	ND	10	ug/L	4.1
2,4,5-Trichlorophenol	ND	10	ug/L	4.1
2,4,6-Trichlorophenol	ND	10	ug/L	3.2

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0500

GC/MS Semivolatiles

Lot-Sample #...: C6L200201-001 Work Order #...: JLVV41A6 Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	71	(19 - 138)
2-Fluorobiphenyl	61	(35 - 115)
2-Fluorophenol	68	(10 - 118)
Nitrobenzene-d5	65	(39 - 115)
Phenol-d5	68	(18 - 115)
Terphenyl-d14	36	(17 - 129)

Tetra Tech NUS, Inc

NTC01SW0500

GC/MS Semivolatiles

Lot-Sample #: C6L200201-001 Work Order #: JLVV41A6 Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190601

GC/MS Semivolatiles

Lot-Sample #...:	C6L200201-002	Work Order #...:	JLVV81AE	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06 10:40	MS Run #.....:	6362004
Prep Date.....:	12/28/06	Analysis Date..:	01/09/07		
Prep Batch #...:	6362011	Analysis Time..:	19:36		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	18	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	**180 J**	**400**	**ug/kg**	**8.8**
Acenaphthylene	**18 J**	**400**	**ug/kg**	**8.4**
Acetophenone	ND	400	ug/kg	100
Anthracene	**160 J**	**400**	**ug/kg**	**9.2**
Atrazine	ND	400	ug/kg	100
Benzo(a)anthracene	**520**	**400**	**ug/kg**	**8.9**
Benzo(a)pyrene	**500**	**400**	**ug/kg**	**6.8**
Benzo(b)fluoranthene	**870**	**400**	**ug/kg**	**8.1**
Benzo(ghi)perylene	**500**	**400**	**ug/kg**	**7.7**
Benzo(k)fluoranthene	**230 J**	**400**	**ug/kg**	**7.9**
Benzaldehyde	**110 J**	**400**	**ug/kg**	**90**
1,1'-Biphenyl	ND	400	ug/kg	100
bis(2-Chloroethoxy) methane	ND	400	ug/kg	9.1
bis(2-Chloroethyl)-ether	ND	400	ug/kg	7.9
bis(2-Ethylhexyl) phthalate	ND	400	ug/kg	25
4-Bromophenyl phenyl ether	ND	400	ug/kg	20
Butyl benzyl phthalate	ND	400	ug/kg	9.0
Caprolactam	ND	400	ug/kg	100
Carbazole	**100 J**	**400**	**ug/kg**	**9.3**
4-Chloroaniline	ND	400	ug/kg	20
4-Chloro-3-methylphenol	ND	400	ug/kg	8.8
2-Chloronaphthalene	ND	400	ug/kg	8.6
2-Chlorophenol	ND	400	ug/kg	6.4
4-Chlorophenyl phenyl ether	ND	400	ug/kg	8.3
Chrysene	**680**	**400**	**ug/kg**	**7.9**
Dibenz(a,h)anthracene	**130 J**	**400**	**ug/kg**	**6.6**
Dibenzofuran	**96 J**	**400**	**ug/kg**	**9.1**
3,3'-Dichlorobenzidine	ND	1900	ug/kg	10
2,4-Dichlorophenol	ND	400	ug/kg	7.6
Diethyl phthalate	**18 J**	**400**	**ug/kg**	**8.2**
2,4-Dimethylphenol	ND	400	ug/kg	6.5
Dimethyl phthalate	ND	400	ug/kg	8.5

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190601

GC/MS Semivolatiles

Lot-Sample #...: C6L200201-002 Work Order #...: JLVV81AE Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	400	ug/kg	49
4,6-Dinitro-2-methylphenol	ND	1900	ug/kg	1000
2,4-Dinitrophenol	ND	1900	ug/kg	1000
2,4-Dinitrotoluene	ND	400	ug/kg	4.2
2,6-Dinitrotoluene	ND	400	ug/kg	5.8
Di-n-octyl phthalate	ND	400	ug/kg	9.3
Fluoranthene	**1400**	**400**	**ug/kg**	**8.6**
Fluorene	**140 J**	**400**	**ug/kg**	**9.6**
Hexachlorobenzene	ND	400	ug/kg	8.1
Hexachlorobutadiene	ND	400	ug/kg	7.9
Hexachlorocyclopentadiene	ND	1900	ug/kg	32
Hexachloroethane	ND	400	ug/kg	7.8
Indeno(1,2,3-cd)pyrene	**400**	**400**	**ug/kg**	**8.1**
Isophorone	ND	400	ug/kg	7.7
2-Methylnaphthalene	**160 J**	**400**	**ug/kg**	**9.9**
2-Methylphenol	**39 J**	**400**	**ug/kg**	**9.0**
4-Methylphenol	**170 J**	**400**	**ug/kg**	**9.0**
Naphthalene	**200 J**	**400**	**ug/kg**	**9.6**
2-Nitroaniline	ND	1900	ug/kg	5.0
3-Nitroaniline	ND	1900	ug/kg	200
4-Nitroaniline	ND	1900	ug/kg	5.6
Nitrobenzene	ND	400	ug/kg	13
2-Nitrophenol	ND	400	ug/kg	7.3
4-Nitrophenol	ND	1900	ug/kg	5.4
N-Nitrosodi-n-propylamine	ND	400	ug/kg	8.2
N-Nitrosodiphenylamine	ND	400	ug/kg	84
2,2'-oxybis(1-Chloropropane)	ND	400	ug/kg	5.9
Pentachlorophenol	ND	1900	ug/kg	550
Phenanthrene	**920**	**400**	**ug/kg**	**9.6**
Phenol	ND	400	ug/kg	8.3
Pyrene	**1100**	**400**	**ug/kg**	**9.9**
2,4,5-Trichlorophenol	ND	400	ug/kg	23
2,4,6-Trichlorophenol	ND	400	ug/kg	6.9

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190601

GC/MS Semivolatiles

Lot-Sample #...: C6L200201-002 Work Order #...: JLVV81AE Matrix.....: SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	70	(21 - 144)
2-Fluorobiphenyl	75	(26 - 128)
2-Fluorophenol	66	(34 - 115)
Nitrobenzene-d5	68	(30 - 118)
Phenol-d5	71	(35 - 117)
Terphenyl-d14	60	(40 - 115)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

NTC01PD12190601

GC/MS Semivolatiles

Lot-Sample #: C6L200201-002 **Work Order #:** JLVV81AE **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0991012

GC/MS Semivolatiles

Lot-Sample #...:	C6L200201-006	Work Order #...:	JLVWX1AF	Matrix.....:	SOLID
Date Sampled...:	12/19/06 09:30	Date Received..:	12/20/06 10:40	MS Run #.....:	6362004
Prep Date.....:	12/28/06	Analysis Date..:	01/11/07		
Prep Batch #...:	6362011	Analysis Time..:	21:37		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	18	Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	**160 J**	**400**	**ug/kg**	**8.9**
Acenaphthylene	ND	400	ug/kg	8.5
Acetophenone	ND	400	ug/kg	100
Anthracene	**13 J**	**400**	**ug/kg**	**9.3**
Atrazine	ND	400	ug/kg	100
Benzo(a)anthracene	ND	400	ug/kg	9.0
Benzo(a)pyrene	ND	400	ug/kg	6.9
Benzo(b)fluoranthene	ND	400	ug/kg	8.2
Benzo(ghi)perylene	ND	400	ug/kg	7.7
Benzo(k)fluoranthene	ND	400	ug/kg	8.0
Benzaldehyde	ND	400	ug/kg	91
1,1'-Biphenyl	ND	400	ug/kg	100
bis(2-Chloroethoxy) methane	ND	400	ug/kg	9.2
bis(2-Chloroethyl)-ether	ND	400	ug/kg	7.9
bis(2-Ethylhexyl) phthalate	**150 J**	**400**	**ug/kg**	**25**
4-Bromophenyl phenyl ether	ND	400	ug/kg	20
Butyl benzyl phthalate	**9.8 J**	**400**	**ug/kg**	**9.1**
Caprolactam	ND	400	ug/kg	100
Carbazole	ND	400	ug/kg	9.4
4-Chloroaniline	ND	400	ug/kg	20
4-Chloro-3-methylphenol	ND	400	ug/kg	8.9
2-Chloronaphthalene	ND	400	ug/kg	8.7
2-Chlorophenol	ND	400	ug/kg	6.4
4-Chlorophenyl phenyl ether	ND	400	ug/kg	8.4
Chrysene	ND	400	ug/kg	8.0
Dibenz(a,h)anthracene	ND	400	ug/kg	6.7
Dibenzofuran	**62 J**	**400**	**ug/kg**	**9.2**
3,3'-Dichlorobenzidine	ND	2000	ug/kg	10
2,4-Dichlorophenol	ND	400	ug/kg	7.7
Diethyl phthalate	ND	400	ug/kg	8.2
2,4-Dimethylphenol	ND	400	ug/kg	6.6
Dimethyl phthalate	ND	400	ug/kg	8.6

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0991012

GC/MS Semivolatiles

Lot-Sample #...: C6L200201-006 Work Order #...: JLVWX1AF Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	400	ug/kg	50
4,6-Dinitro-2-methylphenol	ND	2000	ug/kg	1000
2,4-Dinitrophenol	ND	2000	ug/kg	1000
2,4-Dinitrotoluene	ND	400	ug/kg	4.3
2,6-Dinitrotoluene	ND	400	ug/kg	5.8
Di-n-octyl phthalate	ND	400	ug/kg	9.4
Fluoranthene	**45 J**	**400**	**ug/kg**	**8.7**
Fluorene	ND	400	ug/kg	9.7
Hexachlorobenzene	ND	400	ug/kg	8.2
Hexachlorobutadiene	ND	400	ug/kg	8.0
Hexachlorocyclopentadiene	ND	2000	ug/kg	33
Hexachloroethane	ND	400	ug/kg	7.8
Indeno(1,2,3-cd)pyrene	ND	400	ug/kg	8.1
Isophorone	ND	400	ug/kg	7.8
2-Methylnaphthalene	**250 J**	**400**	**ug/kg**	**10**
2-Methylphenol	ND	400	ug/kg	9.1
4-Methylphenol	**60 J**	**400**	**ug/kg**	**9.2**
Naphthalene	**150 J**	**400**	**ug/kg**	**9.7**
2-Nitroaniline	ND	2000	ug/kg	5.1
3-Nitroaniline	ND	2000	ug/kg	210
4-Nitroaniline	ND	2000	ug/kg	5.7
Nitrobenzene	ND	400	ug/kg	13
2-Nitrophenol	ND	400	ug/kg	7.3
4-Nitrophenol	ND	2000	ug/kg	5.5
N-Nitrosodi-n-propylamine	ND	400	ug/kg	8.3
N-Nitrosodiphenylamine	ND	400	ug/kg	85
2,2'-oxybis(1-Chloropropane)	ND	400	ug/kg	5.9
Pentachlorophenol	ND	2000	ug/kg	560
Phenanthrene	**120 J**	**400**	**ug/kg**	**9.8**
Phenol	ND	400	ug/kg	8.4
Pyrene	**41 J**	**400**	**ug/kg**	**10**
2,4,5-Trichlorophenol	ND	400	ug/kg	23
2,4,6-Trichlorophenol	ND	400	ug/kg	7.0

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0991012

GC/MS Semivolatiles

Lot-Sample #...: C6L200201-006 Work Order #...: JLVWX1AF Matrix.....: SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	66	(21 - 144)
2-Fluorobiphenyl	80	(26 - 128)
2-Fluorophenol	69	(34 - 115)
Nitrobenzene-d5	72	(30 - 118)
Phenol-d5	69	(35 - 117)
Terphenyl-d14	54	(40 - 115)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

NTC01SB0991012

GC/MS Semivolatiles

Lot-Sample #: C6L200201-006 **Work Order #:** JLVWX1AF **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01RB12190601

GC Semivolatiles

Lot-Sample #...:	C6L200201-003	Work Order #...:	JLVWG1AK	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6356249
Prep Date.....:	12/22/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6356475	Analysis Time..:	20:01		
Dilution Factor:	1.01	Initial Wgt/Vol:	990 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	402331	Instrument ID..:	A/B		
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	0.050	ug/L	0.016
beta-BHC	ND	0.050	ug/L	0.016
delta-BHC	ND	0.050	ug/L	0.018
gamma-BHC (Lindane)	ND	0.050	ug/L	0.014
Heptachlor	ND	0.050	ug/L	0.015
Aldrin	ND	0.050	ug/L	0.019
Heptachlor epoxide	ND	0.050	ug/L	0.023
Endosulfan I	ND	0.050	ug/L	0.016
Dieldrin	ND	0.050	ug/L	0.022
4,4'-DDE	ND	0.050	ug/L	0.016
Endrin	ND	0.050	ug/L	0.018
Endrin ketone	ND	0.050	ug/L	0.018
Endrin aldehyde	ND	0.050	ug/L	0.016
Endosulfan II	ND	0.050	ug/L	0.023
4,4'-DDD	ND	0.050	ug/L	0.019
Endosulfan sulfate	ND	0.050	ug/L	0.025
4,4'-DDT	ND	0.050	ug/L	0.017
Methoxychlor	ND	0.10	ug/L	0.031
alpha-Chlordane	ND	0.050	ug/L	0.025
gamma-Chlordane	ND	0.050	ug/L	0.015
Toxaphene	ND	2.0	ug/L	0.085

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	61	(39 - 130)
Decachlorobiphenyl	88	(10 - 147)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0400

GC Semivolatiles

Lot-Sample #...: C6L200201-008
Date Sampled...: 12/19/06
Prep Date.....: 12/22/06
Prep Batch #...: 6356475
Dilution Factor: 1
Analyst ID.....: 402331

Work Order #...: JLVXK1AK
Date Received..: 12/20/06
Analysis Date..: 01/03/07
Analysis Time..: 20:30
Initial Wgt/Vol: 1000 mL
Instrument ID..: A/B
Method.....: SW846 8081A

Matrix.....: WATER
MS Run #.....: 6356249

Final Wgt/Vol..: 10 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	0.050	ug/L	0.016
beta-BHC	ND	0.050	ug/L	0.016
delta-BHC	ND	0.050	ug/L	0.018
gamma-BHC (Lindane)	ND	0.050	ug/L	0.014
Heptachlor	ND	0.050	ug/L	0.015
Aldrin	ND	0.050	ug/L	0.019
Heptachlor epoxide	ND	0.050	ug/L	0.023
Endosulfan I	ND	0.050	ug/L	0.016
Dieldrin	ND	0.050	ug/L	0.022
4,4'-DDE	ND	0.050	ug/L	0.016
Endrin	ND	0.050	ug/L	0.018
Endrin ketone	ND	0.050	ug/L	0.018
Endrin aldehyde	ND	0.050	ug/L	0.016
Endosulfan II	ND	0.050	ug/L	0.022
4,4'-DDD	ND	0.050	ug/L	0.019
Endosulfan sulfate	ND	0.050	ug/L	0.025
4,4'-DDT	ND	0.050	ug/L	0.017
Methoxychlor	ND	0.10	ug/L	0.030
alpha-Chlordane	ND	0.050	ug/L	0.024
gamma-Chlordane	ND	0.050	ug/L	0.015
Toxaphene	ND	2.0	ug/L	0.084

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	71	(39 - 130)
Decachlorobiphenyl	97	(10 - 147)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0500

GC Semivolatiles

Lot-Sample #...:	C6L200201-001	Work Order #...:	JLVV41A8	Matrix.....:	WATER
Date Sampled...:	12/18/06	Date Received..:	12/20/06	MS Run #.....:	6356249
Prep Date.....:	12/22/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6356475	Analysis Time..:	19:33		
Dilution Factor:	1.01	Initial Wgt/Vol:	990 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	402331	Instrument ID..:	A/B		
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	0.050	ug/L	0.016
beta-BHC	ND	0.050	ug/L	0.016
delta-BHC	ND	0.050	ug/L	0.018
gamma-BHC (Lindane)	ND	0.050	ug/L	0.014
Heptachlor	ND	0.050	ug/L	0.015
Aldrin	ND	0.050	ug/L	0.019
Heptachlor epoxide	ND	0.050	ug/L	0.023
Endosulfan I	ND	0.050	ug/L	0.016
Dieldrin	ND	0.050	ug/L	0.022
4,4'-DDE	ND	0.050	ug/L	0.016
Endrin	ND	0.050	ug/L	0.018
Endrin ketone	ND	0.050	ug/L	0.018
Endrin aldehyde	ND	0.050	ug/L	0.016
Endosulfan II	ND	0.050	ug/L	0.023
4,4'-DDD	ND	0.050	ug/L	0.019
Endosulfan sulfate	ND	0.050	ug/L	0.025
4,4'-DDT	ND	0.050	ug/L	0.017
Methoxychlor	ND	0.10	ug/L	0.031
alpha-Chlordane	ND	0.050	ug/L	0.025
gamma-Chlordane	ND	0.050	ug/L	0.015
Toxaphene	ND	2.0	ug/L	0.085

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	67	(39 - 130)
Decachlorobiphenyl	93	(10 - 147)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190601

GC Semivolatiles

Lot-Sample #...: C6L200201-002
Date Sampled...: 12/19/06
Prep Date.....: 12/28/06
Prep Batch #...: 6362013
Dilution Factor: 5
% Moisture.....: 18

Work Order #...: JLVV81AG
Date Received..: 12/20/06
Analysis Date..: 01/02/07
Analysis Time..: 17:51
Initial Wgt/Vol: 15 g
Analyst ID.....: 402331
Method.....: SW846 8081A

Matrix.....: SOLID
MS Run #.....: 6362006

Final Wgt/Vol..: 5 mL
Instrument ID..: C/D

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	10	ug/kg	0.87
beta-BHC	ND	10	ug/kg	1.3
delta-BHC	ND	10	ug/kg	1.1
gamma-BHC (Lindane)	7.7 J,PG	10	ug/kg	0.85
Heptachlor	2.4 J	10	ug/kg	0.98
Aldrin	1.5 J,PG	10	ug/kg	1.3
Heptachlor epoxide	2.0 J,PG	10	ug/kg	1.2
Endosulfan I	ND	10	ug/kg	0.99
Dieldrin	ND	10	ug/kg	0.98
4,4'-DDE	82	10	ug/kg	1.3
Endrin	9.6 J	10	ug/kg	1.0
Endrin ketone	ND	10	ug/kg	1.3
Endrin aldehyde	ND	10	ug/kg	2.2
Endosulfan II	3.7 J	10	ug/kg	1.6
4,4'-DDD	280	10	ug/kg	0.99
Endosulfan sulfate	2.0 J,PG	10	ug/kg	1.4
4,4'-DDT	27	10	ug/kg	1.1
Methoxychlor	2.5 J,PG	20	ug/kg	2.2
alpha-Chlordane	ND	10	ug/kg	1.3
gamma-Chlordane	ND	10	ug/kg	1.3
Toxaphene	ND	410	ug/kg	14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	44	(31 - 131)
Decachlorobiphenyl	118	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0991012

GC Semivolatiles

Lot-Sample #...: C6L200201-006
Date Sampled...: 12/19/06
Prep Date.....: 12/28/06
Prep Batch #...: 6362013
Dilution Factor: 5
% Moisture.....: 18

Work Order #...: JLVWX1AH
Date Received..: 12/20/06
Analysis Date..: 01/02/07
Analysis Time..: 18:10
Initial Wgt/Vol: 15 g
Analyst ID.....: 402331
Method.....: SW846 8081A

Matrix.....: SOLID
MS Run #.....: 6362006

Final Wgt/Vol..: 5 mL
Instrument ID..: C/D

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	1.7 J	10	ug/kg	0.88
beta-BHC	ND	10	ug/kg	1.4
delta-BHC	1.2 J,PG	10	ug/kg	1.1
gamma-BHC (Lindane)	1.2 J,PG	10	ug/kg	0.86
Heptachlor	ND	10	ug/kg	0.99
Aldrin	ND	10	ug/kg	1.3
Heptachlor epoxide	4.4 J,PG	10	ug/kg	1.2
Endosulfan I	3.1 J	10	ug/kg	1.0
Dieldrin	1.2 J,PG	10	ug/kg	0.99
4,4'-DDE	45	10	ug/kg	1.3
Endrin	ND	10	ug/kg	1.0
Endrin ketone	2.2 J	10	ug/kg	1.3
Endrin aldehyde	ND	10	ug/kg	2.2
Endosulfan II	6.1 J,PG	10	ug/kg	1.6
4,4'-DDD	83	10	ug/kg	1.0
Endosulfan sulfate	ND	10	ug/kg	1.4
4,4'-DDT	15	10	ug/kg	1.1
Methoxychlor	2.4 J,PG	20	ug/kg	2.3
alpha-Chlordane	ND	10	ug/kg	1.3
gamma-Chlordane	6.9 J,PG	10	ug/kg	1.3
Toxaphene	ND	410	ug/kg	14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	70	(31 - 131)
Decachlorobiphenyl	89	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01RB12190601

GC Semivolatiles

Lot-Sample #...:	C6L200201-003	Work Order #...:	JLVWG1AJ	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6356250
Prep Date.....:	12/22/06	Analysis Date..:	12/29/06		
Prep Batch #...:	6356476	Analysis Time..:	00:41		
Dilution Factor:	1.01	Initial Wgt/Vol:	990 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	402360	Instrument ID..:	S/T		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	1.0	ug/L	0.50
Aroclor 1221	ND	1.0	ug/L	0.46
Aroclor 1232	ND	1.0	ug/L	0.54
Aroclor 1242	ND	1.0	ug/L	0.26
Aroclor 1248	ND	1.0	ug/L	0.35
Aroclor 1254	ND	1.0	ug/L	0.36
Aroclor 1260	ND	1.0	ug/L	0.59

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	55	(45 - 120)
Decachlorobiphenyl	74	(24 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0400

GC Semivolatiles

Lot-Sample #...: C6L200201-008
Date Sampled...: 12/19/06
Prep Date.....: 12/22/06
Prep Batch #...: 6356476
Dilution Factor: 1
Analyst ID.....: 402360

Work Order #...: JLVXK1AJ
Date Received..: 12/20/06
Analysis Date..: 12/29/06
Analysis Time..: 01:03
Initial Wgt/Vol: 1000 mL
Instrument ID..: S/T
Method.....: SW846 8082

Matrix.....: WATER
MS Run #.....: 6356250

Final Wgt/Vol..: 10 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	1.0	ug/L	0.49
Aroclor 1221	ND	1.0	ug/L	0.45
Aroclor 1232	ND	1.0	ug/L	0.53
Aroclor 1242	ND	1.0	ug/L	0.25
Aroclor 1248	ND	1.0	ug/L	0.34
Aroclor 1254	ND	1.0	ug/L	0.35
Aroclor 1260	ND	1.0	ug/L	0.58

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	64	(45 - 120)
Decachlorobiphenyl	81	(24 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0500

GC Semivolatiles

Lot-Sample #...:	C6L200201-001	Work Order #...:	JLVV41A7	Matrix.....:	WATER
Date Sampled...:	12/18/06	Date Received..:	12/20/06	MS Run #.....:	6356250
Prep Date.....:	12/22/06	Analysis Date..:	12/29/06		
Prep Batch #...:	6356476	Analysis Time..:	00:19		
Dilution Factor:	1.01	Initial Wgt/Vol:	990 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	402360	Instrument ID..:	S/T		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	1.0	ug/L	0.50
Aroclor 1221	ND	1.0	ug/L	0.46
Aroclor 1232	ND	1.0	ug/L	0.54
Aroclor 1242	ND	1.0	ug/L	0.26
Aroclor 1248	ND	1.0	ug/L	0.35
Aroclor 1254	ND	1.0	ug/L	0.36
Aroclor 1260	ND	1.0	ug/L	0.59

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	59	(45 - 120)
Decachlorobiphenyl	80	(24 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190601

GC Semivolatiles

Lot-Sample #...:	C6L200201-002	Work Order #...:	JLVV81AH	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6362007
Prep Date.....:	12/28/06	Analysis Date..:	12/28/06		
Prep Batch #...:	6362014	Analysis Time..:	15:58		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	18	Analyst ID.....:	402360	Instrument ID..:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	40	ug/kg	32
Aroclor 1221	ND	40	ug/kg	16
Aroclor 1232	ND	40	ug/kg	19
Aroclor 1242	ND	40	ug/kg	13
Aroclor 1248	ND	40	ug/kg	15
Aroclor 1254	ND	40	ug/kg	5.4
Aroclor 1260	ND	40	ug/kg	4.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	34	(31 - 127)
Decachlorobiphenyl	82	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0991012

GC Semivolatiles

Lot-Sample #...:	C6L200201-006	Work Order #...:	JLVWX1AJ	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6362007
Prep Date.....:	12/28/06	Analysis Date..:	12/28/06		
Prep Batch #...:	6362014	Analysis Time..:	16:20		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	18	Analyst ID.....:	402360	Instrument ID..:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	40	ug/kg	32
Aroclor 1221	ND	40	ug/kg	16
Aroclor 1232	ND	40	ug/kg	19
Aroclor 1242	ND	40	ug/kg	14
Aroclor 1248	130	40	ug/kg	15
Aroclor 1254	ND	40	ug/kg	5.4
Aroclor 1260	100	40	ug/kg	4.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	48	(31 - 127)
Decachlorobiphenyl	74	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01RB12190601

GC Semivolatiles

Lot-Sample #...:	C6L200201-003	Work Order #...:	JLVWG1AL	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6356148
Prep Date.....:	12/22/06	Analysis Date..:	12/24/06		
Prep Batch #...:	6356273	Analysis Time..:	10:38		
Dilution Factor:	1.11	Initial Wgt/Vol:	900 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	401414	Instrument ID..:	M/N		
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	4.4	ug/L	0.48
2,4,5-TP (Silvex)	ND	1.1	ug/L	0.10
2,4,5-T	ND	1.1	ug/L	0.10
Pentachlorophenol	ND	1.1	ug/L	0.053

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	57	(53 - 119)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0400

GC Semivolatiles

Lot-Sample #...:	C6L200201-008	Work Order #...:	JLVXK1AL	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6356148
Prep Date.....:	12/22/06	Analysis Date..:	12/24/06		
Prep Batch #...:	6356273	Analysis Time..:	11:11		
Dilution Factor:	1.05	Initial Wgt/Vol:	950 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	401414	Instrument ID..:	M/N		
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	4.2	ug/L	0.46
2,4,5-TP (Silvex)	ND	1.0	ug/L	0.098
2,4,5-T	ND	1.0	ug/L	0.099
Pentachlorophenol	ND	1.0	ug/L	0.050

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	67	(53 - 119)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0500

GC Semivolatiles

Lot-Sample #...:	C6L200201-001	Work Order #...:	JLVV41A9	Matrix.....:	WATER
Date Sampled...:	12/18/06	Date Received..:	12/20/06	MS Run #.....:	6356148
Prep Date.....:	12/22/06	Analysis Date..:	12/24/06		
Prep Batch #...:	6356273	Analysis Time..:	09:00		
Dilution Factor:	1.06	Initial Wgt/Vol:	940 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	401414	Instrument ID..:	M/N		
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	4.2	ug/L	0.46
2,4,5-TP (Silvex)	ND	1.1	ug/L	0.099
2,4,5-T	ND	1.1	ug/L	0.099
Pentachlorophenol	ND	1.1	ug/L	0.050

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	64	(53 - 119)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190601

GC Semivolatiles

Lot-Sample #...:	C6L200201-002	Work Order #...:	JLVV81AJ	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6361104
Prep Date.....:	12/27/06	Analysis Date..:	12/31/06		
Prep Batch #...:	6361123	Analysis Time..:	03:06		
Dilution Factor:	1	Initial Wgt/Vol:	50 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	18	Analyst ID.....:	401414	Instrument ID..:	M/N
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	97	ug/kg	25
Pentachlorophenol	ND	12	ug/kg	3.3
2,4,5-TP (Silvex)	ND	24	ug/kg	6.1
2,4,5-T	ND	24	ug/kg	6.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	70	(42 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0991012

GC Semivolatiles

Lot-Sample #...:	C6L200201-006	Work Order #...:	JLVWX1AK	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6361104
Prep Date.....:	12/27/06	Analysis Date..:	12/31/06		
Prep Batch #...:	6361123	Analysis Time..:	03:39		
Dilution Factor:	1	Initial Wgt/Vol:	50 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	18	Analyst ID.....:	401414	Instrument ID..:	M/N
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	98	ug/kg	25
Pentachlorophenol	ND	12	ug/kg	3.3
2,4,5-TP (Silvex)	ND	25	ug/kg	6.2
2,4,5-T	ND	25	ug/kg	6.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	68	(42 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01RB12190601

HPLC

Lot-Sample #...:	C6L200201-003	Work Order #...:	JLVWG1CA	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6356248
Prep Date.....:	12/22/06	Analysis Date..:	12/31/06		
Prep Batch #...:	6356473	Analysis Time..:	17:39		
Dilution Factor:	1.02	Initial Wgt/Vol:	980 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1.0	ug/L	0.12
Acenaphthylene	ND	1.0	ug/L	0.11
Acenaphthene	ND	1.0	ug/L	0.11
Fluorene	ND	0.20	ug/L	0.022
Phenanthrene	0.078 J	0.20	ug/L	0.025
Anthracene	ND	0.20	ug/L	0.025
Fluoranthene	ND	0.20	ug/L	0.026
Pyrene	ND	0.20	ug/L	0.025
Benzo(a)anthracene	ND	0.20	ug/L	0.026
Chrysene	ND	0.20	ug/L	0.026
Benzo(b)fluoranthene	ND	0.20	ug/L	0.029
Benzo(k)fluoranthene	ND	0.20	ug/L	0.030
Benzo(a)pyrene	ND	0.20	ug/L	0.028
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	0.023
Dibenzo(a,h)anthracene	ND	0.20	ug/L	0.024
Benzo(ghi)perylene	ND	0.20	ug/L	0.025
Carbazole	ND	1.0	ug/L	0.11
2-Methylnaphthalene	ND	1.0	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	98	(78 - 125)
Terphenyl-d14	93	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0400

HPLC

Lot-Sample #...:	C6L200201-008	Work Order #...:	JLVXK1CA	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6356248
Prep Date.....:	12/22/06	Analysis Date..:	12/31/06		
Prep Batch #...:	6356473	Analysis Time..:	18:20		
Dilution Factor:	1.02	Initial Wgt/Vol:	980 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1.0	ug/L	0.12
Acenaphthylene	ND	1.0	ug/L	0.11
Acenaphthene	ND	1.0	ug/L	0.11
Fluorene	**0.025 J**	**0.20**	**ug/L**	**0.022**
Phenanthrene	**0.12 J**	**0.20**	**ug/L**	**0.025**
Anthracene	ND	0.20	ug/L	0.025
Fluoranthene	**0.12 J**	**0.20**	**ug/L**	**0.026**
Pyrene	**0.056 J,PG**	**0.20**	**ug/L**	**0.025**
Benzo(a)anthracene	ND	0.20	ug/L	0.026
Chrysene	ND	0.20	ug/L	0.026
Benzo(b)fluoranthene	ND	0.20	ug/L	0.029
Benzo(k)fluoranthene	ND	0.20	ug/L	0.030
Benzo(a)pyrene	ND	0.20	ug/L	0.028
Indeno(1,2,3-cd)pyrene	**0.029 J,PG**	**0.20**	**ug/L**	**0.023**
Dibenzo(a,h)anthracene	ND	0.20	ug/L	0.024
Benzo(ghi)perylene	**0.044 J**	**0.20**	**ug/L**	**0.025**
Carbazole	ND	1.0	ug/L	0.11
2-Methylnaphthalene	ND	1.0	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	98	(78 - 125)
Terphenyl-d14	94	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0500

HPLC

Lot-Sample #...:	C6L200201-001	Work Order #...:	JLVV41CA	Matrix.....:	WATER
Date Sampled...:	12/18/06	Date Received..:	12/20/06	MS Run #.....:	6356248
Prep Date.....:	12/22/06	Analysis Date..:	12/31/06		
Prep Batch #...:	6356473	Analysis Time..:	16:58		
Dilution Factor:	1	Initial Wgt/Vol:	1000 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1.0	ug/L	0.12
Acenaphthylene	ND	1.0	ug/L	0.11
Acenaphthene	ND	1.0	ug/L	0.11
Fluorene	0.031 J	0.20	ug/L	0.022
Phenanthrene	0.15 J	0.20	ug/L	0.024
Anthracene	ND	0.20	ug/L	0.024
Fluoranthene	0.10 J,PG	0.20	ug/L	0.025
Pyrene	0.063 J,PG	0.20	ug/L	0.025
Benzo(a)anthracene	ND	0.20	ug/L	0.026
Chrysene	0.034 J	0.20	ug/L	0.025
Benzo(b)fluoranthene	ND	0.20	ug/L	0.029
Benzo(k)fluoranthene	ND	0.20	ug/L	0.029
Benzo(a)pyrene	ND	0.20	ug/L	0.028
Indeno(1,2,3-cd)pyrene	0.032 J,PG	0.20	ug/L	0.023
Dibenzo(a,h)anthracene	ND	0.20	ug/L	0.023
Benzo(ghi)perylene	0.049 J	0.20	ug/L	0.025
Carbazole	ND	1.0	ug/L	0.11
2-Methylnaphthalene	ND	1.0	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	98	(78 - 125)
Terphenyl-d14	91	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190601

HPLC

Lot-Sample #...:	C6L200201-002	Work Order #...:	JLVV81AF	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6363010
Prep Date.....:	12/29/06	Analysis Date..:	01/05/07		
Prep Batch #...:	6363023	Analysis Time..:	16:54		
Dilution Factor:	20	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	18	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	770 J,PG	800	ug/kg	82
Acenaphthylene	3100	800	ug/kg	72
Acenaphthene	260 J,PG	800	ug/kg	180
Fluorene	220 PG	160	ug/kg	44
Phenanthrene	1600	160	ug/kg	10
Anthracene	360	160	ug/kg	11
Fluoranthene	1800 PG	160	ug/kg	13
Pyrene	1000 PG	160	ug/kg	11
Benzo(a)anthracene	580	160	ug/kg	14
Chrysene	690	160	ug/kg	14
Benzo(b)fluoranthene	620 PG	160	ug/kg	19
Benzo(k)fluoranthene	190 PG	160	ug/kg	16
Benzo(a)pyrene	480	160	ug/kg	15
Indeno(1,2,3-cd)pyrene	550	160	ug/kg	11
Dibenzo(a,h)anthracene	83 J,PG	160	ug/kg	25
Benzo(ghi)perylene	490	160	ug/kg	14
Carbazole	300 J	800	ug/kg	64
2-Methylnaphthalene	1200 PG	800	ug/kg	64

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0970304

HPLC

Lot-Sample #...:	C6L200201-004	Work Order #...:	JLVWK1AD	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6363010
Prep Date.....:	12/29/06	Analysis Date..:	01/05/07		
Prep Batch #...:	6363023	Analysis Time..:	17:50		
Dilution Factor:	20	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	26	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	280 J,PG	890	ug/kg	91
Acenaphthylene	ND	890	ug/kg	80
Acenaphthene	ND	890	ug/kg	200
Fluorene	110 J,PG	180	ug/kg	49
Phenanthrene	2100	180	ug/kg	12
Anthracene	470	180	ug/kg	12
Fluoranthene	3700 PG	180	ug/kg	15
Pyrene	2500 PG	180	ug/kg	12
Benzo(a)anthracene	1400	180	ug/kg	15
Chrysene	1600	180	ug/kg	15
Benzo(b)fluoranthene	1700 PG	180	ug/kg	21
Benzo(k)fluoranthene	800 PG	180	ug/kg	18
Benzo(a)pyrene	1300	180	ug/kg	16
Indeno(1,2,3-cd)pyrene	1100 PG	180	ug/kg	12
Dibenzo(a,h)anthracene	ND	180	ug/kg	28
Benzo(ghi)perylene	900 PG	180	ug/kg	15
Carbazole	160 J,PG	890	ug/kg	71
2-Methylnaphthalene	290 J,PG	890	ug/kg	71

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0981516

HPLC

Lot-Sample #...:	C6L200201-005	Work Order #...:	JLVWR1AN	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6363010
Prep Date.....:	12/29/06	Analysis Date..:	01/05/07		
Prep Batch #...:	6363023	Analysis Time..:	18:30		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	29	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	20 J,PG	46	ug/kg	4.7
Acenaphthylene	30 J	46	ug/kg	4.2
Acenaphthene	ND	46	ug/kg	10
Fluorene	ND	9.4	ug/kg	2.5
Phenanthrene	26	9.4	ug/kg	0.61
Anthracene	4.0 J	9.4	ug/kg	0.64
Fluoranthene	15 PG	9.4	ug/kg	0.76
Pyrene	12 PG	9.4	ug/kg	0.62
Benzo(a)anthracene	ND	9.4	ug/kg	0.80
Chrysene	3.5 J	9.4	ug/kg	0.79
Benzo(b)fluoranthene	4.9 J,PG	9.4	ug/kg	1.1
Benzo(k)fluoranthene	ND	9.4	ug/kg	0.92
Benzo(a)pyrene	1.5 J	9.4	ug/kg	0.84
Indeno(1,2,3-cd)pyrene	1.0 J	9.4	ug/kg	0.63
Dibenzo(a,h)anthracene	ND	9.4	ug/kg	1.5
Benzo(ghi)perylene	0.96 J,PG	9.4	ug/kg	0.79
Carbazole	ND	46	ug/kg	3.7
2-Methylnaphthalene	7.7 J,PG	46	ug/kg	3.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	24 *	(49 - 129)
Terphenyl-d14	54	(54 - 126)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0991012

HPLC

Lot-Sample #...:	C6L200201-006	Work Order #...:	JLVWX1AG	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6363010
Prep Date.....:	12/29/06	Analysis Date..:	01/05/07		
Prep Batch #...:	6363023	Analysis Time..:	19:11		
Dilution Factor:	10	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	18	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	110 J	400	ug/kg	41
Acenaphthylene	250 J	400	ug/kg	37
Acenaphthene	ND	400	ug/kg	90
Fluorene	230	82	ug/kg	22
Phenanthrene	920	82	ug/kg	5.3
Anthracene	120	82	ug/kg	5.6
Fluoranthene	540 PG	82	ug/kg	6.7
Pyrene	370 PG	82	ug/kg	5.5
Benzo(a)anthracene	120 PG	82	ug/kg	7.0
Chrysene	120 PG	82	ug/kg	6.9
Benzo(b)fluoranthene	120 PG	82	ug/kg	9.7
Benzo(k)fluoranthene	38 J,PG	82	ug/kg	8.0
Benzo(a)pyrene	71 J,PG	82	ug/kg	7.4
Indeno(1,2,3-cd)pyrene	99	82	ug/kg	5.5
Dibenzo(a,h)anthracene	ND	82	ug/kg	13
Benzo(ghi)perylene	98	82	ug/kg	6.9
Carbazole	56 J,PG	400	ug/kg	32
2-Methylnaphthalene	260 J,PG	400	ug/kg	32

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1001012

HPLC

Lot-Sample #...:	C6L200201-007	Work Order #...:	JLVW91AP	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	6363010
Prep Date.....:	12/29/06	Analysis Date..:	01/09/07		
Prep Batch #...:	6363023	Analysis Time..:	15:56		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	21	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	25 J,PG	42	ug/kg	4.3
Acenaphthylene	300	42	ug/kg	3.8
Acenaphthene	ND	42	ug/kg	9.3
Fluorene	ND	8.5	ug/kg	2.3
Phenanthrene	34 PG	8.5	ug/kg	0.55
Anthracene	7.4 J,PG	8.5	ug/kg	0.58
Fluoranthene	46 PG	8.5	ug/kg	0.69
Pyrene	34 PG	8.5	ug/kg	0.57
Benzo(a)anthracene	ND	8.5	ug/kg	0.72
Chrysene	23 PG	8.5	ug/kg	0.71
Benzo(b)fluoranthene	35 PG	8.5	ug/kg	1.0
Benzo(k)fluoranthene	9.7 PG	8.5	ug/kg	0.83
Benzo(a)pyrene	23	8.5	ug/kg	0.76
Indeno(1,2,3-cd)pyrene	38	8.5	ug/kg	0.57
Dibenzo(a,h)anthracene	ND	8.5	ug/kg	1.3
Benzo(ghi)perylene	44	8.5	ug/kg	0.71
Carbazole	ND	42	ug/kg	3.4
2-Methylnaphthalene	27 J,PG	42	ug/kg	3.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	52	(49 - 129)
Terphenyl-d14	51 *	(54 - 126)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01RB12190601

Trace Level Organic Compounds

Lot-Sample #...:	C6L200201-003	Work Order #...:	JLVWG1AP	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	
Prep Date.....:	12/28/06	Analysis Date..:	01/10/07		
Prep Batch #...:	7002412	Analysis Time..:	18:24		
Dilution Factor:	1	Initial Wgt/Vol:	908.6 mL	Final Wgt/Vol..:	20 uL
Analyst ID.....:	002054	Instrument ID..:	5D5		

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	1.2	pg/L	SW846 8290
Total TCDD	ND	1.2	pg/L	SW846 8290
1,2,3,7,8-PeCDD	ND	4.1	pg/L	SW846 8290
Total PeCDD	ND	8.6	pg/L	SW846 8290
1,2,3,4,7,8-HxCDD	ND	1.6	pg/L	SW846 8290
1,2,3,6,7,8-HxCDD	ND	1.5	pg/L	SW846 8290
1,2,3,7,8,9-HxCDD	ND	1.5	pg/L	SW846 8290
Total HxCDD	ND	1.6	pg/L	SW846 8290
1,2,3,4,6,7,8-HpCDD	ND	5.7	pg/L	SW846 8290
Total HpCDD	ND	5.7	pg/L	SW846 8290
OCDD	80 J		pg/L	SW846 8290
2,3,7,8-TCDF	ND	1.1	pg/L	SW846 8290
Total TCDF	ND	1.1	pg/L	SW846 8290
1,2,3,7,8-PeCDF	ND	1.5	pg/L	SW846 8290
2,3,4,7,8-PeCDF	ND	1.5	pg/L	SW846 8290
Total PeCDF	ND	1.5	pg/L	SW846 8290
1,2,3,4,7,8-HxCDF	ND	2.7	pg/L	SW846 8290
1,2,3,6,7,8-HxCDF	ND	2.5	pg/L	SW846 8290
2,3,4,6,7,8-HxCDF	ND	2.0	pg/L	SW846 8290
1,2,3,7,8,9-HxCDF	ND	2.1	pg/L	SW846 8290
Total HxCDF	ND	2.7	pg/L	SW846 8290
1,2,3,4,6,7,8-HpCDF	ND	2.2	pg/L	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	2.6	pg/L	SW846 8290
Total HpCDF	ND	2.6	pg/L	SW846 8290
OCDF	ND	3.7	pg/L	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	91	(40 - 135)
13C-1,2,3,7,8-PeCDD	85	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	104	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	97	(40 - 135)
13C-OCDD	98	(40 - 135)
13C-2,3,7,8-TCDF	89	(40 - 135)
13C-1,2,3,7,8-PeCDF	94	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	91	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	94	(40 - 135)

NOTE(S):

J Estimated result. Result is less than the reporting limit.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0400

Trace Level Organic Compounds

Lot-Sample #...:	C6L200201-008	Work Order #...:	JLVXK1AP	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	
Prep Date.....:	12/28/06	Analysis Date..:	01/10/07		
Prep Batch #...:	7002412	Analysis Time..:	19:05		
Dilution Factor:	1	Initial Wgt/Vol:	938.3 mL	Final Wgt/Vol..:	20 uL
Analyst ID.....:	002054	Instrument ID..:	5D5		

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	1.2	pg/L	SW846 8290
Total TCDD	ND	1.2	pg/L	SW846 8290
1,2,3,7,8-PeCDD	ND	3.7	pg/L	SW846 8290
Total PeCDD	ND	10	pg/L	SW846 8290
1,2,3,4,7,8-HxCDD	ND	2.0	pg/L	SW846 8290
1,2,3,6,7,8-HxCDD	ND	2.0	pg/L	SW846 8290
1,2,3,7,8,9-HxCDD	ND	1.9	pg/L	SW846 8290
Total HxCDD	ND	2.0	pg/L	SW846 8290
1,2,3,4,6,7,8-HpCDD	ND	4.3	pg/L	SW846 8290
Total HpCDD	ND	4.3	pg/L	SW846 8290
OCDD	ND	44	pg/L	SW846 8290
2,3,7,8-TCDF	ND	0.91	pg/L	SW846 8290
Total TCDF	ND	0.91	pg/L	SW846 8290
1,2,3,7,8-PeCDF	ND	1.8	pg/L	SW846 8290
2,3,4,7,8-PeCDF	ND	1.8	pg/L	SW846 8290
Total PeCDF	ND	1.8	pg/L	SW846 8290
1,2,3,4,7,8-HxCDF	ND	1.6	pg/L	SW846 8290
1,2,3,6,7,8-HxCDF	ND	1.1	pg/L	SW846 8290
2,3,4,6,7,8-HxCDF	ND	1.2	pg/L	SW846 8290
1,2,3,7,8,9-HxCDF	ND	1.3	pg/L	SW846 8290
Total HxCDF	ND	1.6	pg/L	SW846 8290
1,2,3,4,6,7,8-HpCDF	ND	3.0	pg/L	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	2.2	pg/L	SW846 8290
Total HpCDF	ND	3.0	pg/L	SW846 8290
OCDF	ND	4.0	pg/L	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	91	(40 - 135)
13C-1,2,3,7,8-PeCDD	88	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	104	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	98	(40 - 135)
13C-OCDD	99	(40 - 135)
13C-2,3,7,8-TCDF	94	(40 - 135)
13C-1,2,3,7,8-PeCDF	92	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	90	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	97	(40 - 135)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0500

Trace Level Organic Compounds

Lot-Sample #...:	C6L200201-001	Work Order #...:	JLVV41AD	Matrix.....:	WATER
Date Sampled...:	12/18/06	Date Received..:	12/20/06	MS Run #.....:	
Prep Date.....:	12/28/06	Analysis Date..:	01/10/07		
Prep Batch #...:	7002412	Analysis Time..:	17:42		
Dilution Factor:	1	Initial Wgt/Vol:	863.2 mL	Final Wgt/Vol..:	20 uL
Analyst ID.....:	002054	Instrument ID..:	5D5		

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	1.4	pg/L	SW846 8290
Total TCDD	ND	1.4	pg/L	SW846 8290
1,2,3,7,8-PeCDD	ND	3.7	pg/L	SW846 8290
Total PeCDD	ND	9.7	pg/L	SW846 8290
1,2,3,4,7,8-HxCDD	ND	2.0	pg/L	SW846 8290
1,2,3,6,7,8-HxCDD	ND	1.9	pg/L	SW846 8290
1,2,3,7,8,9-HxCDD	ND	1.8	pg/L	SW846 8290
Total HxCDD	ND	2.0	pg/L	SW846 8290
1,2,3,4,6,7,8-HpCDD	ND	6.0	pg/L	SW846 8290
Total HpCDD	ND	6.5	pg/L	SW846 8290
OCDD	130		pg/L	SW846 8290
2,3,7,8-TCDF	ND	1.0	pg/L	SW846 8290
Total TCDF	ND	1.0	pg/L	SW846 8290
1,2,3,7,8-PeCDF	ND	1.6	pg/L	SW846 8290
2,3,4,7,8-PeCDF	ND	1.7	pg/L	SW846 8290
Total PeCDF	ND	1.7	pg/L	SW846 8290
1,2,3,4,7,8-HxCDF	ND	2.1	pg/L	SW846 8290
1,2,3,6,7,8-HxCDF	ND	1.1	pg/L	SW846 8290
2,3,4,6,7,8-HxCDF	ND	1.3	pg/L	SW846 8290
1,2,3,7,8,9-HxCDF	ND	1.3	pg/L	SW846 8290
Total HxCDF	ND	2.1	pg/L	SW846 8290
1,2,3,4,6,7,8-HpCDF	ND	2.3	pg/L	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	2.2	pg/L	SW846 8290
Total HpCDF	ND	2.3	pg/L	SW846 8290
OCDF	ND	4.3	pg/L	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	96	(40 - 135)
13C-1,2,3,7,8-PeCDD	92	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	106	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	99	(40 - 135)
13C-OCDD	99	(40 - 135)
13C-2,3,7,8-TCDF	100	(40 - 135)
13C-1,2,3,7,8-PeCDF	97	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	93	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	97	(40 - 135)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190601

Trace Level Organic Compounds

Lot-Sample #...:	C6L200201-002	Work Order #...:	JLVV81AC	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	7011222
Prep Date.....:	12/27/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6361480	Analysis Time..:	10:50		
Dilution Factor:	1	Initial Wgt/Vol:	9.99 g	Final Wgt/Vol..:	20 uL
% Moisture.....:	18 4	Analyst ID.....:	002457	Instrument ID..:	1D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	3.6		pg/g	SW846 8290
Total TCDD	84		pg/g	SW846 8290
1,2,3,7,8-PeCDD	9.1		pg/g	SW846 8290
Total PeCDD	110		pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	8.4		pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	22		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	20		pg/g	SW846 8290
Total HxCDD	250		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	400		pg/g	SW846 8290
Total HpCDD	760		pg/g	SW846 8290
OCDD	2000		pg/g	SW846 8290
2,3,7,8-TCDF	18 CON		pg/g	SW846 8290
Total TCDF	270		pg/g	SW846 8290
1,2,3,7,8-PeCDF	12		pg/g	SW846 8290
2,3,4,7,8-PeCDF	19		pg/g	SW846 8290
Total PeCDF	140		pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	20		pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	10		pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	12		pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.50	pg/g	SW846 8290
Total HxCDF	110		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	71		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	4.7 J		pg/g	SW846 8290
Total HpCDF	130		pg/g	SW846 8290
OCDF	47		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	93	(40 - 135)
13C-1,2,3,7,8-PeCDD	116	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	91	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	79	(40 - 135)
13C-OCDD	75	(40 - 135)
13C-2,3,7,8-TCDF	93	(40 - 135)
13C-1,2,3,7,8-PeCDF	108	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	109	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	68	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CON Confirmation analysis.

J Estimated result. Result is less than the reporting limit.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0991012

Trace Level Organic Compounds

Lot-Sample #...:	C6L200201-006	Work Order #...:	JLVWX1AD	Matrix.....:	SOLID
Date Sampled...:	12/19/06	Date Received..:	12/20/06	MS Run #.....:	7011222
Prep Date.....:	12/27/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6361480	Analysis Time..:	11:32		
Dilution Factor:	1	Initial Wgt/Vol:	10.02 g	Final Wgt/Vol..:	20 uL
% Moisture.....:	18 4	Analyst ID.....:	002457	Instrument ID..:	1D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	1.9		pg/g	SW846 8290
Total TCDD	42		pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND D	6.4	pg/g	SW846 8290
Total PeCDD	15		pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	5.8 J		pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	15		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	12		pg/g	SW846 8290
Total HxCDD	180		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	190		pg/g	SW846 8290
Total HpCDD	380		pg/g	SW846 8290
OCDD	850		pg/g	SW846 8290
2,3,7,8-TCDF	10 CON		pg/g	SW846 8290
Total TCDF	140		pg/g	SW846 8290
1,2,3,7,8-PeCDF	ND D	8.4	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND D	11	pg/g	SW846 8290
Total PeCDF	47		pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND D	13	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND D	7.4	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND D	10	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND D	0.75	pg/g	SW846 8290
Total HxCDF	21		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	41		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	3.6 J		pg/g	SW846 8290
Total HpCDF	75		pg/g	SW846 8290
OCDF	29		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	107	(40 - 135)
13C-1,2,3,7,8-PeCDD	82	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	109	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	66	(40 - 135)
13C-OCDD	41	(40 - 135)
13C-2,3,7,8-TCDF	85	(40 - 135)
13C-1,2,3,7,8-PeCDF	94	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	109	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	61	(40 - 135)

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0991012

Trace Level Organic Compounds

Lot-Sample #...: C6L200201-006 Work Order #...: JLVWX1AD Matrix.....: SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

J Estimated result. Result is less than the reporting limit.

CON Confirmation analysis.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD03110701

GC/MS Volatiles

Lot-Sample #...:	C7C130264-015	Work Order #...:	JQ0FC1AF	Matrix.....:	WATER
Date Sampled...:	03/12/07	Date Received..:	03/13/07	MS Run #.....:	7078236
Prep Date.....:	03/19/07	Analysis Date..:	03/19/07		
Prep Batch #...:	7078352	Analysis Time..:	19:16		
Dilution Factor:	1	Initial Wgt/Vol:	5 mL	Final Wgt/Vol..:	5 mL
Analyst ID.....:	001562	Instrument ID..:	HP6		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD03110701

GC/MS Volatiles

Lot-Sample #...: C7C130264-015 Work Order #...: JQ0FC1AF Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	105	(71 - 118)
1,2-Dichloroethane-d4	94	(64 - 135)
4-Bromofluorobenzene	111	(70 - 118)
Dibromofluoromethane	101	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0101

GC/MS Volatiles

Lot-Sample #...: C7C130264-004
Date Sampled...: 03/11/07
Prep Date.....: 03/19/07
Prep Batch #...: 7078352
Dilution Factor: 1
Analyst ID.....: 001562

Work Order #...: JQ0C01A4
Date Received..: 03/13/07
Analysis Date..: 03/19/07
Analysis Time..: 15:24
Initial Wgt/Vol: 5 mL
Instrument ID..: HP6
Method.....: SW846 8260B

Matrix.....: WATER
MS Run #.....: 7078236

Final Wgt/Vol..: 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0101

GC/MS Volatiles

Lot-Sample #...: C7C130264-004 Work Order #...: JQ0C01A4 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	106	(71 - 118)
1,2-Dichloroethane-d4	97	(64 - 135)
4-Bromofluorobenzene	106	(70 - 118)
Dibromofluoromethane	97	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0201

GC/MS Volatiles

Lot-Sample #...:	C7C130264-005	Work Order #...:	JQ0C71AP	Matrix.....:	WATER
Date Sampled...:	03/11/07	Date Received..:	03/13/07	MS Run #.....:	7078236
Prep Date.....:	03/19/07	Analysis Date..:	03/19/07		
Prep Batch #...:	7078352	Analysis Time..:	13:04		
Dilution Factor:	1	Initial Wgt/Vol:	5 mL	Final Wgt/Vol..:	5 mL
Analyst ID.....:	001562	Instrument ID..:	HP6		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0201

GC/MS Volatiles

Lot-Sample #...: C7C130264-005 Work Order #...: JQ0C71AP Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	0.65 J	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	111	(71 - 118)
1,2-Dichloroethane-d4	105	(64 - 135)
4-Bromofluorobenzene	110	(70 - 118)
Dibromofluoromethane	108	(64 - 128)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0301

GC/MS Volatiles

Lot-Sample #...: C7C130264-010
Date Sampled...: 03/12/07
Prep Date.....: 03/19/07
Prep Batch #...: 7078352
Dilution Factor: 1
Analyst ID.....: 001562

Work Order #...: JQ0DQ1A4
Date Received..: 03/13/07
Analysis Date..: 03/19/07
Analysis Time..: 17:20
Initial Wgt/Vol: 5 mL
Instrument ID..: HP6
Method.....: SW846 8260B

Matrix.....: WATER
MS Run #.....: 7078236

Final Wgt/Vol..: 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0301

GC/MS Volatiles

Lot-Sample #...: C7C130264-010 Work Order #...: JQ0DQ1A4 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	108	(71 - 118)
1,2-Dichloroethane-d4	98	(64 - 135)
4-Bromofluorobenzene	107	(70 - 118)
Dibromofluoromethane	99	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0401

GC/MS Volatiles

Lot-Sample #...: C7C130264-011
Date Sampled...: 03/12/07
Prep Date.....: 03/19/07
Prep Batch #...: 7078352
Dilution Factor: 1
Analyst ID.....: 001562

Work Order #...: JQ0D21A4
Date Received..: 03/13/07
Analysis Date..: 03/19/07
Analysis Time..: 17:43
Initial Wgt/Vol: 5 mL
Instrument ID..: HP6
Method.....: SW846 8260B

Matrix.....: WATER
MS Run #.....: 7078236

Final Wgt/Vol..: 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0401

GC/MS Volatiles

Lot-Sample #...: C7C130264-011 Work Order #...: JQ0D21A4 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	108	(71 - 118)
1,2-Dichloroethane-d4	104	(64 - 135)
4-Bromofluorobenzene	108	(70 - 118)
Dibromofluoromethane	99	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0501

GC/MS Volatiles

Lot-Sample #...: C7C130264-012
Date Sampled...: 03/12/07
Prep Date.....: 03/19/07
Prep Batch #...: 7078352
Dilution Factor: 1
Analyst ID.....: 001562

Work Order #...: JQ0D81AG
Date Received..: 03/13/07
Analysis Date..: 03/19/07
Analysis Time..: 18:06
Initial Wgt/Vol: 5 mL
Instrument ID..: HP6
Method.....: SW846 8260B

Matrix.....: WATER
MS Run #.....: 7078236

Final Wgt/Vol..: 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0501

GC/MS Volatiles

Lot-Sample #...: C7C130264-012 Work Order #...: JQ0D81AG Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	104	(71 - 118)
1,2-Dichloroethane-d4	100	(64 - 135)
4-Bromofluorobenzene	108	(70 - 118)
Dibromofluoromethane	100	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0601

GC/MS Volatiles

Lot-Sample #...: C7C130264-013
Date Sampled...: 03/12/07
Prep Date.....: 03/19/07
Prep Batch #...: 7078352
Dilution Factor: 1
Analyst ID.....: 001562

Work Order #...: JQ0EQ1AF
Date Received..: 03/13/07
Analysis Date..: 03/19/07
Analysis Time..: 18:29
Initial Wgt/Vol: 5 mL
Instrument ID..: HP6
Method.....: SW846 8260B

Matrix.....: WATER
MS Run #.....: 7078236

Final Wgt/Vol..: 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0601

GC/MS Volatiles

Lot-Sample #...: C7C130264-013 Work Order #...: JQ0EQ1AF Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	107	(71 - 118)
1,2-Dichloroethane-d4	99	(64 - 135)
4-Bromofluorobenzene	106	(70 - 118)
Dibromofluoromethane	98	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0701

GC/MS Volatiles

Lot-Sample #...: C7C130264-006
Date Sampled...: 03/11/07
Prep Date.....: 03/19/07
Prep Batch #...: 7078352
Dilution Factor: 1
Analyst ID.....: 001562

Work Order #...: JQ0C91A5
Date Received..: 03/13/07
Analysis Date..: 03/19/07
Analysis Time..: 15:47
Initial Wgt/Vol: 5 mL
Instrument ID..: HP6
Method.....: SW846 8260B

Matrix.....: WATER
MS Run #.....: 7078236

Final Wgt/Vol..: 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0701

GC/MS Volatiles

Lot-Sample #...: C7C130264-006 Work Order #...: JQ0C91A5 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	107	(71 - 118)
1,2-Dichloroethane-d4	97	(64 - 135)
4-Bromofluorobenzene	108	(70 - 118)
Dibromofluoromethane	95	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0801

GC/MS Volatiles

Lot-Sample #...: C7C130264-007
Date Sampled...: 03/11/07
Prep Date.....: 03/19/07
Prep Batch #...: 7078352
Dilution Factor: 1
Analyst ID.....: 001562

Work Order #...: JQ0DF1AF
Date Received..: 03/13/07
Analysis Date..: 03/19/07
Analysis Time..: 16:10
Initial Wgt/Vol: 5 mL
Instrument ID..: HP6
Method.....: SW846 8260B

Matrix.....: WATER
MS Run #.....: 7078236

Final Wgt/Vol..: 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0801

GC/MS Volatiles

Lot-Sample #...: C7C130264-007 Work Order #...: JQ0DF1AF Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	107	(71 - 118)
1,2-Dichloroethane-d4	104	(64 - 135)
4-Bromofluorobenzene	104	(70 - 118)
Dibromofluoromethane	105	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0901

GC/MS Volatiles

Lot-Sample #...: C7C130264-008
Date Sampled...: 03/11/07
Prep Date.....: 03/19/07
Prep Batch #...: 7078352
Dilution Factor: 1
Analyst ID.....: 001562

Work Order #...: JQ0DG1AG
Date Received..: 03/13/07
Analysis Date..: 03/19/07
Analysis Time..: 16:34
Initial Wgt/Vol: 5 mL
Instrument ID..: HP6
Method.....: SW846 8260B

Matrix.....: WATER
MS Run #.....: 7078236

Final Wgt/Vol..: 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0901

GC/MS Volatiles

Lot-Sample #...: C7C130264-008 Work Order #...: JQ0DG1AG Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	104	(71 - 118)
1,2-Dichloroethane-d4	97	(64 - 135)
4-Bromofluorobenzene	110	(70 - 118)
Dibromofluoromethane	98	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW1001

GC/MS Volatiles

Lot-Sample #...: C7C130264-009
Date Sampled...: 03/11/07
Prep Date.....: 03/19/07
Prep Batch #...: 7078352
Dilution Factor: 1
Analyst ID.....: 001562

Work Order #...: JQ0DM1AF
Date Received..: 03/13/07
Analysis Date..: 03/19/07
Analysis Time..: 16:57
Initial Wgt/Vol: 5 mL
Instrument ID..: HP6
Method.....: SW846 8260B

Matrix.....: WATER
MS Run #.....: 7078236

Final Wgt/Vol..: 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW1001

GC/MS Volatiles

Lot-Sample #...: C7C130264-009 Work Order #...: JQ0DM1AF Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	104	(71 - 118)
1,2-Dichloroethane-d4	96	(64 - 135)
4-Bromofluorobenzene	106	(70 - 118)
Dibromofluoromethane	99	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01TWGW0401

GC/MS Volatiles

Lot-Sample #...: C7C130264-014
Date Sampled...: 03/12/07
Prep Date.....: 03/19/07
Prep Batch #...: 7078352
Dilution Factor: 1
Analyst ID.....: 001562

Work Order #...: JQ0E61AA
Date Received..: 03/13/07
Analysis Date..: 03/19/07
Analysis Time..: 18:53
Initial Wgt/Vol: 5 mL
Instrument ID..: HP6
Method.....: SW846 8260B

Matrix.....: WATER
MS Run #.....: 7078236

Final Wgt/Vol..: 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	5.0	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01TWGW0401

GC/MS Volatiles

Lot-Sample #...: C7C130264-014 Work Order #...: JQ0E61AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	103	(71 - 118)
1,2-Dichloroethane-d4	99	(64 - 135)
4-Bromofluorobenzene	104	(70 - 118)
Dibromofluoromethane	100	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: TRIP-1

GC/MS Volatiles

Lot-Sample #...: C7C130264-016
Date Sampled...: 03/12/07
Prep Date.....: 03/19/07
Prep Batch #...: 7078352
Dilution Factor: 1
Analyst ID.....: 001562

Work Order #...: JQ0FE1AA
Date Received..: 03/13/07
Analysis Date..: 03/19/07
Analysis Time..: 19:39
Initial Wgt/Vol: 5 mL
Instrument ID..: HP6
Method.....: SW846 8260B

Matrix.....: WATER
MS Run #.....: 7078236

Final Wgt/Vol..: 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: TRIP-1

GC/MS Volatiles

Lot-Sample #...: C7C130264-016 Work Order #...: JQ0FE1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	106	(71 - 118)
1,2-Dichloroethane-d4	100	(64 - 135)
4-Bromofluorobenzene	109	(70 - 118)
Dibromofluoromethane	99	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD03110701

HPLC

Lot-Sample #...:	C7C130264-015	Work Order #...:	JQ0FC1AG	Matrix.....:	WATER
Date Sampled...:	03/12/07	Date Received..:	03/13/07	MS Run #.....:	7073231
Prep Date.....:	03/14/07	Analysis Date..:	03/16/07		
Prep Batch #...:	7073450	Analysis Time..:	01:10		
Dilution Factor:	0.96	Initial Wgt/Vol:	1040 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	0.96	ug/L	0.11
Acenaphthylene	ND	0.96	ug/L	0.11
Acenaphthene	ND	0.96	ug/L	0.10
Fluorene	ND	0.19	ug/L	0.021
Phenanthrene	0.061 J	0.19	ug/L	0.024
Anthracene	ND	0.19	ug/L	0.023
Fluoranthene	ND	0.19	ug/L	0.024
Pyrene	ND	0.19	ug/L	0.024
Benzo(a)anthracene	ND	0.19	ug/L	0.025
Chrysene	ND	0.19	ug/L	0.024
Benzo(b)fluoranthene	ND	0.19	ug/L	0.028
Benzo(k)fluoranthene	ND	0.19	ug/L	0.028
Benzo(a)pyrene	ND	0.19	ug/L	0.027
Indeno(1,2,3-cd)pyrene	ND	0.19	ug/L	0.022
Dibenzo(a,h)anthracene	ND	0.19	ug/L	0.022
Benzo(ghi)perylene	ND	0.19	ug/L	0.024
Carbazole	ND	0.96	ug/L	0.11
2-Methylnaphthalene	ND	0.96	ug/L	0.11

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	98	(78 - 125)
Terphenyl-d14	95	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0101

HPLC

Lot-Sample #...: C7C130264-004
Date Sampled...: 03/11/07
Prep Date.....: 03/14/07
Prep Batch #...: 7073450
Dilution Factor: 0.97
Analyst ID.....: 014878

Work Order #...: JQ0C01A5
Date Received..: 03/13/07
Analysis Date..: 03/15/07
Analysis Time..: 16:23
Initial Wgt/Vol: 1030 mL
Instrument ID..: G
Method.....: SW846 8310

Matrix.....: WATER
MS Run #.....: 7073231

Final Wgt/Vol..: 1 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	0.97	ug/L	0.11
Acenaphthylene	ND	0.97	ug/L	0.11
Acenaphthene	ND	0.97	ug/L	0.10
Fluorene	ND	0.19	ug/L	0.021
Phenanthrene	0.085 J	0.19	ug/L	0.024
Anthracene	ND	0.19	ug/L	0.024
Fluoranthene	ND	0.19	ug/L	0.025
Pyrene	ND	0.19	ug/L	0.024
Benzo(a)anthracene	ND	0.19	ug/L	0.025
Chrysene	ND	0.19	ug/L	0.025
Benzo(b)fluoranthene	ND	0.19	ug/L	0.028
Benzo(k)fluoranthene	ND	0.19	ug/L	0.029
Benzo(a)pyrene	ND	0.19	ug/L	0.027
Indeno(1,2,3-cd)pyrene	ND	0.19	ug/L	0.022
Dibenzo(a,h)anthracene	ND	0.19	ug/L	0.023
Benzo(ghi)perylene	ND	0.19	ug/L	0.024
Carbazole	ND	0.97	ug/L	0.11
2-Methylnaphthalene	ND	0.97	ug/L	0.11

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	100	(78 - 125)
Terphenyl-d14	97	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0201

HPLC

Lot-Sample #...: C7C130264-005
Date Sampled...: 03/11/07
Prep Date.....: 03/14/07
Prep Batch #...: 7073450
Dilution Factor: 0.96
Analyst ID.....: 014878

Work Order #...: JQ0C71AT
Date Received..: 03/13/07
Analysis Date..: 03/15/07
Analysis Time..: 17:04
Initial Wgt/Vol: 1040 mL
Instrument ID..: G
Method.....: SW846 8310

Matrix.....: WATER
MS Run #.....: 7073231

Final Wgt/Vol..: 1 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	0.96	ug/L	0.11
Acenaphthylene	ND	0.96	ug/L	0.11
Acenaphthene	ND	0.96	ug/L	0.10
Fluorene	ND	0.19	ug/L	0.021
Phenanthrene	0.087 J	0.19	ug/L	0.024
Anthracene	ND	0.19	ug/L	0.023
Fluoranthene	ND	0.19	ug/L	0.024
Pyrene	ND	0.19	ug/L	0.024
Benzo(a)anthracene	ND	0.19	ug/L	0.025
Chrysene	ND	0.19	ug/L	0.024
Benzo(b)fluoranthene	ND	0.19	ug/L	0.028
Benzo(k)fluoranthene	ND	0.19	ug/L	0.028
Benzo(a)pyrene	ND	0.19	ug/L	0.027
Indeno(1,2,3-cd)pyrene	ND	0.19	ug/L	0.022
Dibenzo(a,h)anthracene	ND	0.19	ug/L	0.022
Benzo(ghi)perylene	ND	0.19	ug/L	0.024
Carbazole	ND	0.96	ug/L	0.11
2-Methylnaphthalene	ND	0.96	ug/L	0.11

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	96	(78 - 125)
Terphenyl-d14	93	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0301

HPLC

Lot-Sample #...:	C7C130264-010	Work Order #...:	JQ0DQ1A5	Matrix.....:	WATER
Date Sampled...:	03/12/07	Date Received..:	03/13/07	MS Run #.....:	7073231
Prep Date.....:	03/14/07	Analysis Date..:	03/15/07		
Prep Batch #...:	7073450	Analysis Time..:	23:09		
Dilution Factor:	0.98	Initial Wgt/Vol:	1020 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	0.98	ug/L	0.11
Acenaphthylene	ND	0.98	ug/L	0.11
Acenaphthene	ND	0.98	ug/L	0.11
Fluorene	ND	0.20	ug/L	0.021
Phenanthrene	**0.10 J**	**0.20**	**ug/L**	**0.024**
Anthracene	ND	0.20	ug/L	0.024
Fluoranthene	ND	0.20	ug/L	0.025
Pyrene	**0.025 J,PG**	**0.20**	**ug/L**	**0.024**
Benzo(a)anthracene	ND	0.20	ug/L	0.025
Chrysene	ND	0.20	ug/L	0.025
Benzo(b)fluoranthene	ND	0.20	ug/L	0.028
Benzo(k)fluoranthene	ND	0.20	ug/L	0.029
Benzo(a)pyrene	ND	0.20	ug/L	0.027
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	0.022
Dibenzo(a,h)anthracene	ND	0.20	ug/L	0.023
Benzo(ghi)perylene	ND	0.20	ug/L	0.024
Carbazole	ND	0.98	ug/L	0.11
2-Methylnaphthalene	ND	0.98	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	98	(78 - 125)
Terphenyl-d14	95	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0501

HPLC

Lot-Sample #...: C7C130264-012
Date Sampled...: 03/12/07
Prep Date.....: 03/14/07
Prep Batch #...: 7073450
Dilution Factor: 0.96
Analyst ID.....: 014878

Work Order #...: JQ0D81AH
Date Received..: 03/13/07
Analysis Date..: 03/15/07
Analysis Time..: 23:49
Initial Wgt/Vol: 1040 mL
Instrument ID..: G
Method.....: SW846 8310

Matrix.....: WATER
MS Run #.....: 7073231

Final Wgt/Vol..: 1 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	0.96	ug/L	0.11
Acenaphthylene	ND	0.96	ug/L	0.11
Acenaphthene	ND	0.96	ug/L	0.10
Fluorene	ND	0.19	ug/L	0.021
Phenanthrene	0.067 J	0.19	ug/L	0.024
Anthracene	ND	0.19	ug/L	0.023
Fluoranthene	ND	0.19	ug/L	0.024
Pyrene	ND	0.19	ug/L	0.024
Benzo(a)anthracene	ND	0.19	ug/L	0.025
Chrysene	ND	0.19	ug/L	0.024
Benzo(b)fluoranthene	ND	0.19	ug/L	0.028
Benzo(k)fluoranthene	ND	0.19	ug/L	0.028
Benzo(a)pyrene	ND	0.19	ug/L	0.027
Indeno(1,2,3-cd)pyrene	ND	0.19	ug/L	0.022
Dibenzo(a,h)anthracene	ND	0.19	ug/L	0.022
Benzo(ghi)perylene	ND	0.19	ug/L	0.024
Carbazole	ND	0.96	ug/L	0.11
2-Methylnaphthalene	ND	0.96	ug/L	0.11

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	96	(78 - 125)
Terphenyl-d14	93	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0601

HPLC

Lot-Sample #...:	C7C130264-013	Work Order #...:	JQ0EQ1AG	Matrix.....:	WATER
Date Sampled...:	03/12/07	Date Received..:	03/13/07	MS Run #.....:	7073231
Prep Date.....:	03/14/07	Analysis Date..:	03/16/07		
Prep Batch #...:	7073450	Analysis Time..:	00:30		
Dilution Factor:	1	Initial Wgt/Vol:	1000 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1.0	ug/L	0.12
Acenaphthylene	ND	1.0	ug/L	0.11
Acenaphthene	ND	1.0	ug/L	0.11
Fluorene	ND	0.20	ug/L	0.022
Phenanthrene	0.056 J	0.20	ug/L	0.024
Anthracene	ND	0.20	ug/L	0.024
Fluoranthene	ND	0.20	ug/L	0.025
Pyrene	ND	0.20	ug/L	0.025
Benzo(a)anthracene	ND	0.20	ug/L	0.026
Chrysene	ND	0.20	ug/L	0.025
Benzo(b)fluoranthene	ND	0.20	ug/L	0.029
Benzo(k)fluoranthene	ND	0.20	ug/L	0.029
Benzo(a)pyrene	ND	0.20	ug/L	0.028
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	0.023
Dibenzo(a,h)anthracene	ND	0.20	ug/L	0.023
Benzo(ghi)perylene	ND	0.20	ug/L	0.025
Carbazole	ND	1.0	ug/L	0.11
2-Methylnaphthalene	ND	1.0	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	97	(78 - 125)
Terphenyl-d14	93	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0701

HPLC

Lot-Sample #...: C7C130264-006
Date Sampled...: 03/11/07
Prep Date.....: 03/14/07
Prep Batch #...: 7073450
Dilution Factor: 0.95
Analyst ID.....: 014878

Work Order #...: JQ0C91A6
Date Received..: 03/13/07
Analysis Date..: 03/15/07
Analysis Time..: 19:05
Initial Wgt/Vol: 1050 mL
Instrument ID..: G
Method.....: SW846 8310

Matrix.....: WATER
MS Run #.....: 7073231

Final Wgt/Vol..: 1 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	0.95	ug/L	0.11
Acenaphthylene	ND	0.95	ug/L	0.10
Acenaphthene	ND	0.95	ug/L	0.10
Fluorene	ND	0.19	ug/L	0.020
Phenanthrene	0.070 J	0.19	ug/L	0.023
Anthracene	ND	0.19	ug/L	0.023
Fluoranthene	ND	0.19	ug/L	0.024
Pyrene	ND	0.19	ug/L	0.024
Benzo(a)anthracene	ND	0.19	ug/L	0.025
Chrysene	ND	0.19	ug/L	0.024
Benzo(b)fluoranthene	ND	0.19	ug/L	0.027
Benzo(k)fluoranthene	ND	0.19	ug/L	0.028
Benzo(a)pyrene	ND	0.19	ug/L	0.027
Indeno(1,2,3-cd)pyrene	ND	0.19	ug/L	0.022
Dibenzo(a,h)anthracene	ND	0.19	ug/L	0.022
Benzo(ghi)perylene	ND	0.19	ug/L	0.023
Carbazole	ND	0.95	ug/L	0.11
2-Methylnaphthalene	ND	0.95	ug/L	0.11

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	97	(78 - 125)
Terphenyl-d14	94	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0801

HPLC

Lot-Sample #...:	C7C130264-007	Work Order #...:	JQ0DF1AG	Matrix.....:	WATER
Date Sampled...:	03/11/07	Date Received..:	03/13/07	MS Run #.....:	7073231
Prep Date.....:	03/14/07	Analysis Date..:	03/15/07		
Prep Batch #...:	7073450	Analysis Time..:	19:46		
Dilution Factor:	0.95	Initial Wgt/Vol:	1050 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	0.95	ug/L	0.11
Acenaphthylene	ND	0.95	ug/L	0.10
Acenaphthene	ND	0.95	ug/L	0.10
Fluorene	ND	0.19	ug/L	0.020
Phenanthrene	0.093 J	0.19	ug/L	0.023
Anthracene	ND	0.19	ug/L	0.023
Fluoranthene	ND	0.19	ug/L	0.024
Pyrene	ND	0.19	ug/L	0.024
Benzo(a)anthracene	ND	0.19	ug/L	0.025
Chrysene	ND	0.19	ug/L	0.024
Benzo(b)fluoranthene	ND	0.19	ug/L	0.027
Benzo(k)fluoranthene	ND	0.19	ug/L	0.028
Benzo(a)pyrene	ND	0.19	ug/L	0.027
Indeno(1,2,3-cd)pyrene	ND	0.19	ug/L	0.022
Dibenzo(a,h)anthracene	ND	0.19	ug/L	0.022
Benzo(ghi)perylene	ND	0.19	ug/L	0.023
Carbazole	ND	0.95	ug/L	0.11
2-Methylnaphthalene	ND	0.95	ug/L	0.11

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	99	(78 - 125)
Terphenyl-d14	95	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0901

HPLC

Lot-Sample #...:	C7C130264-008	Work Order #...:	JQ0DG1AH	Matrix.....:	WATER
Date Sampled...:	03/11/07	Date Received..:	03/13/07	MS Run #.....:	7073231
Prep Date.....:	03/14/07	Analysis Date..:	03/15/07		
Prep Batch #...:	7073450	Analysis Time..:	21:48		
Dilution Factor:	0.95	Initial Wgt/Vol:	1050 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	0.95	ug/L	0.11
Acenaphthylene	ND	0.95	ug/L	0.10
Acenaphthene	ND	0.95	ug/L	0.10
Fluorene	**0.025 J,PG**	**0.19**	**ug/L**	**0.020**
Phenanthrene	**0.11 J**	**0.19**	**ug/L**	**0.023**
Anthracene	ND	0.19	ug/L	0.023
Fluoranthene	ND	0.19	ug/L	0.024
Pyrene	ND	0.19	ug/L	0.024
Benzo(a)anthracene	ND	0.19	ug/L	0.025
Chrysene	ND	0.19	ug/L	0.024
Benzo(b)fluoranthene	ND	0.19	ug/L	0.027
Benzo(k)fluoranthene	ND	0.19	ug/L	0.028
Benzo(a)pyrene	ND	0.19	ug/L	0.027
Indeno(1,2,3-cd)pyrene	ND	0.19	ug/L	0.022
Dibenzo(a,h)anthracene	ND	0.19	ug/L	0.022
Benzo(ghi)perylene	ND	0.19	ug/L	0.023
Carbazole	ND	0.95	ug/L	0.11
2-Methylnaphthalene	ND	0.95	ug/L	0.11

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	95	(78 - 125)
Terphenyl-d14	92	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW1001

HPLC

Lot-Sample #...:	C7C130264-009	Work Order #...:	JQ0DM1AG	Matrix.....:	WATER
Date Sampled...:	03/11/07	Date Received..:	03/13/07	MS Run #.....:	7073231
Prep Date.....:	03/14/07	Analysis Date..:	03/15/07		
Prep Batch #...:	7073450	Analysis Time..:	22:28		
Dilution Factor:	0.97	Initial Wgt/Vol:	1030 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	0.97	ug/L	0.11
Acenaphthylene	ND	0.97	ug/L	0.11
Acenaphthene	ND	0.97	ug/L	0.10
Fluorene	ND	0.19	ug/L	0.021
Phenanthrene	0.086 J	0.19	ug/L	0.024
Anthracene	ND	0.19	ug/L	0.024
Fluoranthene	ND	0.19	ug/L	0.025
Pyrene	ND	0.19	ug/L	0.024
Benzo(a)anthracene	ND	0.19	ug/L	0.025
Chrysene	ND	0.19	ug/L	0.025
Benzo(b)fluoranthene	ND	0.19	ug/L	0.028
Benzo(k)fluoranthene	ND	0.19	ug/L	0.029
Benzo(a)pyrene	ND	0.19	ug/L	0.027
Indeno(1,2,3-cd)pyrene	ND	0.19	ug/L	0.022
Dibenzo(a,h)anthracene	ND	0.19	ug/L	0.023
Benzo(ghi)perylene	ND	0.19	ug/L	0.024
Carbazole	ND	0.97	ug/L	0.11
2-Methylnaphthalene	ND	0.97	ug/L	0.11

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	99	(78 - 125)
Terphenyl-d14	95	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD03110701

TOTAL Metals

Lot-Sample #...: C7C130264-015 Matrix.....: WATER
Date Sampled...: 03/12/07 Date Received..: 03/13/07

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7074197						
Silver	0.58 B	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AK
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.30	
Aluminum	57.4 B,J	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AL
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 8.0	
Arsenic	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AM
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.3	
Barium	51.3 B	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AN
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Beryllium	ND	4.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AP
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.42	
Calcium	500000	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AQ
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 39.5	
Cadmium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AR
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.70	
Cobalt	0.90 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AT
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.53	
Chromium	1.1 B	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AU
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.93	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD03110701

TOTAL Metals

Lot-Sample #...: C7C130264-015 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	5.4 B	25.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AV
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Iron	460	100	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AW
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 18.0	
Potassium	11000 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AX
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 75.0	
Magnesium	144000 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1A0
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 10.2	
Manganese	372	15.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1A1
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.11	
Sodium	42900	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1A2
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 157	
Nickel	12.0 B	40.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1A3
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Lead	ND	3.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1A4
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.6	
Selenium	10.7	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1A5
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 2.6	
Thallium	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AA
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 4.6	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD03110701

TOTAL Metals

Lot-Sample #...: C7C130264-015 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AC
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.2	
Vanadium	8.4 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AD
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Zinc	272 J	20.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0FC1AE
		Dilution Factor: 1		Analysis Time..: 15:46	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.7	
Prep Batch #...: 7087126						
Mercury	ND	0.20	ug/L	SW846 7470A	03/28/07	JQ0FC1AJ
		Dilution Factor: 1		Analysis Time..: 14:48	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7087059	MDL.....: 0.048	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0101

TOTAL Metals

Lot-Sample #...: C7C130264-004 Matrix.....: WATER
Date Sampled...: 03/11/07 Date Received..: 03/13/07

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7074197						
Silver	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AD
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.30	
Aluminum	73.4 B,J	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AE
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 8.0	
Arsenic	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AF
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.3	
Barium	51.5 B	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AG
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Beryllium	ND	4.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AH
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.42	
Calcium	506000	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AJ
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 39.5	
Cadmium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AK
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.70	
Cobalt	0.92 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AL
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.53	
Chromium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AM
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.93	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0101

TOTAL Metals

Lot-Sample #...: C7C130264-004 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	5.4 B	25.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AN
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Iron	527	100	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AP
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 18.0	
Potassium	11000 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AQ
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 75.0	
Magnesium	146000 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AR
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 10.2	
Manganese	376	15.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AT
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.11	
Sodium	43000	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AU
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 157	
Nickel	12.4 B	40.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AV
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Lead	ND	3.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AW
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.6	
Selenium	13.5	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01AX
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 2.6	
Thallium	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01A0
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 4.6	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0101

TOTAL Metals

Lot-Sample #...: C7C130264-004 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01A1
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.2	
Vanadium	7.9 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01A2
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Zinc	309 J	20.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C01A3
		Dilution Factor: 1		Analysis Time..: 14:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.7	
Prep Batch #...: 7087126						
Mercury	ND	0.20	ug/L	SW846 7470A	03/28/07	JQ0C01AC
		Dilution Factor: 1		Analysis Time..: 14:21	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7087059	MDL.....: 0.048	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0201

TOTAL Metals

Lot-Sample #...: C7C130264-005 Matrix.....: WATER
Date Sampled...: 03/11/07 Date Received..: 03/13/07

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7074197						
Silver	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71A4
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.30	
Aluminum	**28.0 B,J**	**200**	**ug/L**	**SW846 6010B**	**03/20-03/23/07**	**JQ0C71A7**
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 8.0	
Arsenic	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71CA
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.3	
Barium	**53.6 B**	**200**	**ug/L**	**SW846 6010B**	**03/20-03/23/07**	**JQ0C71CE**
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Beryllium	ND	4.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71CH
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.42	
Calcium	**112000**	**5000**	**ug/L**	**SW846 6010B**	**03/20-03/23/07**	**JQ0C71CL**
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 39.5	
Cadmium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71CP
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.70	
Cobalt	ND	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71CT
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.53	
Chromium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71CW
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.93	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0201

TOTAL Metals

Lot-Sample #...: C7C130264-005 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	25.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71C1
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Iron	2100	100	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71C4
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 18.0	
Potassium	2530 B,J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71C7
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 75.0	
Magnesium	94300 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71DA
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 10.2	
Manganese	48.9	15.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71DE
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.11	
Sodium	22500 E	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71DH
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 157	
Nickel	ND	40.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71DL
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Lead	ND	3.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71DP
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.6	
Selenium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71DT
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 2.6	
Thallium	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71AA
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 4.6	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0201

TOTAL Metals

Lot-Sample #...: C7C130264-005 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71AE
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.2	
Vanadium	3.7 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71AH
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Zinc	36.3 J	20.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C71AL
		Dilution Factor: 1		Analysis Time..: 14:27	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.7	
Prep Batch #...: 7087126						
Mercury	ND	0.20	ug/L	SW846 7470A	03/28/07	JQ0C71A1
		Dilution Factor: 1		Analysis Time..: 14:23	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7087059	MDL.....: 0.048	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E Matrix interference.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0301

TOTAL Metals

Lot-Sample #...: C7C130264-010 Matrix.....: WATER
Date Sampled...: 03/12/07 Date Received..: 03/13/07

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7074197						
Silver	0.38 B	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AD
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.30	
Aluminum	8650 J	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AE
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 8.0	
Arsenic	3.3 B	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AF
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.3	
Barium	119 B	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AG
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Beryllium	ND	4.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AH
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.42	
Calcium	144000	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AJ
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 39.5	
Cadmium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AK
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.70	
Cobalt	11.0 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AL
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.53	
Chromium	14.1	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AM
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.93	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0301

TOTAL Metals

Lot-Sample #...: C7C130264-010 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	12.4 B	25.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AN
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Iron	11400	100	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AP
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 18.0	
Potassium	7720 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AQ
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 75.0	
Magnesium	133000 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AR
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 10.2	
Manganese	366	15.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AT
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.11	
Sodium	16500	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AU
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 157	
Nickel	27.4 B	40.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AV
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Lead	5.8	3.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AW
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.6	
Selenium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1AX
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 2.6	
Thallium	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1A0
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 4.6	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0301

TOTAL Metals

Lot-Sample #...: C7C130264-010 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1A1
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.2	
Vanadium	20.7 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1A2
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Zinc	55.0 J	20.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1A3
		Dilution Factor: 1		Analysis Time..: 15:35	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.7	
Prep Batch #...: 7087126						
Mercury	ND	0.20	ug/L	SW846 7470A	03/28/07	JQ0DQ1AC
		Dilution Factor: 1		Analysis Time..: 14:39	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7087059	MDL.....: 0.048	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0401

TOTAL Metals

Lot-Sample #...: C7C130264-011 Matrix.....: WATER
Date Sampled...: 03/12/07 Date Received..: 03/13/07

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7074197						
Silver	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21AD
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.30	
Aluminum	**73.0 B,J**	**200**	**ug/L**	**SW846 6010B**	**03/20-03/23/07**	**JQ0D21AE**
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 8.0	
Arsenic	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21AF
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.3	
Barium	**74.2 B**	**200**	**ug/L**	**SW846 6010B**	**03/20-03/23/07**	**JQ0D21AG**
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Beryllium	ND	4.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21AH
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.42	
Calcium	**120000**	**5000**	**ug/L**	**SW846 6010B**	**03/20-03/23/07**	**JQ0D21AJ**
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 39.5	
Cadmium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21AK
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.70	
Cobalt	**3.6 B**	**50.0**	**ug/L**	**SW846 6010B**	**03/20-03/23/07**	**JQ0D21AL**
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.53	
Chromium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21AM
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.93	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0401

TOTAL Metals

Lot-Sample #...: C7C130264-011 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	25.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21AN
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Iron	ND	100	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21AP
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 18.0	
Potassium	6630 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21AQ
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 75.0	
Magnesium	128000 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21AR
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 10.2	
Manganese	123	15.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21AT
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.11	
Sodium	41500	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21AU
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 157	
Nickel	10.2 B	40.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21AV
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Lead	ND	3.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21AW
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.6	
Selenium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21AX
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 2.6	
Thallium	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21A0
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 4.6	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0401

TOTAL Metals

Lot-Sample #...: C7C130264-011 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21A1
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.2	
Vanadium	4.1 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21A2
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Zinc	7.4 B,J	20.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D21A3
		Dilution Factor: 1		Analysis Time..: 14:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.7	
Prep Batch #...: 7087126						
Mercury	ND	0.20	ug/L	SW846 7470A	03/28/07	JQ0D21AC
		Dilution Factor: 1		Analysis Time..: 14:41	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7087059	MDL.....: 0.048	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0501

TOTAL Metals

Lot-Sample #...: C7C130264-012 Matrix.....: WATER
Date Sampled...: 03/12/07 Date Received..: 03/13/07

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7074197						
Silver	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AM
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.30	
Aluminum	144 B,J	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AN
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 8.0	
Arsenic	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AP
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.3	
Barium	54.0 B	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AQ
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Beryllium	ND	4.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AR
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.42	
Calcium	85200	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AT
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 39.5	
Cadmium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AU
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.70	
Cobalt	0.85 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AV
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.53	
Chromium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AW
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.93	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0501

TOTAL Metals

Lot-Sample #...: C7C130264-012 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	1.6 B	25.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AX
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Iron	106	100	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81A0
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 18.0	
Potassium	1750 B,J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81A1
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 75.0	
Magnesium	42000 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81A2
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 10.2	
Manganese	33.2	15.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81A3
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.11	
Sodium	69600	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81A4
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 157	
Nickel	1.9 B	40.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81A5
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Lead	ND	3.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81A6
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.6	
Selenium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AA
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 2.6	
Thallium	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AC
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 4.6	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0501

TOTAL Metals

Lot-Sample #...: C7C130264-012 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AD
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.2	
Vanadium	1.6 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AE
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Zinc	8.3 B,J	20.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0D81AF
		Dilution Factor: 1		Analysis Time..: 15:00	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.7	

Prep Batch #...: 7087126

Mercury	ND	0.20	ug/L	SW846 7470A	03/28/07	JQ0D81AK
		Dilution Factor: 1		Analysis Time..: 14:43	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7087059	MDL.....: 0.048	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0601

TOTAL Metals

Lot-Sample #...: C7C130264-013 Matrix.....: WATER
Date Sampled...: 03/12/07 Date Received..: 03/13/07

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7074197						
Silver	0.61 B	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AK
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.30	
Aluminum	2980 J	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AL
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 8.0	
Arsenic	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AM
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.3	
Barium	216	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AN
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Beryllium	ND	4.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AP
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.42	
Calcium	634000	10000	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AQ
		Dilution Factor: 2		Analysis Time..: 20:19	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 79.1	
Cadmium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AR
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.70	
Cobalt	12.1 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AT
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.53	
Chromium	5.0	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AU
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.93	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0601

TOTAL Metals

Lot-Sample #...: C7C130264-013 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	7.4 B	25.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AV
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Iron	3650	100	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AW
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 18.0	
Potassium	13800 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AX
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 75.0	
Magnesium	349000 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1A0
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 10.2	
Manganese	455	15.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1A1
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.11	
Sodium	601000	10000	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1A2
		Dilution Factor: 2		Analysis Time..: 20:19	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 313	
Nickel	33.4 B	40.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1A3
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Lead	4.4	3.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1A4
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.6	
Selenium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1A5
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 2.6	
Thallium	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AA
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 4.6	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0601

TOTAL Metals

Lot-Sample #...: C7C130264-013 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AC
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.2	
Vanadium	10.7 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AD
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Zinc	27.2 J	20.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1AE
		Dilution Factor: 1		Analysis Time..: 15:40	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.7	
Prep Batch #...: 7087126						
Mercury	ND	0.20	ug/L	SW846 7470A	03/28/07	JQ0EQ1AJ
		Dilution Factor: 1		Analysis Time..: 14:46	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7087059	MDL.....: 0.048	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0701

TOTAL Metals

Lot-Sample #...: C7C130264-006 Matrix.....: WATER
Date Sampled...: 03/11/07 Date Received..: 03/13/07

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7074197						
Silver	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AE
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.30	
Aluminum	50.2 B,J	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AF
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 8.0	
Arsenic	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AG
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.3	
Barium	59.2 B	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AH
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Beryllium	ND	4.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AJ
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.42	
Calcium	38900	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AK
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 39.5	
Cadmium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AL
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.70	
Cobalt	ND	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AM
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.53	
Chromium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AN
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.93	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0701

TOTAL Metals

Lot-Sample #...: C7C130264-006 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	25.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AP
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Iron	647	100	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AQ
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 18.0	
Potassium	2130 B,J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AR
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 75.0	
Magnesium	46400 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AT
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 10.2	
Manganese	9.4 B	15.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AU
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.11	
Sodium	41700	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AV
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 157	
Nickel	ND	40.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AW
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Lead	ND	3.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91AX
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.6	
Selenium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91A0
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 2.6	
Thallium	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91A1
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 4.6	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0701

TOTAL Metals

Lot-Sample #...: C7C130264-006 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91A2
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.2	
Vanadium	2.6 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91A3
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Zinc	6.3 B,J	20.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0C91A4
		Dilution Factor: 1		Analysis Time..: 14:49	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.7	
Prep Batch #...: 7087126						
Mercury	ND	0.20	ug/L	SW846 7470A	03/28/07	JQ0C91AC
		Dilution Factor: 1		Analysis Time..: 14:28	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7087059	MDL.....: 0.048	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0801

TOTAL Metals

Lot-Sample #...: C7C130264-007 Matrix.....: WATER
Date Sampled...: 03/11/07 Date Received..: 03/13/07

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7074197						
Silver	1.6 B	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AK
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.30	
Aluminum	68.3 B,J	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AL
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 8.0	
Arsenic	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AM
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.3	
Barium	87.7 B	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AN
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Beryllium	ND	4.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AP
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.42	
Calcium	221000	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AQ
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 39.5	
Cadmium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AR
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.70	
Cobalt	12.1 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AT
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.53	
Chromium	2.0 B	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AU
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.93	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0801

TOTAL Metals

Lot-Sample #...: C7C130264-007 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	1.2 B	25.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AV
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Iron	1150	100	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AW
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 18.0	
Potassium	5720 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AX
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 75.0	
Magnesium	82100 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1A0
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 10.2	
Manganese	4510	15.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1A1
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.11	
Sodium	25200	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1A2
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 157	
Nickel	12.4 B	40.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1A3
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Lead	ND	3.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1A4
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.6	
Selenium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1A5
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 2.6	
Thallium	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AA
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 4.6	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0801

TOTAL Metals

Lot-Sample #...: C7C130264-007 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AC
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.2	
Vanadium	3.6 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AD
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Zinc	64.4 J	20.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DF1AE
		Dilution Factor: 1		Analysis Time..: 15:05	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.7	
Prep Batch #...: 7087126						
Mercury	ND	0.20	ug/L	SW846 7470A	03/28/07	JQ0DF1AJ
		Dilution Factor: 1		Analysis Time..: 14:30	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7087059	MDL.....: 0.048	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0901

TOTAL Metals

Lot-Sample #...: C7C130264-008 Matrix.....: WATER
Date Sampled...: 03/11/07 Date Received..: 03/13/07

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7074197						
Silver	1.5 B	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AM
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.30	
Aluminum	53.8 B,J	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AN
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 8.0	
Arsenic	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AP
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.3	
Barium	58.8 B	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AQ
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Beryllium	ND	4.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AR
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.42	
Calcium	135000	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AT
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 39.5	
Cadmium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AU
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.70	
Cobalt	3.1 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AV
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.53	
Chromium	1.8 B	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AW
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.93	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0901

TOTAL Metals

Lot-Sample #...: C7C130264-008 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	25.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AX
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Iron	980	100	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1A0
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 18.0	
Potassium	1500 B,J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1A1
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 75.0	
Magnesium	65000 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1A2
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 10.2	
Manganese	5070	15.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1A3
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.11	
Sodium	24200	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1A4
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 157	
Nickel	2.9 B	40.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1A5
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Lead	ND	3.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1A6
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.6	
Selenium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AA
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 2.6	
Thallium	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AC
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 4.6	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0901

TOTAL Metals

Lot-Sample #...: C7C130264-008 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AD
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.2	
Vanadium	4.2 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AE
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Zinc	7.4 B,J	20.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DG1AF
		Dilution Factor: 1		Analysis Time..: 15:11	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.7	

Prep Batch #...: 7087126

Mercury	ND	0.20	ug/L	SW846 7470A	03/28/07	JQ0DG1AK
		Dilution Factor: 1		Analysis Time..: 14:31	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7087059	MDL.....: 0.048	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW1001

TOTAL Metals

Lot-Sample #...: C7C130264-009 Matrix.....: WATER
Date Sampled...: 03/11/07 Date Received..: 03/13/07

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7074197						
Silver	0.32 B	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AK
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.30	
Aluminum	160 B,J	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AL
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 8.0	
Arsenic	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AM
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.3	
Barium	29.3 B	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AN
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Beryllium	ND	4.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AP
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.42	
Calcium	177000	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AQ
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 39.5	
Cadmium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AR
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.70	
Cobalt	6.9 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AT
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.53	
Chromium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AU
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.93	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW1001

TOTAL Metals

Lot-Sample #...: C7C130264-009 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	1.8 B	25.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AV
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Iron	127	100	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AW
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 18.0	
Potassium	3170 B,J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AX
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 75.0	
Magnesium	93800 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1A0
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 10.2	
Manganese	651	15.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1A1
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 0.11	
Sodium	19800	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1A2
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 157	
Nickel	5.5 B	40.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1A3
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.2	
Lead	ND	3.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1A4
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.6	
Selenium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1A5
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 2.6	
Thallium	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AA
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 4.6	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW1001

TOTAL Metals

Lot-Sample #...: C7C130264-009 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AC
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 3.2	
Vanadium	4.8 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AD
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.0	
Zinc	10.9 B,J	20.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DM1AE
		Dilution Factor: 1		Analysis Time..: 15:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7074112	MDL.....: 1.7	
Prep Batch #...: 7087126						
Mercury	ND	0.20	ug/L	SW846 7470A	03/28/07	JQ0DM1AJ
		Dilution Factor: 1		Analysis Time..: 14:33	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7087059	MDL.....: 0.048	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0301

DISSOLVED Metals

Lot-Sample #...: C7C130264-010 Matrix.....: WATER
Date Sampled...: 03/12/07 Date Received..: 03/13/07

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7078160						
Silver	0.59 B	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1A7
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 0.30	
Aluminum	16.1 B,J	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1A8
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 8.0	
Arsenic	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1A9
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 3.3	
Barium	76.3 B	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CA
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 1.0	
Beryllium	ND	4.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CC
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 0.42	
Calcium	116000	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CD
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 39.5	
Cadmium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CE
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 0.70	
Cobalt	5.0 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CF
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 0.53	
Chromium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CG
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 0.93	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0301

DISSOLVED Metals

Lot-Sample #...: C7C130264-010 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	ND	25.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CH
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 1.2	
Iron	ND	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CJ
		Dilution Factor: 2		Analysis Time..: 19:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 36.0	
Potassium	3650 B,J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CK
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 75.0	
Magnesium	117000	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CL
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 10.2	
Manganese	165	15.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CM
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 0.11	
Sodium	15300 E	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CN
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 157	
Nickel	12.2 B	40.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CP
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 1.2	
Lead	ND	3.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CQ
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 1.6	
Selenium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CR
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 2.6	
Thallium	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CT
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 4.6	

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0301

DISSOLVED Metals

Lot-Sample #...: C7C130264-010 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CU
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 3.2	
Vanadium	4.8 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CV
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 1.0	
Zinc	6.6 B,J	20.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0DQ1CW
		Dilution Factor: 1		Analysis Time..: 13:33	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 1.7	
Prep Batch #...: 7087126						
Mercury	ND	0.20	ug/L	SW846 7470A	03/28/07	JQ0DQ1A6
		Dilution Factor: 1		Analysis Time..: 14:38	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7087059	MDL.....: 0.055	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E Matrix interference.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0601

DISSOLVED Metals

Lot-Sample #...: C7C130264-013 Matrix.....: WATER
Date Sampled...: 03/12/07 Date Received..: 03/13/07

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7078160						
Silver	0.73 B	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1A7
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 0.30	
Aluminum	19.2 B,J	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1A8
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 8.0	
Arsenic	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1A9
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 3.3	
Barium	178 B	200	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CA
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 1.0	
Beryllium	ND	4.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CC
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 0.42	
Calcium	645000	10000	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CD
		Dilution Factor: 2		Analysis Time..: 20:14	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 79.1	
Cadmium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CE
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 0.70	
Cobalt	8.5 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CF
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 0.53	
Chromium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CG
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 0.93	

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0601

DISSOLVED Metals

Lot-Sample #...: C7C130264-013 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	1.2 B	25.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CH
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 1.2	
Iron	ND	100	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CJ
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 18.0	
Potassium	10900 J	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CK
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 75.0	
Magnesium	353000	5000	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CL
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 10.2	
Manganese	293	15.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CM
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 0.11	
Sodium	629000	10000	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CN
		Dilution Factor: 2		Analysis Time..: 20:14	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 313	
Nickel	23.4 B	40.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CP
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 1.2	
Lead	ND	3.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CQ
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 1.6	
Selenium	ND	5.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CR
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 2.6	
Thallium	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CT
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 4.6	

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GW0601

DISSOLVED Metals

Lot-Sample #...: C7C130264-013 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	ND	10.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CU
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.:...: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 3.2	
Vanadium	5.3 B	50.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CV
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 1.0	
Zinc	13.1 B,J	20.0	ug/L	SW846 6010B	03/20-03/23/07	JQ0EQ1CW
		Dilution Factor: 1		Analysis Time..: 13:54	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7078113	MDL.....: 1.7	
Prep Batch #...: 7087126						
Mercury	ND	0.20	ug/L	SW846 7470A	03/28/07	JQ0EQ1A6
		Dilution Factor: 1		Analysis Time..: 14:45	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7087059	MDL.....: 0.055	

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

NS Great Lakes, IL

Cyanide, Total

Lab Name: STL PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: WATER

Method: SW846 9012A
Lot Number: C7C130264

Distillation procedure

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01GW0101	C7C130264 004	JQ0C01AA	ND	ug/L	1.7	10.0	1	3/15/2007 - 3/15/2007 00:00	7074150
NTC01GW0201	C7C130264 005	JQ0C71AW	ND	ug/L	1.7	10.0	1	3/15/2007 - 3/15/2007 00:00	7074150
NTC01GW0701	C7C130264 006	JQ0C91AA	ND	ug/L	1.7	10.0	1	3/15/2007 - 3/15/2007 00:00	7074150
NTC01GW0801	C7C130264 007	JQ0DF1AH	ND	ug/L	1.7	10.0	1	3/15/2007 - 3/15/2007 00:00	7074150
NTC01GW0901	C7C130264 008	JQ0DG1AJ	ND	ug/L	1.7	10.0	1	3/15/2007 - 3/15/2007 00:00	7074150
NTC01GW1001	C7C130264 009	JQ0DM1AH	ND	ug/L	1.7	10.0	1	3/15/2007 - 3/15/2007 00:00	7074150
NTC01GW0301	C7C130264 010	JQ0DQ1AA	ND	ug/L	1.7	10.0	1	3/15/2007 - 3/15/2007 00:00	7074150
NTC01GW0401	C7C130264 011	JQ0D21AA	ND	ug/L	1.7	10.0	1	3/15/2007 - 3/15/2007 00:00	7074150
NTC01GW0501	C7C130264 012	JQ0D81AJ	ND	ug/L	1.7	10.0	1	3/15/2007 - 3/15/2007 00:00	7074150
NTC01GW0601	C7C130264 013	JQ0EQ1AH	ND	ug/L	1.7	10.0	1	3/15/2007 - 3/15/2007 00:00	7074150
NTC01FD03110701	C7C130264 015	JQ0FC1AH	ND	ug/L	1.7	10.0	1	3/15/2007 - 3/15/2007 00:00	7074150

NS Great Lakes, IL

TOC

Lab Name: STL PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: WATER

Method: MCAWW 415.1
Lot Number: C7C130264

Total Organic Carbon

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01GW0701	C7C130264 008	JQ0C81AD	1.4	mg/L	0.31	1.0	1	3/21/2007 - 3/21/2007 00:00	7081041
NTC01GW0901	C7C130264 008	JQ0DG1AL	2.0	mg/L	0.31	1.0	1	3/21/2007 - 3/21/2007 00:00	7081041
NTC01GW0501	C7C130264 012	JQ0D81AL	2.9	mg/L	0.31	1.0	1	3/21/2007 - 3/21/2007 00:00	7081041

NS Great Lakes, IL

TOC

Lab Name: STL PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: MSA WALKLEY-B
Lot Number: C7C130264

Carbon, Total Organic "TOC" Walkley Solids

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01SB2050414	C7C130264 001	JQ0CM1AC	7610	mg/kg	75.1	280	1	3/27/2007 - 3/27/2007 00:00	7086149
NTC01SB2072838	C7C130264 002	JQ0CT1AC	23500	mg/kg	89.5	334	1	3/27/2007 - 3/27/2007 00:00	7086149
NTC01SB2090717	C7C130264 003	JQ0CW1AC	10600	mg/kg	78.6	293	1	3/27/2007 - 3/27/2007 00:00	7086149

NS Great Lakes, IL

Percent Solids

Lab Name:	STL PITTSBURGH	**Method:**	MCAWW 160.3 MOD
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C7C130264
Matrix:	SOLID		

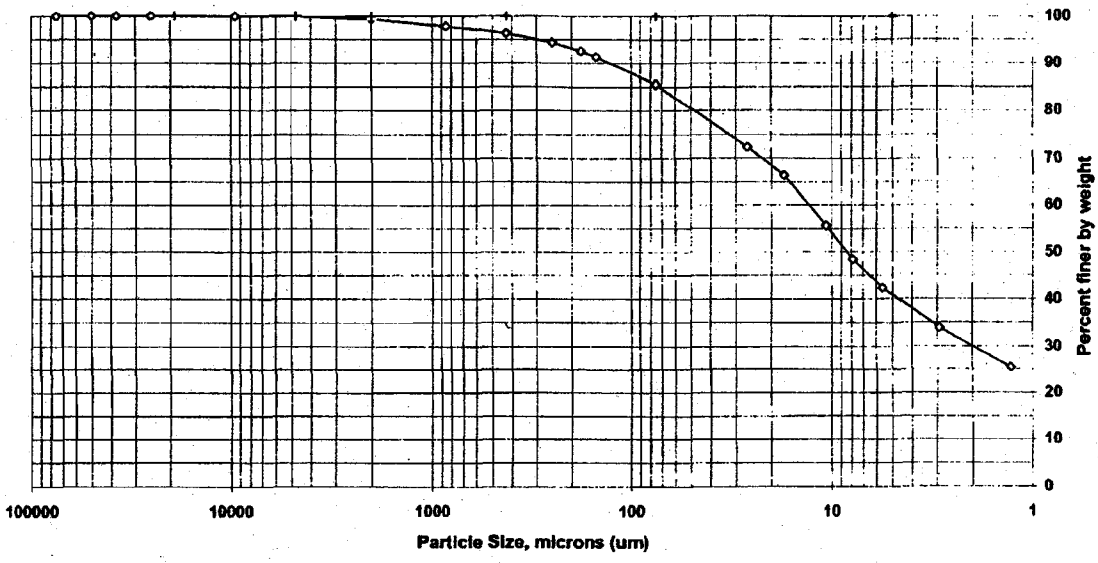
Total Residue as Percent Solids

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01SB2050414	C7C130264 001	JQ0CM1AD	89.3	%	0.0	1.0	1	3/14/2007 - 3/15/2007 10:01	7073163
NTC01SB2072838	C7C130264 002	JQ0CT1AD	74.8	%	0.0	1.0	1	3/14/2007 - 3/15/2007 10:01	7073163
NTC01SB2090717	C7C130264 003	JQ0CW1AD	85.2	%	0.0	1.0	1	3/14/2007 - 3/15/2007 10:01	7073163

Particle Size of Soils by ASTM D422

Client Code:	STLPAP	**SDG:**	7C130264	**Date Received:**	3/15/2007
Sample ID:	NTC01SB2050414	**ETR(s):**	119113	**Start Date:**	3/15/2007
Lab ID:	703516			**End Date:**	3/29/2007

Percent Solids:	84.2%	**Non-soil material:**	plant
Specific Gravity:	2.650	**Shape (> #10):**	subangular
Maximum Particle Size:	Crs sand	**Hardness (> #10):**	hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.3	0.7
#20	850	97.8	1.4
#40	425	96.3	1.5
#60	250	94.4	1.9
#80	180	92.5	1.9
#100	150	91.3	1.2
#200	75	85.5	5.8
Hydrometer	26.2	72.5	13.1
I	17.3	66.4	6.0
I	10.7	55.6	10.8
I	7.9	48.4	7.2
I	5.6	42.3	6.0
I	2.9	33.9	8.4
V	1.3	25.5	8.4

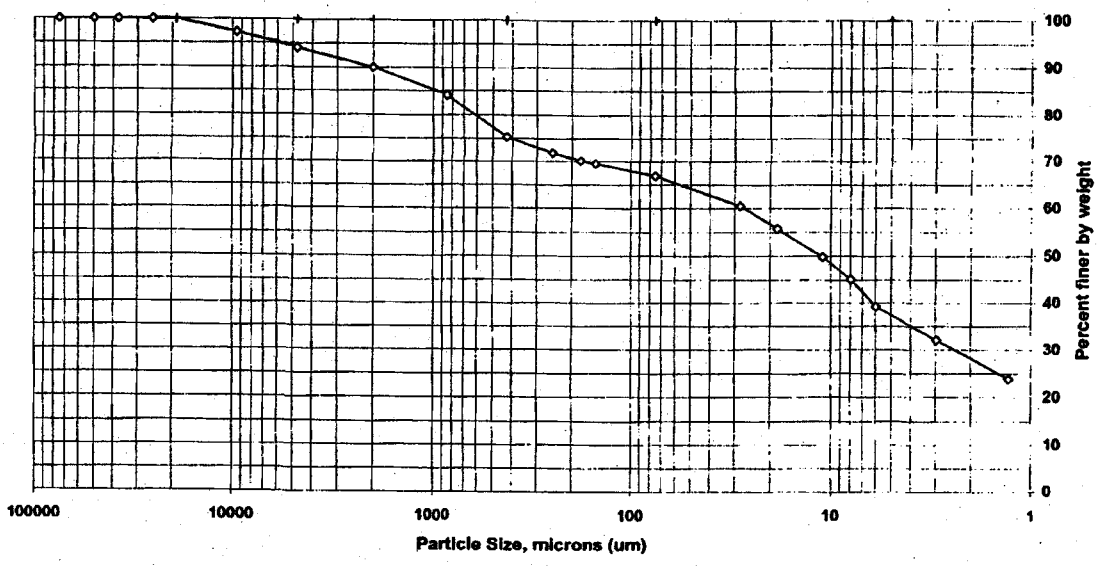
Soil Classification	Percent of Total Sample
Gravel	0.0
Sand	14.5
Coarse Sand	0.7
Medium Sand	2.9
Fine Sand	10.8
Silt	43.2
Clay	42.3

Preparation Method: D2217
Dispersion Device: Mechanical mixer with a metal paddle.
Dispersion Period: 1 minute

Particle Size of Soils by ASTM D422

Client Code:	STLPAP	SDG:	7C130264	Date Received:	3/15/2007
Sample ID:	NTC01SB2072838	ETR(s):	119113	Start Date:	3/15/2007
Lab ID:	703517			End Date:	3/29/2007

Percent Solids:	83.1%	Non-soil material:	n/a
Specific Gravity:	2.650	Shape (> #10):	subangular
Maximum Particle Size:	19 mm	Hardness (> #10):	hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	97.3	2.7
#4	4750	94.1	3.1
#10	2000	90.0	4.1
#20	850	84.1	5.9
#40	425	75.3	8.8
#60	250	71.8	3.5
#80	180	70.1	1.7
#100	150	69.5	0.7
#200	75	66.9	2.6
Hydrometer	28.2	60.5	6.5
I	18.4	55.7	4.7
I	11.0	49.8	5.9
I	8.0	45.1	4.7
I	6.0	39.2	5.9
I	3.0	32.1	7.1
V	1.3	23.8	8.3

Soil Classification	Percent of Total Sample
Gravel	5.9
Sand	27.2
Coarse Sand	4.1
Medium Sand	14.7
Fine Sand	8.4
Silt	27.7
Clay	39.2

Preparation Method: D2217
Dispersion Device: Mechanical mixer with a metal paddle.
Dispersion Period: 1 minute

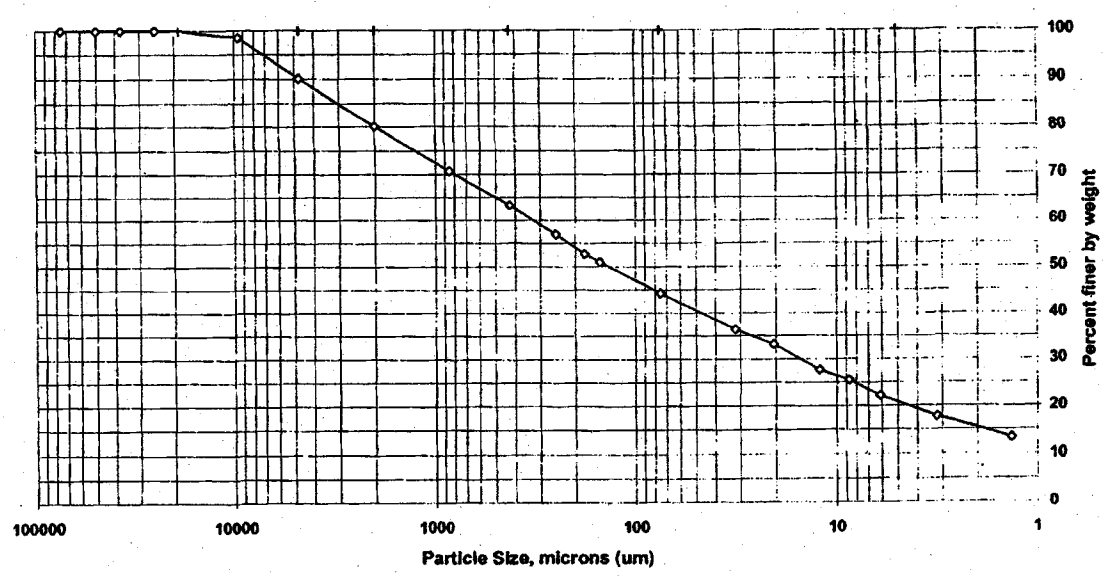
FSL024:07.29.05:0
STL Burlington

7C130264PS 3/30/2007

Particle Size of Soils by ASTM D422

Client Code:	STLPAP	**SDG:**	7C130264	**Date Received:**	3/15/2007
Sample ID:	NTC01SB2090717	**ETR(s):**	119113	**Start Date:**	3/15/2007
Lab ID:	703518			**End Date:**	3/29/2007

Percent Solids:	74.6%	**Non-soil material:**	plant,glass
Specific Gravity:	2.650	**Shape (> #10):**	angular
Maximum Particle Size:	19 mm	**Hardness (> #10):**	hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	98.5	1.5
#4	4750	90.1	8.4
#10	2000	80.1	10.0
#20	850	70.7	9.5
#40	425	63.2	7.4
#60	250	56.9	6.3
#80	180	52.7	4.2
#100	150	50.9	1.8
#200	75	44.3	6.7
Hydrometer	31.8	36.5	7.8
I	20.5	33.2	3.3
I	12.2	27.7	5.5
I	8.7	25.5	2.2
I	6.1	22.2	3.3
I	3.2	17.8	4.4
V	1.4	13.4	4.4

Soil Classification	Percent of Total Sample
Gravel	9.9
Sand	45.8
Coarse Sand	10.0
Medium Sand	16.9
Fine Sand	19.0
Silt	22.1
Clay	22.2

Preparation Method: D2217
Dispersion Device: Mechanical mixer with a metal paddle.
Dispersion Period: 1 minute

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12170601

GC/MS Volatiles

Lot-Sample #...: C6L190179-001	**Work Order #...:** JLQ8W1A5	**Matrix.....:** WATER
Date Sampled...: 12/17/06	**Date Received..:** 12/19/06	**MS Run #.....:** 6361346
Prep Date.....: 12/27/06	**Analysis Date..:** 12/27/06	
Prep Batch #...: 6361503	**Analysis Time..:** 19:20	
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 034635	**Instrument ID..:** HP4	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	**1.2**	**1.0**	**ug/L**	**0.27**
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12170601

GC/MS Volatiles

Lot-Sample #...: C6L190179-001 Work Order #...: JLQ8W1A5 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	**0.25 J**	**1.0**	**ug/L**	**0.17**
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	89	(71 - 118)
1,2-Dichloroethane-d4	101	(64 - 135)
4-Bromofluorobenzene	84	(70 - 118)
Dibromofluoromethane	107	(64 - 128)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0100

GC/MS Volatiles

Lot-Sample #...:	C6L190179-002	**Work Order #...:**	JLQ9W1AG	**Matrix.....:**	WATER
Date Sampled...:	12/17/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6361346
Prep Date.....:	12/27/06	**Analysis Date..:**	12/27/06		
Prep Batch #...:	6361503	**Analysis Time..:**	19:44		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
Analyst ID.....:	034635	**Instrument ID..:**	HP4		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	**0.99 J**	**1.0**	**ug/L**	**0.27**
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0100

GC/MS Volatiles

Lot-Sample #...: C6L190179-002 **Work Order #...:** JLQ9W1AG **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	86	(71 - 118)
1,2-Dichloroethane-d4	106	(64 - 135)
4-Bromofluorobenzene	83	(70 - 118)
Dibromofluoromethane	108	(64 - 128)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0200

GC/MS Volatiles

Lot-Sample #...: C6L190179-003	Work Order #...: JLQ911AG	Matrix.....: WATER
Date Sampled...: 12/17/06	Date Received..: 12/19/06	MS Run #.....: 6361346
Prep Date.....: 12/27/06	Analysis Date..: 12/27/06	
Prep Batch #...: 6361503	Analysis Time..: 20:07	
Dilution Factor: 1	Initial Wgt/Vol: 5 mL	Final Wgt/Vol..: 5 mL
Analyst ID.....: 034635	Instrument ID..: HP4	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	**1.1**	**1.0**	**ug/L**	**0.27**
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0200

GC/MS Volatiles

Lot-Sample #...: C6L190179-003 Work Order #...: JLQ911AG Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	90	(71 - 118)
1,2-Dichloroethane-d4	105	(64 - 135)
4-Bromofluorobenzene	85	(70 - 118)
Dibromofluoromethane	108	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0300

GC/MS Volatiles

Lot-Sample #...: C6L190179-004	Work Order #...: JLQ921AT	Matrix.....: WATER
Date Sampled...: 12/17/06	Date Received..: 12/19/06	MS Run #.....: 6361346
Prep Date.....: 12/27/06	Analysis Date..: 12/27/06	
Prep Batch #...: 6361503	Analysis Time..: 18:56	
Dilution Factor: 1	Initial Wgt/Vol: 5 mL	Final Wgt/Vol..: 5 mL
Analyst ID.....: 034635	Instrument ID..: HP4	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	**0.25 J**	**1.0**	**ug/L**	**0.21**
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	**1.0**	**1.0**	**ug/L**	**0.27**
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0300

GC/MS Volatiles

Lot-Sample #...: C6L190179-004 Work Order #...: JLQ921AT Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	89	(71 - 118)
1,2-Dichloroethane-d4	105	(64 - 135)
4-Bromofluorobenzene	83	(70 - 118)
Dibromofluoromethane	104	(64 - 128)

NOTE(S):

Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01TB12180101

GC/MS Volatiles

Lot-Sample #...:	C6L190179-029	Work Order #...:	JLRGV1AA	Matrix.....:	WATER
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361346
Prep Date.....:	12/27/06	Analysis Date..:	12/27/06		
Prep Batch #...:	6361503	Analysis Time..:	18:32		
Dilution Factor:	1	Initial Wgt/Vol:	5 mL	Final Wgt/Vol..:	5 mL
Analyst ID.....:	034635	Instrument ID..:	HP4		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01TB12180101

GC/MS Volatiles

Lot-Sample #...: C6L190179-029 Work Order #...: JLRGV1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	92	(71 - 118)
1,2-Dichloroethane-d4	101	(64 - 135)
4-Bromofluorobenzene	83	(70 - 118)
Dibromofluoromethane	102	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01TB12180602

GC/MS Volatiles

Lot-Sample #...:	C6L190179-030	**Work Order #...:**	JLRG01AA	**Matrix.....:**	WATER
Date Sampled...:	12/18/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6361346
Prep Date.....:	12/27/06	**Analysis Date..:**	12/27/06		
Prep Batch #...:	6361503	**Analysis Time..:**	18:09		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 mL	**Final Wgt/Vol..:**	5 mL
Analyst ID.....:	034635	**Instrument ID..:**	HP4		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	**0.51 J**	**1.0**	**ug/L**	**0.40**
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01TB12180602

GC/MS Volatiles

Lot-Sample #...: C6L190179-030 Work Order #...: JLRG01AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	92	(71 - 118)
1,2-Dichloroethane-d4	96	(64 - 135)
4-Bromofluorobenzene	84	(70 - 118)
Dibromofluoromethane	102	(64 - 128)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12170601

GC/MS Semivolatiles

Lot-Sample #...:	C6L190179-001	Work Order #...:	JLQ8W1A6	Matrix.....:	WATER
Date Sampled...:	12/17/06	Date Received..:	12/19/06 10:00	MS Run #.....:	6355183
Prep Date.....:	12/21/06	Analysis Date..:	01/08/07		
Prep Batch #...:	6355281	Analysis Time..:	08:50		
Dilution Factor:	1.02	Initial Wgt/Vol:	980 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	007062	Instrument ID..:	722		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	10	ug/L	6.5
Acenaphthylene	ND	10	ug/L	4.6
Acetophenone	ND	10	ug/L	7.4
Anthracene	ND	10	ug/L	1.5
Atrazine	ND	10	ug/L	3.1
Benzo(a)anthracene	ND	10	ug/L	1.5
Benzo(a)pyrene	ND	10	ug/L	3.7
Benzo(b)fluoranthene	ND	10	ug/L	1.4
Benzo(ghi)perylene	ND	10	ug/L	2.8
Benzo(k)fluoranthene	ND	10	ug/L	2.7
Benzaldehyde	ND	10	ug/L	1.0
1,1'-Biphenyl	ND	10	ug/L	5.5
bis(2-Chloroethoxy) methane	ND	10	ug/L	4.0
bis(2-Chloroethyl) ether	ND	10	ug/L	2.5
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	1.6
4-Bromophenyl phenyl ether	ND	10	ug/L	1.0
Butyl benzyl phthalate	ND	10	ug/L	3.0
Caprolactam	ND	10	ug/L	0.92
Carbazole	ND	10	ug/L	3.6
4-Chloroaniline	ND	10	ug/L	1.1
4-Chloro-3-methylphenol	ND	10	ug/L	1.1
2-Chloronaphthalene	ND	10	ug/L	6.0
2-Chlorophenol	ND	10	ug/L	3.0
4-Chlorophenyl phenyl ether	ND	10	ug/L	1.5
Chrysene	ND	10	ug/L	1.4
Dibenz(a,h)anthracene	ND	10	ug/L	0.38
Dibenzofuran	ND	10	ug/L	6.2
3,3'-Dichlorobenzidine	ND	51	ug/L	7.0
2,4-Dichlorophenol	ND	10	ug/L	3.4
Diethyl phthalate	ND	10	ug/L	1.5
2,4-Dimethylphenol	ND	10	ug/L	3.6
Dimethyl phthalate	ND	10	ug/L	1.3

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12170601

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-001 Work Order #...: JLQ8W1A6 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	10	ug/L	1.3
4,6-Dinitro-2-methylphenol	ND	51	ug/L	20
2,4-Dinitrophenol	ND	51	ug/L	23
2,4-Dinitrotoluene	ND	10	ug/L	5.3
2,6-Dinitrotoluene	ND	10	ug/L	1.1
Di-n-octyl phthalate	ND	10	ug/L	1.7
Fluoranthene	ND	10	ug/L	1.8
Fluorene	ND	10	ug/L	1.6
Hexachlorobenzene	ND	10	ug/L	6.9
Hexachlorobutadiene	ND	10	ug/L	8.4
Hexachlorocyclopentadiene	ND	51	ug/L	1.1
Hexachloroethane	ND	10	ug/L	7.3
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	2.4
Isophorone	ND	10	ug/L	6.4
2-Methylnaphthalene	ND	10	ug/L	2.2
2-Methylphenol	ND	10	ug/L	2.7
4-Methylphenol	ND	10	ug/L	1.5
Naphthalene	ND	10	ug/L	2.5
2-Nitroaniline	ND	51	ug/L	8.7
3-Nitroaniline	ND	51	ug/L	10
4-Nitroaniline	ND	51	ug/L	13
Nitrobenzene	ND	10	ug/L	2.4
2-Nitrophenol	ND	10	ug/L	3.5
4-Nitrophenol	ND	51	ug/L	17
N-Nitrosodi-n-propylamine	ND	10	ug/L	4.0
N-Nitrosodiphenylamine	ND	10	ug/L	3.2
2,2'-oxybis(1-Chloropropane)	ND	10	ug/L	6.3
Pentachlorophenol	ND	51	ug/L	22
Phenanthrene	ND	10	ug/L	6.1
Phenol	ND	10	ug/L	2.8
Pyrene	ND	10	ug/L	4.0
2,4,5-Trichlorophenol	ND	10	ug/L	4.0
2,4,6-Trichlorophenol	ND	10	ug/L	3.2

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12170601

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-001 Work Order #...: JLQ8W1A6 Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	97	(19 - 138)
2-Fluorobiphenyl	92	(35 - 115)
2-Fluorophenol	99	(10 - 118)
Nitrobenzene-d5	103	(39 - 115)
Phenol-d5	98	(18 - 115)
Terphenyl-d14	59	(17 - 129)

Tetra Tech NUS, Inc

NTC01FD12170601

GC/MS Semivolatiles

Lot-Sample #: C6L190179-001 **Work Order #:** JLQ8W1A6 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0100

GC/MS Semivolatiles

Lot-Sample #...:	C6L190179-002	**Work Order #...:**	JLQ9W1AH	**Matrix.....:**	WATER
Date Sampled...:	12/17/06 11:08	**Date Received..:**	12/19/06 10:00	**MS Run #.....:**	6355183
Prep Date.....:	12/21/06	**Analysis Date..:**	01/08/07		
Prep Batch #...:	6355281	**Analysis Time..:**	09:18		
Dilution Factor:	0.96	**Initial Wgt/Vol:**	1040 mL	**Final Wgt/Vol..:**	1 mL
Analyst ID.....:	007062	**Instrument ID..:**	722		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	9.6	ug/L	6.2
Acenaphthylene	ND	9.6	ug/L	4.3
Acetophenone	ND	9.6	ug/L	7.0
Anthracene	ND	9.6	ug/L	1.4
Atrazine	ND	9.6	ug/L	2.9
Benzo(a)anthracene	ND	9.6	ug/L	1.4
Benzo(a)pyrene	ND	9.6	ug/L	3.5
Benzo(b)fluoranthene	ND	9.6	ug/L	1.3
Benzo(ghi)perylene	ND	9.6	ug/L	2.6
Benzo(k)fluoranthene	ND	9.6	ug/L	2.5
Benzaldehyde	ND	9.6	ug/L	0.98
1,1'-Biphenyl	ND	9.6	ug/L	5.2
bis(2-Chloroethoxy) methane	ND	9.6	ug/L	3.8
bis(2-Chloroethyl)-ether	ND	9.6	ug/L	2.3
bis(2-Ethylhexyl) phthalate	ND	9.6	ug/L	1.5
4-Bromophenyl phenyl ether	ND	9.6	ug/L	0.96
Butyl benzyl phthalate	ND	9.6	ug/L	2.8
Caprolactam	ND	9.6	ug/L	0.86
Carbazole	ND	9.6	ug/L	3.4
4-Chloroaniline	ND	9.6	ug/L	1.0
4-Chloro-3-methylphenol	ND	9.6	ug/L	1.0
2-Chloronaphthalene	ND	9.6	ug/L	5.7
2-Chlorophenol	ND	9.6	ug/L	2.8
4-Chlorophenyl phenyl ether	ND	9.6	ug/L	1.4
Chrysene	ND	9.6	ug/L	1.3
Dibenz(a,h)anthracene	ND	9.6	ug/L	0.36
Dibenzofuran	ND	9.6	ug/L	5.9
3,3'-Dichlorobenzidine	ND	48	ug/L	6.6
2,4-Dichlorophenol	ND	9.6	ug/L	3.2
Diethyl phthalate	ND	9.6	ug/L	1.4
2,4-Dimethylphenol	ND	9.6	ug/L	3.4
Dimethyl phthalate	ND	9.6	ug/L	1.2

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0100

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-002 Work Order #...: JLQ9W1AH Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	9.6	ug/L	1.2
4,6-Dinitro-2-methylphenol	ND	48	ug/L	19
2,4-Dinitrophenol	ND	48	ug/L	21
2,4-Dinitrotoluene	ND	9.6	ug/L	5.0
2,6-Dinitrotoluene	ND	9.6	ug/L	1.1
Di-n-octyl phthalate	ND	9.6	ug/L	1.6
Fluoranthene	ND	9.6	ug/L	1.7
Fluorene	ND	9.6	ug/L	1.5
Hexachlorobenzene	ND	9.6	ug/L	6.5
Hexachlorobutadiene	ND	9.6	ug/L	7.9
Hexachlorocyclopentadiene	ND	48	ug/L	1.0
Hexachloroethane	ND	9.6	ug/L	6.9
Indeno(1,2,3-cd)pyrene	ND	9.6	ug/L	2.2
Isophorone	ND	9.6	ug/L	6.0
2-Methylnaphthalene	ND	9.6	ug/L	2.0
2-Methylphenol	ND	9.6	ug/L	2.5
4-Methylphenol	ND	9.6	ug/L	1.4
Naphthalene	ND	9.6	ug/L	2.3
2-Nitroaniline	ND	48	ug/L	8.2
3-Nitroaniline	ND	48	ug/L	9.8
4-Nitroaniline	ND	48	ug/L	12
Nitrobenzene	ND	9.6	ug/L	2.2
2-Nitrophenol	ND	9.6	ug/L	3.3
4-Nitrophenol	ND	48	ug/L	16
N-Nitrosodi-n-propylamine	ND	9.6	ug/L	3.8
N-Nitrosodiphenylamine	ND	9.6	ug/L	3.0
2,2'-oxybis(1-Chloropropane)	ND	9.6	ug/L	6.0
Pentachlorophenol	ND	48	ug/L	20
Phenanthrene	ND	9.6	ug/L	5.8
Phenol	ND	9.6	ug/L	2.7
Pyrene	ND	9.6	ug/L	3.8
2,4,5-Trichlorophenol	ND	9.6	ug/L	3.8
2,4,6-Trichlorophenol	ND	9.6	ug/L	3.0

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0100

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-002 Work Order #...: JLQ9W1AH Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	83	(19 - 138)
2-Fluorobiphenyl	76	(35 - 115)
2-Fluorophenol	78	(10 - 118)
Nitrobenzene-d5	84	(39 - 115)
Phenol-d5	78	(18 - 115)
Terphenyl-d14	64	(17 - 129)

Tetra Tech NUS, Inc

NTC01SW0100

GC/MS Semivolatiles

Lot-Sample #: C6L190179-002 Work Order #: JLQ9W1AH Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0200

GC/MS Semivolatiles

Lot-Sample #...:	C6L190179-003	Work Order #...:	JLQ911AH	Matrix.....:	WATER
Date Sampled...:	12/17/06 12:31	Date Received..:	12/19/06 10:00	MS Run #.....:	6355183
Prep Date.....:	12/21/06	Analysis Date..:	01/08/07		
Prep Batch #...:	6355281	Analysis Time..:	09:46		
Dilution Factor:	0.96	Initial Wgt/Vol:	1040 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	007062	Instrument ID..:	722		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	9.6	ug/L	6.2
Acenaphthylene	ND	9.6	ug/L	4.3
Acetophenone	ND	9.6	ug/L	7.0
Anthracene	ND	9.6	ug/L	1.4
Atrazine	ND	9.6	ug/L	2.9
Benzo(a)anthracene	ND	9.6	ug/L	1.4
Benzo(a)pyrene	ND	9.6	ug/L	3.5
Benzo(b)fluoranthene	ND	9.6	ug/L	1.3
Benzo(ghi)perylene	ND	9.6	ug/L	2.6
Benzo(k)fluoranthene	ND	9.6	ug/L	2.5
Benzaldehyde	ND	9.6	ug/L	0.98
1,1'-Biphenyl	ND	9.6	ug/L	5.2
bis(2-Chloroethoxy) methane	ND	9.6	ug/L	3.8
bis(2-Chloroethyl)-ether	ND	9.6	ug/L	2.3
bis(2-Ethylhexyl) phthalate	ND	9.6	ug/L	1.5
4-Bromophenyl phenyl ether	ND	9.6	ug/L	0.96
Butyl benzyl phthalate	ND	9.6	ug/L	2.8
Caprolactam	ND	9.6	ug/L	0.86
Carbazole	ND	9.6	ug/L	3.4
4-Chloroaniline	ND	9.6	ug/L	1.0
4-Chloro-3-methylphenol	ND	9.6	ug/L	1.0
2-Chloronaphthalene	ND	9.6	ug/L	5.7
2-Chlorophenol	ND	9.6	ug/L	2.8
4-Chlorophenyl phenyl ether	ND	9.6	ug/L	1.4
Chrysene	ND	9.6	ug/L	1.3
Dibenz(a,h)anthracene	ND	9.6	ug/L	0.36
Dibenzofuran	ND	9.6	ug/L	5.9
3,3'-Dichlorobenzidine	ND	48	ug/L	6.6
2,4-Dichlorophenol	ND	9.6	ug/L	3.2
Diethyl phthalate	ND	9.6	ug/L	1.4
2,4-Dimethylphenol	ND	9.6	ug/L	3.4
Dimethyl phthalate	ND	9.6	ug/L	1.2

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0200

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-003 Work Order #...: JLQ911AH Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	9.6	ug/L	1.2
4,6-Dinitro-2-methylphenol	ND	48	ug/L	19
2,4-Dinitrophenol	ND	48	ug/L	21
2,4-Dinitrotoluene	ND	9.6	ug/L	5.0
2,6-Dinitrotoluene	ND	9.6	ug/L	1.1
Di-n-octyl phthalate	ND	9.6	ug/L	1.6
Fluoranthene	ND	9.6	ug/L	1.7
Fluorene	ND	9.6	ug/L	1.5
Hexachlorobenzene	ND	9.6	ug/L	6.5
Hexachlorobutadiene	ND	9.6	ug/L	7.9
Hexachlorocyclopentadiene	ND	48	ug/L	1.0
Hexachloroethane	ND	9.6	ug/L	6.9
Indeno(1,2,3-cd)pyrene	ND	9.6	ug/L	2.2
Isophorone	ND	9.6	ug/L	6.0
2-Methylnaphthalene	ND	9.6	ug/L	2.0
2-Methylphenol	ND	9.6	ug/L	2.5
4-Methylphenol	ND	9.6	ug/L	1.4
Naphthalene	ND	9.6	ug/L	2.3
2-Nitroaniline	ND	48	ug/L	8.2
3-Nitroaniline	ND	48	ug/L	9.8
4-Nitroaniline	ND	48	ug/L	12
Nitrobenzene	ND	9.6	ug/L	2.2
2-Nitrophenol	ND	9.6	ug/L	3.3
4-Nitrophenol	ND	48	ug/L	16
N-Nitrosodi-n-propylamine	ND	9.6	ug/L	3.8
N-Nitrosodiphenylamine	ND	9.6	ug/L	3.0
2,2'-oxybis(1-Chloropropane)	ND	9.6	ug/L	6.0
Pentachlorophenol	ND	48	ug/L	20
Phenanthrene	ND	9.6	ug/L	5.8
Phenol	ND	9.6	ug/L	2.7
Pyrene	ND	9.6	ug/L	3.8
2,4,5-Trichlorophenol	ND	9.6	ug/L	3.8
2,4,6-Trichlorophenol	ND	9.6	ug/L	3.0

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0200

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-003 Work Order #...: JLQ911AH Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	88	(19 - 138)
2-Fluorobiphenyl	80	(35 - 115)
2-Fluorophenol	80	(10 - 118)
Nitrobenzene-d5	84	(39 - 115)
Phenol-d5	76	(18 - 115)
Terphenyl-d14	54	(17 - 129)

Tetra Tech NUS, Inc

NTC01SW0200

GC/MS Semivolatiles

Lot-Sample #: C6L190179-003 **Work Order #:** JLQ911AH **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0300

GC/MS Semivolatiles

Lot-Sample #...:	C6L190179-004	Work Order #...:	JLQ921AW	Matrix.....:	WATER
Date Sampled...:	12/17/06 13:50	Date Received..:	12/19/06 10:00	MS Run #.....:	6355183
Prep Date.....:	12/21/06	Analysis Date..:	01/08/07		
Prep Batch #...:	6355281	Analysis Time..:	10:14		
Dilution Factor:	0.99	Initial Wgt/Vol:	1010 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	007062	Instrument ID..:	722		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	9.9	ug/L	6.4
Acenaphthylene	ND	9.9	ug/L	4.4
Acetophenone	ND	9.9	ug/L	7.2
Anthracene	ND	9.9	ug/L	1.5
Atrazine	ND	9.9	ug/L	3.0
Benzo(a)anthracene	ND	9.9	ug/L	1.4
Benzo(a)pyrene	ND	9.9	ug/L	3.6
Benzo(b)fluoranthene	ND	9.9	ug/L	1.4
Benzo(ghi)perylene	ND	9.9	ug/L	2.7
Benzo(k)fluoranthene	ND	9.9	ug/L	2.6
Benzaldehyde	ND	9.9	ug/L	1.0
1,1'-Biphenyl	ND	9.9	ug/L	5.3
bis(2-Chloroethoxy) methane	ND	9.9	ug/L	3.9
bis(2-Chloroethyl)-ether	ND	9.9	ug/L	2.4
bis(2-Ethylhexyl) phthalate	ND	9.9	ug/L	1.6
4-Bromophenyl phenyl ether	ND	9.9	ug/L	0.99
Butyl benzyl phthalate	ND	9.9	ug/L	2.9
Caprolactam	ND	9.9	ug/L	0.89
Carbazole	ND	9.9	ug/L	3.5
4-Chloroaniline	ND	9.9	ug/L	1.0
4-Chloro-3-methylphenol	ND	9.9	ug/L	1.1
2-Chloronaphthalene	ND	9.9	ug/L	5.9
2-Chlorophenol	ND	9.9	ug/L	2.9
4-Chlorophenyl phenyl ether	ND	9.9	ug/L	1.4
Chrysene	ND	9.9	ug/L	1.3
Dibenz(a,h)anthracene	ND	9.9	ug/L	0.37
Dibenzofuran	ND	9.9	ug/L	6.0
3,3'-Dichlorobenzidine	ND	50	ug/L	6.8
2,4-Dichlorophenol	ND	9.9	ug/L	3.3
Diethyl phthalate	ND	9.9	ug/L	1.4
2,4-Dimethylphenol	ND	9.9	ug/L	3.5
Dimethyl phthalate	ND	9.9	ug/L	1.2

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0300

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-004 Work Order #...: JLQ921AW Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	9.9	ug/L	1.3
4,6-Dinitro-2-methylphenol	ND	50	ug/L	20
2,4-Dinitrophenol	ND	50	ug/L	22
2,4-Dinitrotoluene	ND	9.9	ug/L	5.2
2,6-Dinitrotoluene	ND	9.9	ug/L	1.1
Di-n-octyl phthalate	ND	9.9	ug/L	1.6
Fluoranthene	ND	9.9	ug/L	1.8
Fluorene	ND	9.9	ug/L	1.5
Hexachlorobenzene	ND	9.9	ug/L	6.7
Hexachlorobutadiene	ND	9.9	ug/L	8.1
Hexachlorocyclopentadiene	ND	50	ug/L	1.0
Hexachloroethane	ND	9.9	ug/L	7.1
Indeno(1,2,3-cd)pyrene	ND	9.9	ug/L	2.3
Isophorone	ND	9.9	ug/L	6.2
2-Methylnaphthalene	ND	9.9	ug/L	2.1
2-Methylphenol	ND	9.9	ug/L	2.6
4-Methylphenol	ND	9.9	ug/L	1.5
Naphthalene	ND	9.9	ug/L	2.4
2-Nitroaniline	ND	50	ug/L	8.4
3-Nitroaniline	ND	50	ug/L	10
4-Nitroaniline	ND	50	ug/L	13
Nitrobenzene	ND	9.9	ug/L	2.3
2-Nitrophenol	ND	9.9	ug/L	3.4
4-Nitrophenol	ND	50	ug/L	16
N-Nitrosodi-n-propylamine	ND	9.9	ug/L	3.9
N-Nitrosodiphenylamine	ND	9.9	ug/L	3.1
2,2'-oxybis(1-Chloropropane)	ND	9.9	ug/L	6.1
Pentachlorophenol	ND	50	ug/L	21
Phenanthrene	ND	9.9	ug/L	6.0
Phenol	ND	9.9	ug/L	2.7
Pyrene	ND	9.9	ug/L	3.9
2,4,5-Trichlorophenol	ND	9.9	ug/L	3.9
2,4,6-Trichlorophenol	ND	9.9	ug/L	3.1

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0300

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-004 Work Order #...: JLQ921AW Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	81	(19 - 138)
2-Fluorobiphenyl	75	(35 - 115)
2-Fluorophenol	75	(10 - 118)
Nitrobenzene-d5	80	(39 - 115)
Phenol-d5	74	(18 - 115)
Terphenyl-d14	65	(17 - 129)

Tetra Tech NUS, Inc

NTC01SW0300

GC/MS Semivolatiles

Lot-Sample #: C6L190179-004 **Work Order #:** JLQ921AW **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
Hexachlorophene		ND M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12170601

GC Semivolatiles

Lot-Sample #...:	C6L190179-001	**Work Order #...:**	JLQ8W1A8	**Matrix.....:**	WATER
Date Sampled...:	12/17/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6356249
Prep Date.....:	12/22/06	**Analysis Date..:**	01/03/07		
Prep Batch #...:	6356475	**Analysis Time..:**	16:40		
Dilution Factor:	0.98	**Initial Wgt/Vol:**	1020 mL	**Final Wgt/Vol..:**	10 mL
Analyst ID.....:	402331	**Instrument ID..:**	A/B		
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	0.049	ug/L	0.016
beta-BHC	ND	0.049	ug/L	0.016
delta-BHC	ND	0.049	ug/L	0.017
gamma-BHC (Lindane)	ND	0.049	ug/L	0.014
Heptachlor	ND	0.049	ug/L	0.015
Aldrin	ND	0.049	ug/L	0.018
Heptachlor epoxide	ND	0.049	ug/L	0.023
Endosulfan I	ND	0.049	ug/L	0.016
Dieldrin	ND	0.049	ug/L	0.022
4,4'-DDE	ND	0.049	ug/L	0.015
Endrin	ND	0.049	ug/L	0.018
Endrin ketone	ND	0.049	ug/L	0.017
Endrin aldehyde	ND	0.049	ug/L	0.016
Endosulfan II	ND	0.049	ug/L	0.022
4,4'-DDD	ND	0.049	ug/L	0.018
Endosulfan sulfate	ND	0.049	ug/L	0.024
4,4'-DDT	ND	0.049	ug/L	0.017
Methoxychlor	ND	0.098	ug/L	0.030
alpha-Chlordane	ND	0.049	ug/L	0.024
gamma-Chlordane	ND	0.049	ug/L	0.015
Toxaphene	ND	2.0	ug/L	0.082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	52	(39 - 130)
Decachlorobiphenyl	91	(10 - 147)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0100

GC Semivolatiles

Lot-Sample #...:	C6L190179-002	**Work Order #...:**	JLQ9W1AK	**Matrix.....:**	WATER
Date Sampled...:	12/17/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6356249
Prep Date.....:	12/22/06	**Analysis Date..:**	01/03/07		
Prep Batch #...:	6356475	**Analysis Time..:**	17:09		
Dilution Factor:	0.97	**Initial Wgt/Vol:**	1030 mL	**Final Wgt/Vol..:**	10 mL
Analyst ID.....:	402331	**Instrument ID..:**	A/B		
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	0.048	ug/L	0.016
beta-BHC	ND	0.048	ug/L	0.016
delta-BHC	ND	0.048	ug/L	0.017
gamma-BHC (Lindane)	ND	0.048	ug/L	0.014
Heptachlor	ND	0.048	ug/L	0.015
Aldrin	ND	0.048	ug/L	0.018
Heptachlor epoxide	ND	0.048	ug/L	0.023
Endosulfan I	ND	0.048	ug/L	0.016
Dieldrin	ND	0.048	ug/L	0.021
4,4'-DDE	ND	0.048	ug/L	0.015
Endrin	ND	0.048	ug/L	0.018
Endrin ketone	ND	0.048	ug/L	0.017
Endrin aldehyde	ND	0.048	ug/L	0.016
Endosulfan II	ND	0.048	ug/L	0.022
4,4'-DDD	ND	0.048	ug/L	0.018
Endosulfan sulfate	ND	0.048	ug/L	0.024
4,4'-DDT	ND	0.048	ug/L	0.017
Methoxychlor	ND	0.097	ug/L	0.029
alpha-Chlordane	ND	0.048	ug/L	0.024
gamma-Chlordane	ND	0.048	ug/L	0.015
Toxaphene	ND	1.9	ug/L	0.081

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	66	(39 - 130)
Decachlorobiphenyl	94	(10 - 147)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0200

GC Semivolatiles

Lot-Sample #...:	C6L190179-003	Work Order #...:	JLQ911AK	Matrix.....:	WATER
Date Sampled...:	12/17/06	Date Received..:	12/19/06	MS Run #.....:	6356249
Prep Date.....:	12/22/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6356475	Analysis Time..:	17:38		
Dilution Factor:	0.97	Initial Wgt/Vol:	1030 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	402331	Instrument ID..:	A/B		
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	0.048	ug/L	0.016
beta-BHC	ND	0.048	ug/L	0.016
delta-BHC	ND	0.048	ug/L	0.017
gamma-BHC (Lindane)	ND	0.048	ug/L	0.014
Heptachlor	ND	0.048	ug/L	0.015
Aldrin	ND	0.048	ug/L	0.018
Heptachlor epoxide	ND	0.048	ug/L	0.023
Endosulfan I	ND	0.048	ug/L	0.016
Dieldrin	ND	0.048	ug/L	0.021
4,4'-DDE	ND	0.048	ug/L	0.015
Endrin	ND	0.048	ug/L	0.018
Endrin ketone	ND	0.048	ug/L	0.017
Endrin aldehyde	ND	0.048	ug/L	0.016
Endosulfan II	ND	0.048	ug/L	0.022
4,4'-DDD	ND	0.048	ug/L	0.018
Endosulfan sulfate	ND	0.048	ug/L	0.024
4,4'-DDT	ND	0.048	ug/L	0.017
Methoxychlor	ND	0.097	ug/L	0.029
alpha-Chlordane	ND	0.048	ug/L	0.024
gamma-Chlordane	ND	0.048	ug/L	0.015
Toxaphene	ND	1.9	ug/L	0.081

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	59	(39 - 130)
Decachlorobiphenyl	90	(10 - 147)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0300

GC Semivolatiles

Lot-Sample #...:	C6L190179-004	**Work Order #...:**	JLQ921A4	**Matrix.....:**	WATER
Date Sampled...:	12/17/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6356249
Prep Date.....:	12/22/06	**Analysis Date..:**	01/03/07		
Prep Batch #...:	6356475	**Analysis Time..:**	18:06		
Dilution Factor:	1.01	**Initial Wgt/Vol:**	990 mL	**Final Wgt/Vol..:**	10 mL
Analyst ID.....:	402331	**Instrument ID..:**	A/B		
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	0.050	ug/L	0.016
beta-BHC	ND	0.050	ug/L	0.016
delta-BHC	ND	0.050	ug/L	0.018
gamma-BHC (Lindane)	ND	0.050	ug/L	0.014
Heptachlor	ND	0.050	ug/L	0.015
Aldrin	ND	0.050	ug/L	0.019
Heptachlor epoxide	ND	0.050	ug/L	0.023
Endosulfan I	ND	0.050	ug/L	0.016
Dieldrin	ND	0.050	ug/L	0.022
4,4'-DDE	ND	0.050	ug/L	0.016
Endrin	ND	0.050	ug/L	0.018
Endrin ketone	ND	0.050	ug/L	0.018
Endrin aldehyde	ND	0.050	ug/L	0.016
Endosulfan II	ND	0.050	ug/L	0.023
4,4'-DDD	ND	0.050	ug/L	0.019
Endosulfan sulfate	ND	0.050	ug/L	0.025
4,4'-DDT	ND	0.050	ug/L	0.017
Methoxychlor	ND	0.10	ug/L	0.031
alpha-Chlordane	ND	0.050	ug/L	0.025
gamma-Chlordane	ND	0.050	ug/L	0.015
Toxaphene	ND	2.0	ug/L	0.085

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	63	(39 - 130)
Decachlorobiphenyl	88	(10 - 147)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12170601

GC Semivolatiles

Lot-Sample #...:	C6L190179-001	**Work Order #...:**	JLQ8W1A7	**Matrix.....:**	WATER
Date Sampled...:	12/17/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6356250
Prep Date.....:	12/22/06	**Analysis Date..:**	12/28/06		
Prep Batch #...:	6356476	**Analysis Time..:**	22:09		
Dilution Factor:	0.98	**Initial Wgt/Vol:**	1020 mL	**Final Wgt/Vol..:**	10 mL
Analyst ID.....:	402360	**Instrument ID..:**	S/T		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.98	ug/L	0.48
Aroclor 1221	ND	0.98	ug/L	0.44
Aroclor 1232	ND	0.98	ug/L	0.52
Aroclor 1242	ND	0.98	ug/L	0.25
Aroclor 1248	ND	0.98	ug/L	0.34
Aroclor 1254	ND	0.98	ug/L	0.35
Aroclor 1260	ND	0.98	ug/L	0.57

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	46	(45 - 120)
Decachlorobiphenyl	77	(24 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0100

GC Semivolatiles

Lot-Sample #...:	C6L190179-002	**Work Order #...:**	JLQ9W1AJ	**Matrix.....:**	WATER
Date Sampled...:	12/17/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6356250
Prep Date.....:	12/22/06	**Analysis Date..:**	12/28/06		
Prep Batch #...:	6356476	**Analysis Time..:**	22:31		
Dilution Factor:	0.97	**Initial Wgt/Vol:**	1030 mL	**Final Wgt/Vol..:**	10 mL
Analyst ID.....:	402360	**Instrument ID..:**	S/T		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.97	ug/L	0.48
Aroclor 1221	ND	0.97	ug/L	0.44
Aroclor 1232	ND	0.97	ug/L	0.52
Aroclor 1242	ND	0.97	ug/L	0.25
Aroclor 1248	ND	0.97	ug/L	0.33
Aroclor 1254	ND	0.97	ug/L	0.34
Aroclor 1260	ND	0.97	ug/L	0.56

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	60	(45 - 120)
Decachlorobiphenyl	80	(24 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0200

GC Semivolatiles

Lot-Sample #...:	C6L190179-003	**Work Order #...:**	JLQ911AJ	**Matrix.....:**	WATER
Date Sampled...:	12/17/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6356250
Prep Date.....:	12/22/06	**Analysis Date..:**	12/28/06		
Prep Batch #...:	6356476	**Analysis Time..:**	22:53		
Dilution Factor:	0.97	**Initial Wgt/Vol:**	1030 mL	**Final Wgt/Vol..:**	10 mL
Analyst ID.....:	402360	**Instrument ID..:**	S/T		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.97	ug/L	0.48
Aroclor 1221	ND	0.97	ug/L	0.44
Aroclor 1232	ND	0.97	ug/L	0.52
Aroclor 1242	ND	0.97	ug/L	0.25
Aroclor 1248	ND	0.97	ug/L	0.33
Aroclor 1254	ND	0.97	ug/L	0.34
Aroclor 1260	ND	0.97	ug/L	0.56

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	53	(45 - 120)
Decachlorobiphenyl	78	(24 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0300

GC Semivolatiles

Lot-Sample #...:	C6L190179-004	**Work Order #...:**	JLQ921A1	**Matrix.....:**	WATER
Date Sampled...:	12/17/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6356250
Prep Date.....:	12/22/06	**Analysis Date..:**	12/28/06		
Prep Batch #...:	6356476	**Analysis Time..:**	23:15		
Dilution Factor:	1.01	**Initial Wgt/Vol:**	990 mL	**Final Wgt/Vol..:**	10 mL
Analyst ID.....:	402360	**Instrument ID..:**	S/T		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	1.0	ug/L	0.50
Aroclor 1221	ND	1.0	ug/L	0.46
Aroclor 1232	ND	1.0	ug/L	0.54
Aroclor 1242	ND	1.0	ug/L	0.26
Aroclor 1248	ND	1.0	ug/L	0.35
Aroclor 1254	ND	1.0	ug/L	0.36
Aroclor 1260	ND	1.0	ug/L	0.59

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	55	(45 - 120)
Decachlorobiphenyl	74	(24 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12170601

HPLC

Lot-Sample #...:	C6L190179-001	Work Order #...:	JLQ8W1CA	Matrix.....:	WATER
Date Sampled...:	12/17/06	Date Received..:	12/19/06	MS Run #.....:	6354280
Prep Date.....:	12/20/06	Analysis Date..:	12/21/06		
Prep Batch #...:	6354497	Analysis Time..:	08:02		
Dilution Factor:	0.97	Initial Wgt/Vol:	1030 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	0.97	ug/L	0.11
Acenaphthylene	ND	0.97	ug/L	0.11
Acenaphthene	ND	0.97	ug/L	0.10
Fluorene	**0.036 J**	**0.19**	**ug/L**	**0.021**
Phenanthrene	**0.17 J**	**0.19**	**ug/L**	**0.024**
Anthracene	ND	0.19	ug/L	0.024
Fluoranthene	**0.12 J,PG**	**0.19**	**ug/L**	**0.025**
Pyrene	**0.084 J,PG**	**0.19**	**ug/L**	**0.024**
Benzo(a)anthracene	ND	0.19	ug/L	0.025
Chrysene	**0.041 J**	**0.19**	**ug/L**	**0.025**
Benzo(b)fluoranthene	**0.065 J**	**0.19**	**ug/L**	**0.028**
Benzo(k)fluoranthene	ND	0.19	ug/L	0.029
Benzo(a)pyrene	**0.038 J**	**0.19**	**ug/L**	**0.027**
Indeno(1,2,3-cd)pyrene	**0.056 J,PG**	**0.19**	**ug/L**	**0.022**
Dibenzo(a,h)anthracene	ND	0.19	ug/L	0.023
Benzo(ghi)perylene	**0.065 J**	**0.19**	**ug/L**	**0.024**
Carbazole	ND	0.97	ug/L	0.11
2-Methylnaphthalene	ND	0.97	ug/L	0.11

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	100	(78 - 125)
Terphenyl-d14	91	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0100

HPLC

Lot-Sample #...:	C6L190179-002	Work Order #...:	JLQ9W1CA	Matrix.....:	WATER
Date Sampled...:	12/17/06	Date Received..:	12/19/06	MS Run #.....:	6354280
Prep Date.....:	12/20/06	Analysis Date..:	12/21/06		
Prep Batch #...:	6354497	Analysis Time..:	08:42		
Dilution Factor:	0.95	Initial Wgt/Vol:	1050 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	0.95	ug/L	0.11
Acenaphthylene	ND	0.95	ug/L	0.10
Acenaphthene	ND	0.95	ug/L	0.10
Fluorene	**0.034 J**	**0.19**	**ug/L**	**0.020**
Phenanthrene	**0.17 J**	**0.19**	**ug/L**	**0.023**
Anthracene	ND	0.19	ug/L	0.023
Fluoranthene	**0.17 J**	**0.19**	**ug/L**	**0.024**
Pyrene	**0.081 J,PG**	**0.19**	**ug/L**	**0.024**
Benzo(a)anthracene	ND	0.19	ug/L	0.025
Chrysene	**0.039 J**	**0.19**	**ug/L**	**0.024**
Benzo(b)fluoranthene	**0.051 J**	**0.19**	**ug/L**	**0.027**
Benzo(k)fluoranthene	ND	0.19	ug/L	0.028
Benzo(a)pyrene	**0.039 J**	**0.19**	**ug/L**	**0.027**
Indeno(1,2,3-cd)pyrene	**0.041 J,PG**	**0.19**	**ug/L**	**0.022**
Dibenzo(a,h)anthracene	ND	0.19	ug/L	0.022
Benzo(ghi)perylene	**0.061 J**	**0.19**	**ug/L**	**0.023**
Carbazole	ND	0.95	ug/L	0.11
2-Methylnaphthalene	ND	0.95	ug/L	0.11

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	102	(78 - 125)
Terphenyl-d14	94	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0200

HPLC

Lot-Sample #...:	C6L190179-003	Work Order #...:	JLQ911CA	Matrix.....:	WATER
Date Sampled...:	12/17/06	Date Received..:	12/19/06	MS Run #.....:	6354280
Prep Date.....:	12/20/06	Analysis Date..:	12/21/06		
Prep Batch #...:	6354497	Analysis Time..:	09:23		
Dilution Factor:	0.94	Initial Wgt/Vol:	1060 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	0.94	ug/L	0.11
Acenaphthylene	ND	0.94	ug/L	0.10
Acenaphthene	ND	0.94	ug/L	0.10
Fluorene	0.021 J	0.19	ug/L	0.020
Phenanthrene	0.14 J	0.19	ug/L	0.023
Anthracene	ND	0.19	ug/L	0.023
Fluoranthene	0.12 J,PG	0.19	ug/L	0.024
Pyrene	0.079 J,PG	0.19	ug/L	0.023
Benzo(a)anthracene	ND	0.19	ug/L	0.024
Chrysene	0.039 J	0.19	ug/L	0.024
Benzo(b)fluoranthene	0.059 J	0.19	ug/L	0.027
Benzo(k)fluoranthene	ND	0.19	ug/L	0.028
Benzo(a)pyrene	0.038 J	0.19	ug/L	0.026
Indeno(1,2,3-cd)pyrene	0.049 J,PG	0.19	ug/L	0.022
Dibenzo(a,h)anthracene	ND	0.19	ug/L	0.022
Benzo(ghi)perylene	0.063 J	0.19	ug/L	0.023
Carbazole	ND	0.94	ug/L	0.10
2-Methylnaphthalene	ND	0.94	ug/L	0.11

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	102	(78 - 125)
Terphenyl-d14	95	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0300

HPLC

Lot-Sample #...:	C6L190179-004	**Work Order #...:**	JLQ921EA	**Matrix.....:**	WATER
Date Sampled...:	12/17/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6354280
Prep Date.....:	12/20/06	**Analysis Date..:**	12/21/06		
Prep Batch #...:	6354497	**Analysis Time..:**	10:03		
Dilution Factor:	0.98	**Initial Wgt/Vol:**	1020 mL	**Final Wgt/Vol..:**	1 mL
Analyst ID.....:	014878	**Instrument ID..:**	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	0.98	ug/L	0.11
Acenaphthylene	ND	0.98	ug/L	0.11
Acenaphthene	ND	0.98	ug/L	0.11
Fluorene	**0.030 J**	**0.20**	**ug/L**	**0.021**
Phenanthrene	**0.14 J**	**0.20**	**ug/L**	**0.024**
Anthracene	ND	0.20	ug/L	0.024
Fluoranthene	**0.12 J,PG**	**0.20**	**ug/L**	**0.025**
Pyrene	**0.078 J,PG**	**0.20**	**ug/L**	**0.024**
Benzo(a)anthracene	ND	0.20	ug/L	0.025
Chrysene	**0.038 J**	**0.20**	**ug/L**	**0.025**
Benzo(b)fluoranthene	**0.058 J**	**0.20**	**ug/L**	**0.028**
Benzo(k)fluoranthene	ND	0.20	ug/L	0.029
Benzo(a)pyrene	**0.035 J**	**0.20**	**ug/L**	**0.027**
Indeno(1,2,3-cd)pyrene	**0.038 J,PG**	**0.20**	**ug/L**	**0.022**
Dibenzo(a,h)anthracene	ND	0.20	ug/L	0.023
Benzo(ghi)perylene	**0.057 J**	**0.20**	**ug/L**	**0.024**
Carbazole	ND	0.98	ug/L	0.11
2-Methylnaphthalene	ND	0.98	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	100	(78 - 125)
Terphenyl-d14	92	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12170601

GC Semivolatiles

Lot-Sample #...:	C6L190179-001	Work Order #...:	JLQ8W1A9	Matrix.....:	WATER
Date Sampled...:	12/17/06	Date Received..:	12/19/06	MS Run #.....:	6355056
Prep Date.....:	12/21/06	Analysis Date..:	12/26/06		
Prep Batch #...:	6355105	Analysis Time..:	18:39		
Dilution Factor:	1.02	Initial Wgt/Vol:	980 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	401414	Instrument ID..:	M/N		
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	4.1	ug/L	0.44
2,4,5-TP (Silvex)	ND	1.0	ug/L	0.095
2,4,5-T	ND	1.0	ug/L	0.096
Pentachlorophenol	ND	1.0	ug/L	0.049

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	98	(53 - 119)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0100

GC Semivolatiles

Lot-Sample #...:	C6L190179-002	**Work Order #...:**	JLQ9W1AL	**Matrix.....:**	WATER
Date Sampled...:	12/17/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6355056
Prep Date.....:	12/21/06	**Analysis Date..:**	12/26/06		
Prep Batch #...:	6355105	**Analysis Time..:**	19:12		
Dilution Factor:	0.97	**Initial Wgt/Vol:**	1030 mL	**Final Wgt/Vol..:**	10 mL
Analyst ID.....:	401414	**Instrument ID..:**	M/N		
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	3.9	ug/L	0.42
2,4,5-TP (Silvex)	ND	0.97	ug/L	0.091
2,4,5-T	ND	0.97	ug/L	0.091
Pentachlorophenol	ND	0.97	ug/L	0.046

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	99	(53 - 119)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0200

GC Semivolatiles

Lot-Sample #...:	C6L190179-003	**Work Order #...:**	JLQ911AL	**Matrix.....:**	WATER
Date Sampled...:	12/17/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6355056
Prep Date.....:	12/21/06	**Analysis Date..:**	12/26/06		
Prep Batch #...:	6355105	**Analysis Time..:**	19:44		
Dilution Factor:	0.95	**Initial Wgt/Vol:**	1050 mL	**Final Wgt/Vol..:**	10 mL
Analyst ID.....:	401414	**Instrument ID..:**	M/N		
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	3.8	ug/L	0.41
2,4,5-TP (Silvex)	ND	0.95	ug/L	0.089
2,4,5-T	ND	0.95	ug/L	0.089
Pentachlorophenol	ND	0.95	ug/L	0.045

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	92	(53 - 119)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0300

GC Semivolatiles

Lot-Sample #...:	C6L190179-004	Work Order #...:	JLQ921A7	Matrix.....:	WATER
Date Sampled...:	12/17/06	Date Received..:	12/19/06	MS Run #.....:	6355056
Prep Date.....:	12/21/06	Analysis Date..:	12/26/06		
Prep Batch #...:	6355105	Analysis Time..:	20:17		
Dilution Factor:	1.01	Initial Wgt/Vol:	990 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	401414	Instrument ID..:	M/N		
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	4.0	ug/L	0.44
2,4,5-TP (Silvex)	ND	1.0	ug/L	0.094
2,4,5-T	ND	1.0	ug/L	0.095
Pentachlorophenol	ND	1.0	ug/L	0.048

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	91	(53 - 119)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12170601

Trace Level Organic Compounds

Lot-Sample #...: C6L190179-001	**Work Order #...:** JLQ8W1AD	**Matrix.....:** WATER
Date Sampled...: 12/17/06	**Date Received..:** 12/19/06	**MS Run #.....:** 7010232
Prep Date.....: 12/22/06	**Analysis Date..:** 01/03/07	
Prep Batch #...: 6362360	**Analysis Time..:** 05:17	
Dilution Factor: 1	**Initial Wgt/Vol:** 984.9 mL	**Final Wgt/Vol..:** 20 uL
Analyst ID.....: 002054	**Instrument ID..:** 1D5	

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	1.3	pg/L	SW846 8290
Total TCDD	ND	1.3	pg/L	SW846 8290
1,2,3,7,8-PeCDD	ND	2.8	pg/L	SW846 8290
Total PeCDD	ND	4.6	pg/L	SW846 8290
1,2,3,4,7,8-HxCDD	ND	3.6	pg/L	SW846 8290
1,2,3,6,7,8-HxCDD	ND	3.5	pg/L	SW846 8290
1,2,3,7,8,9-HxCDD	ND	3.2	pg/L	SW846 8290
Total HxCDD	ND	3.6	pg/L	SW846 8290
1,2,3,4,6,7,8-HpCDD	ND	3.5	pg/L	SW846 8290
Total HpCDD	ND	3.5	pg/L	SW846 8290
OCDD	ND	30	pg/L	SW846 8290
2,3,7,8-TCDF	ND	0.76	pg/L	SW846 8290
Total TCDF	ND	0.76	pg/L	SW846 8290
1,2,3,7,8-PeCDF	ND	1.6	pg/L	SW846 8290
2,3,4,7,8-PeCDF	ND	1.6	pg/L	SW846 8290
Total PeCDF	ND	2.3	pg/L	SW846 8290
1,2,3,4,7,8-HxCDF	ND	4.3	pg/L	SW846 8290
1,2,3,6,7,8-HxCDF	ND	4.1	pg/L	SW846 8290
2,3,4,6,7,8-HxCDF	ND	4.4	pg/L	SW846 8290
1,2,3,7,8,9-HxCDF	ND	4.3	pg/L	SW846 8290
Total HxCDF	ND	4.4	pg/L	SW846 8290
1,2,3,4,6,7,8-HpCDF	ND	2.2	pg/L	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	2.4	pg/L	SW846 8290
Total HpCDF	ND	2.4	pg/L	SW846 8290
OCDF	ND	4.8	pg/L	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	94	(40 - 135)
13C-1,2,3,7,8-PeCDD	100	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	114	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	105	(40 - 135)
13C-OCDD	94	(40 - 135)
13C-2,3,7,8-TCDF	115	(40 - 135)
13C-1,2,3,7,8-PeCDF	107	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	94	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	105	(40 - 135)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0100

Trace Level Organic Compounds

Lot-Sample #...:	C6L190179-002	**Work Order #...:**	JLQ9W1AP	**Matrix.....:**	WATER
Date Sampled...:	12/17/06	**Date Received..:**	12/19/06	**MS Run #.....:**	7010232
Prep Date.....:	12/22/06	**Analysis Date..:**	01/03/07		
Prep Batch #...:	6362360	**Analysis Time..:**	05:59		
Dilution Factor:	1	**Initial Wgt/Vol:**	1012.3 m	**Final Wgt/Vol..:**	20 uL
Analyst ID.....:	002054	**Instrument ID..:**	1D5		

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	1.3	pg/L	SW846 8290
Total TCDD	ND	1.3	pg/L	SW846 8290
1,2,3,7,8-PeCDD	ND	2.8	pg/L	SW846 8290
Total PeCDD	ND	4.2	pg/L	SW846 8290
1,2,3,4,7,8-HxCDD	ND	4.4	pg/L	SW846 8290
1,2,3,6,7,8-HxCDD	ND	4.2	pg/L	SW846 8290
1,2,3,7,8,9-HxCDD	ND	4.0	pg/L	SW846 8290
Total HxCDD	ND	4.4	pg/L	SW846 8290
1,2,3,4,6,7,8-HpCDD	ND	4.6	pg/L	SW846 8290
Total HpCDD	ND	4.6	pg/L	SW846 8290
OCDD	ND	29	pg/L	SW846 8290
2,3,7,8-TCDF	ND	0.92	pg/L	SW846 8290
Total TCDF	ND	0.92	pg/L	SW846 8290
1,2,3,7,8-PeCDF	ND	1.5	pg/L	SW846 8290
2,3,4,7,8-PeCDF	ND	1.4	pg/L	SW846 8290
Total PeCDF	ND	2.2	pg/L	SW846 8290
1,2,3,4,7,8-HxCDF	ND	3.8	pg/L	SW846 8290
1,2,3,6,7,8-HxCDF	ND	3.6	pg/L	SW846 8290
2,3,4,6,7,8-HxCDF	ND	3.9	pg/L	SW846 8290
1,2,3,7,8,9-HxCDF	ND	3.8	pg/L	SW846 8290
Total HxCDF	ND	3.9	pg/L	SW846 8290
1,2,3,4,6,7,8-HpCDF	ND	2.4	pg/L	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	2.7	pg/L	SW846 8290
Total HpCDF	ND	2.7	pg/L	SW846 8290
OCDF	ND	5.2	pg/L	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	96	(40 - 135)
13C-1,2,3,7,8-PeCDD	99	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	98	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	106	(40 - 135)
13C-OCDD	90	(40 - 135)
13C-2,3,7,8-TCDF	111	(40 - 135)
13C-1,2,3,7,8-PeCDF	106	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	92	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	105	(40 - 135)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0200

Trace Level Organic Compounds

Lot-Sample #...:	C6L190179-003	Work Order #...:	JLQ911AP	Matrix.....:	WATER
Date Sampled...:	12/17/06	Date Received..:	12/19/06	MS Run #.....:	7010232
Prep Date.....:	12/22/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6362360	Analysis Time..:	06:40		
Dilution Factor:	1	Initial Wgt/Vol:	1012.6 m	Final Wgt/Vol..:	20 uL
Analyst ID.....:	002054	Instrument ID..:	1D5		

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	1.4	pg/L	SW846 8290
Total TCDD	ND	1.4	pg/L	SW846 8290
1,2,3,7,8-PeCDD	ND	2.5	pg/L	SW846 8290
Total PeCDD	ND	6.2	pg/L	SW846 8290
1,2,3,4,7,8-HxCDD	ND	3.2	pg/L	SW846 8290
1,2,3,6,7,8-HxCDD	ND	3.0	pg/L	SW846 8290
1,2,3,7,8,9-HxCDD	ND	2.8	pg/L	SW846 8290
Total HxCDD	ND	3.2	pg/L	SW846 8290
1,2,3,4,6,7,8-HpCDD	ND	3.6	pg/L	SW846 8290
Total HpCDD	ND	3.6	pg/L	SW846 8290
OCDD	ND	26	pg/L	SW846 8290
2,3,7,8-TCDF	ND	0.80	pg/L	SW846 8290
Total TCDF	ND	0.80	pg/L	SW846 8290
1,2,3,7,8-PeCDF	ND	1.3	pg/L	SW846 8290
2,3,4,7,8-PeCDF	ND	1.3	pg/L	SW846 8290
Total PeCDF	ND	2.8	pg/L	SW846 8290
1,2,3,4,7,8-HxCDF	ND	3.2	pg/L	SW846 8290
1,2,3,6,7,8-HxCDF	ND	3.0	pg/L	SW846 8290
2,3,4,6,7,8-HxCDF	ND	3.2	pg/L	SW846 8290
1,2,3,7,8,9-HxCDF	ND	3.2	pg/L	SW846 8290
Total HxCDF	ND	3.2	pg/L	SW846 8290
1,2,3,4,6,7,8-HpCDF	ND	2.3	pg/L	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	2.6	pg/L	SW846 8290
Total HpCDF	ND	2.6	pg/L	SW846 8290
OCDF	ND	5.4	pg/L	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	98	(40 - 135)
13C-1,2,3,7,8-PeCDD	103	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	113	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	110	(40 - 135)
13C-OCDD	92	(40 - 135)
13C-2,3,7,8-TCDF	118	(40 - 135)
13C-1,2,3,7,8-PeCDF	111	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	100	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	112	(40 - 135)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SW0300

Trace Level Organic Compounds

Lot-Sample #...:	C6L190179-004	Work Order #...:	JLQ921CH	Matrix.....:	WATER
Date Sampled...:	12/17/06	Date Received..:	12/19/06	MS Run #.....:	7010232
Prep Date.....:	12/22/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6362360	Analysis Time..:	07:22		
Dilution Factor:	1	Initial Wgt/Vol:	950.1 mL	Final Wgt/Vol..:	20 uL
Analyst ID.....:	002054	Instrument ID..:	1D5		

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	1.2	pg/L	SW846 8290
Total TCDD	ND	1.2	pg/L	SW846 8290
1,2,3,7,8-PeCDD	ND	2.7	pg/L	SW846 8290
Total PeCDD	ND	4.5	pg/L	SW846 8290
1,2,3,4,7,8-HxCDD	ND	3.8	pg/L	SW846 8290
1,2,3,6,7,8-HxCDD	ND	3.7	pg/L	SW846 8290
1,2,3,7,8,9-HxCDD	ND	3.4	pg/L	SW846 8290
Total HxCDD	ND	3.8	pg/L	SW846 8290
1,2,3,4,6,7,8-HpCDD	ND	4.6	pg/L	SW846 8290
Total HpCDD	ND	4.6	pg/L	SW846 8290
OCDD	ND	22	pg/L	SW846 8290
2,3,7,8-TCDF	ND	0.98	pg/L	SW846 8290
Total TCDF	ND	0.98	pg/L	SW846 8290
1,2,3,7,8-PeCDF	ND	1.4	pg/L	SW846 8290
2,3,4,7,8-PeCDF	ND	1.3	pg/L	SW846 8290
Total PeCDF	ND	1.8	pg/L	SW846 8290
1,2,3,4,7,8-HxCDF	ND	3.7	pg/L	SW846 8290
1,2,3,6,7,8-HxCDF	ND	3.5	pg/L	SW846 8290
2,3,4,6,7,8-HxCDF	ND	3.7	pg/L	SW846 8290
1,2,3,7,8,9-HxCDF	ND	3.7	pg/L	SW846 8290
Total HxCDF	ND	3.7	pg/L	SW846 8290
1,2,3,4,6,7,8-HpCDF	ND	2.5	pg/L	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	2.8	pg/L	SW846 8290
Total HpCDF	ND	2.8	pg/L	SW846 8290
OCDF	ND	6.0	pg/L	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	96	(40 - 135)
13C-1,2,3,7,8-PeCDD	103	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	110	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	108	(40 - 135)
13C-OCDD	96	(40 - 135)
13C-2,3,7,8-TCDF	115	(40 - 135)
13C-1,2,3,7,8-PeCDF	111	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	108	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	113	(40 - 135)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180601

GC/MS Volatiles

Lot-Sample #...:	C6L190179-005	Work Order #...:	JLQ981AD	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6356045
Prep Date.....:	12/22/06	Analysis Date..:	12/22/06		
Prep Batch #...:	6356056	Analysis Time..:	09:34		
Dilution Factor:	1	Initial Wgt/Vol:	5 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	62	Analyst ID.....:	010099	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	53	ug/kg	13
Benzene	ND	13	ug/kg	1.5
Bromodichloromethane	ND	13	ug/kg	0.66
Bromoform	ND	13	ug/kg	1.6
Bromomethane	ND	13	ug/kg	2.5
2-Butanone	ND	13	ug/kg	3.7
Carbon disulfide	ND	13	ug/kg	0.96
Carbon tetrachloride	ND	13	ug/kg	0.66
Chlorobenzene	ND	13	ug/kg	2.3
Chloroethane	ND	13	ug/kg	2.5
Chloroform	ND	13	ug/kg	0.66
Chloromethane	ND	13	ug/kg	0.76
Cyclohexane	ND	13	ug/kg	1.0
Dibromochloromethane	ND	13	ug/kg	0.69
1,2-Dibromo-3-chloro-propane	ND	13	ug/kg	1.2
1,2-Dibromoethane	ND	13	ug/kg	0.71
1,3-Dichlorobenzene	ND	13	ug/kg	2.4
1,4-Dichlorobenzene	ND	13	ug/kg	1.8
1,2-Dichlorobenzene	ND	13	ug/kg	2.5
Dichlorodifluoromethane	ND	13	ug/kg	1.3
1,1-Dichloroethane	ND	13	ug/kg	0.76
1,2-Dichloroethane	ND	13	ug/kg	0.80
1,1-Dichloroethene	ND	13	ug/kg	1.6
cis-1,2-Dichloroethene	ND	13	ug/kg	2.0
trans-1,2-Dichloroethene	ND	13	ug/kg	1.7
1,2-Dichloropropane	ND	13	ug/kg	1.7
cis-1,3-Dichloropropene	ND	13	ug/kg	0.76
trans-1,3-Dichloropropene	ND	13	ug/kg	0.73
Ethylbenzene	ND	13	ug/kg	2.5
2-Hexanone	ND	13	ug/kg	2.2
Isopropylbenzene	ND	13	ug/kg	3.0
Methyl acetate	ND	13	ug/kg	6.6
Methylene chloride	ND	13	ug/kg	3.5
Methylcyclohexane	ND	13	ug/kg	2.1
4-Methyl-2-pentanone	ND	13	ug/kg	2.2
Methyl tert-butyl ether	ND	13	ug/kg	1.1

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180601

GC/MS Volatiles

Lot-Sample #...: C6L190179-005 Work Order #...: JLQ981AD Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	13	ug/kg	2.1
1,1,2,2-Tetrachloroethane	ND	13	ug/kg	1.2
1,2,4-Trichloro-benzene	ND	13	ug/kg	3.7
Tetrachloroethene	ND	13	ug/kg	2.0
1,1,1-Trichloroethane	ND	13	ug/kg	0.72
1,1,2-Trichloroethane	ND	13	ug/kg	1.8
Trichloroethene	ND	13	ug/kg	2.3
Trichlorofluoromethane	ND	13	ug/kg	3.2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	13	ug/kg	0.92
Toluene	ND	13	ug/kg	1.6
Vinyl chloride	ND	13	ug/kg	1.7
Xylenes (total)	ND	40	ug/kg	7.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	82	(52 - 124)
Toluene-d8	117	(72 - 127)
4-Bromofluorobenzene	103	(63 - 120)
Dibromofluoromethane	96	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180602

GC/MS Volatiles

Lot-Sample #...:	C6L190179-006	Work Order #...:	JLRAQ1AD	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360030
Prep Date.....:	12/24/06	Analysis Date..:	12/24/06		
Prep Batch #...:	6360049	Analysis Time..:	18:37		
Dilution Factor:	1.6	Initial Wgt/Vol:	3.13 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	22	Analyst ID.....:	034635	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	41	ug/kg	10
Benzene	ND	10	ug/kg	1.1
Bromodichloromethane	ND	10	ug/kg	0.52
Bromoform	ND	10	ug/kg	1.3
Bromomethane	ND	10	ug/kg	1.9
2-Butanone	ND	10	ug/kg	2.9
Carbon disulfide	ND	10	ug/kg	0.74
Carbon tetrachloride	ND	10	ug/kg	0.52
Chlorobenzene	ND	10	ug/kg	1.8
Chloroethane	ND	10	ug/kg	1.9
Chloroform	ND	10	ug/kg	0.52
Chloromethane	ND	10	ug/kg	0.59
Cyclohexane	ND	10	ug/kg	0.78
Dibromochloromethane	ND	10	ug/kg	0.54
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	0.96
1,2-Dibromoethane	ND	10	ug/kg	0.55
1,3-Dichlorobenzene	ND	10	ug/kg	1.9
1,4-Dichlorobenzene	ND	10	ug/kg	1.4
1,2-Dichlorobenzene	ND	10	ug/kg	1.9
Dichlorodifluoromethane	ND	10	ug/kg	1.0
1,1-Dichloroethane	ND	10	ug/kg	0.59
1,2-Dichloroethane	ND	10	ug/kg	0.62
1,1-Dichloroethene	ND	10	ug/kg	1.2
cis-1,2-Dichloroethene	ND	10	ug/kg	1.5
trans-1,2-Dichloroethene	ND	10	ug/kg	1.3
1,2-Dichloropropane	ND	10	ug/kg	1.3
cis-1,3-Dichloropropene	ND	10	ug/kg	0.59
trans-1,3-Dichloropropene	ND	10	ug/kg	0.57
Ethylbenzene	ND	10	ug/kg	1.9
2-Hexanone	ND	10	ug/kg	1.7
Isopropylbenzene	ND	10	ug/kg	2.3
Methyl acetate	ND	10	ug/kg	5.2
Methylene chloride	ND	10	ug/kg	2.7
Methylcyclohexane	ND	10	ug/kg	1.6
4-Methyl-2-pentanone	ND	10	ug/kg	1.7
Methyl tert-butyl ether	ND	10	ug/kg	0.85

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180602

GC/MS Volatiles

Lot-Sample #...: C6L190179-006 Work Order #...: JLRAQ1AD Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	10	ug/kg	1.7
1,1,2,2-Tetrachloroethane	ND	10	ug/kg	0.93
1,2,4-Trichloro-benzene	ND	10	ug/kg	2.9
Tetrachloroethene	ND	10	ug/kg	1.6
1,1,1-Trichloroethane	ND	10	ug/kg	0.56
1,1,2-Trichloroethane	ND	10	ug/kg	1.4
Trichloroethene	ND	10	ug/kg	1.8
Trichlorofluoromethane	ND	10	ug/kg	2.5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/kg	0.71
Toluene	ND	10	ug/kg	1.2
Vinyl chloride	ND	10	ug/kg	1.4
Xylenes (total)	ND	31	ug/kg	5.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	71	(52 - 124)
Toluene-d8	91	(72 - 127)
4-Bromofluorobenzene	82	(63 - 120)
Dibromofluoromethane	80	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0880708

GC/MS Volatiles

Lot-Sample #...:	C6L190179-007	Work Order #...:	JLRAW1AC	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6356045
Prep Date.....:	12/22/06	Analysis Date..:	12/22/06		
Prep Batch #...:	6356056	Analysis Time..:	13:34		
Dilution Factor:	0.91	Initial Wgt/Vol:	5.49 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	19	Analyst ID.....:	010099	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	22	ug/kg	5.6
Benzene	ND	5.6	ug/kg	0.61
Bromodichloromethane	ND	5.6	ug/kg	0.28
Bromoform	ND	5.6	ug/kg	0.68
Bromomethane	ND	5.6	ug/kg	1.0
2-Butanone	ND	5.6	ug/kg	1.6
Carbon disulfide	ND	5.6	ug/kg	0.40
Carbon tetrachloride	ND	5.6	ug/kg	0.28
Chlorobenzene	ND	5.6	ug/kg	0.95
Chloroethane	ND	5.6	ug/kg	1.1
Chloroform	ND	5.6	ug/kg	0.28
Chloromethane	ND	5.6	ug/kg	0.32
Cyclohexane	ND	5.6	ug/kg	0.42
Dibromochloromethane	ND	5.6	ug/kg	0.29
1,2-Dibromo-3-chloro-propane	ND	5.6	ug/kg	0.52
1,2-Dibromoethane	ND	5.6	ug/kg	0.30
1,3-Dichlorobenzene	ND	5.6	ug/kg	1.0
1,4-Dichlorobenzene	ND	5.6	ug/kg	0.76
1,2-Dichlorobenzene	ND	5.6	ug/kg	1.0
Dichlorodifluoromethane	ND	5.6	ug/kg	0.57
1,1-Dichloroethane	ND	5.6	ug/kg	0.32
1,2-Dichloroethane	ND	5.6	ug/kg	0.34
1,1-Dichloroethene	ND	5.6	ug/kg	0.66
cis-1,2-Dichloroethene	ND	5.6	ug/kg	0.84
trans-1,2-Dichloroethene	ND	5.6	ug/kg	0.73
1,2-Dichloropropane	ND	5.6	ug/kg	0.70
cis-1,3-Dichloropropene	ND	5.6	ug/kg	0.32
trans-1,3-Dichloropropene	ND	5.6	ug/kg	0.31
Ethylbenzene	ND	5.6	ug/kg	1.0
2-Hexanone	ND	5.6	ug/kg	0.91
Isopropylbenzene	ND	5.6	ug/kg	1.3
Methyl acetate	ND	5.6	ug/kg	2.8
Methylene chloride	3.3 J	5.6	ug/kg	1.5
Methylcyclohexane	ND	5.6	ug/kg	0.88
4-Methyl-2-pentanone	ND	5.6	ug/kg	0.94
Methyl tert-butyl ether	ND	5.6	ug/kg	0.46

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0880708

GC/MS Volatiles

Lot-Sample #...: C6L190179-007 Work Order #...: JLRAW1AC Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	5.6	ug/kg	0.90
1,1,2,2-Tetrachloroethane	ND	5.6	ug/kg	0.50
1,2,4-Trichloro-benzene	ND	5.6	ug/kg	1.5
Tetrachloroethene	ND	5.6	ug/kg	0.86
1,1,1-Trichloroethane	ND	5.6	ug/kg	0.30
1,1,2-Trichloroethane	ND	5.6	ug/kg	0.76
Trichloroethene	ND	5.6	ug/kg	0.96
Trichlorofluoromethane	ND	5.6	ug/kg	1.3
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.6	ug/kg	0.39
Toluene	ND	5.6	ug/kg	0.66
Vinyl chloride	ND	5.6	ug/kg	0.74
Xylenes (total)	ND	17	ug/kg	3.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	88	(52 - 124)
Toluene-d8	110	(72 - 127)
4-Bromofluorobenzene	99	(63 - 120)
Dibromofluoromethane	96	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0891112

GC/MS Volatiles

Lot-Sample #...:	C6L190179-008	Work Order #...:	JLRA61AN	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	635604S
Prep Date.....:	12/22/06	Analysis Date..:	12/22/06		
Prep Batch #...:	6356056	Analysis Time..:	13:58		
Dilution Factor:	1.19	Initial Wgt/Vol:	4.21 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	21	Analyst ID.....:	010099	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	30	ug/kg	7.5
Benzene	ND	7.5	ug/kg	0.83
Bromodichloromethane	ND	7.5	ug/kg	0.38
Bromoform	ND	7.5	ug/kg	0.92
Bromomethane	ND	7.5	ug/kg	1.4
2-Butanone	ND	7.5	ug/kg	2.1
Carbon disulfide	ND	7.5	ug/kg	0.54
Carbon tetrachloride	ND	7.5	ug/kg	0.38
Chlorobenzene	ND	7.5	ug/kg	1.3
Chloroethane	ND	7.5	ug/kg	1.4
Chloroform	ND	7.5	ug/kg	0.38
Chloromethane	ND	7.5	ug/kg	0.43
Cyclohexane	ND	7.5	ug/kg	0.57
Dibromochloromethane	ND	7.5	ug/kg	0.39
1,2-Dibromo-3-chloro-propane	ND	7.5	ug/kg	0.70
1,2-Dibromoethane	ND	7.5	ug/kg	0.41
1,3-Dichlorobenzene	ND	7.5	ug/kg	1.4
1,4-Dichlorobenzene	ND	7.5	ug/kg	1.0
1,2-Dichlorobenzene	ND	7.5	ug/kg	1.4
Dichlorodifluoromethane	ND	7.5	ug/kg	0.76
1,1-Dichloroethane	ND	7.5	ug/kg	0.43
1,2-Dichloroethane	ND	7.5	ug/kg	0.46
1,1-Dichloroethene	ND	7.5	ug/kg	0.89
cis-1,2-Dichloroethene	ND	7.5	ug/kg	1.1
trans-1,2-Dichloroethene	ND	7.5	ug/kg	0.99
1,2-Dichloropropane	ND	7.5	ug/kg	0.95
cis-1,3-Dichloropropene	ND	7.5	ug/kg	0.43
trans-1,3-Dichloropropene	ND	7.5	ug/kg	0.42
Ethylbenzene	ND	7.5	ug/kg	1.4
2-Hexanone	ND	7.5	ug/kg	1.2
Isopropylbenzene	ND	7.5	ug/kg	1.7
Methyl acetate	ND	7.5	ug/kg	3.8
Methylene chloride	ND	7.5	ug/kg	2.0
Methylcyclohexane	ND	7.5	ug/kg	1.2
4-Methyl-2-pentanone	ND	7.5	ug/kg	1.3
Methyl tert-butyl ether	ND	7.5	ug/kg	0.62

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0891112

GC/MS Volatiles

Lot-Sample #...: C6L190179-008 Work Order #...: JLRA61AN Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	7.5	ug/kg	1.2
1,1,2,2-Tetrachloroethane	ND	7.5	ug/kg	0.68
1,2,4-Trichloro-benzene	ND	7.5	ug/kg	2.1
Tetrachloroethene	ND	7.5	ug/kg	1.2
1,1,1-Trichloroethane	ND	7.5	ug/kg	0.41
1,1,2-Trichloroethane	ND	7.5	ug/kg	1.0
Trichloroethene	ND	7.5	ug/kg	1.3
Trichlorofluoromethane	ND	7.5	ug/kg	1.8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	7.5	ug/kg	0.52
Toluene	ND	7.5	ug/kg	0.89
Vinyl chloride	ND	7.5	ug/kg	0.99
Xylenes (total)	ND	23	ug/kg	4.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	84	(52 - 124)
Toluene-d8	114	(72 - 127)
4-Bromofluorobenzene	91	(63 - 120)
Dibromofluoromethane	95	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0900812

GC/MS Volatiles

Lot-Sample #...:	C6L190179-009	**Work Order #...:**	JLRCA1AE	**Matrix.....:**	SOLID
Date Sampled...:	12/18/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6356045
Prep Date.....:	12/22/06	**Analysis Date..:**	12/22/06		
Prep Batch #...:	6356056	**Analysis Time..:**	14:22		
Dilution Factor:	1.58	**Initial Wgt/Vol:**	3.17 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	22	**Analyst ID.....:**	010099	**Instrument ID..:**	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	40	ug/kg	10
Benzene	**2.0 J**	**10**	**ug/kg**	**1.1**
Bromodichloromethane	ND	10	ug/kg	0.50
Bromoform	ND	10	ug/kg	1.2
Bromomethane	ND	10	ug/kg	1.9
2-Butanone	ND	10	ug/kg	2.8
Carbon disulfide	ND	10	ug/kg	0.73
Carbon tetrachloride	ND	10	ug/kg	0.50
Chlorobenzene	ND	10	ug/kg	1.7
Chloroethane	ND	10	ug/kg	1.9
Chloroform	ND	10	ug/kg	0.50
Chloromethane	ND	10	ug/kg	0.58
Cyclohexane	ND	10	ug/kg	0.76
Dibromochloromethane	ND	10	ug/kg	0.53
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	0.94
1,2-Dibromoethane	ND	10	ug/kg	0.54
1,3-Dichlorobenzene	ND	10	ug/kg	1.8
1,4-Dichlorobenzene	ND	10	ug/kg	1.4
1,2-Dichlorobenzene	ND	10	ug/kg	1.9
Dichlorodifluoromethane	ND	10	ug/kg	1.0
1,1-Dichloroethane	ND	10	ug/kg	0.58
1,2-Dichloroethane	ND	10	ug/kg	0.61
1,1-Dichloroethene	ND	10	ug/kg	1.2
cis-1,2-Dichloroethene	ND	10	ug/kg	1.5
trans-1,2-Dichloroethene	ND	10	ug/kg	1.3
1,2-Dichloropropane	ND	10	ug/kg	1.3
cis-1,3-Dichloropropene	ND	10	ug/kg	0.58
trans-1,3-Dichloropropene	ND	10	ug/kg	0.56
Ethylbenzene	ND	10	ug/kg	1.9
2-Hexanone	ND	10	ug/kg	1.6
Isopropylbenzene	ND	10	ug/kg	2.3
Methyl acetate	ND	10	ug/kg	5.0
Methylene chloride	ND	10	ug/kg	2.7
Methylcyclohexane	ND	10	ug/kg	1.6
4-Methyl-2-pentanone	ND	10	ug/kg	1.7
Methyl tert-butyl ether	ND	10	ug/kg	0.83

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0900812

GC/MS Volatiles

Lot-Sample #...: C6L190179-009 Work Order #...: JLRCA1AE Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	10	ug/kg	1.6
1,1,2,2-Tetrachloroethane	ND	10	ug/kg	0.91
1,2,4-Trichloro-benzene	ND	10	ug/kg	2.8
Tetrachloroethene	ND	10	ug/kg	1.5
1,1,1-Trichloroethane	ND	10	ug/kg	0.55
1,1,2-Trichloroethane	ND	10	ug/kg	1.4
Trichloroethene	ND	10	ug/kg	1.7
Trichlorofluoromethane	ND	10	ug/kg	2.4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/kg	0.70
Toluene	ND	10	ug/kg	1.2
Vinyl chloride	ND	10	ug/kg	1.3
Xylenes (total)	ND	30	ug/kg	5.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	119	(52 - 124)
Toluene-d8	134 *	(72 - 127)
4-Bromofluorobenzene	65	(63 - 120)
Dibromofluoromethane	131 *	(68 - 121)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0900812

GC/MS Volatiles

Lot-Sample #...:	C6L190179-009	Work Order #...:	JLRCA2AE	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360030
Prep Date.....:	12/24/06	Analysis Date..:	12/24/06		
Prep Batch #...:	6360049	Analysis Time..:	19:00		
Dilution Factor:	1.37	Initial Wgt/Vol:	3.65 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	22	Analyst ID.....:	034635	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	35	ug/kg	8.7
Benzene	ND	8.7	ug/kg	0.95
Bromodichloromethane	ND	8.7	ug/kg	0.44
Bromoform	ND	8.7	ug/kg	1.1
Bromomethane	ND	8.7	ug/kg	1.6
2-Butanone	ND	8.7	ug/kg	2.4
Carbon disulfide	ND	8.7	ug/kg	0.63
Carbon tetrachloride	ND	8.7	ug/kg	0.44
Chlorobenzene	ND	8.7	ug/kg	1.5
Chloroethane	ND	8.7	ug/kg	1.6
Chloroform	ND	8.7	ug/kg	0.44
Chloromethane	ND	8.7	ug/kg	0.50
Cyclohexane	ND	8.7	ug/kg	0.66
Dibromochloromethane	ND	8.7	ug/kg	0.46
1,2-Dibromo-3-chloro-propane	ND	8.7	ug/kg	0.81
1,2-Dibromoethane	ND	8.7	ug/kg	0.47
1,3-Dichlorobenzene	ND	8.7	ug/kg	1.6
1,4-Dichlorobenzene	ND	8.7	ug/kg	1.2
1,2-Dichlorobenzene	ND	8.7	ug/kg	1.6
Dichlorodifluoromethane	ND	8.7	ug/kg	0.88
1,1-Dichloroethane	ND	8.7	ug/kg	0.50
1,2-Dichloroethane	ND	8.7	ug/kg	0.53
1,1-Dichloroethene	ND	8.7	ug/kg	1.0
cis-1,2-Dichloroethene	ND	8.7	ug/kg	1.3
trans-1,2-Dichloroethene	ND	8.7	ug/kg	1.1
1,2-Dichloropropane	ND	8.7	ug/kg	1.1
cis-1,3-Dichloropropene	ND	8.7	ug/kg	0.50
trans-1,3-Dichloropropene	ND	8.7	ug/kg	0.48
Ethylbenzene	ND	8.7	ug/kg	1.6
2-Hexanone	ND	8.7	ug/kg	1.4
Isopropylbenzene	ND	8.7	ug/kg	2.0
Methyl acetate	ND	8.7	ug/kg	4.4
Methylene chloride	ND	8.7	ug/kg	2.3
Methylcyclohexane	ND	8.7	ug/kg	1.4
4-Methyl-2-pentanone	ND	8.7	ug/kg	1.5
Methyl tert-butyl ether	ND	8.7	ug/kg	0.72

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0900812

GC/MS Volatiles

Lot-Sample #...: C6L190179-009 Work Order #...: JLRCA2AE Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	8.7	ug/kg	1.4
1,1,2,2-Tetrachloroethane	ND	8.7	ug/kg	0.79
1,2,4-Trichloro-benzene	ND	8.7	ug/kg	2.4
Tetrachloroethene	ND	8.7	ug/kg	1.3
1,1,1-Trichloroethane	ND	8.7	ug/kg	0.47
1,1,2-Trichloroethane	ND	8.7	ug/kg	1.2
Trichloroethene	ND	8.7	ug/kg	1.5
Trichlorofluoromethane	ND	8.7	ug/kg	2.1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.7	ug/kg	0.60
Toluene	ND	8.7	ug/kg	1.0
Vinyl chloride	ND	8.7	ug/kg	1.1
Xylenes (total)	ND	26	ug/kg	4.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	110	(52 - 124)
Toluene-d8	143 *	(72 - 127)
4-Bromofluorobenzene	128 *	(63 - 120)
Dibromofluoromethane	124 *	(68 - 121)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0910812

GC/MS Volatiles

Lot-Sample #...:	C6L190179-010	Work Order #...:	JLRCQ1AC	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6356045
Prep Date.....:	12/22/06	Analysis Date..:	12/22/06		
Prep Batch #...:	6356056	Analysis Time..:	14:46		
Dilution Factor:	0.91	Initial Wgt/Vol:	5.47 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	18	Analyst ID.....:	010099	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**6.4 J**	**22**	**ug/kg**	**5.6**
Benzene	ND	5.6	ug/kg	0.61
Bromodichloromethane	ND	5.6	ug/kg	0.28
Bromoform	ND	5.6	ug/kg	0.68
Bromomethane	ND	5.6	ug/kg	1.0
2-Butanone	**6.6**	**5.6**	**ug/kg**	**1.6**
Carbon disulfide	ND	5.6	ug/kg	0.40
Carbon tetrachloride	ND	5.6	ug/kg	0.28
Chlorobenzene	ND	5.6	ug/kg	0.95
Chloroethane	ND	5.6	ug/kg	1.0
Chloroform	ND	5.6	ug/kg	0.28
Chloromethane	ND	5.6	ug/kg	0.32
Cyclohexane	ND	5.6	ug/kg	0.42
Dibromochloromethane	ND	5.6	ug/kg	0.29
1,2-Dibromo-3-chloro-propane	ND	5.6	ug/kg	0.52
1,2-Dibromoethane	ND	5.6	ug/kg	0.30
1,3-Dichlorobenzene	ND	5.6	ug/kg	1.0
1,4-Dichlorobenzene	ND	5.6	ug/kg	0.76
1,2-Dichlorobenzene	ND	5.6	ug/kg	1.0
Dichlorodifluoromethane	ND	5.6	ug/kg	0.56
1,1-Dichloroethane	ND	5.6	ug/kg	0.32
1,2-Dichloroethane	ND	5.6	ug/kg	0.34
1,1-Dichloroethene	ND	5.6	ug/kg	0.65
cis-1,2-Dichloroethene	ND	5.6	ug/kg	0.83
trans-1,2-Dichloroethene	ND	5.6	ug/kg	0.73
1,2-Dichloropropane	ND	5.6	ug/kg	0.70
cis-1,3-Dichloropropene	ND	5.6	ug/kg	0.32
trans-1,3-Dichloropropene	ND	5.6	ug/kg	0.31
Ethylbenzene	ND	5.6	ug/kg	1.0
2-Hexanone	ND	5.6	ug/kg	0.90
Isopropylbenzene	ND	5.6	ug/kg	1.2
Methyl acetate	ND	5.6	ug/kg	2.8
Methylene chloride	**2.5 J**	**5.6**	**ug/kg**	**1.5**
Methylcyclohexane	ND	5.6	ug/kg	0.87
4-Methyl-2-pentanone	ND	5.6	ug/kg	0.94
Methyl tert-butyl ether	ND	5.6	ug/kg	0.46

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0910812

GC/MS Volatiles

Lot-Sample #...: C6L190179-010 Work Order #...: JLRCQ1AC Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	5.6	ug/kg	0.89
1,1,2,2-Tetrachloroethane	ND	5.6	ug/kg	0.50
1,2,4-Trichloro-benzene	ND	5.6	ug/kg	1.5
Tetrachloroethene	ND	5.6	ug/kg	0.85
1,1,1-Trichloroethane	ND	5.6	ug/kg	0.30
1,1,2-Trichloroethane	ND	5.6	ug/kg	0.75
Trichloroethene	ND	5.6	ug/kg	0.96
Trichlorofluoromethane	ND	5.6	ug/kg	1.3
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.6	ug/kg	0.38
Toluene	ND	5.6	ug/kg	0.66
Vinyl chloride	ND	5.6	ug/kg	0.73
Xylenes (total)	ND	17	ug/kg	3.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	91	(52 - 124)
Toluene-d8	113	(72 - 127)
4-Bromofluorobenzene	99	(63 - 120)
Dibromofluoromethane	99	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0921516

GC/MS Volatiles

Lot-Sample #...:	C6L190179-011	Work Order #...:	JLRC01AN	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360218
Prep Date.....:	12/26/06	Analysis Date..:	12/26/06		
Prep Batch #...:	6360389	Analysis Time..:	09:08		
Dilution Factor:	1.43	Initial Wgt/Vol:	3.49 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	42	Analyst ID.....:	034635	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	49	ug/kg	12
Benzene	ND	12	ug/kg	1.4
Bromodichloromethane	ND	12	ug/kg	0.62
Bromoform	ND	12	ug/kg	1.5
Bromomethane	ND	12	ug/kg	2.3
2-Butanone	ND	12	ug/kg	3.5
Carbon disulfide	ND	12	ug/kg	0.89
Carbon tetrachloride	ND	12	ug/kg	0.62
Chlorobenzene	ND	12	ug/kg	2.1
Chloroethane	ND	12	ug/kg	2.3
Chloroform	ND	12	ug/kg	0.62
Chloromethane	ND	12	ug/kg	0.71
Cyclohexane	ND	12	ug/kg	0.93
Dibromochloromethane	ND	12	ug/kg	0.64
1,2-Dibromo-3-chloro-propane	ND	12	ug/kg	1.1
1,2-Dibromoethane	ND	12	ug/kg	0.66
1,3-Dichlorobenzene	ND	12	ug/kg	2.3
1,4-Dichlorobenzene	ND	12	ug/kg	1.7
1,2-Dichlorobenzene	ND	12	ug/kg	2.3
Dichlorodifluoromethane	ND	12	ug/kg	1.3
1,1-Dichloroethane	ND	12	ug/kg	0.71
1,2-Dichloroethane	ND	12	ug/kg	0.75
1,1-Dichloroethene	ND	12	ug/kg	1.5
cis-1,2-Dichloroethene	ND	12	ug/kg	1.8
trans-1,2-Dichloroethene	ND	12	ug/kg	1.6
1,2-Dichloropropane	ND	12	ug/kg	1.5
cis-1,3-Dichloropropene	ND	12	ug/kg	0.71
trans-1,3-Dichloropropene	ND	12	ug/kg	0.68
Ethylbenzene	ND	12	ug/kg	2.3
2-Hexanone	ND	12	ug/kg	2.0
Isopropylbenzene	ND	12	ug/kg	2.8
Methyl acetate	ND	12	ug/kg	6.2
Methylene chloride	ND	12	ug/kg	3.3
Methylcyclohexane	ND	12	ug/kg	1.9
4-Methyl-2-pentanone	ND	12	ug/kg	2.1
Methyl tert-butyl ether	ND	12	ug/kg	1.0

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0921516

GC/MS Volatiles

Lot-Sample #...: C6L190179-011 Work Order #...: JLRC01AN Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	12	ug/kg	2.0
1,1,2,2-Tetrachloroethane	ND	12	ug/kg	1.1
1,2,4-Trichloro-benzene	ND	12	ug/kg	3.4
Tetrachloroethene	ND	12	ug/kg	1.9
1,1,1-Trichloroethane	ND	12	ug/kg	0.67
1,1,2-Trichloroethane	ND	12	ug/kg	1.7
Trichloroethene	ND	12	ug/kg	2.1
Trichlorofluoromethane	ND	12	ug/kg	3.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	12	ug/kg	0.86
Toluene	ND	12	ug/kg	1.5
Vinyl chloride	ND	12	ug/kg	1.6
Xylenes (total)	ND	37	ug/kg	6.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	93	(52 - 124)
Toluene-d8	108	(72 - 127)
4-Bromofluorobenzene	96	(63 - 120)
Dibromofluoromethane	96	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0930810

GC/MS Volatiles

Lot-Sample #...:	C6L190179-012	Work Order #...:	JLRC41AN	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6356045
Prep Date.....:	12/22/06	Analysis Date..:	12/22/06		
Prep Batch #...:	6356056	Analysis Time..:	15:33		
Dilution Factor:	1.1	Initial Wgt/Vol:	4.53 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	17	Analyst ID.....:	010099	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	26	ug/kg	6.6
Benzene	ND	6.6	ug/kg	0.72
Bromodichloromethane	ND	6.6	ug/kg	0.33
Bromoform	ND	6.6	ug/kg	0.81
Bromomethane	ND	6.6	ug/kg	1.2
2-Butanone	ND	6.6	ug/kg	1.8
Carbon disulfide	ND	6.6	ug/kg	0.48
Carbon tetrachloride	ND	6.6	ug/kg	0.33
Chlorobenzene	ND	6.6	ug/kg	1.1
Chloroethane	ND	6.6	ug/kg	1.2
Chloroform	ND	6.6	ug/kg	0.33
Chloromethane	ND	6.6	ug/kg	0.38
Cyclohexane	ND	6.6	ug/kg	0.50
Dibromochloromethane	ND	6.6	ug/kg	0.34
1,2-Dibromo-3-chloro-propane	ND	6.6	ug/kg	0.61
1,2-Dibromoethane	ND	6.6	ug/kg	0.35
1,3-Dichlorobenzene	ND	6.6	ug/kg	1.2
1,4-Dichlorobenzene	ND	6.6	ug/kg	0.90
1,2-Dichlorobenzene	ND	6.6	ug/kg	1.2
Dichlorodifluoromethane	ND	6.6	ug/kg	0.67
1,1-Dichloroethane	ND	6.6	ug/kg	0.38
1,2-Dichloroethane	ND	6.6	ug/kg	0.40
1,1-Dichloroethene	ND	6.6	ug/kg	0.78
cis-1,2-Dichloroethene	ND	6.6	ug/kg	0.99
trans-1,2-Dichloroethene	ND	6.6	ug/kg	0.86
1,2-Dichloropropane	ND	6.6	ug/kg	0.83
cis-1,3-Dichloropropene	ND	6.6	ug/kg	0.38
trans-1,3-Dichloropropene	ND	6.6	ug/kg	0.36
Ethylbenzene	ND	6.6	ug/kg	1.2
2-Hexanone	ND	6.6	ug/kg	1.1
Isopropylbenzene	ND	6.6	ug/kg	1.5
Methyl acetate	ND	6.6	ug/kg	3.3
Methylene chloride	**1.8 J**	**6.6**	**ug/kg**	**1.7**
Methylcyclohexane	ND	6.6	ug/kg	1.0
4-Methyl-2-pentanone	ND	6.6	ug/kg	1.1
Methyl tert-butyl ether	ND	6.6	ug/kg	0.54

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0930810

GC/MS Volatiles

Lot-Sample #...: C6L190179-012 Work Order #...: JLRC41AN Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	6.6	ug/kg	1.1
1,1,2,2-Tetrachloroethane	ND	6.6	ug/kg	0.59
1,2,4-Trichloro-benzene	ND	6.6	ug/kg	1.8
Tetrachloroethene	ND	6.6	ug/kg	1.0
1,1,1-Trichloroethane	ND	6.6	ug/kg	0.36
1,1,2-Trichloroethane	ND	6.6	ug/kg	0.89
Trichloroethene	ND	6.6	ug/kg	1.1
Trichlorofluoromethane	ND	6.6	ug/kg	1.6
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	6.6	ug/kg	0.46
Toluene	ND	6.6	ug/kg	0.78
Vinyl chloride	ND	6.6	ug/kg	0.87
Xylenes (total)	ND	20	ug/kg	3.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	86	(52 - 124)
Toluene-d8	116	(72 - 127)
4-Bromofluorobenzene	90	(63 - 120)
Dibromofluoromethane	97	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0941416

GC/MS Volatiles

Lot-Sample #...:	C6L190179-013	**Work Order #...:**	JLRC61AN	**Matrix.....:**	SOLID
Date Sampled...:	12/18/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6356045
Prep Date.....:	12/22/06	**Analysis Date..:**	12/22/06		
Prep Batch #...:	6356056	**Analysis Time..:**	15:57		
Dilution Factor:	1.13	**Initial Wgt/Vol:**	4.44 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	36	**Analyst ID.....:**	010099	**Instrument ID..:**	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	35	ug/kg	8.8
Benzene	ND	8.8	ug/kg	0.97
Bromodichloromethane	ND	8.8	ug/kg	0.44
Bromoform	ND	8.8	ug/kg	1.1
Bromomethane	ND	8.8	ug/kg	1.6
2-Butanone	ND	8.8	ug/kg	2.5
Carbon disulfide	ND	8.8	ug/kg	0.64
Carbon tetrachloride	ND	8.8	ug/kg	0.44
Chlorobenzene	ND	8.8	ug/kg	1.5
Chloroethane	ND	8.8	ug/kg	1.7
Chloroform	ND	8.8	ug/kg	0.44
Chloromethane	ND	8.8	ug/kg	0.51
Cyclohexane	ND	8.8	ug/kg	0.67
Dibromochloromethane	ND	8.8	ug/kg	0.46
1,2-Dibromo-3-chloro-propane	ND	8.8	ug/kg	0.82
1,2-Dibromoethane	ND	8.8	ug/kg	0.47
1,3-Dichlorobenzene	ND	8.8	ug/kg	1.6
1,4-Dichlorobenzene	ND	8.8	ug/kg	1.2
1,2-Dichlorobenzene	ND	8.8	ug/kg	1.6
Dichlorodifluoromethane	ND	8.8	ug/kg	0.89
1,1-Dichloroethane	ND	8.8	ug/kg	0.51
1,2-Dichloroethane	ND	8.8	ug/kg	0.53
1,1-Dichloroethene	ND	8.8	ug/kg	1.0
cis-1,2-Dichloroethene	ND	8.8	ug/kg	1.3
trans-1,2-Dichloroethene	ND	8.8	ug/kg	1.2
1,2-Dichloropropane	ND	8.8	ug/kg	1.1
cis-1,3-Dichloropropene	ND	8.8	ug/kg	0.51
trans-1,3-Dichloropropene	ND	8.8	ug/kg	0.49
Ethylbenzene	ND	8.8	ug/kg	1.6
2-Hexanone	ND	8.8	ug/kg	1.4
Isopropylbenzene	ND	8.8	ug/kg	2.0
Methyl acetate	ND	8.8	ug/kg	4.4
Methylene chloride	ND	8.8	ug/kg	2.3
Methylcyclohexane	ND	8.8	ug/kg	1.4
4-Methyl-2-pentanone	ND	8.8	ug/kg	1.5
Methyl tert-butyl ether	ND	8.8	ug/kg	0.72

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0941416

GC/MS Volatiles

Lot-Sample #...: C6L190179-013 Work Order #...: JLRC61AN Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	8.8	ug/kg	1.4
1,1,2,2-Tetrachloroethane	ND	8.8	ug/kg	0.80
1,2,4-Trichloro-benzene	ND	8.8	ug/kg	2.4
Tetrachloroethene	ND	8.8	ug/kg	1.4
1,1,1-Trichloroethane	ND	8.8	ug/kg	0.48
1,1,2-Trichloroethane	ND	8.8	ug/kg	1.2
Trichloroethene	ND	8.8	ug/kg	1.5
Trichlorofluoromethane	ND	8.8	ug/kg	2.1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.8	ug/kg	0.61
Toluene	ND	8.8	ug/kg	1.0
Vinyl chloride	ND	8.8	ug/kg	1.2
Xylenes (total)	ND	27	ug/kg	4.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	91	(52 - 124)
Toluene-d8	120	(72 - 127)
4-Bromofluorobenzene	99	(63 - 120)
Dibromofluoromethane	101	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0950810

GC/MS Volatiles

Lot-Sample #...:	C6L190179-014	Work Order #...:	JLRC81AE	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6356045
Prep Date.....:	12/22/06	Analysis Date..:	12/22/06		
Prep Batch #...:	6356056	Analysis Time..:	16:21		
Dilution Factor:	1.15	Initial Wgt/Vol:	4.34 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	63	Analyst ID.....:	010099	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	62	ug/kg	16
Benzene	ND	16	ug/kg	1.7
Bromodichloromethane	ND	16	ug/kg	0.78
Bromoform	ND	16	ug/kg	1.9
Bromomethane	ND	16	ug/kg	2.9
2-Butanone	ND	16	ug/kg	4.3
Carbon disulfide	ND	16	ug/kg	1.1
Carbon tetrachloride	ND	16	ug/kg	0.78
Chlorobenzene	ND	16	ug/kg	2.6
Chloroethane	ND	16	ug/kg	2.9
Chloroform	ND	16	ug/kg	0.78
Chloromethane	ND	16	ug/kg	0.89
Cyclohexane	ND	16	ug/kg	1.2
Dibromochloromethane	ND	16	ug/kg	0.81
1,2-Dibromo-3-chloro-propane	ND	16	ug/kg	1.4
1,2-Dibromoethane	ND	16	ug/kg	0.83
1,3-Dichlorobenzene	ND	16	ug/kg	2.8
1,4-Dichlorobenzene	ND	16	ug/kg	2.1
1,2-Dichlorobenzene	ND	16	ug/kg	2.9
Dichlorodifluoromethane	ND	16	ug/kg	1.6
1,1-Dichloroethane	ND	16	ug/kg	0.89
1,2-Dichloroethane	ND	16	ug/kg	0.94
1,1-Dichloroethene	ND	16	ug/kg	1.8
cis-1,2-Dichloroethene	ND	16	ug/kg	2.3
trans-1,2-Dichloroethene	ND	16	ug/kg	2.0
1,2-Dichloropropane	ND	16	ug/kg	1.9
cis-1,3-Dichloropropene	ND	16	ug/kg	0.89
trans-1,3-Dichloropropene	ND	16	ug/kg	0.86
Ethylbenzene	ND	16	ug/kg	2.9
2-Hexanone	ND	16	ug/kg	2.5
Isopropylbenzene	ND	16	ug/kg	3.5
Methyl acetate	ND	16	ug/kg	7.8
Methylene chloride	4.9 J	16	ug/kg	4.1
Methylcyclohexane	ND	16	ug/kg	2.4
4-Methyl-2-pentanone	ND	16	ug/kg	2.6
Methyl tert-butyl ether	ND	16	ug/kg	1.3

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0950810

GC/MS Volatiles

Lot-Sample #...: C6L190179-014 **Work Order #...:** JLRC81AE **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	16	ug/kg	2.5
1,1,2,2-Tetrachloroethane	ND	16	ug/kg	1.4
1,2,4-Trichloro-benzene	ND	16	ug/kg	4.3
Tetrachloroethene	ND	16	ug/kg	2.4
1,1,1-Trichloroethane	ND	16	ug/kg	0.84
1,1,2-Trichloroethane	ND	16	ug/kg	2.1
Trichloroethene	ND	16	ug/kg	2.7
Trichlorofluoromethane	ND	16	ug/kg	3.7
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	16	ug/kg	1.1
Toluene	ND	16	ug/kg	1.8
Vinyl chloride	ND	16	ug/kg	2.0
Xylenes (total)	ND	47	ug/kg	8.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	89	(52 - 124)
Toluene-d8	121	(72 - 127)
4-Bromofluorobenzene	87	(63 - 120)
Dibromofluoromethane	101	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0961012

GC/MS Volatiles

Lot-Sample #...:	C6L190179-015	Work Order #...:	JLRDC1AN	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360030
Prep Date.....:	12/24/06	Analysis Date..:	12/24/06		
Prep Batch #...:	6360049	Analysis Time..:	19:48		
Dilution Factor:	0.94	Initial Wgt/Vol:	5.34 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	18	Analyst ID.....:	034635	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	23	ug/kg	5.8
Benzene	ND	5.8	ug/kg	0.63
Bromodichloromethane	ND	5.8	ug/kg	0.29
Bromoform	ND	5.8	ug/kg	0.70
Bromomethane	ND	5.8	ug/kg	1.1
2-Butanone	ND	5.8	ug/kg	1.6
Carbon disulfide	ND	5.8	ug/kg	0.42
Carbon tetrachloride	ND	5.8	ug/kg	0.29
Chlorobenzene	ND	5.8	ug/kg	0.98
Chloroethane	ND	5.8	ug/kg	1.1
Chloroform	ND	5.8	ug/kg	0.29
Chloromethane	ND	5.8	ug/kg	0.33
Cyclohexane	ND	5.8	ug/kg	0.44
Dibromochloromethane	ND	5.8	ug/kg	0.30
1,2-Dibromo-3-chloro-propane	ND	5.8	ug/kg	0.54
1,2-Dibromoethane	ND	5.8	ug/kg	0.31
1,3-Dichlorobenzene	ND	5.8	ug/kg	1.1
1,4-Dichlorobenzene	ND	5.8	ug/kg	0.79
1,2-Dichlorobenzene	ND	5.8	ug/kg	1.1
Dichlorodifluoromethane	ND	5.8	ug/kg	0.58
1,1-Dichloroethane	ND	5.8	ug/kg	0.33
1,2-Dichloroethane	ND	5.8	ug/kg	0.35
1,1-Dichloroethene	ND	5.8	ug/kg	0.68
cis-1,2-Dichloroethene	ND	5.8	ug/kg	0.86
trans-1,2-Dichloroethene	ND	5.8	ug/kg	0.75
1,2-Dichloropropane	ND	5.8	ug/kg	0.72
cis-1,3-Dichloropropene	ND	5.8	ug/kg	0.33
trans-1,3-Dichloropropene	ND	5.8	ug/kg	0.32
Ethylbenzene	ND	5.8	ug/kg	1.1
2-Hexanone	ND	5.8	ug/kg	0.94
Isopropylbenzene	ND	5.8	ug/kg	1.3
Methyl acetate	ND	5.8	ug/kg	2.9
Methylene chloride	ND	5.8	ug/kg	1.5
Methylcyclohexane	ND	5.8	ug/kg	0.90
4-Methyl-2-pentanone	ND	5.8	ug/kg	0.97
Methyl tert-butyl ether	ND	5.8	ug/kg	0.47

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0961012

GC/MS Volatiles

Lot-Sample #...: C6L190179-015 Work Order #...: JLRDC1AN Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	5.8	ug/kg	0.92
1,1,2,2-Tetrachloroethane	ND	5.8	ug/kg	0.52
1,2,4-Trichloro-benzene	ND	5.8	ug/kg	1.6
Tetrachloroethene	ND	5.8	ug/kg	0.88
1,1,1-Trichloroethane	ND	5.8	ug/kg	0.31
1,1,2-Trichloroethane	ND	5.8	ug/kg	0.78
Trichloroethene	ND	5.8	ug/kg	0.99
Trichlorofluoromethane	ND	5.8	ug/kg	1.4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.8	ug/kg	0.40
Toluene	ND	5.8	ug/kg	0.68
Vinyl chloride	ND	5.8	ug/kg	0.76
Xylenes (total)	ND	17	ug/kg	3.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	68	(52 - 124)
Toluene-d8	101	(72 - 127)
4-Bromofluorobenzene	85	(63 - 120)
Dibromofluoromethane	80	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1010406

GC/MS Volatiles

Lot-Sample #...:	C6L190179-016	Work Order #...:	JLRDF1AN	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360030
Prep Date.....:	12/24/06	Analysis Date..:	12/24/06		
Prep Batch #...:	6360049	Analysis Time..:	20:12		
Dilution Factor:	1.26	Initial Wgt/Vol:	3.98 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	14	Analyst ID.....:	034635	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	29	ug/kg	7.3
Benzene	ND	7.3	ug/kg	0.80
Bromodichloromethane	ND	7.3	ug/kg	0.36
Bromoform	ND	7.3	ug/kg	0.89
Bromomethane	ND	7.3	ug/kg	1.4
2-Butanone	ND	7.3	ug/kg	2.0
Carbon disulfide	ND	7.3	ug/kg	0.53
Carbon tetrachloride	ND	7.3	ug/kg	0.36
Chlorobenzene	ND	7.3	ug/kg	1.2
Chloroethane	ND	7.3	ug/kg	1.4
Chloroform	ND	7.3	ug/kg	0.36
Chloromethane	ND	7.3	ug/kg	0.42
Cyclohexane	ND	7.3	ug/kg	0.55
Dibromochloromethane	ND	7.3	ug/kg	0.38
1,2-Dibromo-3-chloro-propane	ND	7.3	ug/kg	0.68
1,2-Dibromoethane	ND	7.3	ug/kg	0.39
1,3-Dichlorobenzene	ND	7.3	ug/kg	1.3
1,4-Dichlorobenzene	ND	7.3	ug/kg	1.0
1,2-Dichlorobenzene	ND	7.3	ug/kg	1.4
Dichlorodifluoromethane	ND	7.3	ug/kg	0.74
1,1-Dichloroethane	ND	7.3	ug/kg	0.42
1,2-Dichloroethane	ND	7.3	ug/kg	0.44
1,1-Dichloroethene	ND	7.3	ug/kg	0.86
cis-1,2-Dichloroethene	ND	7.3	ug/kg	1.1
trans-1,2-Dichloroethene	ND	7.3	ug/kg	0.95
1,2-Dichloropropane	ND	7.3	ug/kg	0.91
cis-1,3-Dichloropropene	ND	7.3	ug/kg	0.42
trans-1,3-Dichloropropene	ND	7.3	ug/kg	0.40
Ethylbenzene	ND	7.3	ug/kg	1.4
2-Hexanone	ND	7.3	ug/kg	1.2
Isopropylbenzene	ND	7.3	ug/kg	1.6
Methyl acetate	ND	7.3	ug/kg	3.6
Methylene chloride	ND	7.3	ug/kg	1.9
Methylcyclohexane	ND	7.3	ug/kg	1.1
4-Methyl-2-pentanone	ND	7.3	ug/kg	1.2
Methyl tert-butyl ether	ND	7.3	ug/kg	0.60

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1010406

GC/MS Volatiles

Lot-Sample #...: C6L190179-016 Work Order #...: JLRDF1AN Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	7.3	ug/kg	1.2
1,1,2,2-Tetrachloroethane	ND	7.3	ug/kg	0.66
1,2,4-Trichloro-benzene	ND	7.3	ug/kg	2.0
Tetrachloroethene	ND	7.3	ug/kg	1.1
1,1,1-Trichloroethane	ND	7.3	ug/kg	0.40
1,1,2-Trichloroethane	ND	7.3	ug/kg	0.99
Trichloroethene	ND	7.3	ug/kg	1.3
Trichlorofluoromethane	ND	7.3	ug/kg	1.8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	7.3	ug/kg	0.51
Toluene	ND	7.3	ug/kg	0.86
Vinyl chloride	ND	7.3	ug/kg	0.96
Xylenes (total)	ND	22	ug/kg	4.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	85	(52 - 124)
Toluene-d8	126	(72 - 127)
4-Bromofluorobenzene	95	(63 - 120)
Dibromofluoromethane	101	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1020408

GC/MS Volatiles

Lot-Sample #...:	C6L190179-017	Work Order #...:	JLRDG1AQ	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360030
Prep Date.....:	12/24/06	Analysis Date..:	12/24/06		
Prep Batch #...:	6360049	Analysis Time..:	20:36		
Dilution Factor:	1.29	Initial Wgt/Vol:	3.89 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	50	Analyst ID.....:	034635	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	51	ug/kg	13
Benzene	ND	13	ug/kg	1.4
Bromodichloromethane	ND	13	ug/kg	0.64
Bromoform	ND	13	ug/kg	1.6
Bromomethane	ND	13	ug/kg	2.4
2-Butanone	ND	13	ug/kg	3.6
Carbon disulfide	ND	13	ug/kg	0.92
Carbon tetrachloride	ND	13	ug/kg	0.64
Chlorobenzene	ND	13	ug/kg	2.2
Chloroethane	ND	13	ug/kg	2.4
Chloroform	ND	13	ug/kg	0.64
Chloromethane	ND	13	ug/kg	0.74
Cyclohexane	ND	13	ug/kg	0.97
Dibromochloromethane	ND	13	ug/kg	0.67
1,2-Dibromo-3-chloro-propane	ND	13	ug/kg	1.2
1,2-Dibromoethane	ND	13	ug/kg	0.69
1,3-Dichlorobenzene	ND	13	ug/kg	2.3
1,4-Dichlorobenzene	ND	13	ug/kg	1.8
1,2-Dichlorobenzene	ND	13	ug/kg	2.4
Dichlorodifluoromethane	ND	13	ug/kg	1.3
1,1-Dichloroethane	ND	13	ug/kg	0.74
1,2-Dichloroethane	ND	13	ug/kg	0.78
1,1-Dichloroethene	ND	13	ug/kg	1.5
cis-1,2-Dichloroethene	ND	13	ug/kg	1.9
trans-1,2-Dichloroethene	ND	13	ug/kg	1.7
1,2-Dichloropropane	ND	13	ug/kg	1.6
cis-1,3-Dichloropropene	ND	13	ug/kg	0.74
trans-1,3-Dichloropropene	ND	13	ug/kg	0.71
Ethylbenzene	ND	13	ug/kg	2.4
2-Hexanone	ND	13	ug/kg	2.1
Isopropylbenzene	ND	13	ug/kg	2.9
Methyl acetate	ND	13	ug/kg	6.4
Methylene chloride	ND	13	ug/kg	3.4
Methylcyclohexane	ND	13	ug/kg	2.0
4-Methyl-2-pentanone	ND	13	ug/kg	2.2
Methyl tert-butyl ether	ND	13	ug/kg	1.1

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1020408

GC/MS Volatiles

Lot-Sample #...: C6L190179-017 Work Order #...: JLRDG1AQ Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	13	ug/kg	2.1
1,1,2,2-Tetrachloroethane	ND	13	ug/kg	1.2
1,2,4-Trichloro-benzene	ND	13	ug/kg	3.5
Tetrachloroethene	ND	13	ug/kg	2.0
1,1,1-Trichloroethane	ND	13	ug/kg	0.70
1,1,2-Trichloroethane	ND	13	ug/kg	1.7
Trichloroethene	ND	13	ug/kg	2.2
Trichlorofluoromethane	ND	13	ug/kg	3.1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	13	ug/kg	0.89
Toluene	ND	13	ug/kg	1.5
Vinyl chloride	ND	13	ug/kg	1.7
Xylenes (total)	ND	38	ug/kg	7.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	88	(52 - 124)
Toluene-d8	116	(72 - 127)
4-Bromofluorobenzene	93	(63 - 120)
Dibromofluoromethane	107	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1031919

GC/MS Volatiles

Lot-Sample #...:	C6L190179-018	Work Order #...:	JLRDM1AN	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360218
Prep Date.....:	12/26/06	Analysis Date..:	12/26/06		
Prep Batch #...:	6360389	Analysis Time..:	09:32		
Dilution Factor:	0.78	Initial Wgt/Vol:	6.45 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	14	Analyst ID.....:	034635	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	18	ug/kg	4.5
Benzene	ND	4.5	ug/kg	0.49
Bromodichloromethane	ND	4.5	ug/kg	0.23
Bromoform	ND	4.5	ug/kg	0.55
Bromomethane	ND	4.5	ug/kg	0.84
2-Butanone	ND	4.5	ug/kg	1.3
Carbon disulfide	ND	4.5	ug/kg	0.33
Carbon tetrachloride	ND	4.5	ug/kg	0.23
Chlorobenzene	ND	4.5	ug/kg	0.77
Chloroethane	ND	4.5	ug/kg	0.85
Chloroform	ND	4.5	ug/kg	0.23
Chloromethane	ND	4.5	ug/kg	0.26
Cyclohexane	ND	4.5	ug/kg	0.34
Dibromochloromethane	ND	4.5	ug/kg	0.24
1,2-Dibromo-3-chloro-propane	ND	4.5	ug/kg	0.42
1,2-Dibromoethane	ND	4.5	ug/kg	0.24
1,3-Dichlorobenzene	ND	4.5	ug/kg	0.82
1,4-Dichlorobenzene	ND	4.5	ug/kg	0.62
1,2-Dichlorobenzene	ND	4.5	ug/kg	0.84
Dichlorodifluoromethane	ND	4.5	ug/kg	0.46
1,1-Dichloroethane	ND	4.5	ug/kg	0.26
1,2-Dichloroethane	ND	4.5	ug/kg	0.27
1,1-Dichloroethene	ND	4.5	ug/kg	0.53
cis-1,2-Dichloroethene	ND	4.5	ug/kg	0.67
trans-1,2-Dichloroethene	ND	4.5	ug/kg	0.59
1,2-Dichloropropane	ND	4.5	ug/kg	0.57
cis-1,3-Dichloropropene	ND	4.5	ug/kg	0.26
trans-1,3-Dichloropropene	ND	4.5	ug/kg	0.25
Ethylbenzene	ND	4.5	ug/kg	0.84
2-Hexanone	ND	4.5	ug/kg	0.73
Isopropylbenzene	ND	4.5	ug/kg	1.0
Methyl acetate	ND	4.5	ug/kg	2.3
Methylene chloride	1.5 J,B	4.5	ug/kg	1.2
Methylcyclohexane	ND	4.5	ug/kg	0.71
4-Methyl-2-pentanone	ND	4.5	ug/kg	0.76
Methyl tert-butyl ether	ND	4.5	ug/kg	0.37

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1031919

GC/MS Volatiles

Lot-Sample #...: C6L190179-018 Work Order #...: JLRDM1AN Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	4.5	ug/kg	0.72
1,1,2,2-Tetrachloroethane	ND	4.5	ug/kg	0.41
1,2,4-Trichloro-benzene	ND	4.5	ug/kg	1.2
Tetrachloroethene	ND	4.5	ug/kg	0.69
1,1,1-Trichloroethane	ND	4.5	ug/kg	0.24
1,1,2-Trichloroethane	ND	4.5	ug/kg	0.61
Trichloroethene	ND	4.5	ug/kg	0.78
Trichlorofluoromethane	ND	4.5	ug/kg	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	4.5	ug/kg	0.31
Toluene	ND	4.5	ug/kg	0.53
Vinyl chloride	ND	4.5	ug/kg	0.59
Xylenes (total)	ND	14	ug/kg	2.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	84	(52 - 124)
Toluene-d8	104	(72 - 127)
4-Bromofluorobenzene	96	(63 - 120)
Dibromofluoromethane	92	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0100

GC/MS Volatiles

Lot-Sample #...:	C6L190179-019	Work Order #...:	JLRDR1AE	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6356045
Prep Date.....:	12/22/06	Analysis Date..:	12/22/06		
Prep Batch #...:	6356056	Analysis Time..:	09:58		
Dilution Factor:	1	Initial Wgt/Vol:	5 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	34	Analyst ID.....:	010099	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	30	ug/kg	7.6
Benzene	ND	7.6	ug/kg	0.83
Bromodichloromethane	ND	7.6	ug/kg	0.38
Bromoform	ND	7.6	ug/kg	0.92
Bromomethane	ND	7.6	ug/kg	1.4
2-Butanone	ND	7.6	ug/kg	2.1
Carbon disulfide	ND	7.6	ug/kg	0.54
Carbon tetrachloride	ND	7.6	ug/kg	0.38
Chlorobenzene	ND	7.6	ug/kg	1.3
Chloroethane	ND	7.6	ug/kg	1.4
Chloroform	ND	7.6	ug/kg	0.38
Chloromethane	ND	7.6	ug/kg	0.43
Cyclohexane	ND	7.6	ug/kg	0.57
Dibromochloromethane	ND	7.6	ug/kg	0.39
1,2-Dibromo-3-chloro-propane	ND	7.6	ug/kg	0.70
1,2-Dibromoethane	ND	7.6	ug/kg	0.41
1,3-Dichlorobenzene	ND	7.6	ug/kg	1.4
1,4-Dichlorobenzene	ND	7.6	ug/kg	1.0
1,2-Dichlorobenzene	ND	7.6	ug/kg	1.4
Dichlorodifluoromethane	ND	7.6	ug/kg	0.76
1,1-Dichloroethane	ND	7.6	ug/kg	0.43
1,2-Dichloroethane	ND	7.6	ug/kg	0.46
1,1-Dichloroethene	ND	7.6	ug/kg	0.89
cis-1,2-Dichloroethene	ND	7.6	ug/kg	1.1
trans-1,2-Dichloroethene	ND	7.6	ug/kg	0.99
1,2-Dichloropropane	ND	7.6	ug/kg	0.95
cis-1,3-Dichloropropene	ND	7.6	ug/kg	0.43
trans-1,3-Dichloropropene	ND	7.6	ug/kg	0.42
Ethylbenzene	ND	7.6	ug/kg	1.4
2-Hexanone	ND	7.6	ug/kg	1.2
Isopropylbenzene	ND	7.6	ug/kg	1.7
Methyl acetate	ND	7.6	ug/kg	3.8
Methylene chloride	ND	7.6	ug/kg	2.0
Methylcyclohexane	ND	7.6	ug/kg	1.2
4-Methyl-2-pentanone	ND	7.6	ug/kg	1.3
Methyl tert-butyl ether	ND	7.6	ug/kg	0.62

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0100

GC/MS Volatiles

Lot-Sample #...: C6L190179-019 Work Order #...: JLRDR1AE Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	7.6	ug/kg	1.2
1,1,2,2-Tetrachloroethane	ND	7.6	ug/kg	0.68
1,2,4-Trichloro-benzene	ND	7.6	ug/kg	2.1
Tetrachloroethene	ND	7.6	ug/kg	1.2
1,1,1-Trichloroethane	ND	7.6	ug/kg	0.41
1,1,2-Trichloroethane	ND	7.6	ug/kg	1.0
Trichloroethene	ND	7.6	ug/kg	1.3
Trichlorofluoromethane	ND	7.6	ug/kg	1.8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	7.6	ug/kg	0.52
Toluene	ND	7.6	ug/kg	0.89
Vinyl chloride	ND	7.6	ug/kg	0.99
Xylenes (total)	ND	23	ug/kg	4.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	84	(52 - 124)
Toluene-d8	115	(72 - 127)
4-Bromofluorobenzene	103	(63 - 120)
Dibromofluoromethane	97	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0101

GC/MS Volatiles

Lot-Sample #...:	C6L190179-020	**Work Order #...:**	JLRD81AP	**Matrix.....:**	SOLID
Date Sampled...:	12/18/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6356045
Prep Date.....:	12/22/06	**Analysis Date..:**	12/22/06		
Prep Batch #...:	6356056	**Analysis Time..:**	12:22		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	43	**Analyst ID.....:**	010099	**Instrument ID..:**	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	35	ug/kg	8.8
Benzene	ND	8.8	ug/kg	0.97
Bromodichloromethane	ND	8.8	ug/kg	0.44
Bromoform	ND	8.8	ug/kg	1.1
Bromomethane	ND	8.8	ug/kg	1.6
2-Butanone	ND	8.8	ug/kg	2.5
Carbon disulfide	ND	8.8	ug/kg	0.64
Carbon tetrachloride	ND	8.8	ug/kg	0.44
Chlorobenzene	ND	8.8	ug/kg	1.5
Chloroethane	ND	8.8	ug/kg	1.7
Chloroform	ND	8.8	ug/kg	0.44
Chloromethane	ND	8.8	ug/kg	0.51
Cyclohexane	ND	8.8	ug/kg	0.67
Dibromochloromethane	ND	8.8	ug/kg	0.46
1,2-Dibromo-3-chloro-propane	ND	8.8	ug/kg	0.82
1,2-Dibromoethane	ND	8.8	ug/kg	0.47
1,3-Dichlorobenzene	ND	8.8	ug/kg	1.6
1,4-Dichlorobenzene	ND	8.8	ug/kg	1.2
1,2-Dichlorobenzene	ND	8.8	ug/kg	1.6
Dichlorodifluoromethane	ND	8.8	ug/kg	0.89
1,1-Dichloroethane	ND	8.8	ug/kg	0.51
1,2-Dichloroethane	ND	8.8	ug/kg	0.53
1,1-Dichloroethene	ND	8.8	ug/kg	1.0
cis-1,2-Dichloroethene	ND	8.8	ug/kg	1.3
trans-1,2-Dichloroethene	ND	8.8	ug/kg	1.2
1,2-Dichloropropane	ND	8.8	ug/kg	1.1
cis-1,3-Dichloropropene	ND	8.8	ug/kg	0.51
trans-1,3-Dichloropropene	ND	8.8	ug/kg	0.49
Ethylbenzene	ND	8.8	ug/kg	1.6
2-Hexanone	ND	8.8	ug/kg	1.4
Isopropylbenzene	ND	8.8	ug/kg	2.0
Methyl acetate	ND	8.8	ug/kg	4.4
Methylene chloride	ND	8.8	ug/kg	2.3
Methylcyclohexane	ND	8.8	ug/kg	1.4
4-Methyl-2-pentanone	ND	8.8	ug/kg	1.5
Methyl tert-butyl ether	ND	8.8	ug/kg	0.72

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0101

GC/MS Volatiles

Lot-Sample #...: C6L190179-020 Work Order #...: JLRD81AP Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	8.8	ug/kg	1.4
1,1,2,2-Tetrachloroethane	ND	8.8	ug/kg	0.80
1,2,4-Trichloro-benzene	ND	8.8	ug/kg	2.4
Tetrachloroethene	ND	8.8	ug/kg	1.4
1,1,1-Trichloroethane	ND	8.8	ug/kg	0.48
1,1,2-Trichloroethane	ND	8.8	ug/kg	1.2
Trichloroethene	ND	8.8	ug/kg	1.5
Trichlorofluoromethane	ND	8.8	ug/kg	2.1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.8	ug/kg	0.61
Toluene	ND	8.8	ug/kg	1.0
Vinyl chloride	ND	8.8	ug/kg	1.2
Xylenes (total)	ND	27	ug/kg	4.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	77	(52 - 124)
Toluene-d8	113	(72 - 127)
4-Bromofluorobenzene	99	(63 - 120)
Dibromofluoromethane	91	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0200

GC/MS Volatiles

Lot-Sample #...:	C6L190179-021	Work Order #...:	JLRFD1A2	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6356045
Prep Date.....:	12/22/06	Analysis Date..:	12/22/06		
Prep Batch #...:	6356056	Analysis Time..:	12:46		
Dilution Factor:	1	Initial Wgt/Vol:	5 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	63	Analyst ID.....:	010099	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	54	ug/kg	13
Benzene	ND	13	ug/kg	1.5
Bromodichloromethane	ND	13	ug/kg	0.67
Bromoform	ND	13	ug/kg	1.6
Bromomethane	ND	13	ug/kg	2.5
2-Butanone	ND	13	ug/kg	3.8
Carbon disulfide	ND	13	ug/kg	0.97
Carbon tetrachloride	ND	13	ug/kg	0.67
Chlorobenzene	ND	13	ug/kg	2.3
Chloroethane	ND	13	ug/kg	2.5
Chloroform	ND	13	ug/kg	0.67
Chloromethane	ND	13	ug/kg	0.77
Cyclohexane	ND	13	ug/kg	1.0
Dibromochloromethane	ND	13	ug/kg	0.70
1,2-Dibromo-3-chloro-propane	ND	13	ug/kg	1.2
1,2-Dibromoethane	ND	13	ug/kg	0.72
1,3-Dichlorobenzene	ND	13	ug/kg	2.4
1,4-Dichlorobenzene	ND	13	ug/kg	1.8
1,2-Dichlorobenzene	ND	13	ug/kg	2.5
Dichlorodifluoromethane	ND	13	ug/kg	1.4
1,1-Dichloroethane	ND	13	ug/kg	0.77
1,2-Dichloroethane	ND	13	ug/kg	0.81
1,1-Dichloroethene	ND	13	ug/kg	1.6
cis-1,2-Dichloroethene	ND	13	ug/kg	2.0
trans-1,2-Dichloroethene	ND	13	ug/kg	1.8
1,2-Dichloropropane	ND	13	ug/kg	1.7
cis-1,3-Dichloropropene	ND	13	ug/kg	0.77
trans-1,3-Dichloropropene	ND	13	ug/kg	0.74
Ethylbenzene	ND	13	ug/kg	2.5
2-Hexanone	ND	13	ug/kg	2.2
Isopropylbenzene	ND	13	ug/kg	3.0
Methyl acetate	ND	13	ug/kg	6.7
Methylene chloride	ND	13	ug/kg	3.6
Methylcyclohexane	ND	13	ug/kg	2.1
4-Methyl-2-pentanone	ND	13	ug/kg	2.3
Methyl tert-butyl ether	ND	13	ug/kg	1.1

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0200

GC/MS Volatiles

Lot-Sample #...: C6L190179-021 Work Order #...: JLRFD1A2 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	13	ug/kg	2.1
1,1,2,2-Tetrachloroethane	ND	13	ug/kg	1.2
1,2,4-Trichloro-benzene	ND	13	ug/kg	3.7
Tetrachloroethene	ND	13	ug/kg	2.1
1,1,1-Trichloroethane	ND	13	ug/kg	0.73
1,1,2-Trichloroethane	ND	13	ug/kg	1.8
Trichloroethene	ND	13	ug/kg	2.3
Trichlorofluoromethane	ND	13	ug/kg	3.2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	13	ug/kg	0.93
Toluene	ND	13	ug/kg	1.6
Vinyl chloride	ND	13	ug/kg	1.8
Xylenes (total)	ND	40	ug/kg	7.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	80	(52 - 124)
Toluene-d8	114	(72 - 127)
4-Bromofluorobenzene	102	(63 - 120)
Dibromofluoromethane	94	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0201

GC/MS Volatiles

Lot-Sample #...:	C6L190179-022	Work Order #...:	JLRFN1AD	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6356045
Prep Date.....:	12/22/06	Analysis Date..:	12/22/06		
Prep Batch #...:	6356056	Analysis Time..:	11:10		
Dilution Factor:	1	Initial Wgt/Vol:	5 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	45	Analyst ID.....:	010099	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	36	ug/kg	9.0
Benzene	ND	9.0	ug/kg	0.99
Bromodichloromethane	ND	9.0	ug/kg	0.45
Bromoform	ND	9.0	ug/kg	1.1
Bromomethane	ND	9.0	ug/kg	1.7
2-Butanone	ND	9.0	ug/kg	2.5
Carbon disulfide	ND	9.0	ug/kg	0.65
Carbon tetrachloride	ND	9.0	ug/kg	0.45
Chlorobenzene	ND	9.0	ug/kg	1.5
Chloroethane	ND	9.0	ug/kg	1.7
Chloroform	ND	9.0	ug/kg	0.45
Chloromethane	ND	9.0	ug/kg	0.52
Cyclohexane	ND	9.0	ug/kg	0.68
Dibromochloromethane	ND	9.0	ug/kg	0.47
1,2-Dibromo-3-chloro-propane	ND	9.0	ug/kg	0.84
1,2-Dibromoethane	ND	9.0	ug/kg	0.49
1,3-Dichlorobenzene	ND	9.0	ug/kg	1.6
1,4-Dichlorobenzene	ND	9.0	ug/kg	1.2
1,2-Dichlorobenzene	ND	9.0	ug/kg	1.7
Dichlorodifluoromethane	ND	9.0	ug/kg	0.91
1,1-Dichloroethane	ND	9.0	ug/kg	0.52
1,2-Dichloroethane	ND	9.0	ug/kg	0.55
1,1-Dichloroethene	ND	9.0	ug/kg	1.1
cis-1,2-Dichloroethene	ND	9.0	ug/kg	1.4
trans-1,2-Dichloroethene	ND	9.0	ug/kg	1.2
1,2-Dichloropropane	ND	9.0	ug/kg	1.1
cis-1,3-Dichloropropene	ND	9.0	ug/kg	0.52
trans-1,3-Dichloropropene	ND	9.0	ug/kg	0.50
Ethylbenzene	ND	9.0	ug/kg	1.7
2-Hexanone	ND	9.0	ug/kg	1.5
Isopropylbenzene	ND	9.0	ug/kg	2.0
Methyl acetate	ND	9.0	ug/kg	4.5
Methylene chloride	ND	9.0	ug/kg	2.4
Methylcyclohexane	ND	9.0	ug/kg	1.4
4-Methyl-2-pentanone	ND	9.0	ug/kg	1.5
Methyl tert-butyl ether	ND	9.0	ug/kg	0.74

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0201

GC/MS Volatiles

Lot-Sample #...: C6L190179-022 Work Order #...: JLRFN1AD Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	9.0	ug/kg	1.4
1,1,2,2-Tetrachloroethane	ND	9.0	ug/kg	0.81
1,2,4-Trichloro-benzene	ND	9.0	ug/kg	2.5
Tetrachloroethene	ND	9.0	ug/kg	1.4
1,1,1-Trichloroethane	ND	9.0	ug/kg	0.49
1,1,2-Trichloroethane	ND	9.0	ug/kg	1.2
Trichloroethene	ND	9.0	ug/kg	1.6
Trichlorofluoromethane	ND	9.0	ug/kg	2.2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	9.0	ug/kg	0.63
Toluene	ND	9.0	ug/kg	1.1
Vinyl chloride	ND	9.0	ug/kg	1.2
Xylenes (total)	ND	27	ug/kg	4.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	81	(52 - 124)
Toluene-d8	109	(72 - 127)
4-Bromofluorobenzene	99	(63 - 120)
Dibromofluoromethane	93	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0300

GC/MS Volatiles

Lot-Sample #...:	C6L190179-023	Work Order #...:	JLRF61AC	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6356045
Prep Date.....:	12/22/06	Analysis Date..:	12/22/06		
Prep Batch #...:	6356056	Analysis Time..:	11:34		
Dilution Factor:	1	Initial Wgt/Vol:	5 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	46	Analyst ID.....:	010099	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	37	ug/kg	9.2
Benzene	ND	9.2	ug/kg	1.0
Bromodichloromethane	ND	9.2	ug/kg	0.46
Bromoform	ND	9.2	ug/kg	1.1
Bromomethane	ND	9.2	ug/kg	1.7
2-Butanone	ND	9.2	ug/kg	2.6
Carbon disulfide	ND	9.2	ug/kg	0.66
Carbon tetrachloride	ND	9.2	ug/kg	0.46
Chlorobenzene	ND	9.2	ug/kg	1.6
Chloroethane	ND	9.2	ug/kg	1.7
Chloroform	ND	9.2	ug/kg	0.46
Chloromethane	ND	9.2	ug/kg	0.53
Cyclohexane	ND	9.2	ug/kg	0.69
Dibromochloromethane	ND	9.2	ug/kg	0.48
1,2-Dibromo-3-chloro-propane	ND	9.2	ug/kg	0.86
1,2-Dibromoethane	ND	9.2	ug/kg	0.49
1,3-Dichlorobenzene	ND	9.2	ug/kg	1.7
1,4-Dichlorobenzene	ND	9.2	ug/kg	1.3
1,2-Dichlorobenzene	ND	9.2	ug/kg	1.7
Dichlorodifluoromethane	ND	9.2	ug/kg	0.93
1,1-Dichloroethane	ND	9.2	ug/kg	0.53
1,2-Dichloroethane	ND	9.2	ug/kg	0.56
1,1-Dichloroethene	ND	9.2	ug/kg	1.1
cis-1,2-Dichloroethene	ND	9.2	ug/kg	1.4
trans-1,2-Dichloroethene	ND	9.2	ug/kg	1.2
1,2-Dichloropropane	ND	9.2	ug/kg	1.2
cis-1,3-Dichloropropene	ND	9.2	ug/kg	0.53
trans-1,3-Dichloropropene	ND	9.2	ug/kg	0.51
Ethylbenzene	ND	9.2	ug/kg	1.7
2-Hexanone	ND	9.2	ug/kg	1.5
Isopropylbenzene	ND	9.2	ug/kg	2.1
Methyl acetate	ND	9.2	ug/kg	4.6
Methylene chloride	ND	9.2	ug/kg	2.4
Methylcyclohexane	ND	9.2	ug/kg	1.4
4-Methyl-2-pentanone	ND	9.2	ug/kg	1.6
Methyl tert-butyl ether	ND	9.2	ug/kg	0.75

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0300

GC/MS Volatiles

Lot-Sample #...: C6L190179-023 Work Order #...: JLRF61AC Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	9.2	ug/kg	1.5
1,1,2,2-Tetrachloroethane	ND	9.2	ug/kg	0.83
1,2,4-Trichloro-benzene	ND	9.2	ug/kg	2.5
Tetrachloroethene	ND	9.2	ug/kg	1.4
1,1,1-Trichloroethane	ND	9.2	ug/kg	0.50
1,1,2-Trichloroethane	ND	9.2	ug/kg	1.2
Trichloroethene	ND	9.2	ug/kg	1.6
Trichlorofluoromethane	ND	9.2	ug/kg	2.2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	9.2	ug/kg	0.64
Toluene	ND	9.2	ug/kg	1.1
Vinyl chloride	ND	9.2	ug/kg	1.2
Xylenes (total)	ND	28	ug/kg	5.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	80	(52 - 124)
Toluene-d8	110	(72 - 127)
4-Bromofluorobenzene	96	(63 - 120)
Dibromofluoromethane	92	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0301

GC/MS Volatiles

Lot-Sample #...:	C6L190179-024	**Work Order #...:**	JLRGA1AM	**Matrix.....:**	SOLID
Date Sampled...:	12/18/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6356045
Prep Date.....:	12/22/06	**Analysis Date..:**	12/22/06		
Prep Batch #...:	6356056	**Analysis Time..:**	11:58		
Dilution Factor:	1	**Initial Wgt/Vol:**	5 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	26	**Analyst ID.....:**	010099	**Instrument ID..:**	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	27	ug/kg	6.8
Benzene	ND	6.8	ug/kg	0.74
Bromodichloromethane	ND	6.8	ug/kg	0.34
Bromoform	ND	6.8	ug/kg	0.83
Bromomethane	ND	6.8	ug/kg	1.3
2-Butanone	ND	6.8	ug/kg	1.9
Carbon disulfide	ND	6.8	ug/kg	0.49
Carbon tetrachloride	ND	6.8	ug/kg	0.34
Chlorobenzene	ND	6.8	ug/kg	1.2
Chloroethane	ND	6.8	ug/kg	1.3
Chloroform	ND	6.8	ug/kg	0.34
Chloromethane	ND	6.8	ug/kg	0.39
Cyclohexane	ND	6.8	ug/kg	0.51
Dibromochloromethane	ND	6.8	ug/kg	0.35
1,2-Dibromo-3-chloro-propane	ND	6.8	ug/kg	0.63
1,2-Dibromoethane	ND	6.8	ug/kg	0.36
1,3-Dichlorobenzene	ND	6.8	ug/kg	1.2
1,4-Dichlorobenzene	ND	6.8	ug/kg	0.93
1,2-Dichlorobenzene	ND	6.8	ug/kg	1.3
Dichlorodifluoromethane	ND	6.8	ug/kg	0.69
1,1-Dichloroethane	ND	6.8	ug/kg	0.39
1,2-Dichloroethane	ND	6.8	ug/kg	0.41
1,1-Dichloroethene	ND	6.8	ug/kg	0.80
cis-1,2-Dichloroethene	ND	6.8	ug/kg	1.0
trans-1,2-Dichloroethene	ND	6.8	ug/kg	0.89
1,2-Dichloropropane	ND	6.8	ug/kg	0.85
cis-1,3-Dichloropropene	ND	6.8	ug/kg	0.39
trans-1,3-Dichloropropene	ND	6.8	ug/kg	0.37
Ethylbenzene	ND	6.8	ug/kg	1.3
2-Hexanone	ND	6.8	ug/kg	1.1
Isopropylbenzene	ND	6.8	ug/kg	1.5
Methyl acetate	ND	6.8	ug/kg	3.4
Methylene chloride	ND	6.8	ug/kg	1.8
Methylcyclohexane	ND	6.8	ug/kg	1.1
4-Methyl-2-pentanone	ND	6.8	ug/kg	1.1
Methyl tert-butyl ether	ND	6.8	ug/kg	0.56

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0301

GC/MS Volatiles

Lot-Sample #...: C6L190179-024 Work Order #...: JLRGA1AM Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	6.8	ug/kg	1.1
1,1,2,2-Tetrachloroethane	ND	6.8	ug/kg	0.61
1,2,4-Trichloro-benzene	ND	6.8	ug/kg	1.9
Tetrachloroethene	ND	6.8	ug/kg	1.0
1,1,1-Trichloroethane	ND	6.8	ug/kg	0.37
1,1,2-Trichloroethane	ND	6.8	ug/kg	0.92
Trichloroethene	ND	6.8	ug/kg	1.2
Trichlorofluoromethane	ND	6.8	ug/kg	1.6
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	6.8	ug/kg	0.47
Toluene	ND	6.8	ug/kg	0.80
Vinyl chloride	ND	6.8	ug/kg	0.89
Xylenes (total)	ND	20	ug/kg	3.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	83	(52 - 124)
Toluene-d8	111	(72 - 127)
4-Bromofluorobenzene	100	(63 - 120)
Dibromofluoromethane	95	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0400

GC/MS Volatiles

Lot-Sample #...:	C6L190179-025	Work Order #...:	JLRGC1AD	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6356045
Prep Date.....:	12/22/06	Analysis Date..:	12/22/06		
Prep Batch #...:	6356056	Analysis Time..:	06:47		
Dilution Factor:	1	Initial Wgt/Vol:	5 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	56	Analyst ID.....:	010099	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	45	ug/kg	11
Benzene	ND	11	ug/kg	1.2
Bromodichloromethane	ND	11	ug/kg	0.56
Bromoform	ND	11	ug/kg	1.4
Bromomethane	ND	11	ug/kg	2.1
2-Butanone	ND	11	ug/kg	3.2
Carbon disulfide	ND	11	ug/kg	0.81
Carbon tetrachloride	ND	11	ug/kg	0.56
Chlorobenzene	ND	11	ug/kg	1.9
Chloroethane	ND	11	ug/kg	2.1
Chloroform	ND	11	ug/kg	0.56
Chloromethane	ND	11	ug/kg	0.65
Cyclohexane	ND	11	ug/kg	0.85
Dibromochloromethane	ND	11	ug/kg	0.59
1,2-Dibromo-3-chloro-propane	ND	11	ug/kg	1.1
1,2-Dibromoethane	ND	11	ug/kg	0.61
1,3-Dichlorobenzene	ND	11	ug/kg	2.1
1,4-Dichlorobenzene	ND	11	ug/kg	1.5
1,2-Dichlorobenzene	ND	11	ug/kg	2.1
Dichlorodifluoromethane	ND	11	ug/kg	1.1
1,1-Dichloroethane	ND	11	ug/kg	0.65
1,2-Dichloroethane	ND	11	ug/kg	0.68
1,1-Dichloroethene	ND	11	ug/kg	1.3
cis-1,2-Dichloroethene	ND	11	ug/kg	1.7
trans-1,2-Dichloroethene	ND	11	ug/kg	1.5
1,2-Dichloropropane	ND	11	ug/kg	1.4
cis-1,3-Dichloropropene	ND	11	ug/kg	0.65
trans-1,3-Dichloropropene	ND	11	ug/kg	0.62
Ethylbenzene	ND	11	ug/kg	2.1
2-Hexanone	ND	11	ug/kg	1.8
Isopropylbenzene	ND	11	ug/kg	2.5
Methyl acetate	ND	11	ug/kg	5.6
Methylene chloride	ND	11	ug/kg	3.0
Methylcyclohexane	ND	11	ug/kg	1.8
4-Methyl-2-pentanone	ND	11	ug/kg	1.9
Methyl tert-butyl ether	ND	11	ug/kg	0.93

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0400

GC/MS Volatiles

Lot-Sample #...: C6L190179-025 Work Order #...: JLRGC1AD Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	11	ug/kg	1.8
1,1,2,2-Tetrachloroethane	ND	11	ug/kg	1.0
1,2,4-Trichloro-benzene	ND	11	ug/kg	3.1
Tetrachloroethene	ND	11	ug/kg	1.7
1,1,1-Trichloroethane	ND	11	ug/kg	0.61
1,1,2-Trichloroethane	ND	11	ug/kg	1.5
Trichloroethene	ND	11	ug/kg	1.9
Trichlorofluoromethane	ND	11	ug/kg	2.7
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	11	ug/kg	0.78
Toluene	ND	11	ug/kg	1.3
Vinyl chloride	ND	11	ug/kg	1.5
Xylenes (total)	ND	34	ug/kg	6.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	81	(52 - 124)
Toluene-d8	111	(72 - 127)
4-Bromofluorobenzene	98	(63 - 120)
Dibromofluoromethane	95	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0401

GC/MS Volatiles

Lot-Sample #...:	C6L190179-026	Work Order #...:	JLRGJ1AM	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6356045
Prep Date.....:	12/22/06	Analysis Date..:	12/22/06		
Prep Batch #...:	6356056	Analysis Time..:	07:11		
Dilution Factor:	1	Initial Wgt/Vol:	5 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	56	Analyst ID.....:	010099	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	45	ug/kg	11
Benzene	ND	11	ug/kg	1.2
Bromodichloromethane	ND	11	ug/kg	0.57
Bromoform	ND	11	ug/kg	1.4
Bromomethane	ND	11	ug/kg	2.1
2-Butanone	ND	11	ug/kg	3.2
Carbon disulfide	ND	11	ug/kg	0.82
Carbon tetrachloride	ND	11	ug/kg	0.57
Chlorobenzene	ND	11	ug/kg	1.9
Chloroethane	ND	11	ug/kg	2.1
Chloroform	ND	11	ug/kg	0.57
Chloromethane	ND	11	ug/kg	0.65
Cyclohexane	ND	11	ug/kg	0.86
Dibromochloromethane	ND	11	ug/kg	0.59
1,2-Dibromo-3-chloro-propane	ND	11	ug/kg	1.1
1,2-Dibromoethane	ND	11	ug/kg	0.61
1,3-Dichlorobenzene	ND	11	ug/kg	2.1
1,4-Dichlorobenzene	ND	11	ug/kg	1.6
1,2-Dichlorobenzene	ND	11	ug/kg	2.1
Dichlorodifluoromethane	ND	11	ug/kg	1.1
1,1-Dichloroethane	ND	11	ug/kg	0.65
1,2-Dichloroethane	ND	11	ug/kg	0.69
1,1-Dichloroethene	ND	11	ug/kg	1.3
cis-1,2-Dichloroethene	ND	11	ug/kg	1.7
trans-1,2-Dichloroethene	ND	11	ug/kg	1.5
1,2-Dichloropropane	ND	11	ug/kg	1.4
cis-1,3-Dichloropropene	ND	11	ug/kg	0.65
trans-1,3-Dichloropropene	ND	11	ug/kg	0.63
Ethylbenzene	ND	11	ug/kg	2.1
2-Hexanone	ND	11	ug/kg	1.8
Isopropylbenzene	ND	11	ug/kg	2.6
Methyl acetate	ND	11	ug/kg	5.7
Methylene chloride	ND	11	ug/kg	3.0
Methylcyclohexane	ND	11	ug/kg	1.8
4-Methyl-2-pentanone	ND	11	ug/kg	1.9
Methyl tert-butyl ether	ND	11	ug/kg	0.93

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0401

GC/MS Volatiles

Lot-Sample #...: C6L190179-026 Work Order #...: JLRGJ1AM Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	11	ug/kg	1.8
1,1,2,2-Tetrachloroethane	ND	11	ug/kg	1.0
1,2,4-Trichloro-benzene	ND	11	ug/kg	3.1
Tetrachloroethene	ND	11	ug/kg	1.7
1,1,1-Trichloroethane	ND	11	ug/kg	0.62
1,1,2-Trichloroethane	ND	11	ug/kg	1.5
Trichloroethene	ND	11	ug/kg	2.0
Trichlorofluoromethane	ND	11	ug/kg	2.7
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	11	ug/kg	0.79
Toluene	ND	11	ug/kg	1.3
Vinyl chloride	ND	11	ug/kg	1.5
Xylenes (total)	ND	34	ug/kg	6.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	83	(52 - 124)
Toluene-d8	108	(72 - 127)
4-Bromofluorobenzene	98	(63 - 120)
Dibromofluoromethane	95	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0500

GC/MS Volatiles

Lot-Sample #...:	C6L190179-027	Work Order #...:	JLRGK1AP	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6356045
Prep Date.....:	12/22/06	Analysis Date..:	12/22/06		
Prep Batch #...:	6356056	Analysis Time..:	08:47		
Dilution Factor:	1	Initial Wgt/Vol:	5 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	12	Analyst ID.....:	010099	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	23	ug/kg	5.7
Benzene	ND	5.7	ug/kg	0.62
Bromodichloromethane	ND	5.7	ug/kg	0.29
Bromoform	ND	5.7	ug/kg	0.70
Bromomethane	ND	5.7	ug/kg	1.1
2-Butanone	ND	5.7	ug/kg	1.6
Carbon disulfide	ND	5.7	ug/kg	0.41
Carbon tetrachloride	ND	5.7	ug/kg	0.29
Chlorobenzene	ND	5.7	ug/kg	0.97
Chloroethane	ND	5.7	ug/kg	1.1
Chloroform	ND	5.7	ug/kg	0.29
Chloromethane	ND	5.7	ug/kg	0.33
Cyclohexane	ND	5.7	ug/kg	0.43
Dibromochloromethane	ND	5.7	ug/kg	0.30
1,2-Dibromo-3-chloro-propane	ND	5.7	ug/kg	0.53
1,2-Dibromoethane	ND	5.7	ug/kg	0.31
1,3-Dichlorobenzene	ND	5.7	ug/kg	1.0
1,4-Dichlorobenzene	ND	5.7	ug/kg	0.78
1,2-Dichlorobenzene	ND	5.7	ug/kg	1.1
Dichlorodifluoromethane	ND	5.7	ug/kg	0.58
1,1-Dichloroethane	ND	5.7	ug/kg	0.33
1,2-Dichloroethane	ND	5.7	ug/kg	0.34
1,1-Dichloroethene	ND	5.7	ug/kg	0.67
cis-1,2-Dichloroethene	ND	5.7	ug/kg	0.85
trans-1,2-Dichloroethene	ND	5.7	ug/kg	0.74
1,2-Dichloropropane	ND	5.7	ug/kg	0.71
cis-1,3-Dichloropropene	ND	5.7	ug/kg	0.33
trans-1,3-Dichloropropene	ND	5.7	ug/kg	0.31
Ethylbenzene	ND	5.7	ug/kg	1.1
2-Hexanone	ND	5.7	ug/kg	0.93
Isopropylbenzene	ND	5.7	ug/kg	1.3
Methyl acetate	ND	5.7	ug/kg	2.9
Methylene chloride	ND	5.7	ug/kg	1.5
Methylcyclohexane	ND	5.7	ug/kg	0.89
4-Methyl-2-pentanone	ND	5.7	ug/kg	0.96
Methyl tert-butyl ether	ND	5.7	ug/kg	0.47

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0500

GC/MS Volatiles

Lot-Sample #...: C6L190179-027 Work Order #...: JLRGK1AP Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	5.7	ug/kg	0.91
1,1,2,2-Tetrachloroethane	ND	5.7	ug/kg	0.51
1,2,4-Trichloro-benzene	ND	5.7	ug/kg	1.6
Tetrachloroethene	ND	5.7	ug/kg	0.87
1,1,1-Trichloroethane	ND	5.7	ug/kg	0.31
1,1,2-Trichloroethane	ND	5.7	ug/kg	0.77
Trichloroethene	ND	5.7	ug/kg	0.98
Trichlorofluoromethane	ND	5.7	ug/kg	1.4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.7	ug/kg	0.39
Toluene	ND	5.7	ug/kg	0.67
Vinyl chloride	ND	5.7	ug/kg	0.75
Xylenes (total)	ND	17	ug/kg	3.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	88	(52 - 124)
Toluene-d8	121	(72 - 127)
4-Bromofluorobenzene	109	(63 - 120)
Dibromofluoromethane	103	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0501

GC/MS Volatiles

Lot-Sample #...:	C6L190179-028	Work Order #...:	JLRGL1AM	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6356045
Prep Date.....:	12/22/06	Analysis Date..:	12/22/06		
Prep Batch #...:	6356056	Analysis Time..:	09:11		
Dilution Factor:	1	Initial Wgt/Vol:	5 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	63	Analyst ID.....:	010099	Instrument ID..:	HP3
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	53	ug/kg	13
Benzene	ND	13	ug/kg	1.5
Bromodichloromethane	ND	13	ug/kg	0.67
Bromoform	ND	13	ug/kg	1.6
Bromomethane	ND	13	ug/kg	2.5
2-Butanone	ND	13	ug/kg	3.7
Carbon disulfide	ND	13	ug/kg	0.96
Carbon tetrachloride	ND	13	ug/kg	0.67
Chlorobenzene	ND	13	ug/kg	2.3
Chloroethane	ND	13	ug/kg	2.5
Chloroform	ND	13	ug/kg	0.67
Chloromethane	ND	13	ug/kg	0.77
Cyclohexane	ND	13	ug/kg	1.0
Dibromochloromethane	ND	13	ug/kg	0.70
1,2-Dibromo-3-chloro-propane	ND	13	ug/kg	1.2
1,2-Dibromoethane	ND	13	ug/kg	0.72
1,3-Dichlorobenzene	ND	13	ug/kg	2.4
1,4-Dichlorobenzene	ND	13	ug/kg	1.8
1,2-Dichlorobenzene	ND	13	ug/kg	2.5
Dichlorodifluoromethane	ND	13	ug/kg	1.4
1,1-Dichloroethane	ND	13	ug/kg	0.77
1,2-Dichloroethane	ND	13	ug/kg	0.81
1,1-Dichloroethene	ND	13	ug/kg	1.6
cis-1,2-Dichloroethene	ND	13	ug/kg	2.0
trans-1,2-Dichloroethene	ND	13	ug/kg	1.7
1,2-Dichloropropane	ND	13	ug/kg	1.7
cis-1,3-Dichloropropene	ND	13	ug/kg	0.77
trans-1,3-Dichloropropene	ND	13	ug/kg	0.74
Ethylbenzene	ND	13	ug/kg	2.5
2-Hexanone	ND	13	ug/kg	2.2
Isopropylbenzene	ND	13	ug/kg	3.0
Methyl acetate	ND	13	ug/kg	6.7
Methylene chloride	ND	13	ug/kg	3.5
Methylcyclohexane	ND	13	ug/kg	2.1
4-Methyl-2-pentanone	ND	13	ug/kg	2.3
Methyl tert-butyl ether	ND	13	ug/kg	1.1

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0501

GC/MS Volatiles

Lot-Sample #...: C6L190179-028 Work Order #...: JLRGL1AM Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	13	ug/kg	2.1
1,1,2,2-Tetrachloroethane	ND	13	ug/kg	1.2
1,2,4-Trichloro-benzene	ND	13	ug/kg	3.7
Tetrachloroethene	ND	13	ug/kg	2.1
1,1,1-Trichloroethane	ND	13	ug/kg	0.73
1,1,2-Trichloroethane	ND	13	ug/kg	1.8
Trichloroethene	ND	13	ug/kg	2.3
Trichlorofluoromethane	ND	13	ug/kg	3.2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	13	ug/kg	0.93
Toluene	ND	13	ug/kg	1.6
Vinyl chloride	ND	13	ug/kg	1.8
Xylenes (total)	ND	40	ug/kg	7.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	84	(52 - 124)
Toluene-d8	115	(72 - 127)
4-Bromofluorobenzene	106	(63 - 120)
Dibromofluoromethane	97	(68 - 121)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180601

GC/MS Semivolatiles

Lot-Sample #...:	C6L190179-005	Work Order #...:	JLQ981AE	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06 10:00	MS Run #.....:	6362005
Prep Date.....:	12/28/06	Analysis Date..:	01/06/07		
Prep Batch #...:	6362012	Analysis Time..:	09:09		
Dilution Factor:	5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	62	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	**130 J**	**4400**	**ug/kg**	**96**
Acenaphthylene	ND	4400	ug/kg	93
Acetophenone	ND	4400	ug/kg	1100
Anthracene	**270 J**	**4400**	**ug/kg**	**100**
Atrazine	ND	4400	ug/kg	1100
Benzo(a)anthracene	**1500 J**	**4400**	**ug/kg**	**97**
Benzo(a)pyrene	**2500 J**	**4400**	**ug/kg**	**74**
Benzo(b)fluoranthene	**4000 J**	**4400**	**ug/kg**	**88**
Benzo(ghi)perylene	**2700 J**	**4400**	**ug/kg**	**84**
Benzo(k)fluoranthene	**1700 J**	**4400**	**ug/kg**	**87**
Benzaldehyde	ND	4400	ug/kg	980
1,1'-Biphenyl	ND	4400	ug/kg	1100
bis(2-Chloroethoxy) methane	ND	4400	ug/kg	99
bis(2-Chloroethyl)-ether	ND	4400	ug/kg	86
bis(2-Ethylhexyl) phthalate	**710 J**	**4400**	**ug/kg**	**270**
4-Bromophenyl phenyl ether	ND	4400	ug/kg	220
Butyl benzyl phthalate	ND	4400	ug/kg	98
Caprolactam	ND	4400	ug/kg	1100
Carbazole	**420 J**	**4400**	**ug/kg**	**100**
4-Chloroaniline	ND	4400	ug/kg	220
4-Chloro-3-methylphenol	ND	4400	ug/kg	96
2-Chloronaphthalene	ND	4400	ug/kg	94
2-Chlorophenol	ND	4400	ug/kg	70
4-Chlorophenyl phenyl ether	ND	4400	ug/kg	90
Chrysene	**2900 J**	**4400**	**ug/kg**	**86**
Dibenz(a,h)anthracene	**530 J**	**4400**	**ug/kg**	**72**
Dibenzofuran	ND	4400	ug/kg	100
3,3'-Dichlorobenzidine	ND	21000	ug/kg	110
2,4-Dichlorophenol	ND	4400	ug/kg	83
Diethyl phthalate	ND	4400	ug/kg	89
2,4-Dimethylphenol	ND	4400	ug/kg	71
Dimethyl phthalate	ND	4400	ug/kg	93

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180601

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-005 Work Order #...: JLQ981AE Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	4400	ug/kg	540
4,6-Dinitro-2-methylphenol	ND	21000	ug/kg	11000
2,4-Dinitrophenol	ND	21000	ug/kg	11000
2,4-Dinitrotoluene	ND	4400	ug/kg	46
2,6-Dinitrotoluene	ND	4400	ug/kg	63
Di-n-octyl phthalate	ND	4400	ug/kg	100
Fluoranthene	**5200**	**4400**	**ug/kg**	**94**
Fluorene	**160 J**	**4400**	**ug/kg**	**110**
Hexachlorobenzene	ND	4400	ug/kg	89
Hexachlorobutadiene	ND	4400	ug/kg	87
Hexachlorocyclopentadiene	ND	21000	ug/kg	350
Hexachloroethane	ND	4400	ug/kg	85
Indeno(1,2,3-cd)pyrene	**2600 J**	**4400**	**ug/kg**	**88**
Isophorone	ND	4400	ug/kg	85
2-Methylnaphthalene	ND	4400	ug/kg	110
2-Methylphenol	ND	4400	ug/kg	99
4-Methylphenol	ND	4400	ug/kg	99
Naphthalene	ND	4400	ug/kg	110
2-Nitroaniline	ND	21000	ug/kg	55
3-Nitroaniline	ND	21000	ug/kg	2200
4-Nitroaniline	ND	21000	ug/kg	62
Nitrobenzene	ND	4400	ug/kg	140
2-Nitrophenol	ND	4400	ug/kg	80
4-Nitrophenol	ND	21000	ug/kg	59
N-Nitrosodi-n-propylamine	ND	4400	ug/kg	90
N-Nitrosodiphenylamine	ND	4400	ug/kg	920
2,2'-oxybis(1-Chloropropane)	ND	4400	ug/kg	64
Pentachlorophenol	ND	21000	ug/kg	6100
Phenanthrene	**2300 J**	**4400**	**ug/kg**	**110**
Phenol	ND	4400	ug/kg	91
Pyrene	**4200 J**	**4400**	**ug/kg**	**110**
2,4,5-Trichlorophenol	ND	4400	ug/kg	250
2,4,6-Trichlorophenol	ND	4400	ug/kg	76

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180601

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-005 Work Order #...: JLQ981AE Matrix.....: SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	51	(21 - 144)
2-Fluorobiphenyl	55	(26 - 128)
2-Fluorophenol	51	(34 - 115)
Nitrobenzene-d5	51	(30 - 118)
Phenol-d5	57	(35 - 117)
Terphenyl-d14	61	(40 - 115)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

NTC01FD12180601

GC/MS Semivolatiles

Lot-Sample #: C6L190179-005 **Work Order #:** JLQ981AE **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180602

GC/MS Semivolatiles

Lot-Sample #...:	C6L190179-006	Work Order #...:	JLRAQ1AE	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06 10:00	MS Run #.....:	6362005
Prep Date.....:	12/28/06	Analysis Date..:	01/06/07		
Prep Batch #...:	6362012	Analysis Time..:	09:37		
Dilution Factor:	5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	22	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	2100	ug/kg	47
Acenaphthylene	**100 J**	**2100**	**ug/kg**	**45**
Acetophenone	ND	2100	ug/kg	540
Anthracene	ND	2100	ug/kg	49
Atrazine	ND	2100	ug/kg	540
Benzo(a)anthracene	ND	2100	ug/kg	47
Benzo(a)pyrene	ND	2100	ug/kg	36
Benzo(b)fluoranthene	ND	2100	ug/kg	43
Benzo(ghi)perylene	ND	2100	ug/kg	41
Benzo(k)fluoranthene	ND	2100	ug/kg	42
Benzaldehyde	ND	2100	ug/kg	480
1,1'-Biphenyl	ND	2100	ug/kg	540
bis(2-Chloroethoxy) methane	ND	2100	ug/kg	48
bis(2-Chloroethyl)-ether	ND	2100	ug/kg	42
bis(2-Ethylhexyl) phthalate	**660 J**	**2100**	**ug/kg**	**130**
4-Bromophenyl phenyl ether	ND	2100	ug/kg	110
Butyl benzyl phthalate	ND	2100	ug/kg	48
Caprolactam	ND	2100	ug/kg	540
Carbazole	ND	2100	ug/kg	49
4-Chloroaniline	ND	2100	ug/kg	110
4-Chloro-3-methylphenol	ND	2100	ug/kg	47
2-Chloronaphthalene	ND	2100	ug/kg	46
2-Chlorophenol	ND	2100	ug/kg	34
4-Chlorophenyl phenyl ether	ND	2100	ug/kg	44
Chrysene	ND	2100	ug/kg	42
Dibenz(a,h)anthracene	ND	2100	ug/kg	35
Dibenzofuran	ND	2100	ug/kg	48
3,3'-Dichlorobenzidine	ND	10000	ug/kg	53
2,4-Dichlorophenol	ND	2100	ug/kg	40
Diethyl phthalate	**430 J**	**2100**	**ug/kg**	**43**
2,4-Dimethylphenol	ND	2100	ug/kg	35
Dimethyl phthalate	ND	2100	ug/kg	45

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180602

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-006 Work Order #...: JLRAQ1AE Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	**340 J**	**2100**	**ug/kg**	**260**
4,6-Dinitro-2-methylphenol	ND	10000	ug/kg	5400
2,4-Dinitrophenol	ND	10000	ug/kg	5400
2,4-Dinitrotoluene	ND	2100	ug/kg	22
2,6-Dinitrotoluene	ND	2100	ug/kg	31
Di-n-octyl phthalate	ND	2100	ug/kg	50
Fluoranthene	ND	2100	ug/kg	46
Fluorene	**92 J**	**2100**	**ug/kg**	**51**
Hexachlorobenzene	ND	2100	ug/kg	43
Hexachlorobutadiene	ND	2100	ug/kg	42
Hexachlorocyclopentadiene	ND	10000	ug/kg	170
Hexachloroethane	ND	2100	ug/kg	41
Indeno(1,2,3-cd)pyrene	ND	2100	ug/kg	43
Isophorone	ND	2100	ug/kg	41
2-Methylnaphthalene	**96 J**	**2100**	**ug/kg**	**53**
2-Methylphenol	ND	2100	ug/kg	48
4-Methylphenol	**160 J**	**2100**	**ug/kg**	**48**
Naphthalene	**250 J**	**2100**	**ug/kg**	**51**
2-Nitroaniline	ND	10000	ug/kg	27
3-Nitroaniline	ND	10000	ug/kg	1100
4-Nitroaniline	ND	10000	ug/kg	30
Nitrobenzene	ND	2100	ug/kg	70
2-Nitrophenol	ND	2100	ug/kg	39
4-Nitrophenol	ND	10000	ug/kg	29
N-Nitrosodi-n-propylamine	ND	2100	ug/kg	44
N-Nitrosodiphenylamine	ND	2100	ug/kg	450
2,2'-oxybis(1-Chloropropane)	ND	2100	ug/kg	31
Pentachlorophenol	ND	10000	ug/kg	2900
Phenanthrene	**140 J**	**2100**	**ug/kg**	**51**
Phenol	**93 J**	**2100**	**ug/kg**	**44**
Pyrene	**55 J**	**2100**	**ug/kg**	**53**
2,4,5-Trichlorophenol	ND	2100	ug/kg	120
2,4,6-Trichlorophenol	ND	2100	ug/kg	37

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180602

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-006 Work Order #...: JLRAQ1AE Matrix.....: SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	37	(21 - 144)
2-Fluorobiphenyl	47	(26 - 128)
2-Fluorophenol	47	(34 - 115)
Nitrobenzene-d5	45	(30 - 118)
Phenol-d5	53	(35 - 117)
Terphenyl-d14	11 *	(40 - 115)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

NTC01FD12180602

GC/MS Semivolatiles

Lot-Sample #: C6L190179-006 Work Order #: JLRAQ1AE Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0900812

GC/MS Semivolatiles

Lot-Sample #...:	C6L190179-009	Work Order #...:	JLRCA1AF	Matrix.....:	SOLID
Date Sampled...:	12/18/06 10:05	Date Received..:	12/19/06 10:00	MS Run #.....:	6362005
Prep Date.....:	12/28/06	Analysis Date..:	01/06/07		
Prep Batch #...:	6362012	Analysis Time..:	10:05		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	22	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	**11 J**	**420**	**ug/kg**	**9.3**
Acenaphthylene	**11 J**	**420**	**ug/kg**	**8.9**
Acetophenone	ND	420	ug/kg	110
Anthracene	ND	420	ug/kg	9.7
Atrazine	ND	420	ug/kg	110
Benzo(a)anthracene	ND	420	ug/kg	9.3
Benzo(a)pyrene	**14 J**	**420**	**ug/kg**	**7.1**
Benzo(b)fluoranthene	**24 J**	**420**	**ug/kg**	**8.5**
Benzo(ghi)perylene	**20 J**	**420**	**ug/kg**	**8.1**
Benzo(k)fluoranthene	ND	420	ug/kg	8.3
Benzaldehyde	**150 J**	**420**	**ug/kg**	**94**
1,1'-Biphenyl	ND	420	ug/kg	110
bis(2-Chloroethoxy) methane	ND	420	ug/kg	9.5
bis(2-Chloroethyl)-ether	ND	420	ug/kg	8.3
bis(2-Ethylhexyl) phthalate	**160 J**	**420**	**ug/kg**	**26**
4-Bromophenyl phenyl ether	ND	420	ug/kg	21
Butyl benzyl phthalate	**13 J**	**420**	**ug/kg**	**9.4**
Caprolactam	ND	420	ug/kg	110
Carbazole	ND	420	ug/kg	9.8
4-Chloroaniline	ND	420	ug/kg	21
4-Chloro-3-methylphenol	ND	420	ug/kg	9.2
2-Chloronaphthalene	ND	420	ug/kg	9.0
2-Chlorophenol	ND	420	ug/kg	6.7
4-Chlorophenyl phenyl ether	ND	420	ug/kg	8.7
Chrysene	ND	420	ug/kg	8.3
Dibenz(a,h)anthracene	ND	420	ug/kg	6.9
Dibenzofuran	**19 J**	**420**	**ug/kg**	**9.6**
3,3'-Dichlorobenzidine	ND	2000	ug/kg	10
2,4-Dichlorophenol	ND	420	ug/kg	8.0
Diethyl phthalate	**26 J**	**420**	**ug/kg**	**8.6**
2,4-Dimethylphenol	ND	420	ug/kg	6.8
Dimethyl phthalate	ND	420	ug/kg	8.9

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0900812

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-009 Work Order #...: JLRCA1AF Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	**56 J**	**420**	**ug/kg**	**52**
4,6-Dinitro-2-methylphenol	ND	2000	ug/kg	1100
2,4-Dinitrophenol	ND	2000	ug/kg	1100
2,4-Dinitrotoluene	ND	420	ug/kg	4.4
2,6-Dinitrotoluene	ND	420	ug/kg	6.0
Di-n-octyl phthalate	ND	420	ug/kg	9.8
Fluoranthene	**61 J**	**420**	**ug/kg**	**9.0**
Fluorene	**11 J**	**420**	**ug/kg**	**10**
Hexachlorobenzene	ND	420	ug/kg	8.5
Hexachlorobutadiene	ND	420	ug/kg	8.3
Hexachlorocyclopentadiene	ND	2000	ug/kg	34
Hexachloroethane	ND	420	ug/kg	8.1
Indeno(1,2,3-cd)pyrene	**12 J**	**420**	**ug/kg**	**8.5**
Isophorone	ND	420	ug/kg	8.1
2-Methylnaphthalene	**58 J**	**420**	**ug/kg**	**10**
2-Methylphenol	ND	420	ug/kg	9.5
4-Methylphenol	**13 J**	**420**	**ug/kg**	**9.5**
Naphthalene	**110 J**	**420**	**ug/kg**	**10**
2-Nitroaniline	ND	2000	ug/kg	5.3
3-Nitroaniline	ND	2000	ug/kg	210
4-Nitroaniline	ND	2000	ug/kg	5.9
Nitrobenzene	ND	420	ug/kg	14
2-Nitrophenol	ND	420	ug/kg	7.6
4-Nitrophenol	ND	2000	ug/kg	5.7
N-Nitrosodi-n-propylamine	ND	420	ug/kg	8.6
N-Nitrosodiphenylamine	ND	420	ug/kg	88
2,2'-oxybis(1-Chloropropane)	ND	420	ug/kg	6.2
Pentachlorophenol	ND	2000	ug/kg	580
Phenanthrene	**99 J**	**420**	**ug/kg**	**10**
Phenol	ND	420	ug/kg	8.7
Pyrene	**56 J**	**420**	**ug/kg**	**10**
2,4,5-Trichlorophenol	ND	420	ug/kg	24
2,4,6-Trichlorophenol	ND	420	ug/kg	7.3

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0900812

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-009 Work Order #...: JLRCA1AF Matrix.....: SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	68	(21 - 144)
2-Fluorobiphenyl	70	(26 - 128)
2-Fluorophenol	75	(34 - 115)
Nitrobenzene-d5	71	(30 - 118)
Phenol-d5	80	(35 - 117)
Terphenyl-d14	58	(40 - 115)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

NTC01SB0900812

GC/MS Semivolatiles

Lot-Sample #: C6L190179-009 **Work Order #:** JLRCA1AF **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0950810

GC/MS Semivolatiles

Lot-Sample #...:	C6L190179-014	Work Order #...:	JLRC81AF	Matrix.....:	SOLID
Date Sampled...:	12/18/06 14:55	Date Received..:	12/19/06 10:00	MS Run #.....:	6362005
Prep Date.....:	12/28/06	Analysis Date..:	01/08/07		
Prep Batch #...:	6362012	Analysis Time..:	06:29		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	63	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	890	ug/kg	20
Acenaphthylene	ND	890	ug/kg	19
Acetophenone	ND	890	ug/kg	220
Anthracene	ND	890	ug/kg	21
Atrazine	ND	890	ug/kg	220
Benzo(a)anthracene	ND	890	ug/kg	20
Benzo(a)pyrene	ND	890	ug/kg	15
Benzo(b)fluoranthene	ND	890	ug/kg	18
Benzo(ghi)perylene	ND	890	ug/kg	17
Benzo(k)fluoranthene	ND	890	ug/kg	18
Benzaldehyde	ND	890	ug/kg	200
1,1'-Biphenyl	ND	890	ug/kg	220
bis(2-Chloroethoxy) methane	ND	890	ug/kg	20
bis(2-Chloroethyl)-ether	ND	890	ug/kg	17
bis(2-Ethylhexyl) phthalate	ND	890	ug/kg	56
4-Bromophenyl phenyl ether	ND	890	ug/kg	45
Butyl benzyl phthalate	**74 J**	**890**	**ug/kg**	**20**
Caprolactam	ND	890	ug/kg	220
Carbazole	ND	890	ug/kg	21
4-Chloroaniline	ND	890	ug/kg	45
4-Chloro-3-methylphenol	ND	890	ug/kg	20
2-Chloronaphthalene	ND	890	ug/kg	19
2-Chlorophenol	ND	890	ug/kg	14
4-Chlorophenyl phenyl ether	ND	890	ug/kg	18
Chrysene	ND	890	ug/kg	18
Dibenz(a,h)anthracene	ND	890	ug/kg	15
Dibenzofuran	ND	890	ug/kg	20
3,3'-Dichlorobenzidine	ND	4300	ug/kg	22
2,4-Dichlorophenol	ND	890	ug/kg	17
Diethyl phthalate	ND	890	ug/kg	18
2,4-Dimethylphenol	ND	890	ug/kg	14
Dimethyl phthalate	ND	890	ug/kg	19

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0950810

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-014 Work Order #...: JLRC81AF Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	890	ug/kg	110
4,6-Dinitro-2-methylphenol	ND	4300	ug/kg	2200
2,4-Dinitrophenol	ND	4300	ug/kg	2200
2,4-Dinitrotoluene	ND	890	ug/kg	9.4
2,6-Dinitrotoluene	ND	890	ug/kg	13
Di-n-octyl phthalate	ND	890	ug/kg	21
Fluoranthene	ND	890	ug/kg	19
Fluorene	ND	890	ug/kg	21
Hexachlorobenzene	ND	890	ug/kg	18
Hexachlorobutadiene	ND	890	ug/kg	18
Hexachlorocyclopentadiene	ND	4300	ug/kg	72
Hexachloroethane	ND	890	ug/kg	17
Indeno(1,2,3-cd)pyrene	ND	890	ug/kg	18
Isophorone	ND	890	ug/kg	17
2-Methylnaphthalene	**40 J**	**890**	**ug/kg**	**22**
2-Methylphenol	ND	890	ug/kg	20
4-Methylphenol	ND	890	ug/kg	20
Naphthalene	**52 J**	**890**	**ug/kg**	**21**
2-Nitroaniline	ND	4300	ug/kg	11
3-Nitroaniline	ND	4300	ug/kg	450
4-Nitroaniline	ND	4300	ug/kg	13
Nitrobenzene	ND	890	ug/kg	29
2-Nitrophenol	ND	890	ug/kg	16
4-Nitrophenol	ND	4300	ug/kg	12
N-Nitrosodi-n-propylamine	ND	890	ug/kg	18
N-Nitrosodiphenylamine	ND	890	ug/kg	190
2,2'-oxybis(1-Chloropropane)	ND	890	ug/kg	13
Pentachlorophenol	ND	4300	ug/kg	1200
Phenanthrene	**58 J**	**890**	**ug/kg**	**21**
Phenol	ND	890	ug/kg	18
Pyrene	ND	890	ug/kg	22
2,4,5-Trichlorophenol	ND	890	ug/kg	51
2,4,6-Trichlorophenol	ND	890	ug/kg	15

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0950810

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-014 Work Order #...: JLRC81AF Matrix.....: SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	69	(21 - 144)
2-Fluorobiphenyl	72	(26 - 128)
2-Fluorophenol	67	(34 - 115)
Nitrobenzene-d5	68	(30 - 118)
Phenol-d5	66	(35 - 117)
Terphenyl-d14	44	(40 - 115)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

NTC01SB0950810

GC/MS Semivolatiles

Lot-Sample #: C6L190179-014 Work Order #: JLRC81AF Matrix: SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1020408

GC/MS Semivolatiles

Lot-Sample #...:	C6L190179-017	Work Order #...:	JLRDG1AR	Matrix.....:	SOLID
Date Sampled...:	12/18/06 13:50	Date Received..:	12/19/06 10:00	MS Run #.....:	6362005
Prep Date.....:	12/28/06	Analysis Date..:	01/08/07		
Prep Batch #...:	6362012	Analysis Time..:	06:57		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	50	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	**290 J**	**660**	**ug/kg**	**14**
Acenaphthylene	ND	660	ug/kg	14
Acetophenone	ND	660	ug/kg	170
Anthracene	**260 J**	**660**	**ug/kg**	**15**
Atrazine	ND	660	ug/kg	170
Benzo(a)anthracene	**320 J**	**660**	**ug/kg**	**15**
Benzo(a)pyrene	**250 J**	**660**	**ug/kg**	**11**
Benzo(b)fluoranthene	**370 J**	**660**	**ug/kg**	**13**
Benzo(ghi)perylene	**200 J**	**660**	**ug/kg**	**13**
Benzo(k)fluoranthene	**130 J**	**660**	**ug/kg**	**13**
Benzaldehyde	ND	660	ug/kg	150
1,1'-Biphenyl	ND	660	ug/kg	170
bis(2-Chloroethoxy) methane	ND	660	ug/kg	15
bis(2-Chloroethyl)-ether	ND	660	ug/kg	13
bis(2-Ethylhexyl) phthalate	ND	660	ug/kg	41
4-Bromophenyl phenyl ether	ND	660	ug/kg	33
Butyl benzyl phthalate	**46 J**	**660**	**ug/kg**	**15**
Caprolactam	ND	660	ug/kg	170
Carbazole	**250 J**	**660**	**ug/kg**	**15**
4-Chloroaniline	ND	660	ug/kg	33
4-Chloro-3-methylphenol	ND	660	ug/kg	14
2-Chloronaphthalene	ND	660	ug/kg	14
2-Chlorophenol	ND	660	ug/kg	10
4-Chlorophenyl phenyl ether	ND	660	ug/kg	14
Chrysene	**400 J**	**660**	**ug/kg**	**13**
Dibenz(a,h)anthracene	**59 J**	**660**	**ug/kg**	**11**
Dibenzofuran	**100 J**	**660**	**ug/kg**	**15**
3,3'-Dichlorobenzidine	ND	3200	ug/kg	16
2,4-Dichlorophenol	ND	660	ug/kg	12
Diethyl phthalate	ND	660	ug/kg	13
2,4-Dimethylphenol	ND	660	ug/kg	11
Dimethyl phthalate	ND	660	ug/kg	14

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1020408

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-017 Work Order #...: JLRDG1AR Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	660	ug/kg	81
4,6-Dinitro-2-methylphenol	ND	3200	ug/kg	1700
2,4-Dinitrophenol	ND	3200	ug/kg	1700
2,4-Dinitrotoluene	ND	660	ug/kg	6.9
2,6-Dinitrotoluene	ND	660	ug/kg	9.4
Di-n-octyl phthalate	ND	660	ug/kg	15
Fluoranthene	**1100**	**660**	**ug/kg**	**14**
Fluorene	**320 J**	**660**	**ug/kg**	**16**
Hexachlorobenzene	ND	660	ug/kg	13
Hexachlorobutadiene	ND	660	ug/kg	13
Hexachlorocyclopentadiene	ND	3200	ug/kg	53
Hexachloroethane	ND	660	ug/kg	13
Indeno(1,2,3-cd)pyrene	**200 J**	**660**	**ug/kg**	**13**
Isophorone	ND	660	ug/kg	13
2-Methylnaphthalene	**41 J**	**660**	**ug/kg**	**16**
2-Methylphenol	ND	660	ug/kg	15
4-Methylphenol	ND	660	ug/kg	15
Naphthalene	**210 J**	**660**	**ug/kg**	**16**
2-Nitroaniline	ND	3200	ug/kg	8.2
3-Nitroaniline	ND	3200	ug/kg	330
4-Nitroaniline	ND	3200	ug/kg	9.3
Nitrobenzene	ND	660	ug/kg	21
2-Nitrophenol	ND	660	ug/kg	12
4-Nitrophenol	ND	3200	ug/kg	8.9
N-Nitrosodi-n-propylamine	ND	660	ug/kg	13
N-Nitrosodiphenylamine	ND	660	ug/kg	140
2,2'-oxybis(1-Chloropropane)	ND	660	ug/kg	9.6
Pentachlorophenol	ND	3200	ug/kg	910
Phenanthrene	**1700**	**660**	**ug/kg**	**16**
Phenol	**22 J**	**660**	**ug/kg**	**14**
Pyrene	**1300**	**660**	**ug/kg**	**16**
2,4,5-Trichlorophenol	ND	660	ug/kg	38
2,4,6-Trichlorophenol	ND	660	ug/kg	11

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1020408

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-017 Work Order #...: JLRDG1AR Matrix.....: SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	56	(21 - 144)
2-Fluorobiphenyl	76	(26 - 128)
2-Fluorophenol	72	(34 - 115)
Nitrobenzene-d5	74	(30 - 118)
Phenol-d5	71	(35 - 117)
Terphenyl-d14	48	(40 - 115)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

NTC01SB1020408

GC/MS Semivolatiles

Lot-Sample #: C6L190179-017 **Work Order #:** JLRDG1AR **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0100

GC/MS Semivolatiles

Lot-Sample #...:	C6L190179-019	Work Order #...:	JLRDR1AF	Matrix.....:	SOLID
Date Sampled...:	12/18/06 11:27	Date Received..:	12/19/06 10:00	MS Run #.....:	6362005
Prep Date.....:	12/28/06	Analysis Date..:	01/06/07		
Prep Batch #...:	6362012	Analysis Time..:	11:29		
Dilution Factor:	5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	34	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	2500	ug/kg	55
Acenaphthylene	ND	2500	ug/kg	53
Acetophenone	ND	2500	ug/kg	630
Anthracene	**150 J**	**2500**	**ug/kg**	**58**
Atrazine	ND	2500	ug/kg	630
Benzo(a)anthracene	**690 J**	**2500**	**ug/kg**	**55**
Benzo(a)pyrene	**810 J**	**2500**	**ug/kg**	**42**
Benzo(b)fluoranthene	**1100 J**	**2500**	**ug/kg**	**50**
Benzo(ghi)perylene	**680 J**	**2500**	**ug/kg**	**48**
Benzo(k)fluoranthene	**480 J**	**2500**	**ug/kg**	**49**
Benzaldehyde	ND	2500	ug/kg	560
1,1'-Biphenyl	ND	2500	ug/kg	630
bis(2-Chloroethoxy) methane	ND	2500	ug/kg	56
bis(2-Chloroethyl)-ether	ND	2500	ug/kg	49
bis(2-Ethylhexyl) phthalate	**940 J**	**2500**	**ug/kg**	**160**
4-Bromophenyl phenyl ether	ND	2500	ug/kg	130
Butyl benzyl phthalate	**150 J**	**2500**	**ug/kg**	**56**
Caprolactam	ND	2500	ug/kg	630
Carbazole	**140 J**	**2500**	**ug/kg**	**58**
4-Chloroaniline	ND	2500	ug/kg	130
4-Chloro-3-methylphenol	ND	2500	ug/kg	55
2-Chloronaphthalene	ND	2500	ug/kg	53
2-Chlorophenol	ND	2500	ug/kg	40
4-Chlorophenyl phenyl ether	ND	2500	ug/kg	51
Chrysene	**960 J**	**2500**	**ug/kg**	**49**
Dibenz(a,h)anthracene	**150 J**	**2500**	**ug/kg**	**41**
Dibenzofuran	ND	2500	ug/kg	57
3,3'-Dichlorobenzidine	ND	12000	ug/kg	62
2,4-Dichlorophenol	ND	2500	ug/kg	47
Diethyl phthalate	ND	2500	ug/kg	51
2,4-Dimethylphenol	ND	2500	ug/kg	41
Dimethyl phthalate	ND	2500	ug/kg	53

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0100

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-019 Work Order #...: JLRDR1AF Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	2500	ug/kg	310
4,6-Dinitro-2-methylphenol	ND	12000	ug/kg	6300
2,4-Dinitrophenol	ND	12000	ug/kg	6300
2,4-Dinitrotoluene	ND	2500	ug/kg	26
2,6-Dinitrotoluene	ND	2500	ug/kg	36
Di-n-octyl phthalate	120 J	2500	ug/kg	58
Fluoranthene	1900 J	2500	ug/kg	53
Fluorene	ND	2500	ug/kg	60
Hexachlorobenzene	ND	2500	ug/kg	51
Hexachlorobutadiene	ND	2500	ug/kg	49
Hexachlorocyclopentadiene	ND	12000	ug/kg	200
Hexachloroethane	ND	2500	ug/kg	48
Indeno(1,2,3-cd)pyrene	710 J	2500	ug/kg	50
Isophorone	ND	2500	ug/kg	48
2-Methylnaphthalene	ND	2500	ug/kg	62
2-Methylphenol	ND	2500	ug/kg	56
4-Methylphenol	ND	2500	ug/kg	56
Naphthalene	ND	2500	ug/kg	60
2-Nitroaniline	ND	12000	ug/kg	31
3-Nitroaniline	ND	12000	ug/kg	1300
4-Nitroaniline	ND	12000	ug/kg	35
Nitrobenzene	ND	2500	ug/kg	82
2-Nitrophenol	ND	2500	ug/kg	45
4-Nitrophenol	ND	12000	ug/kg	34
N-Nitrosodi-n-propylamine	ND	2500	ug/kg	51
N-Nitrosodiphenylamine	ND	2500	ug/kg	520
2,2'-oxybis(1-Chloropropane)	ND	2500	ug/kg	36
Pentachlorophenol	ND	12000	ug/kg	3500
Phenanthrene	780 J	2500	ug/kg	60
Phenol	ND	2500	ug/kg	52
Pyrene	1500 J	2500	ug/kg	62
2,4,5-Trichlorophenol	ND	2500	ug/kg	140
2,4,6-Trichlorophenol	ND	2500	ug/kg	43

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0100

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-019 Work Order #...: JLRDR1AF Matrix.....: SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	82	(21 - 144)
2-Fluorobiphenyl	80	(26 - 128)
2-Fluorophenol	85	(34 - 115)
Nitrobenzene-d5	84	(30 - 118)
Phenol-d5	93	(35 - 117)
Terphenyl-d14	85	(40 - 115)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

NTC01SD0100

GC/MS Semivolatiles

Lot-Sample #: C6L190179-019 **Work Order #:** JLRDR1AF **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0101

GC/MS Semivolatiles

Lot-Sample #...:	C6L190179-020	Work Order #...:	JLRD81AQ	Matrix.....:	SOLID
Date Sampled...:	12/18/06 12:38	Date Received..:	12/19/06 10:00	MS Run #.....:	6362005
Prep Date.....:	12/28/06	Analysis Date..:	01/06/07		
Prep Batch #...:	6362012	Analysis Time..:	11:58		
Dilution Factor:	5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	43	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	1000 J	2900	ug/kg	64
Acenaphthylene	79 J	2900	ug/kg	62
Acetophenone	ND	2900	ug/kg	740
Anthracene	1600 J	2900	ug/kg	67
Atrazine	ND	2900	ug/kg	740
Benzo(a)anthracene	4500	2900	ug/kg	65
Benzo(a)pyrene	4900	2900	ug/kg	49
Benzo(b)fluoranthene	6400	2900	ug/kg	59
Benzo(ghi)perylene	2200 J	2900	ug/kg	56
Benzo(k)fluoranthene	2700 J	2900	ug/kg	58
Benzaldehyde	ND	2900	ug/kg	660
1,1'-Biphenyl	ND	2900	ug/kg	740
bis(2-Chloroethoxy) methane	ND	2900	ug/kg	66
bis(2-Chloroethyl)-ether	ND	2900	ug/kg	57
bis(2-Ethylhexyl) phthalate	2100 J	2900	ug/kg	180
4-Bromophenyl phenyl ether	ND	2900	ug/kg	150
Butyl benzyl phthalate	190 J	2900	ug/kg	65
Caprolactam	ND	2900	ug/kg	740
Carbazole	1100 J	2900	ug/kg	68
4-Chloroaniline	ND	2900	ug/kg	150
4-Chloro-3-methylphenol	ND	2900	ug/kg	64
2-Chloronaphthalene	ND	2900	ug/kg	63
2-Chlorophenol	ND	2900	ug/kg	47
4-Chlorophenyl phenyl ether	ND	2900	ug/kg	60
Chrysene	5500	2900	ug/kg	58
Dibenz(a,h)anthracene	670 J	2900	ug/kg	48
Dibenzofuran	510 J	2900	ug/kg	66
3,3'-Dichlorobenzidine	ND	14000	ug/kg	73
2,4-Dichlorophenol	ND	2900	ug/kg	55
Diethyl phthalate	ND	2900	ug/kg	59
2,4-Dimethylphenol	ND	2900	ug/kg	47
Dimethyl phthalate	ND	2900	ug/kg	62

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0101

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-020 Work Order #...: JLRD81AQ Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	2900	ug/kg	360
4,6-Dinitro-2-methylphenol	ND	14000	ug/kg	7400
2,4-Dinitrophenol	ND	14000	ug/kg	7400
2,4-Dinitrotoluene	ND	2900	ug/kg	31
2,6-Dinitrotoluene	ND	2900	ug/kg	42
Di-n-octyl phthalate	**180 J**	**2900**	**ug/kg**	**68**
Fluoranthene	**12000**	**2900**	**ug/kg**	**62**
Fluorene	**1000 J**	**2900**	**ug/kg**	**70**
Hexachlorobenzene	ND	2900	ug/kg	59
Hexachlorobutadiene	ND	2900	ug/kg	58
Hexachlorocyclopentadiene	ND	14000	ug/kg	240
Hexachloroethane	ND	2900	ug/kg	57
Indeno(1,2,3-cd)pyrene	**2600 J**	**2900**	**ug/kg**	**59**
Isophorone	ND	2900	ug/kg	56
2-Methylnaphthalene	**220 J**	**2900**	**ug/kg**	**72**
2-Methylphenol	ND	2900	ug/kg	66
4-Methylphenol	ND	2900	ug/kg	66
Naphthalene	**440 J**	**2900**	**ug/kg**	**70**
2-Nitroaniline	ND	14000	ug/kg	37
3-Nitroaniline	ND	14000	ug/kg	1500
4-Nitroaniline	ND	14000	ug/kg	41
Nitrobenzene	ND	2900	ug/kg	95
2-Nitrophenol	ND	2900	ug/kg	53
4-Nitrophenol	ND	14000	ug/kg	40
N-Nitrosodi-n-propylamine	ND	2900	ug/kg	60
N-Nitrosodiphenylamine	ND	2900	ug/kg	610
2,2'-oxybis(1-Chloropropane)	ND	2900	ug/kg	43
Pentachlorophenol	ND	14000	ug/kg	4000
Phenanthrene	**7400**	**2900**	**ug/kg**	**70**
Phenol	ND	2900	ug/kg	61
Pyrene	**9400**	**2900**	**ug/kg**	**72**
2,4,5-Trichlorophenol	ND	2900	ug/kg	170
2,4,6-Trichlorophenol	ND	2900	ug/kg	50

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0101

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-020 Work Order #...: JLRD81AQ Matrix.....: SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	75	(21 - 144)
2-Fluorobiphenyl	68	(26 - 128)
2-Fluorophenol	78	(34 - 115)
Nitrobenzene-d5	73	(30 - 118)
Phenol-d5	82	(35 - 117)
Terphenyl-d14	67	(40 - 115)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

NTC01SD0101

GC/MS Semivolatiles

Lot-Sample #: C6L190179-020 **Work Order #:** JLRD81AQ **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0200

GC/MS Semivolatiles

Lot-Sample #...:	C6L190179-021	Work Order #...:	JLRFD1A3	Matrix.....:	SOLID
Date Sampled...:	12/18/06 12:55	Date Received..:	12/19/06 10:00	MS Run #.....:	6362005
Prep Date.....:	12/28/06	Analysis Date..:	01/06/07		
Prep Batch #...:	6362012	Analysis Time..:	12:26		
Dilution Factor:	5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	63	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	**740 J**	**4400**	**ug/kg**	**98**
Acenaphthylene	ND	4400	ug/kg	94
Acetophenone	ND	4400	ug/kg	1100
Anthracene	**1800 J**	**4400**	**ug/kg**	**100**
Atrazine	ND	4400	ug/kg	1100
Benzo(a)anthracene	**4400**	**4400**	**ug/kg**	**98**
Benzo(a)pyrene	**4900**	**4400**	**ug/kg**	**75**
Benzo(b)fluoranthene	**6400**	**4400**	**ug/kg**	**89**
Benzo(ghi)perylene	**2800 J**	**4400**	**ug/kg**	**85**
Benzo(k)fluoranthene	**2600 J**	**4400**	**ug/kg**	**88**
Benzaldehyde	ND	4400	ug/kg	990
1,1'-Biphenyl	ND	4400	ug/kg	1100
bis(2-Chloroethoxy) methane	ND	4400	ug/kg	100
bis(2-Chloroethyl)-ether	ND	4400	ug/kg	87
bis(2-Ethylhexyl) phthalate	**580 J**	**4400**	**ug/kg**	**280**
4-Bromophenyl phenyl ether	ND	4400	ug/kg	220
Butyl benzyl phthalate	ND	4400	ug/kg	99
Caprolactam	ND	4400	ug/kg	1100
Carbazole	**930 J**	**4400**	**ug/kg**	**100**
4-Chloroaniline	ND	4400	ug/kg	220
4-Chloro-3-methylphenol	ND	4400	ug/kg	97
2-Chloronaphthalene	ND	4400	ug/kg	95
2-Chlorophenol	ND	4400	ug/kg	71
4-Chlorophenyl phenyl ether	ND	4400	ug/kg	91
Chrysene	**5400**	**4400**	**ug/kg**	**87**
Dibenz(a,h)anthracene	**770 J**	**4400**	**ug/kg**	**73**
Dibenzofuran	**380 J**	**4400**	**ug/kg**	**100**
3,3'-Dichlorobenzidine	ND	21000	ug/kg	110
2,4-Dichlorophenol	ND	4400	ug/kg	84
Diethyl phthalate	ND	4400	ug/kg	90
2,4-Dimethylphenol	ND	4400	ug/kg	72
Dimethyl phthalate	ND	4400	ug/kg	94

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0200

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-021 Work Order #...: JLRFD1A3 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	4400	ug/kg	550
4,6-Dinitro-2-methylphenol	ND	21000	ug/kg	11000
2,4-Dinitrophenol	ND	21000	ug/kg	11000
2,4-Dinitrotoluene	ND	4400	ug/kg	47
2,6-Dinitrotoluene	ND	4400	ug/kg	64
Di-n-octyl phthalate	ND	4400	ug/kg	100
Fluoranthene	**12000**	**4400**	**ug/kg**	**95**
Fluorene	**920 J**	**4400**	**ug/kg**	**110**
Hexachlorobenzene	ND	4400	ug/kg	90
Hexachlorobutadiene	ND	4400	ug/kg	88
Hexachlorocyclopentadiene	ND	21000	ug/kg	360
Hexachloroethane	ND	4400	ug/kg	86
Indeno(1,2,3-cd)pyrene	**3100 J**	**4400**	**ug/kg**	**89**
Isophorone	ND	4400	ug/kg	86
2-Methylnaphthalene	ND	4400	ug/kg	110
2-Methylphenol	ND	4400	ug/kg	100
4-Methylphenol	ND	4400	ug/kg	100
Naphthalene	**160 J**	**4400**	**ug/kg**	**110**
2-Nitroaniline	ND	21000	ug/kg	55
3-Nitroaniline	ND	21000	ug/kg	2300
4-Nitroaniline	ND	21000	ug/kg	62
Nitrobenzene	ND	4400	ug/kg	140
2-Nitrophenol	ND	4400	ug/kg	80
4-Nitrophenol	ND	21000	ug/kg	60
N-Nitrosodi-n-propylamine	ND	4400	ug/kg	91
N-Nitrosodiphenylamine	ND	4400	ug/kg	930
2,2'-oxybis(1-Chloropropane)	ND	4400	ug/kg	65
Pentachlorophenol	ND	21000	ug/kg	6100
Phenanthrene	**7600**	**4400**	**ug/kg**	**110**
Phenol	ND	4400	ug/kg	92
Pyrene	**9300**	**4400**	**ug/kg**	**110**
2,4,5-Trichlorophenol	ND	4400	ug/kg	260
2,4,6-Trichlorophenol	ND	4400	ug/kg	77

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0200

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-021 Work Order #...: JLRFD1A3 Matrix.....: SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	76	(21 - 144)
2-Fluorobiphenyl	73	(26 - 128)
2-Fluorophenol	73	(34 - 115)
Nitrobenzene-d5	73	(30 - 118)
Phenol-d5	86	(35 - 117)
Terphenyl-d14	76	(40 - 115)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

NTC01SD0200

GC/MS Semivolatiles

Lot-Sample #: C6L190179-021 **Work Order #:** JLRFD1A3 **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0400

GC/MS Semivolatiles

Lot-Sample #...:	C6L190179-025	Work Order #...:	JLRGC1AE	Matrix.....:	SOLID
Date Sampled...:	12/18/06 14:11	Date Received..:	12/19/06 10:00	MS Run #.....:	6362005
Prep Date.....:	12/28/06	Analysis Date..:	01/06/07		
Prep Batch #...:	6362012	Analysis Time..:	12:54		
Dilution Factor:	5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	56	Analyst ID.....:	007062	Instrument ID..:	722
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	**240 J**	**3700**	**ug/kg**	**82**
Acenaphthylene	**87 J**	**3700**	**ug/kg**	**79**
Acetophenone	ND	3700	ug/kg	940
Anthracene	**510 J**	**3700**	**ug/kg**	**86**
Atrazine	ND	3700	ug/kg	940
Benzo(a)anthracene	**2300 J**	**3700**	**ug/kg**	**83**
Benzo(a)pyrene	**3200 J**	**3700**	**ug/kg**	**63**
Benzo(b)fluoranthene	**5100**	**3700**	**ug/kg**	**75**
Benzo(ghi)perylene	**1900 J**	**3700**	**ug/kg**	**71**
Benzo(k)fluoranthene	**2000 J**	**3700**	**ug/kg**	**74**
Benzaldehyde	ND	3700	ug/kg	840
1,1'-Biphenyl	ND	3700	ug/kg	940
bis(2-Chloroethoxy) methane	ND	3700	ug/kg	84
bis(2-Chloroethyl)-ether	ND	3700	ug/kg	73
bis(2-Ethylhexyl) phthalate	**1000 J**	**3700**	**ug/kg**	**230**
4-Bromophenyl phenyl ether	ND	3700	ug/kg	190
Butyl benzyl phthalate	ND	3700	ug/kg	83
Caprolactam	ND	3700	ug/kg	940
Carbazole	**600 J**	**3700**	**ug/kg**	**87**
4-Chloroaniline	ND	3700	ug/kg	190
4-Chloro-3-methylphenol	ND	3700	ug/kg	82
2-Chloronaphthalene	ND	3700	ug/kg	80
2-Chlorophenol	ND	3700	ug/kg	59
4-Chlorophenyl phenyl ether	ND	3700	ug/kg	77
Chrysene	**3700**	**3700**	**ug/kg**	**74**
Dibenz(a,h)anthracene	**500 J**	**3700**	**ug/kg**	**62**
Dibenzofuran	**130 J**	**3700**	**ug/kg**	**85**
3,3'-Dichlorobenzidine	ND	18000	ug/kg	93
2,4-Dichlorophenol	ND	3700	ug/kg	71
Diethyl phthalate	ND	3700	ug/kg	76
2,4-Dimethylphenol	ND	3700	ug/kg	61
Dimethyl phthalate	ND	3700	ug/kg	79

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0400

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-025 Work Order #...: JLRGC1AE Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	3700	ug/kg	460
4,6-Dinitro-2-methylphenol	ND	18000	ug/kg	9400
2,4-Dinitrophenol	ND	18000	ug/kg	9400
2,4-Dinitrotoluene	ND	3700	ug/kg	39
2,6-Dinitrotoluene	ND	3700	ug/kg	54
Di-n-octyl phthalate	ND	3700	ug/kg	87
Fluoranthene	**7400**	**3700**	**ug/kg**	**80**
Fluorene	**280 J**	**3700**	**ug/kg**	**90**
Hexachlorobenzene	ND	3700	ug/kg	76
Hexachlorobutadiene	ND	3700	ug/kg	74
Hexachlorocyclopentadiene	ND	18000	ug/kg	300
Hexachloroethane	ND	3700	ug/kg	72
Indeno(1,2,3-cd)pyrene	**2200 J**	**3700**	**ug/kg**	**75**
Isophorone	ND	3700	ug/kg	72
2-Methylnaphthalene	ND	3700	ug/kg	92
2-Methylphenol	ND	3700	ug/kg	84
4-Methylphenol	ND	3700	ug/kg	84
Naphthalene	ND	3700	ug/kg	90
2-Nitroaniline	ND	18000	ug/kg	47
3-Nitroaniline	ND	18000	ug/kg	1900
4-Nitroaniline	ND	18000	ug/kg	53
Nitrobenzene	ND	3700	ug/kg	120
2-Nitrophenol	ND	3700	ug/kg	68
4-Nitrophenol	ND	18000	ug/kg	51
N-Nitrosodi-n-propylamine	ND	3700	ug/kg	76
N-Nitrosodiphenylamine	ND	3700	ug/kg	780
2,2'-oxybis(1-Chloropropane)	ND	3700	ug/kg	55
Pentachlorophenol	ND	18000	ug/kg	5200
Phenanthrene	**3600 J**	**3700**	**ug/kg**	**90**
Phenol	ND	3700	ug/kg	77
Pyrene	**5800**	**3700**	**ug/kg**	**92**
2,4,5-Trichlorophenol	ND	3700	ug/kg	210
2,4,6-Trichlorophenol	ND	3700	ug/kg	65

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0400

GC/MS Semivolatiles

Lot-Sample #...: C6L190179-025 Work Order #...: JLRGC1AE Matrix.....: SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	83	(21 - 144)
2-Fluorobiphenyl	79	(26 - 128)
2-Fluorophenol	82	(34 - 115)
Nitrobenzene-d5	79	(30 - 118)
Phenol-d5	94	(35 - 117)
Terphenyl-d14	79	(40 - 115)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

NTC01SD0400

GC/MS Semivolatiles

Lot-Sample #: C6L190179-025 **Work Order #:** JLRGC1AE **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180601

GC Semivolatiles

Lot-Sample #...:	C6L190179-005	Work Order #...:	JLQ981AG	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360003
Prep Date.....:	12/26/06	Analysis Date..:	01/05/07		
Prep Batch #...:	6360011	Analysis Time..:	03:01		
Dilution Factor:	5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	62	Analyst ID.....:	402331	Instrument ID..:	A/B
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	23	ug/kg	1.9
beta-BHC	ND	23	ug/kg	3.0
delta-BHC	ND	23	ug/kg	2.4
gamma-BHC (Lindane)	ND	23	ug/kg	1.9
Heptachlor	ND	23	ug/kg	2.1
Aldrin	ND	23	ug/kg	2.8
Heptachlor epoxide	ND	23	ug/kg	2.7
Endosulfan I	ND	23	ug/kg	2.2
Dieldrin	ND	23	ug/kg	2.1
4,4'-DDE	14 J,PG	23	ug/kg	2.8
Endrin	2.7 J,PG	23	ug/kg	2.2
Endrin ketone	ND	23	ug/kg	2.9
Endrin aldehyde	ND	23	ug/kg	4.8
Endosulfan II	3.6 J,PG	23	ug/kg	3.4
4,4'-DDD	8.9 J	23	ug/kg	2.2
Endosulfan sulfate	ND	23	ug/kg	3.0
4,4'-DDT	6.2 J,PG	23	ug/kg	2.4
Methoxychlor	ND	44	ug/kg	4.9
alpha-Chlordane	5.0 J,PG	23	ug/kg	2.9
gamma-Chlordane	ND	23	ug/kg	2.8
Toxaphene	ND	890	ug/kg	30

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	55	(31 - 131)
Decachlorobiphenyl	84	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180602

GC Semivolatiles

Lot-Sample #...:	C6L190179-006	Work Order #...:	JLRAQ1AG	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360003
Prep Date.....:	12/26/06	Analysis Date..:	01/05/07		
Prep Batch #...:	6360011	Analysis Time..:	03:30		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	22	Analyst ID.....:	402331	Instrument ID..:	A/B
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	2.2	ug/kg	0.18
beta-BHC	ND	2.2	ug/kg	0.29
delta-BHC	ND	2.2	ug/kg	0.24
gamma-BHC (Lindane)	ND	2.2	ug/kg	0.18
Heptachlor	ND	2.2	ug/kg	0.21
Aldrin	ND	2.2	ug/kg	0.27
Heptachlor epoxide	ND	2.2	ug/kg	0.26
Endosulfan I	ND	2.2	ug/kg	0.21
Dieldrin	**0.32 J,PG**	**2.2**	**ug/kg**	**0.21**
4,4'-DDE	**0.60 J**	**2.2**	**ug/kg**	**0.27**
Endrin	ND	2.2	ug/kg	0.21
Endrin ketone	ND	2.2	ug/kg	0.28
Endrin aldehyde	ND	2.2	ug/kg	0.47
Endosulfan II	ND	2.2	ug/kg	0.34
4,4'-DDD	**4.8**	**2.2**	**ug/kg**	**0.21**
Endosulfan sulfate	ND	2.2	ug/kg	0.30
4,4'-DDT	ND	2.2	ug/kg	0.23
Methoxychlor	ND	4.3	ug/kg	0.47
alpha-Chlordane	ND	2.2	ug/kg	0.28
gamma-Chlordane	ND	2.2	ug/kg	0.27
Toxaphene	ND	86	ug/kg	2.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	35	(31 - 131)
Decachlorobiphenyl	102	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0900812

GC Semivolatiles

Lot-Sample #...:	C6L190179-009	Work Order #...:	JLRCA1AH	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360003
Prep Date.....:	12/26/06	Analysis Date..:	01/05/07		
Prep Batch #...:	6360011	Analysis Time..:	03:59		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	22	Analyst ID.....:	402331	Instrument ID..:	A/B
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	2.2	ug/kg	0.18
beta-BHC	ND	2.2	ug/kg	0.28
delta-BHC	ND	2.2	ug/kg	0.23
gamma-BHC (Lindane)	ND	2.2	ug/kg	0.18
Heptachlor	ND	2.2	ug/kg	0.21
Aldrin	ND	2.2	ug/kg	0.27
Heptachlor epoxide	ND	2.2	ug/kg	0.26
Endosulfan I	ND	2.2	ug/kg	0.21
Dieldrin	ND	2.2	ug/kg	0.21
4,4'-DDE	12	2.2	ug/kg	0.27
Endrin	1.6 J	2.2	ug/kg	0.21
Endrin ketone	0.73 J,PG	2.2	ug/kg	0.28
Endrin aldehyde	0.51 J,PG	2.2	ug/kg	0.46
Endosulfan II	0.65 J,PG	2.2	ug/kg	0.33
4,4'-DDD	6.9	2.2	ug/kg	0.21
Endosulfan sulfate	ND	2.2	ug/kg	0.29
4,4'-DDT	1.4 J,PG	2.2	ug/kg	0.23
Methoxychlor	ND	4.2	ug/kg	0.47
alpha-Chlordane	2.8	2.2	ug/kg	0.28
gamma-Chlordane	3.2	2.2	ug/kg	0.27
Toxaphene	ND	85	ug/kg	2.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	48	(31 - 131)
Decachlorobiphenyl	78	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0950810

GC Semivolatiles

Lot-Sample #...:	C6L190179-014	**Work Order #...:**	JLRC81AH	**Matrix.....:**	SOLID
Date Sampled...:	12/18/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6360003
Prep Date.....:	12/26/06	**Analysis Date..:**	01/05/07		
Prep Batch #...:	6360011	**Analysis Time..:**	04:27		
Dilution Factor:	1	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	63	**Analyst ID.....:**	402331	**Instrument ID..:**	A/B
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	4.6	ug/kg	0.39
beta-BHC	ND	4.6	ug/kg	0.60
delta-BHC	ND	4.6	ug/kg	0.49
gamma-BHC (Lindane)	ND	4.6	ug/kg	0.38
Heptachlor	ND	4.6	ug/kg	0.44
Aldrin	ND	4.6	ug/kg	0.57
Heptachlor epoxide	ND	4.6	ug/kg	0.55
Endosulfan I	ND	4.6	ug/kg	0.44
Dieldrin	ND	4.6	ug/kg	0.44
4,4'-DDE	**8.3**	**4.6**	**ug/kg**	**0.56**
Endrin	ND	4.6	ug/kg	0.45
Endrin ketone	ND	4.6	ug/kg	0.59
Endrin aldehyde	ND	4.6	ug/kg	0.98
Endosulfan II	ND	4.6	ug/kg	0.70
4,4'-DDD	**56**	**4.6**	**ug/kg**	**0.44**
Endosulfan sulfate	ND	4.6	ug/kg	0.62
4,4'-DDT	**11**	**4.6**	**ug/kg**	**0.49**
Methoxychlor	ND	8.9	ug/kg	0.99
alpha-Chlordane	**2.2 J**	**4.6**	**ug/kg**	**0.59**
gamma-Chlordane	**2.0 J**	**4.6**	**ug/kg**	**0.57**
Toxaphene	ND	180	ug/kg	6.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	56	(31 - 131)
Decachlorobiphenyl	96	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1020408

GC Semivolatiles

Lot-Sample #...:	C6L190179-017	Work Order #...:	JLRDG1AU	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360003
Prep Date.....:	12/26/06	Analysis Date..:	01/05/07		
Prep Batch #...:	6360011	Analysis Time..:	04:56		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	50	Analyst ID.....:	402331	Instrument ID..:	A/B
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	3.4	ug/kg	0.28
beta-BHC	ND	3.4	ug/kg	0.44
delta-BHC	ND	3.4	ug/kg	0.36
gamma-BHC (Lindane)	ND	3.4	ug/kg	0.28
Heptachlor	ND	3.4	ug/kg	0.32
Aldrin	ND	3.4	ug/kg	0.42
Heptachlor epoxide	ND	3.4	ug/kg	0.40
Endosulfan I	ND	3.4	ug/kg	0.32
Dieldrin	**0.55 J**	**3.4**	**ug/kg**	**0.32**
4,4'-DDE	**16**	**3.4**	**ug/kg**	**0.41**
Endrin	ND	3.4	ug/kg	0.33
Endrin ketone	ND	3.4	ug/kg	0.43
Endrin aldehyde	ND	3.4	ug/kg	0.72
Endosulfan II	ND	3.4	ug/kg	0.52
4,4'-DDD	**45**	**3.4**	**ug/kg**	**0.33**
Endosulfan sulfate	ND	3.4	ug/kg	0.46
4,4'-DDT	**3.6**	**3.4**	**ug/kg**	**0.36**
Methoxychlor	ND	6.6	ug/kg	0.73
alpha-Chlordane	ND	3.4	ug/kg	0.43
gamma-Chlordane	ND	3.4	ug/kg	0.42
Toxaphene	ND	130	ug/kg	4.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	51	(31 - 131)
Decachlorobiphenyl	98	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0100

GC Semivolatiles

Lot-Sample #...:	C6L190179-019	Work Order #...:	JLRDR1AH	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360003
Prep Date.....:	12/26/06	Analysis Date..:	01/05/07		
Prep Batch #...:	6360011	Analysis Time..:	05:25		
Dilution Factor:	5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	34	Analyst ID.....:	402331	Instrument ID..:	A/B
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	13	ug/kg	1.1
beta-BHC	ND	13	ug/kg	1.7
delta-BHC	ND	13	ug/kg	1.4
gamma-BHC (Lindane)	ND	13	ug/kg	1.1
Heptachlor	ND	13	ug/kg	1.2
Aldrin	ND	13	ug/kg	1.6
Heptachlor epoxide	ND	13	ug/kg	1.5
Endosulfan I	ND	13	ug/kg	1.2
Dieldrin	ND	13	ug/kg	1.2
4,4'-DDE	**10 J,PG**	**13**	**ug/kg**	**1.6**
Endrin	ND	13	ug/kg	1.3
Endrin ketone	ND	13	ug/kg	1.6
Endrin aldehyde	ND	13	ug/kg	2.7
Endosulfan II	ND	13	ug/kg	2.0
4,4'-DDD	**5.5 J**	**13**	**ug/kg**	**1.2**
Endosulfan sulfate	ND	13	ug/kg	1.7
4,4'-DDT	**4.9 J,PG**	**13**	**ug/kg**	**1.4**
Methoxychlor	ND	25	ug/kg	2.8
alpha-Chlordane	ND	13	ug/kg	1.7
gamma-Chlordane	ND	13	ug/kg	1.6
Toxaphene	ND	510	ug/kg	17

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	69	(31 - 131)
Decachlorobiphenyl	80	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0101

GC Semivolatiles

Lot-Sample #...:	C6L190179-020	Work Order #...:	JLRD81AT	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360003
Prep Date.....:	12/26/06	Analysis Date..:	01/05/07		
Prep Batch #...:	6360011	Analysis Time..:	05:54		
Dilution Factor:	50	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	43	Analyst ID.....:	402331	Instrument ID..:	A/B
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	150	ug/kg	13
beta-BHC	ND	150	ug/kg	20
delta-BHC	ND	150	ug/kg	16
gamma-BHC (Lindane)	ND	150	ug/kg	12
Heptachlor	ND	150	ug/kg	14
Aldrin	ND	150	ug/kg	19
Heptachlor epoxide	ND	150	ug/kg	18
Endosulfan I	ND	150	ug/kg	14
Dieldrin	ND	150	ug/kg	14
4,4'-DDE	**79 J**	**150**	**ug/kg**	**18**
Endrin	ND	150	ug/kg	15
Endrin ketone	ND	150	ug/kg	19
Endrin aldehyde	**41 J,PG**	**150**	**ug/kg**	**32**
Endosulfan II	ND	150	ug/kg	23
4,4'-DDD	**86 J**	**150**	**ug/kg**	**15**
Endosulfan sulfate	ND	150	ug/kg	20
4,4'-DDT	ND	150	ug/kg	16
Methoxychlor	ND	290	ug/kg	32
alpha-Chlordane	ND	150	ug/kg	19
gamma-Chlordane	ND	150	ug/kg	19
Toxaphene	ND	5900	ug/kg	200

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	NC,DIL	(31 - 131)
Decachlorobiphenyl	NC,DIL	(18 - 145)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0200

GC Semivolatiles

Lot-Sample #...:	C6L190179-021	Work Order #...:	JLRFD1A5	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360003
Prep Date.....:	12/26/06	Analysis Date..:	01/05/07		
Prep Batch #...:	6360011	Analysis Time..:	06:22		
Dilution Factor:	5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	63	Analyst ID.....:	402331	Instrument ID..:	A/B
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	23	ug/kg	1.9
beta-BHC	ND	23	ug/kg	3.0
delta-BHC	ND	23	ug/kg	2.5
gamma-BHC (Lindane)	ND	23	ug/kg	1.9
Heptachlor	ND	23	ug/kg	2.2
Aldrin	ND	23	ug/kg	2.8
Heptachlor epoxide	ND	23	ug/kg	2.7
Endosulfan I	ND	23	ug/kg	2.2
Dieldrin	ND	23	ug/kg	2.2
4,4'-DDE	**32**	**23**	**ug/kg**	**2.8**
Endrin	ND	23	ug/kg	2.2
Endrin ketone	ND	23	ug/kg	2.9
Endrin aldehyde	ND	23	ug/kg	4.9
Endosulfan II	ND	23	ug/kg	3.5
4,4'-DDD	**17 J**	**23**	**ug/kg**	**2.2**
Endosulfan sulfate	ND	23	ug/kg	3.1
4,4'-DDT	**4.9 J,PG**	**23**	**ug/kg**	**2.4**
Methoxychlor	ND	44	ug/kg	4.9
alpha-Chlordane	**5.5 J**	**23**	**ug/kg**	**2.9**
gamma-Chlordane	**2.9 J,PG**	**23**	**ug/kg**	**2.8**
Toxaphene	ND	900	ug/kg	30

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	67	(31 - 131)
Decachlorobiphenyl	89	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0400

GC Semivolatiles

Lot-Sample #...:	C6L190179-025	Work Order #...:	JLRGC1AG	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360003
Prep Date.....:	12/26/06	Analysis Date..:	01/05/07		
Prep Batch #...:	6360011	Analysis Time..:	06:51		
Dilution Factor:	5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	56	Analyst ID.....:	402331	Instrument ID..:	A/B
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	19	ug/kg	1.6
beta-BHC	ND	19	ug/kg	2.5
delta-BHC	ND	19	ug/kg	2.1
gamma-BHC (Lindane)	ND	19	ug/kg	1.6
Heptachlor	ND	19	ug/kg	1.8
Aldrin	ND	19	ug/kg	2.4
Heptachlor epoxide	ND	19	ug/kg	2.3
Endosulfan I	ND	19	ug/kg	1.8
Dieldrin	**4.4 J**	**19**	**ug/kg**	**1.8**
4,4'-DDE	**18 J,PG**	**19**	**ug/kg**	**2.4**
Endrin	**6.7 J**	**19**	**ug/kg**	**1.9**
Endrin ketone	ND	19	ug/kg	2.5
Endrin aldehyde	ND	19	ug/kg	4.1
Endosulfan II	**4.8 J,PG**	**19**	**ug/kg**	**2.9**
4,4'-DDD	**11 J**	**19**	**ug/kg**	**1.9**
Endosulfan sulfate	ND	19	ug/kg	2.6
4,4'-DDT	**7.4 J,PG**	**19**	**ug/kg**	**2.1**
Methoxychlor	ND	37	ug/kg	4.1
alpha-Chlordane	ND	19	ug/kg	2.5
gamma-Chlordane	ND	19	ug/kg	2.4
Toxaphene	ND	760	ug/kg	26

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	63	(31 - 131)
Decachlorobiphenyl	91	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180601

GC Semivolatiles

Lot-Sample #...:	C6L190179-005	**Work Order #...:**	JLQ981AH	**Matrix.....:**	SOLID
Date Sampled...:	12/18/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6360004
Prep Date.....:	12/26/06	**Analysis Date..:**	12/30/06		
Prep Batch #...:	6360012	**Analysis Time..:**	16:16		
Dilution Factor:	1	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	62	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	88	ug/kg	70
Aroclor 1221	ND	88	ug/kg	34
Aroclor 1232	ND	88	ug/kg	42
Aroclor 1242	ND	88	ug/kg	29
Aroclor 1248	ND	88	ug/kg	32
Aroclor 1254	ND	88	ug/kg	12
Aroclor 1260	ND	88	ug/kg	9.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	56	(31 - 127)
Decachlorobiphenyl	65	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180602

GC Semivolatiles

Lot-Sample #...:	C6L190179-006	**Work Order #...:**	JLRAQ1AH	**Matrix.....:**	SOLID
Date Sampled...:	12/18/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6360004
Prep Date.....:	12/26/06	**Analysis Date..:**	12/30/06		
Prep Batch #...:	6360012	**Analysis Time..:**	16:39		
Dilution Factor:	1	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	22	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	43	ug/kg	34
Aroclor 1221	ND	43	ug/kg	16
Aroclor 1232	ND	43	ug/kg	20
Aroclor 1242	ND	43	ug/kg	14
Aroclor 1248	ND	43	ug/kg	16
Aroclor 1254	ND	43	ug/kg	5.7
Aroclor 1260	ND	43	ug/kg	4.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	26 *	(31 - 127)
Decachlorobiphenyl	74	(23 - 141)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0900812

GC Semivolatiles

Lot-Sample #...:	C6L190179-009	Work Order #...:	JLRCA1AJ	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360004
Prep Date.....:	12/26/06	Analysis Date..:	12/30/06		
Prep Batch #...:	6360012	Analysis Time..:	17:01		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	22	Analyst ID.....:	402360	Instrument ID..:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	42	ug/kg	34
Aroclor 1221	ND	42	ug/kg	16
Aroclor 1232	ND	42	ug/kg	20
Aroclor 1242	ND	42	ug/kg	14
Aroclor 1248	ND	42	ug/kg	15
Aroclor 1254	33 J	42	ug/kg	5.6
Aroclor 1260	ND	42	ug/kg	4.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	40	(31 - 127)
Decachlorobiphenyl	58	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0950810

GC Semivolatiles

Lot-Sample #...:	C6L190179-014	**Work Order #...:**	JLRC81AJ	**Matrix.....:**	SOLID
Date Sampled...:	12/18/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6360004
Prep Date.....:	12/26/06	**Analysis Date..:**	12/30/06		
Prep Batch #...:	6360012	**Analysis Time..:**	17:23		
Dilution Factor:	1	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	63	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	89	ug/kg	71
Aroclor 1221	ND	89	ug/kg	35
Aroclor 1232	ND	89	ug/kg	42
Aroclor 1242	ND	89	ug/kg	30
Aroclor 1248	ND	89	ug/kg	33
Aroclor 1254	ND	89	ug/kg	12
Aroclor 1260	ND	89	ug/kg	9.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	46	(31 - 127)
Decachlorobiphenyl	78	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1020408

GC Semivolatiles

Lot-Sample #...:	C6L190179-017	Work Order #...:	JLRDG1AV	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360004
Prep Date.....:	12/26/06	Analysis Date..:	12/30/06		
Prep Batch #...:	6360012	Analysis Time..:	17:45		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	50	Analyst ID.....:	402360	Instrument ID..:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	66	ug/kg	53
Aroclor 1221	ND	66	ug/kg	25
Aroclor 1232	ND	66	ug/kg	31
Aroclor 1242	ND	66	ug/kg	22
Aroclor 1248	ND	66	ug/kg	24
Aroclor 1254	ND	66	ug/kg	8.8
Aroclor 1260	ND	66	ug/kg	7.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	46	(31 - 127)
Decachlorobiphenyl	77	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0100

GC Semivolatiles

Lot-Sample #...:	C6L190179-019	**Work Order #...:**	JLRDR1AJ	**Matrix.....:**	SOLID
Date Sampled...:	12/18/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6360004
Prep Date.....:	12/26/06	**Analysis Date..:**	12/30/06		
Prep Batch #...:	6360012	**Analysis Time..:**	18:08		
Dilution Factor:	1	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	34	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	50	ug/kg	40
Aroclor 1221	ND	50	ug/kg	19
Aroclor 1232	ND	50	ug/kg	24
Aroclor 1242	ND	50	ug/kg	17
Aroclor 1248	ND	50	ug/kg	18
Aroclor 1254	ND	50	ug/kg	6.7
Aroclor 1260	ND	50	ug/kg	5.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	58	(31 - 127)
Decachlorobiphenyl	57	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0101

GC Semivolatiles

Lot-Sample #...:	C6L190179-020	**Work Order #...:**	JLRD81AU	**Matrix.....:**	SOLID
Date Sampled...:	12/18/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6360004
Prep Date.....:	12/26/06	**Analysis Date..:**	12/30/06		
Prep Batch #...:	6360012	**Analysis Time..:**	18:30		
Dilution Factor:	1	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	43	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	58	ug/kg	47
Aroclor 1221	ND	58	ug/kg	23
Aroclor 1232	ND	58	ug/kg	28
Aroclor 1242	ND	58	ug/kg	20
Aroclor 1248	**820**	**58**	**ug/kg**	**21**
Aroclor 1254	ND	58	ug/kg	7.8
Aroclor 1260	ND	58	ug/kg	6.5

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	100	(31 - 127)
Decachlorobiphenyl	53	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0200

GC Semivolatiles

Lot-Sample #...:	C6L190179-021	Work Order #...:	JLRFD1A6	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6360004
Prep Date.....:	12/26/06	Analysis Date..:	12/30/06		
Prep Batch #...:	6360012	Analysis Time..:	18:52		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	63	Analyst ID.....:	402360	Instrument ID..:	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	89	ug/kg	71
Aroclor 1221	ND	89	ug/kg	34
Aroclor 1232	ND	89	ug/kg	42
Aroclor 1242	ND	89	ug/kg	30
Aroclor 1248	ND	89	ug/kg	32
Aroclor 1254	ND	89	ug/kg	12
Aroclor 1260	ND	89	ug/kg	9.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	44	(31 - 127)
Decachlorobiphenyl	71	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0400

GC Semivolatiles

Lot-Sample #...:	C6L190179-025	**Work Order #...:**	JLRGC1AH	**Matrix.....:**	SOLID
Date Sampled...:	12/18/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6360004
Prep Date.....:	12/26/06	**Analysis Date..:**	12/30/06		
Prep Batch #...:	6360012	**Analysis Time..:**	19:14		
Dilution Factor:	1	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	5 mL
% Moisture.....:	56	**Analyst ID.....:**	402360	**Instrument ID..:**	S/T
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	75	ug/kg	60
Aroclor 1221	ND	75	ug/kg	29
Aroclor 1232	ND	75	ug/kg	36
Aroclor 1242	ND	75	ug/kg	25
Aroclor 1248	ND	75	ug/kg	27
Aroclor 1254	ND	75	ug/kg	10
Aroclor 1260	ND	75	ug/kg	8.3

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	73	(31 - 127)
Decachlorobiphenyl	60	(23 - 141)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180601

HPLC

Lot-Sample #...:	C6L190179-005	Work Order #...:	JLQ981AF	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6361053	Analysis Time..:	10:08		
Dilution Factor:	20	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	62	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1800	ug/kg	180
Acenaphthylene	200 J	1800	ug/kg	160
Acenaphthene	ND	1800	ug/kg	390
Fluorene	ND	360	ug/kg	96
Phenanthrene	1100	360	ug/kg	23
Anthracene	67 J,PG	360	ug/kg	24
Fluoranthene	3100	360	ug/kg	29
Pyrene	1700 PG	360	ug/kg	24
Benzo(a)anthracene	730	360	ug/kg	30
Chrysene	1200	360	ug/kg	30
Benzo(b)fluoranthene	1300 PG	360	ug/kg	42
Benzo(k)fluoranthene	650 PG	360	ug/kg	35
Benzo(a)pyrene	1300	360	ug/kg	32
Indeno(1,2,3-cd)pyrene	1400 PG	360	ug/kg	24
Dibenzo(a,h)anthracene	ND	360	ug/kg	56
Benzo(ghi)perylene	1500	360	ug/kg	30
Carbazole	ND	1800	ug/kg	140
2-Methylnaphthalene	ND	1800	ug/kg	140

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180602

HPLC

Lot-Sample #...:	C6L190179-006	Work Order #...:	JLRAQ1AF	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6361053	Analysis Time..:	12:12		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	22	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**9.7 J,PG**	**43**	**ug/kg**	**4.4**
Acenaphthylene	ND	43	ug/kg	3.8
Acenaphthene	ND	43	ug/kg	9.4
Fluorene	ND	8.6	ug/kg	2.3
Phenanthrene	**0.71 J,PG**	**8.6**	**ug/kg**	**0.56**
Anthracene	ND	8.6	ug/kg	0.59
Fluoranthene	ND	8.6	ug/kg	0.70
Pyrene	ND	8.6	ug/kg	0.57
Benzo(a)anthracene	ND	8.6	ug/kg	0.73
Chrysene	ND	8.6	ug/kg	0.73
Benzo(b)fluoranthene	ND	8.6	ug/kg	1.0
Benzo(k)fluoranthene	ND	8.6	ug/kg	0.84
Benzo(a)pyrene	ND	8.6	ug/kg	0.77
Indeno(1,2,3-cd)pyrene	ND	8.6	ug/kg	0.58
Dibenzo(a,h)anthracene	ND	8.6	ug/kg	1.4
Benzo(ghi)perylene	ND	8.6	ug/kg	0.72
Carbazole	ND	43	ug/kg	3.4
2-Methylnaphthalene	**4.8 J**	**43**	**ug/kg**	**3.4**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	0.0 *	(49 - 129)
Terphenyl-d14	0.0 *	(54 - 126)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180602

HPLC

Lot-Sample #...: C6L190179-006	Work Order #...: JLRAQ2AF	Matrix.....: SOLID
Date Sampled...: 12/18/06	Date Received..: 12/19/06	MS Run #.....:
Prep Date.....: 01/05/07	Analysis Date..: 01/05/07	
Prep Batch #...: 7005011	Analysis Time..: 10:39	
Dilution Factor: 1	Initial Wgt/Vol: 15 g	Final Wgt/Vol..: 0.5 mL
% Moisture.....: 22	Analyst ID.....: 014878	Instrument ID..: G
	Method.....: SW846 8310	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	160 PG	43	ug/kg	4.4
Acenaphthylene	280	43	ug/kg	3.8
Acenaphthene	ND	43	ug/kg	9.4
Fluorene	23 PG	8.6	ug/kg	2.3
Phenanthrene	55	8.6	ug/kg	0.56
Anthracene	8.8	8.6	ug/kg	0.59
Fluoranthene	21 PG	8.6	ug/kg	0.70
Pyrene	9.9 PG	8.6	ug/kg	0.57
Benzo(a)anthracene	ND	8.6	ug/kg	0.73
Chrysene	1.6 J,PG	8.6	ug/kg	0.73
Benzo(b)fluoranthene	26 PG	8.6	ug/kg	1.0
Benzo(k)fluoranthene	ND	8.6	ug/kg	0.84
Benzo(a)pyrene	ND	8.6	ug/kg	0.77
Indeno(1,2,3-cd)pyrene	3.1 J,PG	8.6	ug/kg	0.58
Dibenzo(a,h)anthracene	8.9 PG	8.6	ug/kg	1.4
Benzo(ghi)perylene	2.9 J,PG	8.6	ug/kg	0.72
Carbazole	ND	43	ug/kg	3.4
2-Methylnaphthalene	120	43	ug/kg	3.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	17 *	(49 - 129)
Terphenyl-d14	38 *	(54 - 126)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

PG The percent difference between the original and confirmation analyses is greater than 40%.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0880708

HPLC

Lot-Sample #...:	C6L190179-007	Work Order #...:	JLRAW1AD	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6361053	Analysis Time..:	12:53		
Dilution Factor:	100	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	19	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	4100	ug/kg	420
Acenaphthylene	ND	4100	ug/kg	370
Acenaphthene	ND	4100	ug/kg	900
Fluorene	1200	820	ug/kg	220
Phenanthrene	6500	820	ug/kg	53
Anthracene	2200	820	ug/kg	56
Fluoranthene	14000 PG	820	ug/kg	67
Pyrene	13000	820	ug/kg	55
Benzo(a)anthracene	6200	820	ug/kg	70
Chrysene	6200	820	ug/kg	69
Benzo(b)fluoranthene	6100 PG	820	ug/kg	97
Benzo(k)fluoranthene	3100 PG	820	ug/kg	81
Benzo(a)pyrene	6200	820	ug/kg	74
Indeno(1,2,3-cd)pyrene	4600 PG	820	ug/kg	55
Dibenzo(a,h)anthracene	850 PG	820	ug/kg	130
Benzo(ghi)perylene	5100	820	ug/kg	69
Carbazole	830 J	4100	ug/kg	330
2-Methylnaphthalene	1300 J,PG	4100	ug/kg	320

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

PG The percent difference between the original and confirmation analyses is greater than 40%.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0891112

HPLC

Lot-Sample #...: C6L190179-008	Work Order #...: JLRA61AP	Matrix.....: SOLID
Date Sampled...: 12/18/06	Date Received..: 12/19/06	MS Run #.....: 6361041
Prep Date.....: 12/27/06	Analysis Date..: 01/02/07	
Prep Batch #...: 6361053	Analysis Time..: 13:33	
Dilution Factor: 5	Initial Wgt/Vol: 15 g	Final Wgt/Vol..: 0.5 mL
% Moisture.....: 21	Analyst ID.....: 014878	Instrument ID..: G
	Method.....: SW846 8310	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	460	210	ug/kg	21
Acenaphthylene	670	210	ug/kg	19
Acenaphthene	ND	210	ug/kg	46
Fluorene	48 PG	42	ug/kg	11
Phenanthrene	440	42	ug/kg	2.7
Anthracene	130	42	ug/kg	2.9
Fluoranthene	620 PG	42	ug/kg	3.5
Pyrene	420 PG	42	ug/kg	2.8
Benzo(a)anthracene	280 PG	42	ug/kg	3.6
Chrysene	370	42	ug/kg	3.6
Benzo(b)fluoranthene	290 PG	42	ug/kg	5.0
Benzo(k)fluoranthene	120 PG	42	ug/kg	4.2
Benzo(a)pyrene	300	42	ug/kg	3.8
Indeno(1,2,3-cd)pyrene	290	42	ug/kg	2.9
Dibenzo(a,h)anthracene	60 PG	42	ug/kg	6.6
Benzo(ghi)perylene	280	42	ug/kg	3.6
Carbazole	57 J,PG	210	ug/kg	17
2-Methylnaphthalene	710	210	ug/kg	17

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	176 *	(49 - 129)
Terphenyl-d14	133 *	(54 - 126)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

PG The percent difference between the original and confirmation analyses is greater than 40%.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0900812

HPLC

Lot-Sample #...:	C6L190179-009	Work Order #...:	JLRCA1AG	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6361053	Analysis Time..:	14:14		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	22	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	85 PG	42	ug/kg	4.3
Acenaphthylene	270	42	ug/kg	3.8
Acenaphthene	ND	42	ug/kg	9.3
Fluorene	ND	8.5	ug/kg	2.3
Phenanthrene	48	8.5	ug/kg	0.55
Anthracene	6.4 J	8.5	ug/kg	0.58
Fluoranthene	24 PG	8.5	ug/kg	0.70
Pyrene	21 PG	8.5	ug/kg	0.57
Benzo(a)anthracene	ND	8.5	ug/kg	0.72
Chrysene	6.3 J,PG	8.5	ug/kg	0.72
Benzo(b)fluoranthene	22 PG	8.5	ug/kg	1.0
Benzo(k)fluoranthene	2.8 J,PG	8.5	ug/kg	0.83
Benzo(a)pyrene	ND	8.5	ug/kg	0.77
Indeno(1,2,3-cd)pyrene	9.9 PG	8.5	ug/kg	0.57
Dibenzo(a,h)anthracene	ND	8.5	ug/kg	1.3
Benzo(ghi)perylene	ND	8.5	ug/kg	0.72
Carbazole	ND	42	ug/kg	3.4
2-Methylnaphthalene	78	42	ug/kg	3.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	13 *	(49 - 129)
Terphenyl-d14	34 *	(54 - 126)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

PG The percent difference between the original and confirmation analyses is greater than 40%.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0900812

HPLC

Lot-Sample #...:	C6L190179-009	Work Order #...:	JLRCA2AG	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	
Prep Date.....:	01/05/07	Analysis Date..:	01/05/07		
Prep Batch #...:	7005011	Analysis Time..:	11:19		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	22	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	150	42	ug/kg	4.3
Acenaphthylene	300	42	ug/kg	3.8
Acenaphthene	14 J,PG	42	ug/kg	9.3
Fluorene	19 PG	8.5	ug/kg	2.3
Phenanthrene	140	8.5	ug/kg	0.55
Anthracene	25	8.5	ug/kg	0.58
Fluoranthene	160 PG	8.5	ug/kg	0.70
Pyrene	120 PG	8.5	ug/kg	0.57
Benzo(a)anthracene	ND	8.5	ug/kg	0.72
Chrysene	42	8.5	ug/kg	0.72
Benzo(b)fluoranthene	52 PG	8.5	ug/kg	1.0
Benzo(k)fluoranthene	10 PG	8.5	ug/kg	0.83
Benzo(a)pyrene	20	8.5	ug/kg	0.77
Indeno(1,2,3-cd)pyrene	16	8.5	ug/kg	0.57
Dibenzo(a,h)anthracene	ND	8.5	ug/kg	1.3
Benzo(ghi)perylene	17	8.5	ug/kg	0.72
Carbazole	12 J,PG	42	ug/kg	3.4
2-Methylnaphthalene	130	42	ug/kg	3.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	21 *	(49 - 129)
Terphenyl-d14	76	(54 - 126)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0910812

HPLC

Lot-Sample #...:	C6L190179-010	Work Order #...:	JLRCQ1AD	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6361053	Analysis Time..:	14:54		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	18	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	21 J,PG	40	ug/kg	4.1
Acenaphthylene	37 J	40	ug/kg	3.6
Acenaphthene	ND	40	ug/kg	8.9
Fluorene	ND	8.2	ug/kg	2.2
Phenanthrene	24	8.2	ug/kg	0.53
Anthracene	4.1 J	8.2	ug/kg	0.56
Fluoranthene	36 PG	8.2	ug/kg	0.67
Pyrene	27 PG	8.2	ug/kg	0.54
Benzo(a)anthracene	ND	8.2	ug/kg	0.69
Chrysene	6.9 J,PG	8.2	ug/kg	0.69
Benzo(b)fluoranthene	11 PG	8.2	ug/kg	0.96
Benzo(k)fluoranthene	1.8 J,PG	8.2	ug/kg	0.80
Benzo(a)pyrene	2.9 J,PG	8.2	ug/kg	0.73
Indeno(1,2,3-cd)pyrene	2.2 J,PG	8.2	ug/kg	0.55
Dibenzo(a,h)anthracene	ND	8.2	ug/kg	1.3
Benzo(ghi)perylene	2.6 J,PG	8.2	ug/kg	0.69
Carbazole	ND	40	ug/kg	3.2
2-Methylnaphthalene	24 J	40	ug/kg	3.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	7.2 *	(49 - 129)
Terphenyl-d14	37 *	(54 - 126)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0910812

HPLC

Lot-Sample #...:	C6L190179-010	Work Order #...:	JLRCQ2AD	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	
Prep Date.....:	01/05/07	Analysis Date..:	01/05/07		
Prep Batch #...:	7005011	Analysis Time..:	12:00		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	18	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	18 J,PG	40	ug/kg	4.1
Acenaphthylene	ND	40	ug/kg	3.6
Acenaphthene	ND	40	ug/kg	8.9
Fluorene	ND	8.2	ug/kg	2.2
Phenanthrene	12	8.2	ug/kg	0.53
Anthracene	1.6 J	8.2	ug/kg	0.56
Fluoranthene	5.2 J,PG	8.2	ug/kg	0.67
Pyrene	3.0 J,PG	8.2	ug/kg	0.54
Benzo(a)anthracene	ND	8.2	ug/kg	0.69
Chrysene	ND	8.2	ug/kg	0.69
Benzo(b)fluoranthene	4.1 J,PG	8.2	ug/kg	0.96
Benzo(k)fluoranthene	ND	8.2	ug/kg	0.80
Benzo(a)pyrene	ND	8.2	ug/kg	0.73
Indeno(1,2,3-cd)pyrene	ND	8.2	ug/kg	0.55
Dibenzo(a,h)anthracene	ND	8.2	ug/kg	1.3
Benzo(ghi)perylene	ND	8.2	ug/kg	0.69
Carbazole	ND	40	ug/kg	3.2
2-Methylnaphthalene	27 J	40	ug/kg	3.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	0.55 *	(49 - 129)
Terphenyl-d14	38 *	(54 - 126)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0921516

HPLC

Lot-Sample #...:	C6L190179-011	Work Order #...:	JLRC01AP	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6361053	Analysis Time..:	15:35		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	42	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	20 J,PG	57	ug/kg	5.8
Acenaphthylene	ND	57	ug/kg	5.2
Acenaphthene	ND	57	ug/kg	13
Fluorene	ND	12	ug/kg	3.1
Phenanthrene	52	12	ug/kg	0.75
Anthracene	11 J	12	ug/kg	0.79
Fluoranthene	90 PG	12	ug/kg	0.94
Pyrene	74 PG	12	ug/kg	0.77
Benzo(a)anthracene	47	12	ug/kg	0.98
Chrysene	46	12	ug/kg	0.97
Benzo(b)fluoranthene	47 PG	12	ug/kg	1.4
Benzo(k)fluoranthene	18 PG	12	ug/kg	1.1
Benzo(a)pyrene	41	12	ug/kg	1.0
Indeno(1,2,3-cd)pyrene	32 PG	12	ug/kg	0.78
Dibenzo(a,h)anthracene	4.4 J,PG	12	ug/kg	1.8
Benzo(ghi)perylene	46	12	ug/kg	0.97
Carbazole	ND	57	ug/kg	4.6
2-Methylnaphthalene	25 J,PG	57	ug/kg	4.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	49	(49 - 129)
Terphenyl-d14	52 *	(54 - 126)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0930810

HPLC

Lot-Sample #...:	C6L190179-012	Work Order #...:	JLRC41AP	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6361053	Analysis Time..:	16:15		
Dilution Factor:	5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	17	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	66 J,PG	200	ug/kg	20
Acenaphthylene	1400	200	ug/kg	18
Acenaphthene	ND	200	ug/kg	44
Fluorene	ND	40	ug/kg	11
Phenanthrene	130 PG	40	ug/kg	2.6
Anthracene	31 J,PG	40	ug/kg	2.7
Fluoranthene	200 PG	40	ug/kg	3.3
Pyrene	87 PG	40	ug/kg	2.7
Benzo(a)anthracene	ND	40	ug/kg	3.4
Chrysene	78	40	ug/kg	3.4
Benzo(b)fluoranthene	ND	40	ug/kg	4.7
Benzo(k)fluoranthene	ND	40	ug/kg	3.9
Benzo(a)pyrene	58	40	ug/kg	3.6
Indeno(1,2,3-cd)pyrene	99	40	ug/kg	2.7
Dibenzo(a,h)anthracene	ND	40	ug/kg	6.3
Benzo(ghi)perylene	87	40	ug/kg	3.4
Carbazole	ND	200	ug/kg	16
2-Methylnaphthalene	150 J,PG	200	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	68	(49 - 129)
Terphenyl-d14	110	(54 - 126)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0941416

HPLC

Lot-Sample #...:	C6L190179-013	Work Order #...:	JLRC61AP	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6361053	Analysis Time..:	16:56		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	36	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	110 PG	52	ug/kg	5.3
Acenaphthylene	ND	52	ug/kg	4.7
Acenaphthene	24 J,PG	52	ug/kg	11
Fluorene	14 PG	10	ug/kg	2.8
Phenanthrene	110	10	ug/kg	0.68
Anthracene	19	10	ug/kg	0.71
Fluoranthene	120 PG	10	ug/kg	0.85
Pyrene	81 PG	10	ug/kg	0.70
Benzo(a)anthracene	41 PG	10	ug/kg	0.89
Chrysene	43 PG	10	ug/kg	0.88
Benzo(b)fluoranthene	76 PG	10	ug/kg	1.2
Benzo(k)fluoranthene	24 PG	10	ug/kg	1.0
Benzo(a)pyrene	39	10	ug/kg	0.94
Indeno(1,2,3-cd)pyrene	46	10	ug/kg	0.70
Dibenzo(a,h)anthracene	ND	10	ug/kg	1.6
Benzo(ghi)perylene	54	10	ug/kg	0.88
Carbazole	ND	52	ug/kg	4.1
2-Methylnaphthalene	94 PG	52	ug/kg	4.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	78	(49 - 129)
Terphenyl-d14	74	(54 - 126)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

PG The percent difference between the original and confirmation analyses is greater than 40%.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0950810

HPLC

Lot-Sample #...:	C6L190179-014	Work Order #...:	JLRC81AG	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6361053	Analysis Time..:	17:36		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	63	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	**72 J,PG**	**89**	**ug/kg**	**9.1**
Acenaphthylene	**25 J**	**89**	**ug/kg**	**8.0**
Acenaphthene	ND	89	ug/kg	20
Fluorene	ND	18	ug/kg	4.9
Phenanthrene	**14 J,PG**	**18**	**ug/kg**	**1.2**
Anthracene	**1.8 J**	**18**	**ug/kg**	**1.2**
Fluoranthene	**4.8 J,PG**	**18**	**ug/kg**	**1.5**
Pyrene	**4.0 J,PG**	**18**	**ug/kg**	**1.2**
Benzo(a)anthracene	ND	18	ug/kg	1.5
Chrysene	ND	18	ug/kg	1.5
Benzo(b)fluoranthene	ND	18	ug/kg	2.1
Benzo(k)fluoranthene	ND	18	ug/kg	1.8
Benzo(a)pyrene	ND	18	ug/kg	1.6
Indeno(1,2,3-cd)pyrene	**2.5 J,PG**	**18**	**ug/kg**	**1.2**
Dibenzo(a,h)anthracene	ND	18	ug/kg	2.8
Benzo(ghi)perylene	**1.6 J,PG**	**18**	**ug/kg**	**1.5**
Carbazole	ND	89	ug/kg	7.1
2-Methylnaphthalene	**58 J**	**89**	**ug/kg**	**7.1**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	27 *	(49 - 129)
Terphenyl-d14	19 *	(54 - 126)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0950810

HPLC

Lot-Sample #...:	C6L190179-014	Work Order #...:	JLRC82AG	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	
Prep Date.....:	01/05/07	Analysis Date..:	01/05/07		
Prep Batch #...:	7005011	Analysis Time..:	12:40		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	63	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	28 J,PG	89	ug/kg	9.1
Acenaphthylene	190	89	ug/kg	8.0
Acenaphthene	ND	89	ug/kg	20
Fluorene	9.9 J	18	ug/kg	4.9
Phenanthrene	50	18	ug/kg	1.2
Anthracene	5.1 J,PG	18	ug/kg	1.2
Fluoranthene	44 PG	18	ug/kg	1.5
Pyrene	25 PG	18	ug/kg	1.2
Benzo(a)anthracene	ND	18	ug/kg	1.5
Chrysene	21 PG	18	ug/kg	1.5
Benzo(b)fluoranthene	37 PG	18	ug/kg	2.1
Benzo(k)fluoranthene	ND	18	ug/kg	1.8
Benzo(a)pyrene	6.6 J,PG	18	ug/kg	1.6
Indeno(1,2,3-cd)pyrene	ND	18	ug/kg	1.2
Dibenzo(a,h)anthracene	ND	18	ug/kg	2.8
Benzo(ghi)perylene	ND	18	ug/kg	1.5
Carbazole	ND	89	ug/kg	7.1
2-Methylnaphthalene	65 J	89	ug/kg	7.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	12 *	(49 - 129)
Terphenyl-d14	65	(54 - 126)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0961012

HPLC

Lot-Sample #...:	C6L190179-015	Work Order #...:	JLRDC1AP	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6361053	Analysis Time..:	18:17		
Dilution Factor:	10	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	18	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	400	ug/kg	41
Acenaphthylene	78 J	400	ug/kg	37
Acenaphthene	ND	400	ug/kg	90
Fluorene	ND	82	ug/kg	22
Phenanthrene	140	82	ug/kg	5.3
Anthracene	27 J,PG	82	ug/kg	5.6
Fluoranthene	470 PG	82	ug/kg	6.7
Pyrene	420 PG	82	ug/kg	5.5
Benzo(a)anthracene	250 PG	82	ug/kg	7.0
Chrysene	300	82	ug/kg	6.9
Benzo(b)fluoranthene	290 PG	82	ug/kg	9.7
Benzo(k)fluoranthene	130 PG	82	ug/kg	8.0
Benzo(a)pyrene	270	82	ug/kg	7.4
Indeno(1,2,3-cd)pyrene	230 PG	82	ug/kg	5.5
Dibenzo(a,h)anthracene	34 J,PG	82	ug/kg	13
Benzo(ghi)perylene	300	82	ug/kg	6.9
Carbazole	ND	400	ug/kg	32
2-Methylnaphthalene	ND	400	ug/kg	32

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1010406

HPLC

Lot-Sample #...:	C6L190179-016	Work Order #...:	JLRDF1AP	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6361053	Analysis Time..:	21:20		
Dilution Factor:	5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	14	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	110 J,PG	190	ug/kg	20
Acenaphthylene	2600	190	ug/kg	17
Acenaphthene	ND	190	ug/kg	42
Fluorene	ND	39	ug/kg	10
Phenanthrene	350 PG	39	ug/kg	2.5
Anthracene	72 PG	39	ug/kg	2.6
Fluoranthene	270 PG	39	ug/kg	3.2
Pyrene	350 PG	39	ug/kg	2.6
Benzo(a)anthracene	150 PG	39	ug/kg	3.3
Chrysene	360 PG	39	ug/kg	3.3
Benzo(b)fluoranthene	420 PG	39	ug/kg	4.6
Benzo(k)fluoranthene	ND	39	ug/kg	3.8
Benzo(a)pyrene	250	39	ug/kg	3.5
Indeno(1,2,3-cd)pyrene	220	39	ug/kg	2.6
Dibenzo(a,h)anthracene	ND	39	ug/kg	6.1
Benzo(ghi)perylene	250	39	ug/kg	3.2
Carbazole	ND	190	ug/kg	15
2-Methylnaphthalene	490 PG	190	ug/kg	15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,I	(49 - 129)
Terphenyl-d14	NC,I	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

I Matrix interference.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1020408

HPLC

Lot-Sample #...:	C6L190179-017	Work Order #...:	JLRDG1AT	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6361053	Analysis Time..:	22:01		
Dilution Factor:	200	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	50	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	3100 J,PG	13000	ug/kg	1300
Acenaphthylene	ND	13000	ug/kg	1200
Acenaphthene	ND	13000	ug/kg	2900
Fluorene	3300	2700	ug/kg	720
Phenanthrene	26000	2700	ug/kg	170
Anthracene	5200	2700	ug/kg	180
Fluoranthene	49000	2700	ug/kg	220
Pyrene	31000	2700	ug/kg	180
Benzo(a)anthracene	11000	2700	ug/kg	230
Chrysene	12000	2700	ug/kg	220
Benzo(b)fluoranthene	14000	2700	ug/kg	310
Benzo(k)fluoranthene	4600 PG	2700	ug/kg	260
Benzo(a)pyrene	9300	2700	ug/kg	240
Indeno(1,2,3-cd)pyrene	6300 PG	2700	ug/kg	180
Dibenzo(a,h)anthracene	580 J,PG	2700	ug/kg	420
Benzo(ghi)perylene	7300	2700	ug/kg	220
Carbazole	4300 J	13000	ug/kg	1100
2-Methylnaphthalene	3500 J	13000	ug/kg	1000

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analyses.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1031919

HPLC

Lot-Sample #...:	C6L190179-018	Work Order #...:	JLRDM1AP	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6361053	Analysis Time..:	22:41		
Dilution Factor:	1	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	14	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	38	ug/kg	3.9
Acenaphthylene	ND	38	ug/kg	3.5
Acenaphthene	ND	38	ug/kg	8.5
Fluorene	ND	7.8	ug/kg	2.1
Phenanthrene	7.0 J,PG	7.8	ug/kg	0.50
Anthracene	2.7 J,PG	7.8	ug/kg	0.53
Fluoranthene	11 PG	7.8	ug/kg	0.63
Pyrene	14 PG	7.8	ug/kg	0.52
Benzo(a)anthracene	ND	7.8	ug/kg	0.66
Chrysene	19	7.8	ug/kg	0.65
Benzo(b)fluoranthene	5.0 J,PG	7.8	ug/kg	0.91
Benzo(k)fluoranthene	1.8 J,PG	7.8	ug/kg	0.76
Benzo(a)pyrene	ND	7.8	ug/kg	0.69
Indeno(1,2,3-cd)pyrene	9.0 PG	7.8	ug/kg	0.52
Dibenzo(a,h)anthracene	ND	7.8	ug/kg	1.2
Benzo(ghi)perylene	18 PG	7.8	ug/kg	0.65
Carbazole	ND	38	ug/kg	3.1
2-Methylnaphthalene	7.5 J,PG	38	ug/kg	3.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	71	(49 - 129)
Terphenyl-d14	79	(54 - 126)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0100

HPLC

Lot-Sample #...:	C6L190179-019	Work Order #...:	JLRDR1AG	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6361053	Analysis Time..:	23:22		
Dilution Factor:	20	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	34	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	120 J,PG	1000	ug/kg	100
Acenaphthylene	220 J	1000	ug/kg	90
Acenaphthene	ND	1000	ug/kg	220
Fluorene	130 J	200	ug/kg	55
Phenanthrene	2100	200	ug/kg	13
Anthracene	360	200	ug/kg	14
Fluoranthene	5800	200	ug/kg	16
Pyrene	3900	200	ug/kg	13
Benzo(a)anthracene	1600	200	ug/kg	17
Chrysene	1800	200	ug/kg	17
Benzo(b)fluoranthene	1400 PG	200	ug/kg	24
Benzo(k)fluoranthene	800 PG	200	ug/kg	20
Benzo(a)pyrene	1600	200	ug/kg	18
Indeno(1,2,3-cd)pyrene	1300 PG	200	ug/kg	14
Dibenzo(a,h)anthracene	190 J,PG	200	ug/kg	32
Benzo(ghi)perylene	1400	200	ug/kg	17
Carbazole	290 J	1000	ug/kg	80
2-Methylnaphthalene	180 J,PG	1000	ug/kg	80

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0101

HPLC

Lot-Sample #...:	C6L190179-020	Work Order #...:	JLRD81AR	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6361053	Analysis Time..:	00:02		
Dilution Factor:	100	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	43	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	5800	ug/kg	600
Acenaphthylene	ND	5800	ug/kg	530
Acenaphthene	ND	5800	ug/kg	1300
Fluorene	580 J	1200	ug/kg	320
Phenanthrene	5700	1200	ug/kg	76
Anthracene	1300	1200	ug/kg	81
Fluoranthene	9400 PG	1200	ug/kg	96
Pyrene	6800 PG	1200	ug/kg	79
Benzo(a)anthracene	4100 PG	1200	ug/kg	100
Chrysene	3600 PG	1200	ug/kg	99
Benzo(b)fluoranthene	4000 PG	1200	ug/kg	140
Benzo(k)fluoranthene	1700 PG	1200	ug/kg	120
Benzo(a)pyrene	3500	1200	ug/kg	110
Indeno(1,2,3-cd)pyrene	2900 PG	1200	ug/kg	80
Dibenzo(a,h)anthracene	440 J,PG	1200	ug/kg	190
Benzo(ghi)perylene	2300 PG	1200	ug/kg	99
Carbazole	ND	5800	ug/kg	470
2-Methylnaphthalene	1300 J	5800	ug/kg	470

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0200

HPLC

Lot-Sample #...:	C6L190179-021	Work Order #...:	JLRFD1A4	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6361053	Analysis Time..:	08:55		
Dilution Factor:	20	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	63	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	660 J	1800	ug/kg	180
Acenaphthylene	420 J	1800	ug/kg	160
Acenaphthene	ND	1800	ug/kg	390
Fluorene	260 J	360	ug/kg	97
Phenanthrene	3100	360	ug/kg	23
Anthracene	500	360	ug/kg	25
Fluoranthene	6000	360	ug/kg	29
Pyrene	4300	360	ug/kg	24
Benzo(a)anthracene	1600	360	ug/kg	31
Chrysene	1900	360	ug/kg	30
Benzo(b)fluoranthene	ND	360	ug/kg	42
Benzo(k)fluoranthene	ND	360	ug/kg	35
Benzo(a)pyrene	1900	360	ug/kg	32
Indeno(1,2,3-cd)pyrene	1700 PG	360	ug/kg	24
Dibenzo(a,h)anthracene	280 J,PG	360	ug/kg	56
Benzo(ghi)perylene	2000	360	ug/kg	30
Carbazole	420 J	1800	ug/kg	140
2-Methylnaphthalene	570 J,PG	1800	ug/kg	140

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0201

HPLC

Lot-Sample #...:	C6L190179-022	Work Order #...:	JLRFN1AE	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6361053	Analysis Time..:	09:35		
Dilution Factor:	3	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	45	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	180	ug/kg	18
Acenaphthylene	160 J	180	ug/kg	16
Acenaphthene	ND	180	ug/kg	40
Fluorene	11 J,PG	36	ug/kg	9.8
Phenanthrene	100	36	ug/kg	2.3
Anthracene	28 J	36	ug/kg	2.5
Fluoranthene	230 PG	36	ug/kg	3.0
Pyrene	170 PG	36	ug/kg	2.4
Benzo(a)anthracene	110 PG	36	ug/kg	3.1
Chrysene	160	36	ug/kg	3.0
Benzo(b)fluoranthene	200 PG	36	ug/kg	4.3
Benzo(k)fluoranthene	100 PG	36	ug/kg	3.6
Benzo(a)pyrene	250 PG	36	ug/kg	3.3
Indeno(1,2,3-cd)pyrene	280 PG	36	ug/kg	2.4
Dibenzo(a,h)anthracene	67 PG	36	ug/kg	5.7
Benzo(ghi)perylene	320	36	ug/kg	3.0
Carbazole	ND	180	ug/kg	14
2-Methylnaphthalene	23 J,PG	180	ug/kg	14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	89	(49 - 129)
Terphenyl-d14	68	(54 - 126)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0300

HPLC

Lot-Sample #...: C6L190179-023	Work Order #...: JLRF61AD	Matrix.....: SOLID
Date Sampled...: 12/18/06	Date Received..: 12/19/06	MS Run #.....: 6361041
Prep Date.....: 12/27/06	Analysis Date..: 01/03/07	
Prep Batch #...: 6361053	Analysis Time..: 10:16	
Dilution Factor: 20	Initial Wgt/Vol: 15 g	Final Wgt/Vol..: 0.5 mL
% Moisture.....: 46	Analyst ID.....: 014878	Instrument ID..: G
	Method.....: SW846 8310	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1200	ug/kg	120
Acenaphthylene	340 J	1200	ug/kg	110
Acenaphthene	ND	1200	ug/kg	270
Fluorene	ND	250	ug/kg	66
Phenanthrene	460 PG	250	ug/kg	16
Anthracene	110 J	250	ug/kg	17
Fluoranthene	3200	250	ug/kg	20
Pyrene	2700	250	ug/kg	16
Benzo(a)anthracene	1700 PG	250	ug/kg	21
Chrysene	2000	250	ug/kg	21
Benzo(b)fluoranthene	2400 PG	250	ug/kg	29
Benzo(k)fluoranthene	1100 PG	250	ug/kg	24
Benzo(a)pyrene	2000	250	ug/kg	22
Indeno(1,2,3-cd)pyrene	1600 PG	250	ug/kg	17
Dibenzo(a,h)anthracene	240 J,PG	250	ug/kg	39
Benzo(ghi)perylene	2100	250	ug/kg	21
Carbazole	ND	1200	ug/kg	97
2-Methylnaphthalene	ND	1200	ug/kg	97

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0301

HPLC

Lot-Sample #...:	C6L190179-024	Work Order #...:	JLRGA1AN	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361041
Prep Date.....:	12/27/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6361053	Analysis Time..:	10:57		
Dilution Factor:	10	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	26	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	150 J,PG	450	ug/kg	46
Acenaphthylene	350 J	450	ug/kg	41
Acenaphthene	ND	450	ug/kg	99
Fluorene	140 PG	91	ug/kg	25
Phenanthrene	1500	91	ug/kg	5.9
Anthracene	300	91	ug/kg	6.2
Fluoranthene	2300 PG	91	ug/kg	7.4
Pyrene	1600 PG	91	ug/kg	6.1
Benzo(a)anthracene	950	91	ug/kg	7.7
Chrysene	960	91	ug/kg	7.6
Benzo(b)fluoranthene	880 PG	91	ug/kg	11
Benzo(k)fluoranthene	420 PG	91	ug/kg	8.9
Benzo(a)pyrene	820 PG	91	ug/kg	8.2
Indeno(1,2,3-cd)pyrene	690 PG	91	ug/kg	6.1
Dibenzo(a,h)anthracene	120 PG	91	ug/kg	14
Benzo(ghi)perylene	790	91	ug/kg	7.6
2-Methylnaphthalene	240 J,PG	450	ug/kg	36
Carbazole	220 J	450	ug/kg	36

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0400

HPLC

Lot-Sample #...:	C6L190179-025	Work Order #...:	JLRGC1AF	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361042
Prep Date.....:	12/27/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6361055	Analysis Time..:	11:37		
Dilution Factor:	20	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	56	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1500	ug/kg	150
Acenaphthylene	280 J	1500	ug/kg	130
Acenaphthene	ND	1500	ug/kg	330
Fluorene	ND	300	ug/kg	82
Phenanthrene	1300	300	ug/kg	20
Anthracene	160 J	300	ug/kg	21
Fluoranthene	3600	300	ug/kg	25
Pyrene	1800 PG	300	ug/kg	20
Benzo(a)anthracene	890	300	ug/kg	26
Chrysene	1300	300	ug/kg	25
Benzo(b)fluoranthene	1400 PG	300	ug/kg	36
Benzo(k)fluoranthene	650 PG	300	ug/kg	30
Benzo(a)pyrene	1300	300	ug/kg	27
Indeno(1,2,3-cd)pyrene	1400 PG	300	ug/kg	20
Dibenzo(a,h)anthracene	180 J,PG	300	ug/kg	47
Benzo(ghi)perylene	1500	300	ug/kg	25
Carbazole	ND	1500	ug/kg	120
2-Methylnaphthalene	ND	1500	ug/kg	120

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0401

HPLC

Lot-Sample #...:	C6L190179-026	Work Order #...:	JLRGJ1AN	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361042
Prep Date.....:	12/27/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6361055	Analysis Time..:	13:40		
Dilution Factor:	20	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	56	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1500	ug/kg	150
Acenaphthylene	390 J	1500	ug/kg	140
Acenaphthene	ND	1500	ug/kg	330
Fluorene	97 J,PG	300	ug/kg	82
Phenanthrene	1700	300	ug/kg	20
Anthracene	260 J	300	ug/kg	21
Fluoranthene	4500	300	ug/kg	25
Pyrene	3200	300	ug/kg	20
Benzo(a)anthracene	1200	300	ug/kg	26
Chrysene	1600	300	ug/kg	26
Benzo(b)fluoranthene	2600	300	ug/kg	36
Benzo(k)fluoranthene	870 PG	300	ug/kg	30
Benzo(a)pyrene	1700	300	ug/kg	27
Indeno(1,2,3-cd)pyrene	1700 PG	300	ug/kg	20
Dibenzo(a,h)anthracene	260 J,PG	300	ug/kg	48
Benzo(ghi)perylene	1900	300	ug/kg	26
Carbazole	190 J	1500	ug/kg	120
2-Methylnaphthalene	170 J,PG	1500	ug/kg	120

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0500

HPLC

Lot-Sample #...:	C6L190179-027	Work Order #...:	JLRGK1AQ	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361042
Prep Date.....:	12/27/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6361055	Analysis Time..:	14:20		
Dilution Factor:	10	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	12	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	380	ug/kg	39
Acenaphthylene	62 J	380	ug/kg	34
Acenaphthene	ND	380	ug/kg	83
Fluorene	39 J	76	ug/kg	21
Phenanthrene	410	76	ug/kg	4.9
Anthracene	120	76	ug/kg	5.2
Fluoranthene	810 PG	76	ug/kg	6.2
Pyrene	620 PG	76	ug/kg	5.1
Benzo(a)anthracene	480	76	ug/kg	6.5
Chrysene	460	76	ug/kg	6.4
Benzo(b)fluoranthene	400 PG	76	ug/kg	9.0
Benzo(k)fluoranthene	190 PG	76	ug/kg	7.5
Benzo(a)pyrene	400	76	ug/kg	6.8
Indeno(1,2,3-cd)pyrene	300 PG	76	ug/kg	5.1
Dibenzo(a,h)anthracene	50 J,PG	76	ug/kg	12
Benzo(ghi)perylene	260 PG	76	ug/kg	6.4
Carbazole	ND	380	ug/kg	30
2-Methylnaphthalene	40 J,PG	380	ug/kg	30

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0501

HPLC

Lot-Sample #...:	C6L190179-028	Work Order #...:	JLRGL1AN	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361042
Prep Date.....:	12/27/06	Analysis Date..:	01/03/07		
Prep Batch #...:	6361055	Analysis Time..:	15:01		
Dilution Factor:	10	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 mL
% Moisture.....:	63	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	880	ug/kg	90
Acenaphthylene	150 J	880	ug/kg	80
Acenaphthene	ND	880	ug/kg	200
Fluorene	ND	180	ug/kg	48
Phenanthrene	1200	180	ug/kg	12
Anthracene	130 J,PG	180	ug/kg	12
Fluoranthene	3100	180	ug/kg	15
Pyrene	2100	180	ug/kg	12
Benzo(a)anthracene	770	180	ug/kg	15
Chrysene	1100	180	ug/kg	15
Benzo(b)fluoranthene	1100 PG	180	ug/kg	21
Benzo(k)fluoranthene	540 PG	180	ug/kg	18
Benzo(a)pyrene	ND	180	ug/kg	16
Indeno(1,2,3-cd)pyrene	1100 PG	180	ug/kg	12
Dibenzo(a,h)anthracene	140 J,PG	180	ug/kg	28
Benzo(ghi)perylene	1100	180	ug/kg	15
Carbazole	ND	880	ug/kg	71
2-Methylnaphthalene	110 J,PG	880	ug/kg	71

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180601

GC Semivolatiles

Lot-Sample #...:	C6L190179-005	Work Order #...:	JLQ981AJ	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361103
Prep Date.....:	12/27/06	Analysis Date..:	12/30/06		
Prep Batch #...:	6361122	Analysis Time..:	11:18		
Dilution Factor:	1	Initial Wgt/Vol:	50 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	62	Analyst ID.....:	401414	Instrument ID..:	M/N
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	210	ug/kg	55
Pentachlorophenol	ND	27	ug/kg	7.2
2,4,5-TP (Silvex)	ND	53	ug/kg	13
2,4,5-T	ND	53	ug/kg	14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	63	(42 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180602

GC Semivolatiles

Lot-Sample #...:	C6L190179-006	Work Order #...:	JLRAQ1AJ	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361103
Prep Date.....:	12/27/06	Analysis Date..:	12/30/06		
Prep Batch #...:	6361122	Analysis Time..:	11:51		
Dilution Factor:	1	Initial Wgt/Vol:	50 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	22	Analyst ID.....:	401414	Instrument ID..:	M/N
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	100	ug/kg	27
Pentachlorophenol	**4.2 J**	**13**	**ug/kg**	**3.5**
2,4,5-TP (Silvex)	ND	26	ug/kg	6.5
2,4,5-T	ND	26	ug/kg	6.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	80	(42 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0900812

GC Semivolatiles

Lot-Sample #...:	C6L190179-009	Work Order #...:	JLRCA1AK	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361103
Prep Date.....:	12/27/06	Analysis Date..:	12/30/06		
Prep Batch #...:	6361122	Analysis Time..:	12:23		
Dilution Factor:	1	Initial Wgt/Vol:	50 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	22	Analyst ID.....:	401414	Instrument ID..:	M/N
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	100	ug/kg	26
Pentachlorophenol	ND	13	ug/kg	3.4
2,4,5-TP (Silvex)	ND	25	ug/kg	6.4
2,4,5-T	ND	25	ug/kg	6.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	86	(42 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0950810

GC Semivolatiles

Lot-Sample #...:	C6L190179-014	Work Order #...:	JLRC81AK	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361103
Prep Date.....:	12/27/06	Analysis Date..:	12/31/06		
Prep Batch #...:	6361122	Analysis Time..:	12:55		
Dilution Factor:	1	Initial Wgt/Vol:	50 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	63	Analyst ID.....:	401414	Instrument ID..:	M/N
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	220	ug/kg	56
Pentachlorophenol	ND	27	ug/kg	7.3
2,4,5-TP (Silvex)	ND	54	ug/kg	14
2,4,5-T	ND	54	ug/kg	14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	44	(42 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1020408

GC Semivolatiles

Lot-Sample #...:	C6L190179-017	Work Order #...:	JLRDG1AW	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361103
Prep Date.....:	12/27/06	Analysis Date..:	12/30/06		
Prep Batch #...:	6361122	Analysis Time..:	15:07		
Dilution Factor:	1	Initial Wgt/Vol:	50 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	50	Analyst ID.....:	401414	Instrument ID..:	M/N
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	160	ug/kg	41
Pentachlorophenol	ND	20	ug/kg	5.4
2,4,5-TP (Silvex)	ND	40	ug/kg	10
2,4,5-T	ND	40	ug/kg	10

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	76	(42 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0100

GC Semivolatiles

Lot-Sample #...:	C6L190179-019	**Work Order #...:**	JLRDR1AK	**Matrix.....:**	SOLID
Date Sampled...:	12/18/06	**Date Received..:**	12/19/06	**MS Run #.....:**	6361103
Prep Date.....:	12/27/06	**Analysis Date..:**	12/30/06		
Prep Batch #...:	6361122	**Analysis Time..:**	15:40		
Dilution Factor:	1	**Initial Wgt/Vol:**	50 g	**Final Wgt/Vol..:**	10 mL
% Moisture.....:	34	**Analyst ID.....:**	401414	**Instrument ID..:**	M/N
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	120	ug/kg	31
Pentachlorophenol	ND	15	ug/kg	4.1
2,4,5-TP (Silvex)	ND	30	ug/kg	7.6
2,4,5-T	ND	30	ug/kg	7.8

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	77	(42 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0101

GC Semivolatiles

Lot-Sample #...:	C6L190179-020	Work Order #...:	JLRD81AV	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361103
Prep Date.....:	12/27/06	Analysis Date..:	12/30/06		
Prep Batch #...:	6361122	Analysis Time..:	16:13		
Dilution Factor:	1	Initial Wgt/Vol:	50 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	43	Analyst ID.....:	401414	Instrument ID..:	M/N
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	140	ug/kg	36
Pentachlorophenol	ND	18	ug/kg	4.8
2,4,5-TP (Silvex)	ND	35	ug/kg	8.9
2,4,5-T	ND	35	ug/kg	9.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	95	(42 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0200

GC Semivolatiles

Lot-Sample #...:	C6L190179-021	Work Order #...:	JLRFD1A7	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361103
Prep Date.....:	12/27/06	Analysis Date..:	12/30/06		
Prep Batch #...:	6361122	Analysis Time..:	16:45		
Dilution Factor:	1	Initial Wgt/Vol:	50 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	63	Analyst ID.....:	401414	Instrument ID..:	M/N
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	210	ug/kg	55
Pentachlorophenol	ND	27	ug/kg	7.2
2,4,5-TP (Silvex)	ND	54	ug/kg	14
2,4,5-T	ND	54	ug/kg	14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	84	(42 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0400

GC Semivolatiles

Lot-Sample #...:	C6L190179-025	Work Order #...:	JLRGC1AJ	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	6361103
Prep Date.....:	12/27/06	Analysis Date..:	12/30/06		
Prep Batch #...:	6361122	Analysis Time..:	17:18		
Dilution Factor:	1	Initial Wgt/Vol:	50 g	Final Wgt/Vol..:	10 mL
% Moisture.....:	56	Analyst ID.....:	401414	Instrument ID..:	M/N
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	180	ug/kg	47
Pentachlorophenol	ND	23	ug/kg	6.1
2,4,5-TP (Silvex)	ND	45	ug/kg	11
2,4,5-T	ND	45	ug/kg	12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	78	(42 - 125)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180601

Trace Level Organic Compounds

Lot-Sample #...:	C6L190179-005	Work Order #...:	JLQ981AC	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	7003275
Prep Date.....:	12/29/06	Analysis Date..:	01/05/07		
Prep Batch #...:	6363317	Analysis Time..:	23:58		
Dilution Factor:	1	Initial Wgt/Vol:	10.04 g	Final Wgt/Vol..:	20 uL
% Moisture.....:	62 4	Analyst ID.....:	002457	Instrument ID..:	5D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.72	pg/g	SW846 8290
Total TCDD	ND	1.3	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	2.8	pg/g	SW846 8290
Total PeCDD	ND	4.2	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	3.4	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	9.4 J		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	11 J		pg/g	SW846 8290
Total HxCDD	65		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	240		pg/g	SW846 8290
Total HpCDD	440		pg/g	SW846 8290
OCDD	2300 B		pg/g	SW846 8290
2,3,7,8-TCDF	4.6 CON		pg/g	SW846 8290
Total TCDF	65		pg/g	SW846 8290
1,2,3,7,8-PeCDF	ND	1.8	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	3.3	pg/g	SW846 8290
Total PeCDF	13		pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	5.0	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	3.5	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	3.5	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	1.0	pg/g	SW846 8290
Total HxCDF	39		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	62		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	4.6	pg/g	SW846 8290
Total HpCDF	170		pg/g	SW846 8290
OCDF	220		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	101	(40 - 135)
13C-1,2,3,7,8-PeCDD	99	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	107	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	95	(40 - 135)
13C-OCDD	88	(40 - 135)
13C-2,3,7,8-TCDF	89	(40 - 135)
13C-1,2,3,7,8-PeCDF	99	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	102	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	94	(40 - 135)

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180601

Trace Level Organic Compounds

Lot-Sample #...: C6L190179-005 Work Order #...: JLQ981AC Matrix.....: SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CON Confirmation analysis.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180602

Trace Level Organic Compounds

Lot-Sample #...:	C6L190179-006	Work Order #...:	JLRAQ1AC	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	7003275
Prep Date.....:	12/29/06	Analysis Date..:	01/08/07		
Prep Batch #...:	6363317	Analysis Time..:	19:10		
Dilution Factor:	20	Initial Wgt/Vol:	10.03 g	Final Wgt/Vol..:	20 uL
% Moisture.....:	22	Analyst ID.....:	002457	Instrument ID..:	5D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	140		pg/g	SW846 8290
Total TCDD	8000		pg/g	SW846 8290
1,2,3,7,8-PeCDD	1200		pg/g	SW846 8290
Total PeCDD	16000		pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	1200		pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	2000		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	1600		pg/g	SW846 8290
Total HxCDD	21000		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	11000		pg/g	SW846 8290
Total HpCDD	21000		pg/g	SW846 8290
OCDD	16000 B		pg/g	SW846 8290
2,3,7,8-TCDF	5500 E,D,CON		pg/g	SW846 8290
Total TCDF	100000		pg/g	SW846 8290
1,2,3,7,8-PeCDF	6400		pg/g	SW846 8290
2,3,4,7,8-PeCDF	12000		pg/g	SW846 8290
Total PeCDF	110000		pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	8900		pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	6700		pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	8000		pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	290		pg/g	SW846 8290
Total HxCDF	61000		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	34000		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	3100		pg/g	SW846 8290
Total HpCDF	47000		pg/g	SW846 8290
OCDF	20000		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	93	(40 - 135)
13C-1,2,3,7,8-PeCDD	94	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	101	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	93	(40 - 135)
13C-OCDD	97	(40 - 135)
13C-2,3,7,8-TCDF	94	(40 - 135)
13C-1,2,3,7,8-PeCDF	96	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	112	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	99	(40 - 135)

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12180602

Trace Level Organic Compounds

Lot-Sample #...: C6L190179-006 Work Order #...: JLRAQ1AC Matrix.....: SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

E Estimated result. Result concentration exceeds the calibration range.

D Result was obtained from the analysis of a dilution.

CON Confirmation analysis.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0900812

Trace Level Organic Compounds

Lot-Sample #...:	C6L190179-009	Work Order #...:	JLRCA1AD	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	7003275
Prep Date.....:	12/29/06	Analysis Date..:	01/06/07		
Prep Batch #...:	6363317	Analysis Time..:	01:21		
Dilution Factor:	1	Initial Wgt/Vol:	10.1 g	Final Wgt/Vol..:	20 uL
% Moisture.....:	22 4	Analyst ID.....:	002457	Instrument ID..:	5D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	8.0		pg/g	SW846 8290
Total TCDD	250		pg/g	SW846 8290
1,2,3,7,8-PeCDD	22		pg/g	SW846 8290
Total PeCDD	270		pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	18		pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	56		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	47		pg/g	SW846 8290
Total HxCDD	540		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	920		pg/g	SW846 8290
Total HpCDD	1700		pg/g	SW846 8290
OCDD	4200 B		pg/g	SW846 8290
2,3,7,8-TCDF	48 CON		pg/g	SW846 8290
Total TCDF	800		pg/g	SW846 8290
1,2,3,7,8-PeCDF	40		pg/g	SW846 8290
2,3,4,7,8-PeCDF	48		pg/g	SW846 8290
Total PeCDF	480		pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	62		pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	33		pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	38		pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	3.3 J		pg/g	SW846 8290
Total HxCDF	350		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	310		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	28		pg/g	SW846 8290
Total HpCDF	470		pg/g	SW846 8290
OCDF	340		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	93	(40 - 135)
13C-1,2,3,7,8-PeCDD	91	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	102	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	98	(40 - 135)
13C-OCDD	95	(40 - 135)
13C-2,3,7,8-TCDF	88	(40 - 135)
13C-1,2,3,7,8-PeCDF	94	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	106	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	98	(40 - 135)

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0900812

Trace Level Organic Compounds

Lot-Sample #...: C6L190179-009 Work Order #...: JLRCA1AD Matrix.....: SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CON Confirmation analysis.

J Estimated result. Result is less than the reporting limit.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0950810

Trace Level Organic Compounds

Lot-Sample #...:	C6L190179-014	**Work Order #...:**	JLRC81AD	**Matrix.....:**	SOLID
Date Sampled...:	12/18/06	**Date Received..:**	12/19/06	**MS Run #.....:**	7003275
Prep Date.....:	12/29/06	**Analysis Date..:**	01/06/07		
Prep Batch #...:	6363317	**Analysis Time..:**	02:03		
Dilution Factor:	1	**Initial Wgt/Vol:**	10.03 g	**Final Wgt/Vol..:**	20 uL
% Moisture.....:	63 4	**Analyst ID.....:**	002457	**Instrument ID..:**	5D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.40	pg/g	SW846 8290
Total TCDD	ND	0.62	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	0.84	pg/g	SW846 8290
Total PeCDD	ND	0.84	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.89	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	ND	0.86	pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	ND	1.4	pg/g	SW846 8290
Total HxCDD	ND	3.8	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	**14**		**pg/g**	**SW846 8290**
Total HpCDD	**26**		**pg/g**	**SW846 8290**
OCDD	**57 B**		**pg/g**	**SW846 8290**
2,3,7,8-TCDF	ND CON	1.0	pg/g	SW846 8290
Total TCDF	**23**		**pg/g**	**SW846 8290**
1,2,3,7,8-PeCDF	ND	1.2	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	1.3	pg/g	SW846 8290
Total PeCDF	ND	4.4	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	3.3	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	1.6	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	1.5	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.57	pg/g	SW846 8290
Total HxCDF	ND	3.3	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	**7.3 J**		**pg/g**	**SW846 8290**
1,2,3,4,7,8,9-HpCDF	ND	0.59	pg/g	SW846 8290
Total HpCDF	**7.3**		**pg/g**	**SW846 8290**
OCDF	ND	5.7	pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	90	(40 - 135)
13C-1,2,3,7,8-PeCDD	80	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	99	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	99	(40 - 135)
13C-OCDD	88	(40 - 135)
13C-2,3,7,8-TCDF	80	(40 - 135)
13C-1,2,3,7,8-PeCDF	82	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	98	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	100	(40 - 135)

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SB0950810

Trace Level Organic Compounds

Lot-Sample #...: C6L190179-014 **Work Order #...:** JLRC81AD **Matrix.....:** SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CON Confirmation analysis.

J Estimated result. Result is less than the reporting limit.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SB1020408

Trace Level Organic Compounds

Lot-Sample #...:	C6L190179-017	Work Order #...:	JLRDG2AP	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	
Prep Date.....:	01/09/07	Analysis Date..:	01/13/07		
Prep Batch #...:	7009389	Analysis Time..:	01:38		
Dilution Factor:	5	Initial Wgt/Vol:	10.13 g	Final Wgt/Vol..:	20 uL
% Moisture.....:	50 4	Analyst ID.....:	002054	Instrument ID..:	5D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND D	9.0	pg/g	SW846 8290
Total TCDD	ND	9.0	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND D	20	pg/g	SW846 8290
Total PeCDD	ND	25	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	7.4	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	**66**		**pg/g**	**SW846 8290**
1,2,3,7,8,9-HxCDD	**41 J**		**pg/g**	**SW846 8290**
Total HxCDD	**550**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDD	**600**		**pg/g**	**SW846 8290**
Total HpCDD	**1100**		**pg/g**	**SW846 8290**
OCDD	**2200**		**pg/g**	**SW846 8290**
2,3,7,8-TCDF	ND D	11	pg/g	SW846 8290
Total TCDF	ND	11	pg/g	SW846 8290
1,2,3,7,8-PeCDF	ND D	5.5	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND D	5.7	pg/g	SW846 8290
Total PeCDF	ND	7.3	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	3.0	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	2.0	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	1.2	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	1.2	pg/g	SW846 8290
Total HxCDF	ND	13	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	**59**		**pg/g**	**SW846 8290**
1,2,3,4,7,8,9-HpCDF	ND	2.4	pg/g	SW846 8290
Total HpCDF	**110**		**pg/g**	**SW846 8290**
OCDF	ND	38	pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	87	(40 - 135)
13C-1,2,3,7,8-PeCDD	87	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	66	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	51	(40 - 135)
13C-OCDD	43	(40 - 135)
13C-2,3,7,8-TCDF	86	(40 - 135)
13C-1,2,3,7,8-PeCDF	108	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	85	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	61	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

J Estimated result. Result is less than the reporting limit.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0100

Trace Level Organic Compounds

Lot-Sample #...:	C6L190179-019	Work Order #...:	JLRDR1AD	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	7003275
Prep Date.....:	12/29/06	Analysis Date..:	01/06/07		
Prep Batch #...:	6363317	Analysis Time..:	03:27		
Dilution Factor:	1	Initial Wgt/Vol:	10.13 g	Final Wgt/Vol..:	20 uL
% Moisture.....:	34 4	Analyst ID.....:	002457	Instrument ID..:	5D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	0.76 J		pg/g	SW846 8290
Total TCDD	4.3		pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	1.4	pg/g	SW846 8290
Total PeCDD	ND	3.2	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	1.6	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	5.2 J		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	6.8 J		pg/g	SW846 8290
Total HxCDD	41		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	130		pg/g	SW846 8290
Total HpCDD	250		pg/g	SW846 8290
OCDD	1400 B		pg/g	SW846 8290
2,3,7,8-TCDF	1.3 J,CON		pg/g	SW846 8290
Total TCDF	18		pg/g	SW846 8290
1,2,3,7,8-PeCDF	ND	0.51	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	0.69	pg/g	SW846 8290
Total PeCDF	5.0		pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	2.3	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	1.3	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	1.2	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.26	pg/g	SW846 8290
Total HxCDF	18		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	30		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	2.1	pg/g	SW846 8290
Total HpCDF	95		pg/g	SW846 8290
OCDF	130		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	90	(40 - 135)
13C-1,2,3,7,8-PeCDD	86	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	94	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	87	(40 - 135)
13C-OCDD	83	(40 - 135)
13C-2,3,7,8-TCDF	81	(40 - 135)
13C-1,2,3,7,8-PeCDF	89	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	99	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	84	(40 - 135)

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0100

Trace Level Organic Compounds

Lot-Sample #...: C6L190179-019 Work Order #...: JLRDR1AD Matrix.....: SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CON Confirmation analysis.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0101

Trace Level Organic Compounds

Lot-Sample #...:	C6L190179-020	Work Order #...:	JLRD81AN	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	7003275
Prep Date.....:	12/29/06	Analysis Date..:	01/06/07		
Prep Batch #...:	6363317	Analysis Time..:	04:09		
Dilution Factor:	1	Initial Wgt/Vol:	10.07 g	Final Wgt/Vol..:	20 uL
% Moisture.....:	43 4	Analyst ID.....:	002457	Instrument ID..:	5D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.83	pg/g	SW846 8290
Total TCDD	**2.4**		**pg/g**	**SW846 8290**
1,2,3,7,8-PeCDD	ND	2.1	pg/g	SW846 8290
Total PeCDD	ND	4.8	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	3.9	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	**23**		**pg/g**	**SW846 8290**
1,2,3,7,8,9-HxCDD	**7.4 J**		**pg/g**	**SW846 8290**
Total HxCDD	**120**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDD	**580**		**pg/g**	**SW846 8290**
Total HpCDD	**1100**		**pg/g**	**SW846 8290**
OCDD	**7700 E,B**		**pg/g**	**SW846 8290**
2,3,7,8-TCDF	**5.7 CON**		**pg/g**	**SW846 8290**
Total TCDF	**81**		**pg/g**	**SW846 8290**
1,2,3,7,8-PeCDF	ND	1.4	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	4.3	pg/g	SW846 8290
Total PeCDF	**29**		**pg/g**	**SW846 8290**
1,2,3,4,7,8-HxCDF	ND	4.2	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	2.9	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	2.4	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.46	pg/g	SW846 8290
Total HxCDF	**110**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDF	**99**		**pg/g**	**SW846 8290**
1,2,3,4,7,8,9-HpCDF	**9.0**		**pg/g**	**SW846 8290**
Total HpCDF	**510**		**pg/g**	**SW846 8290**
OCDF	**330**		**pg/g**	**SW846 8290**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	99	(40 - 135)
13C-1,2,3,7,8-PeCDD	125	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	93	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	85	(40 - 135)
13C-OCDD	86	(40 - 135)
13C-2,3,7,8-TCDF	74	(40 - 135)
13C-1,2,3,7,8-PeCDF	106	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	111	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	81	(40 - 135)

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0101

Trace Level Organic Compounds

Lot-Sample #...: C6L190179-020 Work Order #...: JLRD81AN Matrix.....: SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

E Estimated result. Result concentration exceeds the calibration range.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CON Confirmation analysis.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0200

Trace Level Organic Compounds

Lot-Sample #...:	C6L190179-021	Work Order #...:	JLRFD1A1	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	7003275
Prep Date.....:	12/29/06	Analysis Date..:	01/06/07		
Prep Batch #...:	6363317	Analysis Time..:	04:50		
Dilution Factor:	1	Initial Wgt/Vol:	10.05 g	Final Wgt/Vol..:	20 uL
% Moisture.....:	63 4	Analyst ID.....:	002457	Instrument ID..:	5D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.62	pg/g	SW846 8290
Total TCDD	**1.7**		**pg/g**	**SW846 8290**
1,2,3,7,8-PeCDD	ND	2.7	pg/g	SW846 8290
Total PeCDD	ND	4.2	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	4.1	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	**9.9 J**		**pg/g**	**SW846 8290**
1,2,3,7,8,9-HxCDD	**9.2 J**		**pg/g**	**SW846 8290**
Total HxCDD	**67**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDD	**240**		**pg/g**	**SW846 8290**
Total HpCDD	**440**		**pg/g**	**SW846 8290**
OCDD	**2300 B**		**pg/g**	**SW846 8290**
2,3,7,8-TCDF	**5.1 CON**		**pg/g**	**SW846 8290**
Total TCDF	**77**		**pg/g**	**SW846 8290**
1,2,3,7,8-PeCDF	ND	3.6	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	4.7	pg/g	SW846 8290
Total PeCDF	**15**		**pg/g**	**SW846 8290**
1,2,3,4,7,8-HxCDF	ND	5.6	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	5.4	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	3.4	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.94	pg/g	SW846 8290
Total HxCDF	**41**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDF	**65**		**pg/g**	**SW846 8290**
1,2,3,4,7,8,9-HpCDF	ND	4.2	pg/g	SW846 8290
Total HpCDF	**180**		**pg/g**	**SW846 8290**
OCDF	**250**		**pg/g**	**SW846 8290**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	90	(40 - 135)
13C-1,2,3,7,8-PeCDD	89	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	97	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	81	(40 - 135)
13C-OCDD	81	(40 - 135)
13C-2,3,7,8-TCDF	84	(40 - 135)
13C-1,2,3,7,8-PeCDF	92	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	102	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	82	(40 - 135)

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0200

Trace Level Organic Compounds

Lot-Sample #...: C6L190179-021 Work Order #...: JLRFD1A1 Matrix.....: SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CON Confirmation analysis.

Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0400

Trace Level Organic Compounds

Lot-Sample #...:	C6L190179-025	Work Order #...:	JLRGC1AC	Matrix.....:	SOLID
Date Sampled...:	12/18/06	Date Received..:	12/19/06	MS Run #.....:	7003275
Prep Date.....:	12/29/06	Analysis Date..:	01/06/07		
Prep Batch #...:	6363317	Analysis Time..:	09:01		
Dilution Factor:	1	Initial Wgt/Vol:	10.05 g	Final Wgt/Vol..:	20 uL
% Moisture.....:	56 4	Analyst ID.....:	002457	Instrument ID..:	5D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.84	pg/g	SW846 8290
Total TCDD	**1.2**		**pg/g**	**SW846 8290**
1,2,3,7,8-PeCDD	ND	2.7	pg/g	SW846 8290
Total PeCDD	ND	5.1	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	4.4	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	**10 J**		**pg/g**	**SW846 8290**
1,2,3,7,8,9-HxCDD	**11 J**		**pg/g**	**SW846 8290**
Total HxCDD	**73**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDD	**220**		**pg/g**	**SW846 8290**
Total HpCDD	**430**		**pg/g**	**SW846 8290**
OCDD	**1900 B**		**pg/g**	**SW846 8290**
2,3,7,8-TCDF	**4.5 CON**		**pg/g**	**SW846 8290**
Total TCDF	**65**		**pg/g**	**SW846 8290**
1,2,3,7,8-PeCDF	ND	1.6	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	2.7	pg/g	SW846 8290
Total PeCDF	**9.7**		**pg/g**	**SW846 8290**
1,2,3,4,7,8-HxCDF	ND	5.5	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	3.6	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	3.0	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.90	pg/g	SW846 8290
Total HxCDF	**50**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDF	**64**		**pg/g**	**SW846 8290**
1,2,3,4,7,8,9-HpCDF	ND	4.4	pg/g	SW846 8290
Total HpCDF	**170**		**pg/g**	**SW846 8290**
OCDF	**170**		**pg/g**	**SW846 8290**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	98	(40 - 135)
13C-1,2,3,7,8-PeCDD	97	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	93	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	87	(40 - 135)
13C-OCDD	82	(40 - 135)
13C-2,3,7,8-TCDF	90	(40 - 135)
13C-1,2,3,7,8-PeCDF	101	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	99	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	88	(40 - 135)

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Tetra Tech NUS, Inc

Client Sample ID: NTC01SD0400

Trace Level Organic Compounds

Lot-Sample #...: C6L190179-025 Work Order #...: JLRGC1AC Matrix.....: SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CON Confirmation analysis.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190602

GC/MS Volatiles

Lot-Sample #...:	C6L210188-005	Work Order #...:	JLX9H1AA	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6362082
Prep Date.....:	12/28/06	Analysis Date..:	12/28/06		
Prep Batch #...:	6362123	Analysis Time..:	12:14		
Dilution Factor:	1	Initial Wgt/Vol:	5 mL	Final Wgt/Vol..:	5 mL
Analyst ID.....:	001562	Instrument ID..:	HP6		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	**0.26 J**	**1.0**	**ug/L**	**0.13**
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	**0.76 J**	**1.0**	**ug/L**	**0.19**
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	**2.1**	**1.0**	**ug/L**	**0.47**
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	**0.27 J**	**1.0**	**ug/L**	**0.20**
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	**0.19 J**	**1.0**	**ug/L**	**0.19**
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	**1.7**	**1.0**	**ug/L**	**0.19**
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190602

GC/MS Volatiles

Lot-Sample #...: C6L210188-005 Work Order #...: JLX9H1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	1.2 J	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	99	(71 - 118)
1,2-Dichloroethane-d4	93	(64 - 135)
4-Bromofluorobenzene	98	(70 - 118)
Dibromofluoromethane	93	(64 - 128)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC/MS Volatiles

Lot-Sample #...:	C6L210188-001	Work Order #...:	JLX8V1DP	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6362082
Prep Date.....:	12/28/06	Analysis Date..:	12/28/06		
Prep Batch #...:	6362123	Analysis Time..:	09:06		
Dilution Factor:	1	Initial Wgt/Vol:	5 mL	Final Wgt/Vol..:	5 mL
Analyst ID.....:	001562	Instrument ID..:	HP6		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	**0.32 J**	**1.0**	**ug/L**	**0.13**
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	**0.42 J**	**1.0**	**ug/L**	**0.16**
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	**0.71 J**	**1.0**	**ug/L**	**0.19**
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	**2.3**	**1.0**	**ug/L**	**0.47**
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	**0.27 J**	**1.0**	**ug/L**	**0.20**
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	**0.26 J**	**1.0**	**ug/L**	**0.19**
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	**2.3**	**1.0**	**ug/L**	**0.19**
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC/MS Volatiles

Lot-Sample #...: C6L210188-001 Work Order #...: JLX8V1DP Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	0.20 J	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	1.6 J	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	96	(71 - 118)
1,2-Dichloroethane-d4	92	(64 - 135)
4-Bromofluorobenzene	91	(70 - 118)
Dibromofluoromethane	93	(64 - 128)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC/MS Volatiles

Lot-Sample #...: C6L210188-002	Work Order #...: JLX9C1A7	Matrix.....: WATER
Date Sampled...: 12/19/06	Date Received..: 12/21/06	MS Run #.....: 6362082
Prep Date.....: 12/28/06	Analysis Date..: 12/28/06	
Prep Batch #...: 6362123	Analysis Time..: 11:03	
Dilution Factor: 1	Initial Wgt/Vol: 5 mL	Final Wgt/Vol..: 5 mL
Analyst ID.....: 001562	Instrument ID..: HP6	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	**2.7 J**	**5.0**	**ug/L**	**2.5**
Benzene	**0.44 J**	**1.0**	**ug/L**	**0.13**
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	**0.33 J**	**1.0**	**ug/L**	**0.16**
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC/MS Volatiles

Lot-Sample #...: C6L210188-002 Work Order #...: JLX9C1A7 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	101	(71 - 118)
1,2-Dichloroethane-d4	94	(64 - 135)
4-Bromofluorobenzene	101	(70 - 118)
Dibromofluoromethane	96	(64 - 128)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC/MS Volatiles

Lot-Sample #...: C6L210188-003	**Work Order #...:** JLX9D1A7	**Matrix.....:** WATER
Date Sampled...: 12/19/06	**Date Received..:** 12/21/06	**MS Run #.....:** 6362082
Prep Date.....: 12/28/06	**Analysis Date..:** 12/28/06	
Prep Batch #...: 6362123	**Analysis Time..:** 11:27	
Dilution Factor: 1	**Initial Wgt/Vol:** 5 mL	**Final Wgt/Vol..:** 5 mL
Analyst ID.....: 001562	**Instrument ID..:** HP6	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC/MS Volatiles

Lot-Sample #...: C6L210188-003 Work Order #...: JLX9D1A7 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	97	(71 - 118)
1,2-Dichloroethane-d4	95	(64 - 135)
4-Bromofluorobenzene	99	(70 - 118)
Dibromofluoromethane	96	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01TB12190602

GC/MS Volatiles

Lot-Sample #...:	C6L210188-004	Work Order #...:	JLX9F1AA	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6362082
Prep Date.....:	12/28/06	Analysis Date..:	12/28/06		
Prep Batch #...:	6362123	Analysis Time..:	11:50		
Dilution Factor:	1	Initial Wgt/Vol:	5 mL	Final Wgt/Vol..:	5 mL
Analyst ID.....:	001562	Instrument ID..:	HP6		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01TB12190602

GC/MS Volatiles

Lot-Sample #...: C6L210188-004 Work Order #...: JLX9F1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	98	(71 - 118)
1,2-Dichloroethane-d4	97	(64 - 135)
4-Bromofluorobenzene	100	(70 - 118)
Dibromofluoromethane	98	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190602

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-005	Work Order #...: JLX9H1AC	Matrix.....: WATER
Date Sampled...: 12/19/06	Date Received..: 12/21/06	MS Run #.....: 6360072
Prep Date.....: 12/26/06	Analysis Date..: 01/08/07	
Prep Batch #...: 6360096	Analysis Time..: 16:34	
Dilution Factor: 1.01	Initial Wgt/Vol: 990 mL	Final Wgt/Vol..: 1 mL
Analyst ID.....: 003200	Instrument ID..: 731	
	Method.....: SW846 8270C	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	10	ug/L	6.5
Acenaphthylene	ND	10	ug/L	4.5
Acetophenone	ND	10	ug/L	7.4
Anthracene	ND	10	ug/L	1.5
Atrazine	ND	10	ug/L	3.0
Benzo(a)anthracene	ND	10	ug/L	1.4
Benzo(a)pyrene	ND	10	ug/L	3.7
Benzo(b)fluoranthene	ND	10	ug/L	1.4
Benzo(ghi)perylene	ND	10	ug/L	2.8
Benzo(k)fluoranthene	ND	10	ug/L	2.7
Benzaldehyde	**1.0 J**	**10**	**ug/L**	**1.0**
1,1'-Biphenyl	ND	10	ug/L	5.4
bis(2-Chloroethoxy) methane	ND	10	ug/L	4.0
bis(2-Chloroethyl)-ether	ND	10	ug/L	2.5
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	1.6
4-Bromophenyl phenyl ether	ND	10	ug/L	1.0
Butyl benzyl phthalate	ND	10	ug/L	2.9
Caprolactam	ND	10	ug/L	0.91
Carbazole	ND	10	ug/L	3.6
4-Chloroaniline	ND	10	ug/L	1.1
4-Chloro-3-methylphenol	ND	10	ug/L	1.1
2-Chloronaphthalene	ND	10	ug/L	6.0
2-Chlorophenol	ND	10	ug/L	2.9
4-Chlorophenyl phenyl ether	ND	10	ug/L	1.4
Chrysene	ND	10	ug/L	1.3
Dibenz(a,h)anthracene	ND	10	ug/L	0.38
Dibenzofuran	ND	10	ug/L	6.2
3,3'-Dichlorobenzidine	ND	50	ug/L	6.9
2,4-Dichlorophenol	ND	10	ug/L	3.4
Diethyl phthalate	**4.0 J**	**10**	**ug/L**	**1.5**
2,4-Dimethylphenol	ND	10	ug/L	3.6
Dimethyl phthalate	ND	10	ug/L	1.3

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190602

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-005 Work Order #...: JLX9H1AC Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	10	ug/L	1.3
4,6-Dinitro-2-methylphenol	ND	50	ug/L	20
2,4-Dinitrophenol	ND	50	ug/L	22
2,4-Dinitrotoluene	ND	10	ug/L	5.3
2,6-Dinitrotoluene	ND	10	ug/L	1.1
Di-n-octyl phthalate	ND	10	ug/L	1.6
Fluoranthene	ND	10	ug/L	1.8
Fluorene	ND	10	ug/L	1.5
Hexachlorobenzene	ND	10	ug/L	6.9
Hexachlorobutadiene	ND	10	ug/L	8.3
Hexachlorocyclopentadiene	ND	50	ug/L	1.1
Hexachloroethane	ND	10	ug/L	7.2
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	2.3
Isophorone	ND	10	ug/L	6.3
2-Methylnaphthalene	ND	10	ug/L	2.1
2-Methylphenol	ND	10	ug/L	2.7
4-Methylphenol	ND	10	ug/L	1.5
Naphthalene	**5.2 J**	**10**	**ug/L**	**2.4**
2-Nitroaniline	ND	50	ug/L	8.6
3-Nitroaniline	ND	50	ug/L	10
4-Nitroaniline	ND	50	ug/L	13
Nitrobenzene	ND	10	ug/L	2.4
2-Nitrophenol	ND	10	ug/L	3.5
4-Nitrophenol	ND	50	ug/L	17
N-Nitrosodi-n-propylamine	ND	10	ug/L	4.0
N-Nitrosodiphenylamine	ND	10	ug/L	3.2
2,2'-oxybis(1-Chloropropane)	ND	10	ug/L	6.3
Pentachlorophenol	ND	50	ug/L	22
Phenanthrene	ND	10	ug/L	6.1
Phenol	ND	10	ug/L	2.8
Pyrene	ND	10	ug/L	4.0
2,4,5-Trichlorophenol	ND	10	ug/L	4.0
2,4,6-Trichlorophenol	ND	10	ug/L	3.1

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Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190602

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-005 Work Order #...: JLX9H1AC Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	79	(19 - 138)
2-Fluorobiphenyl	80	(35 - 115)
2-Fluorophenol	70	(10 - 118)
Nitrobenzene-d5	79	(39 - 115)
Phenol-d5	72	(18 - 115)
Terphenyl-d14	40	(17 - 129)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

NTC01FD12190602

GC/MS Semivolatiles

Lot-Sample #: C6L210188-005 **Work Order #:** JLX9H1AC **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC/MS Semivolatiles

Lot-Sample #...:	C6L210188-001	Work Order #...:	JLX8V1DT	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6360072
Prep Date.....:	12/26/06	Analysis Date..:	01/08/07		
Prep Batch #...:	6360096	Analysis Time..:	14:13		
Dilution Factor:	1.27	Initial Wgt/Vol:	790 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	003200	Instrument ID..:	731		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	13	ug/L	8.1
Acenaphthylene	ND	13	ug/L	5.7
Acetophenone	ND	13	ug/L	9.3
Anthracene	ND	13	ug/L	1.9
Atrazine	ND	13	ug/L	3.8
Benzo(a)anthracene	ND	13	ug/L	1.8
Benzo(a)pyrene	ND	13	ug/L	4.6
Benzo(b)fluoranthene	ND	13	ug/L	1.8
Benzo(ghi)perylene	ND	13	ug/L	3.5
Benzo(k)fluoranthene	ND	13	ug/L	3.4
Benzaldehyde	ND	13	ug/L	1.3
1,1'-Biphenyl	ND	13	ug/L	6.8
bis(2-Chloroethoxy) methane	ND	13	ug/L	5.0
bis(2-Chloroethyl)-ether	ND	13	ug/L	3.1
bis(2-Ethylhexyl) phthalate	ND	13	ug/L	2.0
4-Bromophenyl phenyl ether	ND	13	ug/L	1.3
Butyl benzyl phthalate	ND	13	ug/L	3.7
Caprolactam	ND	13	ug/L	1.1
Carbazole	ND	13	ug/L	4.5
4-Chloroaniline	ND	13	ug/L	1.3
4-Chloro-3-methylphenol	ND	13	ug/L	1.4
2-Chloronaphthalene	ND	13	ug/L	7.5
2-Chlorophenol	ND	13	ug/L	3.7
4-Chlorophenyl phenyl ether	ND	13	ug/L	1.8
Chrysene	ND	13	ug/L	1.7
Dibenz(a,h)anthracene	ND	13	ug/L	0.48
Dibenzofuran	ND	13	ug/L	7.7
3,3'-Dichlorobenzidine	ND	64	ug/L	8.7
2,4-Dichlorophenol	ND	13	ug/L	4.3
Diethyl phthalate	3.5 J	13	ug/L	1.9
2,4-Dimethylphenol	ND	13	ug/L	4.5
Dimethyl phthalate	ND	13	ug/L	1.6

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-001 Work Order #...: JLX8V1DT Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	13	ug/L	1.6
4,6-Dinitro-2-methylphenol	ND	64	ug/L	25
2,4-Dinitrophenol	ND	64	ug/L	28
2,4-Dinitrotoluene	ND	13	ug/L	6.7
2,6-Dinitrotoluene	ND	13	ug/L	1.4
Di-n-octyl phthalate	ND	13	ug/L	2.1
Fluoranthene	ND	13	ug/L	2.3
Fluorene	ND	13	ug/L	1.9
Hexachlorobenzene	ND	13	ug/L	8.6
Hexachlorobutadiene	ND	13	ug/L	10
Hexachlorocyclopentadiene	ND	64	ug/L	1.3
Hexachloroethane	ND	13	ug/L	9.1
Indeno(1,2,3-cd)pyrene	ND	13	ug/L	2.9
Isophorone	ND	13	ug/L	8.0
2-Methylnaphthalene	ND	13	ug/L	2.7
2-Methylphenol	ND	13	ug/L	3.3
4-Methylphenol	ND	13	ug/L	1.9
Naphthalene	**4.4 J**	13	ug/L	3.1
2-Nitroaniline	ND	64	ug/L	11
3-Nitroaniline	ND	64	ug/L	13
4-Nitroaniline	ND	64	ug/L	16
Nitrobenzene	ND	13	ug/L	3.0
2-Nitrophenol	ND	13	ug/L	4.3
4-Nitrophenol	ND	64	ug/L	21
N-Nitrosodi-n-propylamine	ND	13	ug/L	5.0
N-Nitrosodiphenylamine	ND	13	ug/L	4.0
2,2'-oxybis(1-Chloropropane)	ND	13	ug/L	7.9
Pentachlorophenol	ND	64	ug/L	27
Phenanthrene	ND	13	ug/L	7.7
Phenol	ND	13	ug/L	3.5
Pyrene	ND	13	ug/L	5.0
2,4,5-Trichlorophenol	ND	13	ug/L	5.0
2,4,6-Trichlorophenol	ND	13	ug/L	3.9

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-001 Work Order #...: JLX8V1DT Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	69	(19 - 138)
2-Fluorobiphenyl	73	(35 - 115)
2-Fluorophenol	58	(10 - 118)
Nitrobenzene-d5	70	(39 - 115)
Phenol-d5	62	(18 - 115)
Terphenyl-d14	31	(17 - 129)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

NTC01GWTW0101

GC/MS Semivolatiles

Lot-Sample #: C6L210188-001 Work Order #: JLX8V1DT Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #.	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-002	Work Order #...: JLX9C1A8	Matrix.....: WATER
Date Sampled...: 12/19/06	Date Received..: 12/21/06	MS Run #.....: 6360072
Prep Date.....: 12/26/06	Analysis Date..: 01/08/07	
Prep Batch #...: 6360096	Analysis Time..: 15:38	
Dilution Factor: 1.05	Initial Wgt/Vol: 950 mL	Final Wgt/Vol..: 1 mL
Analyst ID.....: 003200	Instrument ID..: 731	
	Method.....: SW846 8270C	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	10	ug/L	6.7
Acenaphthylene	ND	10	ug/L	4.7
Acetophenone	ND	10	ug/L	7.7
Anthracene	ND	10	ug/L	1.6
Atrazine	ND	10	ug/L	3.1
Benzo(a)anthracene	ND	10	ug/L	1.5
Benzo(a)pyrene	ND	10	ug/L	3.8
Benzo(b)fluoranthene	ND	10	ug/L	1.5
Benzo(ghi)perylene	ND	10	ug/L	2.9
Benzo(k)fluoranthene	ND	10	ug/L	2.8
Benzaldehyde	ND	10	ug/L	1.1
1,1'-Biphenyl	ND	10	ug/L	5.6
bis(2-Chloroethoxy) methane	ND	10	ug/L	4.2
bis(2-Chloroethyl)-ether	ND	10	ug/L	2.6
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	1.7
4-Bromophenyl phenyl ether	ND	10	ug/L	1.0
Butyl benzyl phthalate	ND	10	ug/L	3.0
Caprolactam	ND	10	ug/L	0.94
Carbazole	ND	10	ug/L	3.8
4-Chloroaniline	ND	10	ug/L	1.1
4-Chloro-3-methylphenol	ND	10	ug/L	1.1
2-Chloronaphthalene	ND	10	ug/L	6.2
2-Chlorophenol	ND	10	ug/L	3.1
4-Chlorophenyl phenyl ether	ND	10	ug/L	1.5
Chrysene	ND	10	ug/L	1.4
Dibenz(a,h)anthracene	ND	10	ug/L	0.39
Dibenzofuran	ND	10	ug/L	6.4
3,3'-Dichlorobenzidine	ND	52	ug/L	7.2
2,4-Dichlorophenol	ND	10	ug/L	3.5
Diethyl phthalate	ND	10	ug/L	1.5
2,4-Dimethylphenol	ND	10	ug/L	3.7
Dimethyl phthalate	ND	10	ug/L	1.3

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-002 Work Order #...: JLX9C1A8 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	10	ug/L	1.3
4,6-Dinitro-2-methylphenol	ND	52	ug/L	21
2,4-Dinitrophenol	ND	52	ug/L	23
2,4-Dinitrotoluene	ND	10	ug/L	5.5
2,6-Dinitrotoluene	ND	10	ug/L	1.2
Di-n-octyl phthalate	ND	10	ug/L	1.7
Fluoranthene	ND	10	ug/L	1.9
Fluorene	ND	10	ug/L	1.6
Hexachlorobenzene	ND	10	ug/L	7.1
Hexachlorobutadiene	ND	10	ug/L	8.6
Hexachlorocyclopentadiene	ND	52	ug/L	1.1
Hexachloroethane	ND	10	ug/L	7.5
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	2.4
Isophorone	ND	10	ug/L	6.6
2-Methylnaphthalene	ND	10	ug/L	2.2
2-Methylphenol	ND	10	ug/L	2.8
4-Methylphenol	ND	10	ug/L	1.6
Naphthalene	ND	10	ug/L	2.5
2-Nitroaniline	ND	52	ug/L	8.9
3-Nitroaniline	ND	52	ug/L	11
4-Nitroaniline	ND	52	ug/L	14
Nitrobenzene	ND	10	ug/L	2.5
2-Nitrophenol	ND	10	ug/L	3.6
4-Nitrophenol	ND	52	ug/L	17
N-Nitrosodi-n-propylamine	ND	10	ug/L	4.1
N-Nitrosodiphenylamine	ND	10	ug/L	3.3
2,2'-oxybis(1-Chloropropane)	ND	10	ug/L	6.5
Pentachlorophenol	ND	52	ug/L	22
Phenanthrene	ND	10	ug/L	6.3
Phenol	ND	10	ug/L	2.9
Pyrene	ND	10	ug/L	4.1
2,4,5-Trichlorophenol	ND	10	ug/L	4.1
2,4,6-Trichlorophenol	ND	10	ug/L	3.2

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-002 Work Order #...: JLX9C1A8 Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	75	(19 - 138)
2-Fluorobiphenyl	69	(35 - 115)
2-Fluorophenol	56	(10 - 118)
Nitrobenzene-d5	65	(39 - 115)
Phenol-d5	63	(18 - 115)
Terphenyl-d14	53	(17 - 129)

Tetra Tech NUS, Inc

NTC01GWTW0201

GC/MS Semivolatiles

Lot-Sample #: C6L210188-002 **Work Order #:** JLX9C1A8 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-003	Work Order #...: JLX9D1A8	Matrix.....: WATER
Date Sampled...: 12/19/06	Date Received..: 12/21/06	MS Run #.....: 6360072
Prep Date.....: 12/26/06	Analysis Date..: 01/08/07	
Prep Batch #...: 6360096	Analysis Time..: 16:06	
Dilution Factor: 1.09	Initial Wgt/Vol: 920 mL	Final Wgt/Vol..: 1 mL
Analyst ID.....: 003200	Instrument ID..: 731	
	Method.....: SW846 8270C	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	11	ug/L	7.0
Acenaphthylene	ND	11	ug/L	4.9
Acetophenone	ND	11	ug/L	7.9
Anthracene	ND	11	ug/L	1.6
Atrazine	ND	11	ug/L	3.3
Benzo(a)anthracene	ND	11	ug/L	1.6
Benzo(a)pyrene	ND	11	ug/L	4.0
Benzo(b)fluoranthene	ND	11	ug/L	1.5
Benzo(ghi)perylene	ND	11	ug/L	3.0
Benzo(k)fluoranthene	ND	11	ug/L	2.9
Benzaldehyde	ND	11	ug/L	1.1
1,1'-Biphenyl	ND	11	ug/L	5.9
bis(2-Chloroethoxy) methane	ND	11	ug/L	4.3
bis(2-Chloroethyl)-ether	ND	11	ug/L	2.7
bis(2-Ethylhexyl) phthalate	ND	11	ug/L	1.7
4-Bromophenyl phenyl ether	ND	11	ug/L	1.1
Butyl benzyl phthalate	ND	11	ug/L	3.2
Caprolactam	ND	11	ug/L	0.98
Carbazole	ND	11	ug/L	3.9
4-Chloroaniline	ND	11	ug/L	1.2
4-Chloro-3-methylphenol	ND	11	ug/L	1.2
2-Chloronaphthalene	ND	11	ug/L	6.4
2-Chlorophenol	ND	11	ug/L	3.2
4-Chlorophenyl phenyl ether	ND	11	ug/L	1.5
Chrysene	ND	11	ug/L	1.4
Dibenz(a,h)anthracene	ND	11	ug/L	0.41
Dibenzofuran	ND	11	ug/L	6.6
3,3'-Dichlorobenzidine	ND	54	ug/L	7.5
2,4-Dichlorophenol	ND	11	ug/L	3.7
Diethyl phthalate	ND	11	ug/L	1.6
2,4-Dimethylphenol	ND	11	ug/L	3.8
Dimethyl phthalate	ND	11	ug/L	1.4

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-003 Work Order #...: JLX9D1A8 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	11	ug/L	1.4
4,6-Dinitro-2-methylphenol	ND	54	ug/L	22
2,4-Dinitrophenol	ND	54	ug/L	24
2,4-Dinitrotoluene	ND	11	ug/L	5.7
2,6-Dinitrotoluene	ND	11	ug/L	1.2
Di-n-octyl phthalate	ND	11	ug/L	1.8
Fluoranthene	ND	11	ug/L	1.9
Fluorene	ND	11	ug/L	1.7
Hexachlorobenzene	ND	11	ug/L	7.4
Hexachlorobutadiene	ND	11	ug/L	9.0
Hexachlorocyclopentadiene	ND	54	ug/L	1.2
Hexachloroethane	ND	11	ug/L	7.8
Indeno(1,2,3-cd)pyrene	ND	11	ug/L	2.5
Isophorone	ND	11	ug/L	6.8
2-Methylnaphthalene	ND	11	ug/L	2.3
2-Methylphenol	ND	11	ug/L	2.9
4-Methylphenol	ND	11	ug/L	1.6
Naphthalene	ND	11	ug/L	2.6
2-Nitroaniline	ND	54	ug/L	9.3
3-Nitroaniline	ND	54	ug/L	11
4-Nitroaniline	ND	54	ug/L	14
Nitrobenzene	ND	11	ug/L	2.5
2-Nitrophenol	ND	11	ug/L	3.7
4-Nitrophenol	ND	54	ug/L	18
N-Nitrosodi-n-propylamine	ND	11	ug/L	4.3
N-Nitrosodiphenylamine	ND	11	ug/L	3.4
2,2'-oxybis(1-Chloropropane)	ND	11	ug/L	6.8
Pentachlorophenol	ND	54	ug/L	23
Phenanthrene	ND	11	ug/L	6.6
Phenol	ND	11	ug/L	3.0
Pyrene	ND	11	ug/L	4.3
2,4,5-Trichlorophenol	ND	11	ug/L	4.3
2,4,6-Trichlorophenol	ND	11	ug/L	3.4

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-003 Work Order #...: JLX9D1A8 Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	55	(19 - 138)
2-Fluorobiphenyl	63	(35 - 115)
2-Fluorophenol	59	(10 - 118)
Nitrobenzene-d5	63	(39 - 115)
Phenol-d5	64	(18 - 115)
Terphenyl-d14	57	(17 - 129)

Tetra Tech NUS, Inc

NTC01GWTW0301

GC/MS Semivolatiles

Lot-Sample #: C6L210188-003 **Work Order #:** JLX9D1A8 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190602

GC Semivolatiles

Lot-Sample #...:	C6L210188-005	Work Order #...:	JLX9H1AE	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6360230
Prep Date.....:	12/26/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6360417	Analysis Time..:	18:08		
Dilution Factor:	1.01	Initial Wgt/Vol:	990 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	402331	Instrument ID..:	A/B		
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	0.050	ug/L	0.016
beta-BHC	ND	0.050	ug/L	0.016
delta-BHC	ND	0.050	ug/L	0.018
gamma-BHC (Lindane)	ND	0.050	ug/L	0.014
Heptachlor	ND	0.050	ug/L	0.015
Aldrin	ND	0.050	ug/L	0.019
Heptachlor epoxide	ND	0.050	ug/L	0.023
Endosulfan I	ND	0.050	ug/L	0.016
Dieldrin	ND	0.050	ug/L	0.022
4,4'-DDE	ND	0.050	ug/L	0.016
Endrin	ND	0.050	ug/L	0.018
Endrin ketone	ND	0.050	ug/L	0.018
Endrin aldehyde	ND	0.050	ug/L	0.016
Endosulfan II	ND	0.050	ug/L	0.023
4,4'-DDD	ND	0.050	ug/L	0.019
Endosulfan sulfate	ND	0.050	ug/L	0.025
4,4'-DDT	ND	0.050	ug/L	0.017
Methoxychlor	ND	0.10	ug/L	0.031
alpha-Chlordane	ND	0.050	ug/L	0.025
gamma-Chlordane	ND	0.050	ug/L	0.015
Toxaphene	ND	2.0	ug/L	0.085

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	68	(39 - 130)
Decachlorobiphenyl	85	(10 - 147)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC Semivolatiles

Lot-Sample #...:	C6L210188-001	Work Order #...:	JLX8V1D1	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6360230
Prep Date.....:	12/26/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6360417	Analysis Time..:	15:45		
Dilution Factor:	1	Initial Wgt/Vol:	500 mL	Final Wgt/Vol..:	5 mL
Analyst ID.....:	402331	Instrument ID..:	A/B		
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	0.050	ug/L	0.016
beta-BHC	ND	0.050	ug/L	0.016
delta-BHC	ND	0.050	ug/L	0.018
gamma-BHC (Lindane)	ND	0.050	ug/L	0.014
Heptachlor	ND	0.050	ug/L	0.015
Aldrin	ND	0.050	ug/L	0.019
Heptachlor epoxide	ND	0.050	ug/L	0.023
Endosulfan I	ND	0.050	ug/L	0.016
Dieldrin	ND	0.050	ug/L	0.022
4,4'-DDE	ND	0.050	ug/L	0.016
Endrin	ND	0.050	ug/L	0.018
Endrin ketone	ND	0.050	ug/L	0.018
Endrin aldehyde	ND	0.050	ug/L	0.016
Endosulfan II	ND	0.050	ug/L	0.022
4,4'-DDD	ND	0.050	ug/L	0.019
Endosulfan sulfate	ND	0.050	ug/L	0.025
4,4'-DDT	ND	0.050	ug/L	0.017
Methoxychlor	ND	0.10	ug/L	0.030
alpha-Chlordane	ND	0.050	ug/L	0.024
gamma-Chlordane	ND	0.050	ug/L	0.015
Toxaphene	ND	2.0	ug/L	0.084

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	77	(39 - 130)
Decachlorobiphenyl	94	(10 - 147)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC Semivolatiles

Lot-Sample #...:	C6L210188-002	Work Order #...:	JLX9C1A0	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6360230
Prep Date.....:	12/26/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6360417	Analysis Time..:	17:11		
Dilution Factor:	0.99	Initial Wgt/Vol:	1010 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	402331	Instrument ID..:	A/B		
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	0.050	ug/L	0.016
beta-BHC	ND	0.050	ug/L	0.016
delta-BHC	ND	0.050	ug/L	0.017
gamma-BHC (Lindane)	ND	0.050	ug/L	0.014
Heptachlor	ND	0.050	ug/L	0.015
Aldrin	ND	0.050	ug/L	0.019
Heptachlor epoxide	ND	0.050	ug/L	0.023
Endosulfan I	ND	0.050	ug/L	0.016
Dieldrin	ND	0.050	ug/L	0.022
4,4'-DDE	ND	0.050	ug/L	0.015
Endrin	ND	0.050	ug/L	0.018
Endrin ketone	ND	0.050	ug/L	0.017
Endrin aldehyde	ND	0.050	ug/L	0.016
Endosulfan II	ND	0.050	ug/L	0.022
4,4'-DDD	ND	0.050	ug/L	0.019
Endosulfan sulfate	ND	0.050	ug/L	0.025
4,4'-DDT	ND	0.050	ug/L	0.017
Methoxychlor	ND	0.099	ug/L	0.030
alpha-Chlordane	ND	0.050	ug/L	0.024
gamma-Chlordane	ND	0.050	ug/L	0.015
Toxaphene	ND	2.0	ug/L	0.083

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	75	(39 - 130)
Decachlorobiphenyl	92	(10 - 147)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC Semivolatiles

Lot-Sample #...:	C6L210188-003	Work Order #...:	JLX9D1A0	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6360230
Prep Date.....:	12/26/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6360417	Analysis Time..:	17:40		
Dilution Factor:	1	Initial Wgt/Vol:	1000 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	402331	Instrument ID..:	A/B		
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	0.050	ug/L	0.016
beta-BHC	ND	0.050	ug/L	0.016
delta-BHC	ND	0.050	ug/L	0.018
gamma-BHC (Lindane)	ND	0.050	ug/L	0.014
Heptachlor	ND	0.050	ug/L	0.015
Aldrin	ND	0.050	ug/L	0.019
Heptachlor epoxide	ND	0.050	ug/L	0.023
Endosulfan I	ND	0.050	ug/L	0.016
Dieldrin	ND	0.050	ug/L	0.022
4,4'-DDE	ND	0.050	ug/L	0.016
Endrin	ND	0.050	ug/L	0.018
Endrin ketone	ND	0.050	ug/L	0.018
Endrin aldehyde	ND	0.050	ug/L	0.016
Endosulfan II	ND	0.050	ug/L	0.022
4,4'-DDD	ND	0.050	ug/L	0.019
Endosulfan sulfate	ND	0.050	ug/L	0.025
4,4'-DDT	ND	0.050	ug/L	0.017
Methoxychlor	ND	0.10	ug/L	0.030
alpha-Chlordane	ND	0.050	ug/L	0.024
gamma-Chlordane	ND	0.050	ug/L	0.015
Toxaphene	ND	2.0	ug/L	0.084

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	74	(39 - 130)
Decachlorobiphenyl	90	(10 - 147)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190602

GC Semivolatiles

Lot-Sample #...:	C6L210188-005	Work Order #...:	JLX9H1AD	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6360233
Prep Date.....:	12/26/06	Analysis Date..:	12/28/06		
Prep Batch #...:	6360423	Analysis Time..:	17:47		
Dilution Factor:	1.01	Initial Wgt/Vol:	990 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	402360	Instrument ID..:	S/T		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	1.0	ug/L	0.50
Aroclor 1221	ND	1.0	ug/L	0.46
Aroclor 1232	ND	1.0	ug/L	0.54
Aroclor 1242	ND	1.0	ug/L	0.26
Aroclor 1248	ND	1.0	ug/L	0.35
Aroclor 1254	ND	1.0	ug/L	0.36
Aroclor 1260	ND	1.0	ug/L	0.59

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	56	(45 - 120)
Decachlorobiphenyl	76	(24 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC Semivolatiles

Lot-Sample #...:	C6L210188-001	Work Order #...:	JLX8V1DW	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6360233
Prep Date.....:	12/26/06	Analysis Date..:	12/28/06		
Prep Batch #...:	6360423	Analysis Time..:	15:58		
Dilution Factor:	1	Initial Wgt/Vol:	500 mL	Final Wgt/Vol..:	5 mL
Analyst ID.....:	402360	Instrument ID..:	S/T		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	1.0	ug/L	0.49
Aroclor 1221	ND	1.0	ug/L	0.45
Aroclor 1232	ND	1.0	ug/L	0.53
Aroclor 1242	ND	1.0	ug/L	0.25
Aroclor 1248	ND	1.0	ug/L	0.34
Aroclor 1254	ND	1.0	ug/L	0.35
Aroclor 1260	ND	1.0	ug/L	0.58

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	113	(45 - 120)
Decachlorobiphenyl	151 *	(24 - 128)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC Semivolatiles

Lot-Sample #...:	C6L210188-002	**Work Order #...:**	JLX9C1A9	**Matrix.....:**	WATER
Date Sampled...:	12/19/06	**Date Received..:**	12/21/06	**MS Run #.....:**	6360233
Prep Date.....:	12/26/06	**Analysis Date..:**	12/28/06		
Prep Batch #...:	6360423	**Analysis Time..:**	17:04		
Dilution Factor:	0.99	**Initial Wgt/Vol:**	1010 mL	**Final Wgt/Vol..:**	10 mL
Analyst ID.....:	402360	**Instrument ID..:**	S/T		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.99	ug/L	0.49
Aroclor 1221	ND	0.99	ug/L	0.45
Aroclor 1232	ND	0.99	ug/L	0.53
Aroclor 1242	ND	0.99	ug/L	0.25
Aroclor 1248	ND	0.99	ug/L	0.34
Aroclor 1254	ND	0.99	ug/L	0.35
Aroclor 1260	ND	0.99	ug/L	0.58

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	66	(45 - 120)
Decachlorobiphenyl	79	(24 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC Semivolatiles

Lot-Sample #...:	C6L210188-003	**Work Order #...:**	JLX9D1A9	**Matrix.....:**	WATER
Date Sampled...:	12/19/06	**Date Received..:**	12/21/06	**MS Run #.....:**	6360233
Prep Date.....:	12/26/06	**Analysis Date..:**	12/28/06		
Prep Batch #...:	6360423	**Analysis Time..:**	17:25		
Dilution Factor:	1	**Initial Wgt/Vol:**	1000 mL	**Final Wgt/Vol..:**	10 mL
Analyst ID.....:	402360	**Instrument ID..:**	S/T		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	1.0	ug/L	0.49
Aroclor 1221	ND	1.0	ug/L	0.45
Aroclor 1232	ND	1.0	ug/L	0.53
Aroclor 1242	ND	1.0	ug/L	0.25
Aroclor 1248	ND	1.0	ug/L	0.34
Aroclor 1254	ND	1.0	ug/L	0.35
Aroclor 1260	ND	1.0	ug/L	0.58

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	66	(45 - 120)
Decachlorobiphenyl	76	(24 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190602

HPLC

Lot-Sample #...:	C6L210188-005	Work Order #...:	JLX9H1AG	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6356248
Prep Date.....:	12/22/06	Analysis Date..:	12/31/06		
Prep Batch #...:	6356473	Analysis Time..:	16:18		
Dilution Factor:	0.99	Initial Wgt/Vol:	1010 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	6.8	0.99	ug/L	0.11
Acenaphthylene	5.9	0.99	ug/L	0.11
Acenaphthene	0.23 J,PG	0.99	ug/L	0.11
Fluorene	0.23 PG	0.20	ug/L	0.021
Phenanthrene	0.32	0.20	ug/L	0.024
Anthracene	0.039 J,PG	0.20	ug/L	0.024
Fluoranthene	ND	0.20	ug/L	0.025
Pyrene	0.043 J,PG	0.20	ug/L	0.025
Benzo(a)anthracene	ND	0.20	ug/L	0.026
Chrysene	ND	0.20	ug/L	0.025
Benzo(b)fluoranthene	ND	0.20	ug/L	0.029
Benzo(k)fluoranthene	ND	0.20	ug/L	0.029
Benzo(a)pyrene	ND	0.20	ug/L	0.028
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	0.023
Dibenzo(a,h)anthracene	ND	0.20	ug/L	0.023
Benzo(ghi)perylene	ND	0.20	ug/L	0.024
Carbazole	0.17 J,PG	0.99	ug/L	0.11
2-Methylnaphthalene	1.5	0.99	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	98	(78 - 125)
Terphenyl-d14	94	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

HPLC

Lot-Sample #...:	C6L210188-001	Work Order #...:	JLX8V1D7	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6356248
Prep Date.....:	12/22/06	Analysis Date..:	12/31/06		
Prep Batch #...:	6356473	Analysis Time..:	12:55		
Dilution Factor:	1.02	Initial Wgt/Vol:	980 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	5.9	1.0	ug/L	0.12
Acenaphthylene	5.0	1.0	ug/L	0.11
Acenaphthene	0.19 J,PG	1.0	ug/L	0.11
Fluorene	0.23 PG	0.20	ug/L	0.022
Phenanthrene	0.35	0.20	ug/L	0.025
Anthracene	0.035 J,PG	0.20	ug/L	0.025
Fluoranthene	ND	0.20	ug/L	0.026
Pyrene	0.039 J,PG	0.20	ug/L	0.025
Benzo(a)anthracene	ND	0.20	ug/L	0.026
Chrysene	ND	0.20	ug/L	0.026
Benzo(b)fluoranthene	ND	0.20	ug/L	0.029
Benzo(k)fluoranthene	ND	0.20	ug/L	0.030
Benzo(a)pyrene	ND	0.20	ug/L	0.028
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	0.023
Dibenzo(a,h)anthracene	ND	0.20	ug/L	0.024
Benzo(ghi)perylene	ND	0.20	ug/L	0.025
Carbazole	0.15 J,PG	1.0	ug/L	0.11
2-Methylnaphthalene	1.3	1.0	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	98	(78 - 125)
Terphenyl-d14	94	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

HPLC

Lot-Sample #...:	C6L210188-002	Work Order #...:	JLX9C1A2	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6356248
Prep Date.....:	12/22/06	Analysis Date..:	12/31/06		
Prep Batch #...:	6356473	Analysis Time..:	14:57		
Dilution Factor:	1.02	Initial Wgt/Vol:	980 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1.0	ug/L	0.12
Acenaphthylene	ND	1.0	ug/L	0.11
Acenaphthene	ND	1.0	ug/L	0.11
Fluorene	0.025 J	0.20	ug/L	0.022
Phenanthrene	0.12 J	0.20	ug/L	0.025
Anthracene	ND	0.20	ug/L	0.025
Fluoranthene	ND	0.20	ug/L	0.026
Pyrene	ND	0.20	ug/L	0.025
Benzo(a)anthracene	ND	0.20	ug/L	0.026
Chrysene	ND	0.20	ug/L	0.026
Benzo(b)fluoranthene	ND	0.20	ug/L	0.029
Benzo(k)fluoranthene	ND	0.20	ug/L	0.030
Benzo(a)pyrene	ND	0.20	ug/L	0.028
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	0.023
Dibenzo(a,h)anthracene	ND	0.20	ug/L	0.024
Benzo(ghi)perylene	ND	0.20	ug/L	0.025
Carbazole	ND	1.0	ug/L	0.11
2-Methylnaphthalene	ND	1.0	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	97	(78 - 125)
Terphenyl-d14	91	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

HPLC

Lot-Sample #...:	C6L210188-003	Work Order #...:	JLX9D1A2	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6356248
Prep Date.....:	12/22/06	Analysis Date..:	12/31/06		
Prep Batch #...:	6356473	Analysis Time..:	15:37		
Dilution Factor:	1.02	Initial Wgt/Vol:	980 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1.0	ug/L	0.12
Acenaphthylene	ND	1.0	ug/L	0.11
Acenaphthene	ND	1.0	ug/L	0.11
Fluorene	**0.029 J**	**0.20**	**ug/L**	**0.022**
Phenanthrene	**0.14 J**	**0.20**	**ug/L**	**0.025**
Anthracene	ND	0.20	ug/L	0.025
Fluoranthene	ND	0.20	ug/L	0.026
Pyrene	ND	0.20	ug/L	0.025
Benzo(a)anthracene	ND	0.20	ug/L	0.026
Chrysene	ND	0.20	ug/L	0.026
Benzo(b)fluoranthene	ND	0.20	ug/L	0.029
Benzo(k)fluoranthene	ND	0.20	ug/L	0.030
Benzo(a)pyrene	ND	0.20	ug/L	0.028
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	0.023
Dibenzo(a,h)anthracene	ND	0.20	ug/L	0.024
Benzo(ghi)perylene	ND	0.20	ug/L	0.025
Carbazole	ND	1.0	ug/L	0.11
2-Methylnaphthalene	ND	1.0	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	97	(78 - 125)
Terphenyl-d14	91	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01FD12190602

GC Semivolatiles

Lot-Sample #...:	C6L210188-005	Work Order #...:	JLX9H1AF	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6356148
Prep Date.....:	12/22/06	Analysis Date..:	12/24/06		
Prep Batch #...:	6356273	Analysis Time..:	14:27		
Dilution Factor:	0.98	Initial Wgt/Vol:	1020 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	401414	Instrument ID..:	M/N		
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	3.9	ug/L	0.43
2,4,5-TP (Silvex)	ND	0.98	ug/L	0.092
2,4,5-T	ND	0.98	ug/L	0.092
Pentachlorophenol	ND	0.98	ug/L	0.047

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	77	(53 - 119)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWIW0101

GC Semivolatiles

Lot-Sample #...: C6L210188-001	Work Order #...: JLX8V1D4	Matrix.....: WATER
Date Sampled...: 12/19/06	Date Received..: 12/21/06	MS Run #.....: 6356148
Prep Date.....: 12/22/06	Analysis Date..: 12/24/06	
Prep Batch #...: 6356273	Analysis Time..: 11:44	
Dilution Factor: 1.08	Initial Wgt/Vol: 930 mL	Final Wgt/Vol..: 10 mL
Analyst ID.....: 401414	Instrument ID..: M/N	
	Method.....: SW846 8151A	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	4.3	ug/L	0.47
2,4,5-TP (Silvex)	ND	1.1	ug/L	0.10
2,4,5-T	ND	1.1	ug/L	0.10
Pentachlorophenol	ND	1.1	ug/L	0.051

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	77	(53 - 119)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC Semivolatiles

Lot-Sample #...: C6L210188-002	Work Order #...: JLX9C1A1	Matrix.....: WATER
Date Sampled...: 12/19/06	Date Received..: 12/21/06	MS Run #.....: 6356148
Prep Date.....: 12/22/06	Analysis Date..: 12/24/06	
Prep Batch #...: 6356273	Analysis Time..: 13:22	
Dilution Factor: 1.14	Initial Wgt/Vol: 880 mL	Final Wgt/Vol..: 10 mL
Analyst ID.....: 401414	Instrument ID..: M/N	
	Method.....: SW846 8151A	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	4.6	ug/L	0.50
2,4,5-TP (Silvex)	ND	1.1	ug/L	0.11
2,4,5-T	ND	1.1	ug/L	0.11
Pentachlorophenol	ND	1.1	ug/L	0.054

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	72	(53 - 119)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC Semivolatiles

Lot-Sample #...: C6L210188-003	Work Order #...: JLX9D1A1	Matrix.....: WATER
Date Sampled...: 12/19/06	Date Received..: 12/21/06	MS Run #.....: 6356148
Prep Date.....: 12/22/06	Analysis Date..: 12/24/06	
Prep Batch #...: 6356273	Analysis Time..: 13:54	
Dilution Factor: 1.08	Initial Wgt/Vol: 930 mL	Final Wgt/Vol..: 10 mL
Analyst ID.....: 401414	Instrument ID..: M/N	
	Method.....: SW846 8151A	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	4.3	ug/L	0.47
2,4,5-TP (Silvex)	ND	1.1	ug/L	0.10
2,4,5-T	ND	1.1	ug/L	0.10
Pentachlorophenol	ND	1.1	ug/L	0.051

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	63	(53 - 119)

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0700

GC Semivolatiles

Lot-Sample #...:	C7K170155-001	**Work Order #...:**	KCHL71AD	**Matrix.....:**	SOLID
Date Sampled...:	11/16/07	**Date Received..:**	11/17/07	**MS Run #.....:**	7323002
Prep Date.....:	11/19/07	**Analysis Date..:**	11/20/07		
Prep Batch #...:	7323010	**Analysis Time..:**	18:32		
Dilution Factor:	5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	20 mL
% Moisture.....:	22	**Analyst ID.....:**	402331	**Instrument ID..:**	G/H
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	11	ug/kg	1.6
beta-BHC	ND	11	ug/kg	1.3
delta-BHC	ND	11	ug/kg	1.1
gamma-BHC (Lindane)	**10 J,PG**	**11**	**ug/kg**	**1.5**
Heptachlor	**1.9 J**	**11**	**ug/kg**	**1.4**
Aldrin	ND	11	ug/kg	1.1
Heptachlor epoxide	**1.3 J,PG**	**11**	**ug/kg**	**1.1**
Endosulfan I	ND	11	ug/kg	1.1
Dieldrin	**25**	**11**	**ug/kg**	**0.80**
4,4'-DDE	**19**	**11**	**ug/kg**	**0.64**
Endrin	ND	11	ug/kg	0.86
Endrin ketone	ND	11	ug/kg	1.2
Endrin aldehyde	ND	11	ug/kg	1.4
Endosulfan II	ND	11	ug/kg	2.5
4,4'-DDD	**92**	**11**	**ug/kg**	**0.96**
Endosulfan sulfate	ND	11	ug/kg	1.7
4,4'-DDT	**42**	**11**	**ug/kg**	**1.5**
Methoxychlor	ND	21	ug/kg	4.5
alpha-Chlordane	**3.4 J**	**11**	**ug/kg**	**0.67**
gamma-Chlordane	**5.1 J,PG**	**11**	**ug/kg**	**1.1**
Toxaphene	ND	430	ug/kg	75

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	66	(31 - 131)
Decachlorobiphenyl	120	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0701

GC Semivolatiles

Lot-Sample #...:	C7K170155-002	**Work Order #...:**	KCHMA1AL	**Matrix.....:**	SOLID
Date Sampled...:	11/16/07	**Date Received..:**	11/17/07	**MS Run #.....:**	7323002
Prep Date.....:	11/19/07	**Analysis Date..:**	11/20/07		
Prep Batch #...:	7323010	**Analysis Time..:**	19:23		
Dilution Factor:	4.93	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	20 mL
% Moisture.....:	19	**Analyst ID.....:**	402331	**Instrument ID..:**	G/H
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	10	ug/kg	1.5
beta-BHC	ND	10	ug/kg	1.2
delta-BHC	ND	10	ug/kg	1.1
gamma-BHC (Lindane)	**4.7 J**	**10**	**ug/kg**	**1.4**
Heptachlor	ND	10	ug/kg	1.3
Aldrin	ND	10	ug/kg	1.1
Heptachlor epoxide	**3.2 J,PG**	**10**	**ug/kg**	**1.0**
Endosulfan I	ND	10	ug/kg	1.1
Dieldrin	ND	10	ug/kg	0.75
4,4'-DDE	**12**	**10**	**ug/kg**	**0.61**
Endrin	ND	10	ug/kg	0.81
Endrin ketone	ND	10	ug/kg	1.2
Endrin aldehyde	ND	10	ug/kg	1.3
Endosulfan II	ND	10	ug/kg	2.3
4,4'-DDD	**34**	**10**	**ug/kg**	**0.90**
Endosulfan sulfate	ND	10	ug/kg	1.6
4,4'-DDT	**9.2 J**	**10**	**ug/kg**	**1.4**
Methoxychlor	ND	20	ug/kg	4.2
alpha-Chlordane	**3.7 J,PG**	**10**	**ug/kg**	**0.63**
gamma-Chlordane	**8.7 J**	**10**	**ug/kg**	**1.0**
Toxaphene	ND	410	ug/kg	70

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	47	(31 - 131)
Decachlorobiphenyl	94	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0600

GC Semivolatiles

Lot-Sample #...:	C7K170155-003	**Work Order #...:**	KCHMC1AL	**Matrix.....:**	SOLID
Date Sampled...:	11/16/07	**Date Received..:**	11/17/07	**MS Run #.....:**	7323002
Prep Date.....:	11/19/07	**Analysis Date..:**	11/20/07		
Prep Batch #...:	7323010	**Analysis Time..:**	19:40		
Dilution Factor:	4.93	**Initial Wgt/Vol:**	15.2 g	**Final Wgt/Vol..:**	20 mL
% Moisture.....:	13	**Analyst ID.....:**	402331	**Instrument ID..:**	G/H
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	9.6	ug/kg	1.4
beta-BHC	ND	9.6	ug/kg	1.1
delta-BHC	ND	9.6	ug/kg	0.99
gamma-BHC (Lindane)	**4.3 J,PG**	**9.6**	**ug/kg**	**1.3**
Heptachlor	ND	9.6	ug/kg	1.2
Aldrin	ND	9.6	ug/kg	1.0
Heptachlor epoxide	ND	9.6	ug/kg	0.94
Endosulfan I	ND	9.6	ug/kg	0.98
Dieldrin	ND	9.6	ug/kg	0.70
4,4'-DDE	**4.0 J**	**9.6**	**ug/kg**	**0.57**
Endrin	ND	9.6	ug/kg	0.75
Endrin ketone	ND	9.6	ug/kg	1.1
Endrin aldehyde	ND	9.6	ug/kg	1.2
Endosulfan II	ND	9.6	ug/kg	2.2
4,4'-DDD	**4.1 J**	**9.6**	**ug/kg**	**0.84**
Endosulfan sulfate	ND	9.6	ug/kg	1.5
4,4'-DDT	ND	9.6	ug/kg	1.3
Methoxychlor	ND	19	ug/kg	3.9
alpha-Chlordane	ND	9.6	ug/kg	0.59
gamma-Chlordane	**0.98 J,PG**	**9.6**	**ug/kg**	**0.96**
Toxaphene	ND	380	ug/kg	65

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	63	(31 - 131)
Decachlorobiphenyl	105	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0601

GC Semivolatiles

Lot-Sample #...:	C7K170155-004	**Work Order #...:**	KCHME1AL	**Matrix.....:**	SOLID
Date Sampled...:	11/16/07	**Date Received..:**	11/17/07	**MS Run #.....:**	7323002
Prep Date.....:	11/19/07	**Analysis Date..:**	11/20/07		
Prep Batch #...:	7323010	**Analysis Time..:**	19:56		
Dilution Factor:	5	**Initial Wgt/Vol:**	15 g	**Final Wgt/Vol..:**	20 mL
% Moisture.....:	14	**Analyst ID.....:**	402331	**Instrument ID..:**	G/H
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	9.8	ug/kg	1.5
beta-BHC	ND	9.8	ug/kg	1.1
delta-BHC	ND	9.8	ug/kg	1.0
gamma-BHC (Lindane)	ND	9.8	ug/kg	1.3
Heptachlor	ND	9.8	ug/kg	1.2
Aldrin	ND	9.8	ug/kg	1.0
Heptachlor epoxide	**0.98 J,PG**	**9.8**	**ug/kg**	**0.97**
Endosulfan I	ND	9.8	ug/kg	1.0
Dieldrin	ND	9.8	ug/kg	0.72
4,4'-DDE	**4.1 J,PG**	**9.8**	**ug/kg**	**0.58**
Endrin	ND	9.8	ug/kg	0.77
Endrin ketone	ND	9.8	ug/kg	1.1
Endrin aldehyde	ND	9.8	ug/kg	1.2
Endosulfan II	ND	9.8	ug/kg	2.2
4,4'-DDD	**14**	**9.8**	**ug/kg**	**0.86**
Endosulfan sulfate	ND	9.8	ug/kg	1.6
4,4'-DDT	**5.8 J**	**9.8**	**ug/kg**	**1.3**
Methoxychlor	ND	19	ug/kg	4.0
alpha-Chlordane	**2.9 J**	**9.8**	**ug/kg**	**0.60**
gamma-Chlordane	**3.3 J,PG**	**9.8**	**ug/kg**	**0.99**
Toxaphene	ND	390	ug/kg	67

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	53	(31 - 131)
Decachlorobiphenyl	115	(18 - 145)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0700

HPLC

Lot-Sample #...:	C7K170155-001	Work Order #...:	KCHL71AC	Matrix.....:	SOLID
Date Sampled...:	11/16/07	Date Received..:	11/17/07	MS Run #.....:	7323005
Prep Date.....:	11/19/07	Analysis Date..:	11/20/07		
Prep Batch #...:	7323013	Analysis Time..:	17:48		
Dilution Factor:	24.7	Initial Wgt/Vol:	15.2 g	Final Wgt/Vol..:	0.5 g
% Moisture.....:	22	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1000	ug/kg	130
Acenaphthylene	420 J	1000	ug/kg	140
Acenaphthene	ND	1000	ug/kg	150
Fluorene	510	210	ug/kg	29
Phenanthrene	3800	210	ug/kg	27
Anthracene	1100	210	ug/kg	27
Fluoranthene	5900 PG	210	ug/kg	29
Pyrene	4200 PG	210	ug/kg	30
Benzo(a)anthracene	2100	210	ug/kg	28
Chrysene	2400	210	ug/kg	28
Benzo(b)fluoranthene	2600	210	ug/kg	37
Benzo(k)fluoranthene	1400	210	ug/kg	27
Benzo(a)pyrene	2200	210	ug/kg	26
Indeno(1,2,3-cd)pyrene	2100	210	ug/kg	27
Dibenzo(a,h)anthracene	340	210	ug/kg	27
Benzo(ghi)perylene	1500	210	ug/kg	27
Carbazole	470 J	1000	ug/kg	140
2-Methylnaphthalene	780 J,PG	1000	ug/kg	140

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0701

HPLC

Lot-Sample #...:	C7K170155-002	Work Order #...:	KCHMA1AK	Matrix.....:	SOLID
Date Sampled...:	11/16/07	Date Received..:	11/17/07	MS Run #.....:	7323005
Prep Date.....:	11/19/07	Analysis Date..:	11/20/07		
Prep Batch #...:	7323013	Analysis Time..:	18:29		
Dilution Factor:	25	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 g
% Moisture.....:	19	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1000	ug/kg	130
Acenaphthylene	**220 J**	**1000**	**ug/kg**	**140**
Acenaphthene	ND	1000	ug/kg	150
Fluorene	**110 J**	**210**	**ug/kg**	**28**
Phenanthrene	**1300**	**210**	**ug/kg**	**26**
Anthracene	**280 PG**	**210**	**ug/kg**	**26**
Fluoranthene	**2400 PG**	**210**	**ug/kg**	**28**
Pyrene	**1700 PG**	**210**	**ug/kg**	**29**
Benzo(a)anthracene	**920**	**210**	**ug/kg**	**27**
Chrysene	**1000**	**210**	**ug/kg**	**27**
Benzo(b)fluoranthene	**1000**	**210**	**ug/kg**	**36**
Benzo(k)fluoranthene	**460 PG**	**210**	**ug/kg**	**26**
Benzo(a)pyrene	**860**	**210**	**ug/kg**	**26**
Indeno(1,2,3-cd)pyrene	**730**	**210**	**ug/kg**	**26**
Dibenzo(a,h)anthracene	ND	210	ug/kg	26
Benzo(ghi)perylene	**540**	**210**	**ug/kg**	**26**
Carbazole	ND	1000	ug/kg	140
2-Methylnaphthalene	**200 J,PG**	**1000**	**ug/kg**	**140**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0600

HPLC

Lot-Sample #...:	C7K170155-003	Work Order #...:	KCHMC1AK	Matrix.....:	SOLID
Date Sampled...:	11/16/07	Date Received..:	11/17/07	MS Run #.....:	7323005
Prep Date.....:	11/19/07	Analysis Date..:	11/20/07		
Prep Batch #...:	7323013	Analysis Time..:	21:52		
Dilution Factor:	19.7	Initial Wgt/Vol:	15.2 g	Final Wgt/Vol..:	0.5 g
% Moisture.....:	13	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	740	ug/kg	96
Acenaphthylene	210 J	740	ug/kg	100
Acenaphthene	ND	740	ug/kg	110
Fluorene	150	150	ug/kg	21
Phenanthrene	2300	150	ug/kg	19
Anthracene	650	150	ug/kg	19
Fluoranthene	4200 PG	150	ug/kg	21
Pyrene	2900 PG	150	ug/kg	21
Benzo(a)anthracene	1500	150	ug/kg	20
Chrysene	1700	150	ug/kg	20
Benzo(b)fluoranthene	1800	150	ug/kg	27
Benzo(k)fluoranthene	960	150	ug/kg	19
Benzo(a)pyrene	1500	150	ug/kg	19
Indeno(1,2,3-cd)pyrene	1400	150	ug/kg	19
Dibenzo(a,h)anthracene	220	150	ug/kg	19
Benzo(ghi)perylene	900	150	ug/kg	19
Carbazole	260 J	740	ug/kg	100
2-Methylnaphthalene	320 J,PG	740	ug/kg	100

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	NC,DIL	(49 - 129)
Terphenyl-d14	NC,DIL	(54 - 126)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0601

HPLC

Lot-Sample #...:	C7K170155-004	Work Order #...:	KCHME1AK	Matrix.....:	SOLID
Date Sampled...:	11/16/07	Date Received..:	11/17/07	MS Run #.....:	7323005
Prep Date.....:	11/19/07	Analysis Date..:	11/20/07		
Prep Batch #...:	7323013	Analysis Time..:	22:32		
Dilution Factor:	5	Initial Wgt/Vol:	15 g	Final Wgt/Vol..:	0.5 g
% Moisture.....:	14	Analyst ID.....:	014878	Instrument ID..:	G
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	190	ug/kg	25
Acenaphthylene	ND	190	ug/kg	26
Acenaphthene	ND	190	ug/kg	28
Fluorene	**44**	**39**	**ug/kg**	**5.3**
Phenanthrene	**320**	**39**	**ug/kg**	**5.0**
Anthracene	**110 PG**	**39**	**ug/kg**	**5.0**
Fluoranthene	**1100 PG**	**39**	**ug/kg**	**5.3**
Pyrene	**850 PG**	**39**	**ug/kg**	**5.4**
Benzo(a)anthracene	**540**	**39**	**ug/kg**	**5.1**
Chrysene	**560**	**39**	**ug/kg**	**5.2**
Benzo(b)fluoranthene	**680**	**39**	**ug/kg**	**6.8**
Benzo(k)fluoranthene	**340**	**39**	**ug/kg**	**5.0**
Benzo(a)pyrene	**510**	**39**	**ug/kg**	**4.8**
Indeno(1,2,3-cd)pyrene	**510**	**39**	**ug/kg**	**4.9**
Dibenzo(a,h)anthracene	**55 PG**	**39**	**ug/kg**	**4.9**
Benzo(ghi)perylene	**280**	**39**	**ug/kg**	**5.0**
Carbazole	ND	190	ug/kg	26
2-Methylnaphthalene	**100 J,PG**	**190**	**ug/kg**	**26**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	164 *	(49 - 129)
Terphenyl-d14	94	(54 - 126)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

PG The percent difference between the original and confirmation analyses is greater than 40%.

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0700

TOTAL Metals

Lot-Sample #...: C7K170155-001
Date Sampled...: 11/16/07 Date Received..: 11/17/07 Matrix.....: SOLID
% Moisture.....: 22

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7327289						
Silver	0.13 B,J	0.64	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AE
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.048	
Aluminum	2890	25.7	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AF
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 1.8	
Arsenic	3.3	1.3	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AG
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.29	
Barium	19.1 B,J	25.7	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AH
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.047	
Beryllium	0.23 B	0.51	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AJ
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.040	
Calcium	105000	1290	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AK
		Dilution Factor: 2		Analysis Time..: 20:09	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 64.7	
Cadmium	0.37 B	0.64	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AL
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.060	
Cobalt	3.6 B	6.4	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AM
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.055	
Chromium	19.3 J	0.64	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AN
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.11	

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Tetra Tech NUS, Inc

Client Sample ID: NTC015D0700

TOTAL Metals

Lot-Sample #...: C7K170155-001 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	51.5	3.2	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AP
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.18	
Iron	12700	12.9	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AQ
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 3.9	
Potassium	526 B	643	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AR
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 64.3	
Magnesium	56700 J	643	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AT
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 1.7	
Manganese	325 J	1.9	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AU
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.034	
Sodium	226 B	643	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AV
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 17.9	
Nickel	9.3	5.1	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AW
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.13	
Lead	31.4	0.39	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71AX
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.20	
Selenium	ND	0.64	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71A0
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.37	
Thallium	ND	1.3	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71A1
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.41	

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Tetra Tech NUS, Inc

Client Sample ID: NTC015D0700

TOTAL Metals

Lot-Sample #...: C7K170155-001 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.47 B	1.3	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71A2
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.12	
Vanadium	9.2	6.4	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71A3
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.33	
Zinc	102 J	2.6	mg/kg	SW846 6010B	11/23-12/03/07	KCHL71A4
		Dilution Factor: 1		Analysis Time..: 11:37	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.45	
Prep Batch #...: 7341021						
Mercury	ND	0.042	mg/kg	SW846 7471A	12/07/07	KCHL71A5
		Dilution Factor: 1		Analysis Time..: 09:06	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 7341013	MDL.....: 0.0091	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0701

TOTAL Metals

Lot-Sample #...: C7K170155-002 Matrix.....: SOLID
Date Sampled...: 11/16/07 Date Received..: 11/17/07
% Moisture.....: 19

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7327289						
Silver	0.21 B,J	0.61	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AM
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.046	
Aluminum	3280	24.6	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AN
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 1.7	
Arsenic	5.3	1.2	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AP
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.28	
Barium	29.0 J	24.6	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AQ
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.045	
Beryllium	0.93	0.49	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AR
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.038	
Calcium	91700	1230	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AT
		Dilution Factor: 2		Analysis Time..: 20:31	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 61.8	
Cadmium	0.58 B	0.61	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AU
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.058	
Cobalt	5.7 B	6.1	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AV
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.053	
Chromium	17.6 J	0.61	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AW
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.10	

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Tetra Tech NUS, Inc

Client Sample ID: NTC015D0701

TOTAL Metals

Lot-Sample #...: C7K170155-002 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	64.2	3.1	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AX
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.17	
Iron	13400	12.3	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1A0
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 3.7	
Potassium	584 B	614	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1A1
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 61.4	
Magnesium	52600 J	614	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1A2
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 1.6	
Manganese	403 J	1.8	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1A3
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.033	
Sodium	307 B	614	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1A4
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 17.1	
Nickel	12.0	4.9	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1A5
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.13	
Lead	103	0.37	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1A6
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.19	
Selenium	ND	0.61	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AA
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.35	
Thallium	ND	1.2	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AC
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.39	

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Tetra Tech NUS, Inc

Client Sample ID: NTC015D0701

TOTAL Metals

Lot-Sample #...: C7K170155-002 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.55 B	1.2	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AD
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.11	
Vanadium	11.3	6.1	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AE
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.32	
Zinc	501 J	2.5	mg/kg	SW846 6010B	11/23-12/03/07	KCHMA1AF
		Dilution Factor: 1		Analysis Time..: 12:10	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.43	
Prep Batch #...: 7341021						
Mercury	0.063	0.041	mg/kg	SW846 7471A	12/07/07	KCHMA1AG
		Dilution Factor: 1		Analysis Time..: 09:08	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 7341013	MDL.....: 0.0087	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0600

TOTAL Metals

Lot-Sample #...: C7K170155-003 Matrix.....: SOLID
Date Sampled...: 11/16/07 Date Received..: 11/17/07
% Moisture.....: 13

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7327289						
Silver	0.12 B,J	0.57	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AM
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.042	
Aluminum	1790	22.9	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AN
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 1.6	
Arsenic	2.9	1.1	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AP
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.26	
Barium	16.1 B,J	22.9	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AQ
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.042	
Beryllium	0.24 B	0.46	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AR
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.035	
Calcium	96500	1140	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AT
		Dilution Factor: 2		Analysis Time..: 20:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 57.5	
Cadmium	0.45 B	0.57	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AU
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.054	
Cobalt	2.7 B	5.7	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AV
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.049	
Chromium	18.2 J	0.57	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AW
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.094	

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Tetra Tech NUS, Inc

Client Sample ID: NTC015D0600

TOTAL Metals

Lot-Sample #...: C7K170155-003 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	36.3	2.9	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AX
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.16	
Iron	17200	11.4	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1A0
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 3.4	
Potassium	343 B	572	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1A1
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 57.2	
Magnesium	52300 J	572	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1A2
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 1.5	
Manganese	314 J	1.7	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1A3
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.031	
Sodium	250 B	572	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1A4
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 15.9	
Nickel	8.2	4.6	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1A5
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.12	
Lead	32.8	0.34	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1A6
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.18	
Selenium	ND	0.57	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AA
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.33	
Thallium	ND	1.1	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AC
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.37	

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Tetra Tech NUS, Inc

Client Sample ID: NTC015D0600

TOTAL Metals

Lot-Sample #...: C7K170155-003 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.52 B	1.1	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AD
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.11	
Vanadium	8.6	5.7	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AE
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.29	
Zinc	162 J	2.3	mg/kg	SW846 6010B	11/23-12/03/07	KCHMC1AF
		Dilution Factor: 1		Analysis Time..: 12:16	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.40	
Prep Batch #...: 7341021						
Mercury	0.025 B	0.038	mg/kg	SW846 7471A	12/07/07	KCHMC1AG
		Dilution Factor: 1		Analysis Time..: 09:10	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 7341013	MDL.....: 0.0081	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0601

TOTAL Metals

Lot-Sample #...: C7K170155-004 Matrix.....: SOLID
Date Sampled...: 11/16/07 Date Received..: 11/17/07
% Moisture.....: 14

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7327289						
Silver	0.13 B,J	0.58	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AM
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.043	
Aluminum	1790	23.2	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AN
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 1.6	
Arsenic	3.1	1.2	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AP
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.26	
Barium	10.2 B,J	23.2	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AQ
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.042	
Beryllium	0.21 B	0.46	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AR
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.036	
Calcium	104000	1160	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AT
		Dilution Factor: 2		Analysis Time..: 20:42	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 58.2	
Cadmium	0.32 B	0.58	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AU
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.054	
Cobalt	3.5 B	5.8	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AV
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.050	
Chromium	7.2 J	0.58	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AW
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.095	

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Tetra Tech NUS, Inc

Client Sample ID: NTC015D0601

TOTAL Metals

Lot-Sample #...: C7K170155-004 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	17.1	2.9	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AX
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.16	
Iron	7680	11.6	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1A0
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 3.5	
Potassium	380 B	579	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1A1
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 57.9	
Magnesium	59000 J	579	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1A2
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 1.5	
Manganese	427 J	1.7	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1A3
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.031	
Sodium	184 B	579	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1A4
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 16.1	
Nickel	9.1	4.6	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1A5
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.12	
Lead	63.6	0.35	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1A6
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.18	
Selenium	ND	0.58	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AA
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.33	
Thallium	ND	1.2	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AC
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.37	

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Tetra Tech NUS, Inc

Client Sample ID: NTC015D0601

TOTAL Metals

Lot-Sample #...: C7K170155-004 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony	0.24 B	1.2	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AD
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.11	
Vanadium	7.8	5.8	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AE
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.30	
Zinc	128 J	2.3	mg/kg	SW846 6010B	11/23-12/03/07	KCHME1AF
		Dilution Factor: 1		Analysis Time..: 12:21	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7327122	MDL.....: 0.40	
Prep Batch #...: 7341021						
Mercury	0.021 B	0.038	mg/kg	SW846 7471A	12/07/07	KCHME1AG
		Dilution Factor: 1		Analysis Time..: 09:15	Analyst ID.....: 031043	
		Instrument ID..: HGHYDRA		MS Run #.....: 7341013	MDL.....: 0.0082	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0700

Trace Level Organic Compounds

Lot-Sample #...:	C7K170155-001	**Work Order #...:**	KCHL71AA	**Matrix.....:**	SOLID
Date Sampled...:	11/16/07	**Date Received..:**	11/17/07	**MS Run #.....:**	
Prep Date.....:	12/03/07	**Analysis Date..:**	12/13/07		
Prep Batch #...:	7337371	**Analysis Time..:**	07:13		
Dilution Factor:	1	**Initial Wgt/Vol:**	10.35 g	**Final Wgt/Vol..:**	20 uL
% Moisture.....:	22	**Analyst ID.....:**	005753	**Instrument ID..:**	1D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.51	pg/g	SW846 8290
Total TCDD	**0.78**		**pg/g**	**SW846 8290**
1,2,3,7,8-PeCDD	ND	0.73	pg/g	SW846 8290
Total PeCDD	ND	1.6	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.71	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	ND	1.8	pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	ND	2.2	pg/g	SW846 8290
Total HxCDD	**12**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDD	**32**		**pg/g**	**SW846 8290**
Total HpCDD	**62**		**pg/g**	**SW846 8290**
OCDD	**350**		**pg/g**	**SW846 8290**
2,3,7,8-TCDF	**0.63 J,CON**		**pg/g**	**SW846 8290**
Total TCDF	**7.3**		**pg/g**	**SW846 8290**
1,2,3,7,8-PeCDF	ND	0.36	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	0.40	pg/g	SW846 8290
Total PeCDF	ND	2.2	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	0.95	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	0.68	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	0.73	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.37	pg/g	SW846 8290
Total HxCDF	**4.5**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDF	**8.8**		**pg/g**	**SW846 8290**
1,2,3,4,7,8,9-HpCDF	ND	0.48	pg/g	SW846 8290
Total HpCDF	**20**		**pg/g**	**SW846 8290**
OCDF	**19**		**pg/g**	**SW846 8290**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	93	(40 - 135)
13C-1,2,3,7,8-PeCDD	91	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	110	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	96	(40 - 135)
13C-OCDD	85	(40 - 135)
13C-2,3,7,8-TCDF	92	(40 - 135)
13C-1,2,3,7,8-PeCDF	96	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	106	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	98	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

CON Confirmation analysis.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0701

Trace Level Organic Compounds

Lot-Sample #...:	C7K170155-002	Work Order #...:	KCHMA1AJ	Matrix.....:	SOLID
Date Sampled...:	11/16/07	Date Received..:	11/17/07	MS Run #.....:	
Prep Date.....:	12/03/07	Analysis Date..:	12/13/07		
Prep Batch #...:	7337371	Analysis Time..:	09:18		
Dilution Factor:	1	Initial Wgt/Vol:	10.02 g	Final Wgt/Vol..:	20 uL
% Moisture.....:	19	Analyst ID.....:	002054	Instrument ID..:	1D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	1.8	pg/g	SW846 8290
Total TCDD	8.8		pg/g	SW846 8290
1,2,3,7,8-PeCDD	5.2 J,JA		pg/g	SW846 8290
Total PeCDD	30		pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	5.0 J,JA		pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	41		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	19		pg/g	SW846 8290
Total HxCDD	290		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	1500		pg/g	SW846 8290
Total HpCDD	3200		pg/g	SW846 8290
OCDD	15000 E		pg/g	SW846 8290
2,3,7,8-TCDF	22 CON		pg/g	SW846 8290
Total TCDF	260		pg/g	SW846 8290
1,2,3,7,8-PeCDF	5.1 J		pg/g	SW846 8290
2,3,4,7,8-PeCDF	8.5		pg/g	SW846 8290
Total PeCDF	120		pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	9.8		pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	9.4		pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	6.2		pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	3.6	pg/g	SW846 8290
Total HxCDF	190		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	140		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	6.4 JA		pg/g	SW846 8290
Total HpCDF	400		pg/g	SW846 8290
OCDF	200		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	18 *	(40 - 135)
13C-1,2,3,7,8-PeCDD	14 *	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	18 *	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	15 *	(40 - 135)
13C-OCDD	16 *	(40 - 135)
13C-2,3,7,8-TCDF	18 *	(40 - 135)
13C-1,2,3,7,8-PeCDF	16 *	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	17 *	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	17 *	(40 - 135)

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Tetra Tech NUS, Inc

Client Sample ID: NTC015D0701

Trace Level Organic Compounds

Lot-Sample #...: C7K170155-002 Work Order #...: KCHMA1AJ Matrix.....: SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

JA The analyte was positively identified, but the quantitation is an estimate.

E Estimated result. Result concentration exceeds the calibration range.

CON Confirmation analysis.

* Surrogate recovery is outside stated control limits.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0701

Trace Level Organic Compounds

Lot-Sample #...:	C7K170155-002	Work Order #...:	KCHMA3AJ	Matrix.....:	SOLID
Date Sampled...:	11/16/07	Date Received..:	11/17/07	MS Run #.....:	
Prep Date.....:	12/26/07	Analysis Date..:	01/01/08		
Prep Batch #...:	7361376	Analysis Time..:	03:27		
Dilution Factor:	1	Initial Wgt/Vol:	10.02 g	Final Wgt/Vol..:	20 uL
% Moisture.....:	19	Analyst ID.....:	005753	Instrument ID..:	9D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	**0.66 J**		**pg/g**	**SW846 8290**
Total TCDD	**1.5**		**pg/g**	**SW846 8290**
1,2,3,7,8-PeCDD	ND	0.91	pg/g	SW846 8290
Total PeCDD	ND	2.1	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	1.1	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	**6.6**		**pg/g**	**SW846 8290**
1,2,3,7,8,9-HxCDD	ND	2.9	pg/g	SW846 8290
Total HxCDD	**42**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDD	**210**		**pg/g**	**SW846 8290**
Total HpCDD	**430**		**pg/g**	**SW846 8290**
OCDD	**1900**		**pg/g**	**SW846 8290**
2,3,7,8-TCDF	**8.0 CON**		**pg/g**	**SW846 8290**
Total TCDF	**71**		**pg/g**	**SW846 8290**
1,2,3,7,8-PeCDF	**3.4 J**		**pg/g**	**SW846 8290**
2,3,4,7,8-PeCDF	ND	2.5	pg/g	SW846 8290
Total PeCDF	**26**		**pg/g**	**SW846 8290**
1,2,3,4,7,8-HxCDF	ND	2.5	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	2.0	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	1.3	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.60	pg/g	SW846 8290
Total HxCDF	**28**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDF	**18**		**pg/g**	**SW846 8290**
1,2,3,4,7,8,9-HpCDF	ND	1.5	pg/g	SW846 8290
Total HpCDF	**58**		**pg/g**	**SW846 8290**
OCDF	**32**		**pg/g**	**SW846 8290**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	93	(40 - 135)
13C-1,2,3,7,8-PeCDD	79	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	91	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	83	(40 - 135)
13C-OCDD	81	(40 - 135)
13C-2,3,7,8-TCDF	102	(40 - 135)
13C-1,2,3,7,8-PeCDF	87	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	101	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	84	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

CON Confirmation analysis.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0600

Trace Level Organic Compounds

Lot-Sample #...: C7K170155-003
Date Sampled...: 11/16/07
Prep Date.....: 12/03/07
Prep Batch #...: 7337371
Dilution Factor: 1
% Moisture.....: 13

Work Order #...: KCHMC1AJ
Date Received..: 11/17/07
Analysis Date..: 12/13/07
Analysis Time..: 07:54
Initial Wgt/Vol: 10.35 g
Analyst ID.....: 002054

Matrix.....: SOLID
MS Run #.....:

Final Wgt/Vol..: 20 uL
Instrument ID..: 1D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.90	pg/g	SW846 8290
Total TCDD	ND	0.90	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	1.0	pg/g	SW846 8290
Total PeCDD	ND	1.2	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.94	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	ND	2.0	pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	ND	2.4	pg/g	SW846 8290
Total HxCDD	18		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	62		pg/g	SW846 8290
Total HpCDD	160		pg/g	SW846 8290
OCDD	690		pg/g	SW846 8290
2,3,7,8-TCDF	0.75 J,JA,CON		pg/g	SW846 8290
Total TCDF	2.0		pg/g	SW846 8290
1,2,3,7,8-PeCDF	ND	0.65	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	0.66	pg/g	SW846 8290
Total PeCDF	3.4		pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	1.2	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	0.71	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	0.59	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.59	pg/g	SW846 8290
Total HxCDF	9.9		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	8.9		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	0.96	pg/g	SW846 8290
Total HpCDF	22		pg/g	SW846 8290
OCDF	18		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	83	(40 - 135)
13C-1,2,3,7,8-PeCDD	88	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	62	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	36 *	(40 - 135)
13C-OCDD	22 *	(40 - 135)
13C-2,3,7,8-TCDF	77	(40 - 135)
13C-1,2,3,7,8-PeCDF	55	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	69	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	40	(40 - 135)

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0600

Trace Level Organic Compounds

Lot-Sample #...: C7K170155-003 **Work Order #...:** KCHMC1AJ **Matrix.....:** SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

JA The analyte was positively identified, but the quantitation is an estimate.

CON Confirmation analysis.

* Surrogate recovery is outside stated control limits.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0600

Trace Level Organic Compounds

Lot-Sample #...:	C7K170155-003	**Work Order #...:**	KCHMC3AJ	**Matrix.....:**	SOLID
Date Sampled...:	11/16/07	**Date Received..:**	11/17/07	**MS Run #.....:**	
Prep Date.....:	12/21/07	**Analysis Date..:**	01/02/08		
Prep Batch #...:	7355321	**Analysis Time..:**	05:05		
Dilution Factor:	1	**Initial Wgt/Vol:**	10.35 g	**Final Wgt/Vol..:**	20 uL
% Moisture.....:	13	**Analyst ID.....:**	005753	**Instrument ID..:**	9D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.49	pg/g	SW846 8290
Total TCDD	**1.4**		**pg/g**	**SW846 8290**
1,2,3,7,8-PeCDD	ND	1.1	pg/g	SW846 8290
Total PeCDD	ND	2.1	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.96	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	ND	2.5	pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	**3.4 J**		**pg/g**	**SW846 8290**
Total HxCDD	**21**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDD	**44**		**pg/g**	**SW846 8290**
Total HpCDD	**92**		**pg/g**	**SW846 8290**
OCDD	**450**		**pg/g**	**SW846 8290**
2,3,7,8-TCDF	**0.85 J,CON**		**pg/g**	**SW846 8290**
Total TCDF	**8.9**		**pg/g**	**SW846 8290**
1,2,3,7,8-PeCDF	ND	0.48	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	0.49	pg/g	SW846 8290
Total PeCDF	ND	2.7	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	1.9	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	1.0	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	0.69	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.11	pg/g	SW846 8290
Total HxCDF	**14**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDF	**22**		**pg/g**	**SW846 8290**
1,2,3,4,7,8,9-HpCDF	ND	1.5	pg/g	SW846 8290
Total HpCDF	**40**		**pg/g**	**SW846 8290**
OCDF	**31**		**pg/g**	**SW846 8290**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	92	(40 - 135)
13C-1,2,3,7,8-PeCDD	88	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	92	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	88	(40 - 135)
13C-OCDD	88	(40 - 135)
13C-2,3,7,8-TCDF	103	(40 - 135)
13C-1,2,3,7,8-PeCDF	97	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	96	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	92	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

CON Confirmation analysis.

Tetra Tech NUS, Inc

Client Sample ID: NTC015D0601

Trace Level Organic Compounds

Lot-Sample #...:	C7K170155-004	Work Order #...:	KCHME1AJ	Matrix.....:	SOLID
Date Sampled...:	11/16/07	Date Received..:	11/17/07	MS Run #.....:	
Prep Date.....:	12/03/07	Analysis Date..:	12/13/07		
Prep Batch #...:	7337371	Analysis Time..:	08:36		
Dilution Factor:	1	Initial Wgt/Vol:	10.21 g	Final Wgt/Vol..:	20 uL
% Moisture.....:	14	Analyst ID.....:	030161	Instrument ID..:	1D5

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.41	pg/g	SW846 8290
Total TCDD	ND	0.41	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	0.64	pg/g	SW846 8290
Total PeCDD	ND	0.64	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.49	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	ND	1.6	pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	ND	0.41	pg/g	SW846 8290
Total HxCDD	**6.7**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDD	**35**		**pg/g**	**SW846 8290**
Total HpCDD	**91**		**pg/g**	**SW846 8290**
OCDD	**550**		**pg/g**	**SW846 8290**
2,3,7,8-TCDF	**1.3 CON**		**pg/g**	**SW846 8290**
Total TCDF	**12**		**pg/g**	**SW846 8290**
1,2,3,7,8-PeCDF	ND	0.45	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	0.46	pg/g	SW846 8290
Total PeCDF	ND	2.7	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	0.51	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	0.47	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	0.50	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.50	pg/g	SW846 8290
Total HxCDF	**3.9**		**pg/g**	**SW846 8290**
1,2,3,4,6,7,8-HpCDF	**4.4 J**		**pg/g**	**SW846 8290**
1,2,3,4,7,8,9-HpCDF	ND	0.46	pg/g	SW846 8290
Total HpCDF	**15**		**pg/g**	**SW846 8290**
OCDF	**7.8 J**		**pg/g**	**SW846 8290**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	90	(40 - 135)
13C-1,2,3,7,8-PeCDD	96	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	105	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	95	(40 - 135)
13C-OCDD	96	(40 - 135)
13C-2,3,7,8-TCDF	86	(40 - 135)
13C-1,2,3,7,8-PeCDF	95	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	100	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	93	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CON Confirmation analysis.

J Estimated result. Result is less than the reporting limit.

APPENDIX E

IDW WASTE PROFILES

AMERICAN WASTE PROCESSING, LTD.
2100 W. MADISON ST., MAYWOOD, IL 60153
PH: 708/681-3999 * FAX: 708/681-5583

CERTIFICATE OF DISPOSAL

This CERTIFICATE is to verify that the wastes generated by ACOS INSTALLATION & ENVIRONMENT consisting of NON-HAZARDOUS DRILL CUTTINGS AND NON-HAZARDOUS DEELOPMENT AND PURGE WATER specified on MANIFEST #001228472 has been properly disposed of in accordance with all Local, State and Federal Regulations.

FACILITY NAME:	AMERICAN WASTE PROCESSING, LTD.
ADDRESS:	2100 West Madison Street Maywood, IL 60153
EPA ID NO.:	ILD000716894
PHONE NO.:	(708) 681-3999

Signed: _____ 4/3/07
(Authorized Signature) (Date)

APPENDIX E.1

LIQUID IDW

Form 04

AMERICAN WASTE PROCESSING, LTD.
2100 W. Madison Street
Maywood, IL 60153

PHONE. (708) 681-3999
FAX: (708) 681-5583

RECERTIFICATION
WASTE PRODUCT INFORMATION SHEET

The EPA requires that a Generator recertify each waste stream they generate on an annual basis. The following waste requires a current recertification to be on file. Every five years the Generator is required to furnish new lab analysis.
(AWP can do this at your request – Please contact your Salesperson).

Return this form with any attachments to: American Waste Processing, Ltd.
2100 W. Madison St., Maywood, IL 60153-0306

GENERAL INFORMATION

GENERATOR NAME DEPT OF NAVY/ACOS INSTALLATION & ENVIRONMENT TELEPHONE 847-274-8581
FACILITY ADDRESS 201 DECATUR AVE, BLDG 221 GREAT LAKES IL 60088 USEPA I.D. IL 7170024577
IEPA I.D. 0971255004

AUTHORIZATION NO.
NAME OF WASTE
TECHNICAL CONTACT MARK S. HOYER TITLE

CHANGES OR ADDITIONS SINCE LAST WASTE PRODUCT INFORMATION SHEET PREPARATION (circle one)

1.	Have you obtained any laboratory analysis of this waste? (if yes, attach results)	(Y)	N
2.	Have you changed the raw material used in the waste generating process?	Y	(N)
3.	Have you changed the waste generating process itself?	Y	(N)
4.	Are you aware of any facts or circumstances which have, or reasonably could have, altered the physical or hazardous characteristics, or chemical composition of the waste?	Y	(N)
5.	Are you aware of any human health effects of exposure to the waste not previously described?	Y	(N)
6.	If you answered "Y" (yes) to questions 2, 3, 4, or 5 please provide a NEW WASTE PRODUCT INFORMATION SHEET		

IF THERE HAVE BEEN ANY SUBSTANTIAL CHANGES, A NEW WASTE PRODUCT INFORMATION SHEET MUST BE SUBMITTED.

RECERTIFICATION

I am an employee of the generator authorized to sign this Recertification The information provided in the recertification of WASTE PRODUCT INFORMATION SHEET attached hereto, and the information supplied above, are complete, true and correct.

NAME MARK S. HOYER SIGNATURE Mark S. Hoyer
TITLE ENVRO OPS MGR DATE 3/28/07

Form #3

GENERATOR KNOWLEDGE OF NON-HAZARDOUS MATERIALS

Per the ILLINOIS EPA, for proper disposal, certain proofs are required that a material is, in fact, non-hazardous.

The following tests are required:

D001	Flash Point	+140 deg F	Sulfide	10 - 500 ppm
D002	pH	2.0 - 12.5	Cyanide	10 - 250 ppm
D0003	Reactivity	None	Physical Appearance	

Toxicity Characteristics (mg/l) - Inorganic

D004	Arsenic	5.0	D008	Lead	5.0
D005	Barium	100.0	D009	Mercury	0.2
D006	Cadmium	1.0	D010	Selenium	1.0
D007	Chromium	5.0	D011	Silver	5.0

Toxicity Characteristics (mg/l) - Organic

D018	Benzene	0.5	D032	Hexachlorobenzene	0.13
D019	Carbon Tetrachloride	0.5	D033	Hexachlorobutadiene	0.5
D020	Chlordane *	0.03	D034	Hexachloroethane	3.0
D021	Chlorobenzene	100.0	D013	Lindane *	0.4
D022	Chloroform	6.0	D014	Methoxychlor *	10.0
D023	o-Cresol	200.0	D035	Methylethylketone	200.0
D024	m-Cresol	200.0	D036	Nitrobenzene	2.0
D025	p-Cresol	200.0	D037	Pentachlorophenol	100.0
D026	Cresol	200.0	D038	Pyridine	5.0
D016	2,4-D *	10.0	D039	Tetrachloroethylene	0.7
D027	1,4-Dichlorobenzene	7.5	D015	Toxaphene *	0.5
D028	1,2-Dichloroethane	0.5	D040	Trichloroethylene	0.5
D029	1,1-Dichloroethylene	0.7	D041	2,4,5-Trichlorophenol	400.0
D030	2,4-Dinitrotoluene	0.13	D042	2,4,6-Trichlorophenol	2.0
D012	Endrin *	0.02	D017	2,4,5-TP (Silvex) *	1.0
D031	Heptachlor (and its epoxide)	0.008	D043	Vinyl Chloride	0.2

Waste Product INVESTIGATION DERIVED WASTE - PURGE & DEVELOPMENT WATER GROUNDWATER FROM DEVELOPING AND PURGING MONITORING WELLS FOR

Waste Process INVESTIGATION OF GAEF COURSE LANDFILL

[ ] * These pesticides are not used at the location where this waste was generated, nor are they known to be present in the materials which comprise this waste.

[ ] Based upon my knowledge of this waste material, none of the organic compounds in the toxicity characteristic list are present in this waste material.

[ ] Based upon my knowledge of this waste material, none of the inorganic compounds in the toxicity characteristic list are present in this waste material

I certify that to my knowledge or with the knowledge gained by interviewing the appropriate company personnel, that this material is non-hazardous and is not subject to any R.C.R.A. (40 CFR 261) regulations for hazardous materials.

Company Name: DEPT OF NAVY / NCBS INSTALLATION & ENVIRONMENT Date: 3/28/07

Authorized Signature: Mark S. Hayer Print Name: MARK S. HAYER

Forms\Non-HazMatls

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC/MS Volatiles

Lot-Sample #...:	C6L210188-001	Work Order #...:	JLX8V1DP	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6362082
Prep Date.....:	12/28/06	Analysis Date..:	12/28/06		
Prep Batch #...:	6362123	Analysis Time..:	09:06		
Dilution Factor:	1	Initial Wgt/Vol:	5 mL	Final Wgt/Vol..:	5 mL
Analyst ID.....:	001562	Instrument ID..:	HP6		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	**0.32 J**	**1.0**	**ug/L**	**0.13**
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	**0.42 J**	**1.0**	**ug/L**	**0.16**
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	**0.71 J**	**1.0**	**ug/L**	**0.19**
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	**2.3**	**1.0**	**ug/L**	**0.47**
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	**0.27 J**	**1.0**	**ug/L**	**0.20**
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	**0.26 J**	**1.0**	**ug/L**	**0.19**
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	**2.3**	**1.0**	**ug/L**	**0.19**
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC/MS Volatiles

Lot-Sample #...: C6L210188-001 Work Order #...: JLX8V1DP Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	0.20 J	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	1.6 J	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	96	(71 - 118)
1,2-Dichloroethane-d4	92	(64 - 135)
4-Bromofluorobenzene	91	(70 - 118)
Dibromofluoromethane	93	(64 - 128)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC/MS Volatiles

Lot-Sample #...: C6L210188-002	Work Order #...: JLX9C1A7	Matrix.....: WATER
Date Sampled...: 12/19/06	Date Received..: 12/21/06	MS Run #.....: 6362082
Prep Date.....: 12/28/06	Analysis Date..: 12/28/06	
Prep Batch #...: 6362123	Analysis Time..: 11:03	
Dilution Factor: 1	Initial Wgt/Vol: 5 mL	Final Wgt/Vol..: 5 mL
Analyst ID.....: 001562	Instrument ID..: HP6	
	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	2.7 J	5.0	ug/L	2.5
Benzene	0.44 J	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	0.33 J	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC/MS Volatiles

Lot-Sample #...: C6L210188-002 Work Order #...: JLX9C1A7 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	101	(71 - 118)
1,2-Dichloroethane-d4	94	(64 - 135)
4-Bromofluorobenzene	101	(70 - 118)
Dibromofluoromethane	96	(64 - 128)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC/MS Volatiles

Lot-Sample #...:	C6L210188-003	Work Order #...:	JLX9D1A7	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6362082
Prep Date.....:	12/28/06	Analysis Date..:	12/28/06		
Prep Batch #...:	6362123	Analysis Time..:	11:27		
Dilution Factor:	1	Initial Wgt/Vol:	5 mL	Final Wgt/Vol..:	5 mL
Analyst ID.....:	001562	Instrument ID..:	HP6		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	5.0	ug/L	2.5
Benzene	ND	1.0	ug/L	0.13
Bromodichloromethane	ND	1.0	ug/L	0.11
Bromoform	ND	1.0	ug/L	0.29
Bromomethane	ND	1.0	ug/L	0.43
2-Butanone	ND	5.0	ug/L	1.2
Carbon disulfide	ND	1.0	ug/L	0.16
Carbon tetrachloride	ND	1.0	ug/L	0.25
Chlorobenzene	ND	1.0	ug/L	0.19
Chloroethane	ND	1.0	ug/L	0.41
Chloroform	ND	1.0	ug/L	0.10
Chloromethane	ND	1.0	ug/L	0.17
Cyclohexane	ND	1.0	ug/L	0.47
Dibromochloromethane	ND	1.0	ug/L	0.31
1,2-Dibromo-3-chloro-propane	ND	1.0	ug/L	0.38
1,2-Dibromoethane	ND	1.0	ug/L	0.16
1,3-Dichlorobenzene	ND	1.0	ug/L	0.098
1,4-Dichlorobenzene	ND	1.0	ug/L	0.20
1,2-Dichlorobenzene	ND	1.0	ug/L	0.20
Dichlorodifluoromethane	ND	1.0	ug/L	0.43
1,1-Dichloroethane	ND	1.0	ug/L	0.21
1,2-Dichloroethane	ND	1.0	ug/L	0.10
1,1-Dichloroethene	ND	1.0	ug/L	0.35
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.27
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.23
1,2-Dichloropropane	ND	1.0	ug/L	0.17
cis-1,3-Dichloropropene	ND	1.0	ug/L	0.16
trans-1,3-Dichloropropene	ND	1.0	ug/L	0.12
Ethylbenzene	ND	1.0	ug/L	0.17
2-Hexanone	ND	5.0	ug/L	0.88
Isopropylbenzene	ND	1.0	ug/L	0.19
Methyl acetate	ND	1.0	ug/L	0.26
Methylene chloride	ND	1.0	ug/L	0.40
Methylcyclohexane	ND	1.0	ug/L	0.19
4-Methyl-2-pentanone	ND	5.0	ug/L	1.2
Methyl tert-butyl ether	ND	1.0	ug/L	0.28

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC/MS Volatiles

Lot-Sample #...: C6L210188-003 Work Order #...: JLX9D1A7 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Styrene	ND	1.0	ug/L	0.10
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	0.42
1,2,4-Trichloro-benzene	ND	1.0	ug/L	0.40
Tetrachloroethene	ND	1.0	ug/L	0.21
1,1,1-Trichloroethane	ND	1.0	ug/L	0.24
1,1,2-Trichloroethane	ND	1.0	ug/L	0.22
Trichloroethene	ND	1.0	ug/L	0.22
Trichlorofluoromethane	ND	1.0	ug/L	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	0.29
Toluene	ND	1.0	ug/L	0.18
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	3.0	ug/L	0.34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	97	(71 - 118)
1,2-Dichloroethane-d4	95	(64 - 135)
4-Bromofluorobenzene	99	(70 - 118)
Dibromofluoromethane	96	(64 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC/MS Semivolatiles

Lot-Sample #...:	C6L210188-001	Work Order #...:	JLX8V1DT	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6360072
Prep Date.....:	12/26/06	Analysis Date..:	01/08/07		
Prep Batch #...:	6360096	Analysis Time..:	14:13		
Dilution Factor:	1.27	Initial Wgt/Vol:	790 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	003200	Instrument ID..:	731		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	13	ug/L	8.1
Acenaphthylene	ND	13	ug/L	5.7
Acetophenone	ND	13	ug/L	9.3
Anthracene	ND	13	ug/L	1.9
Atrazine	ND	13	ug/L	3.8
Benzo(a)anthracene	ND	13	ug/L	1.8
Benzo(a)pyrene	ND	13	ug/L	4.6
Benzo(b)fluoranthene	ND	13	ug/L	1.8
Benzo(ghi)perylene	ND	13	ug/L	3.5
Benzo(k)fluoranthene	ND	13	ug/L	3.4
Benzaldehyde	ND	13	ug/L	1.3
1,1'-Biphenyl	ND	13	ug/L	6.8
bis(2-Chloroethoxy) methane	ND	13	ug/L	5.0
bis(2-Chloroethyl)-ether	ND	13	ug/L	3.1
bis(2-Ethylhexyl) phthalate	ND	13	ug/L	2.0
4-Bromophenyl phenyl ether	ND	13	ug/L	1.3
Butyl benzyl phthalate	ND	13	ug/L	3.7
Caprolactam	ND	13	ug/L	1.1
Carbazole	ND	13	ug/L	4.5
4-Chloroaniline	ND	13	ug/L	1.3
4-Chloro-3-methylphenol	ND	13	ug/L	1.4
2-Chloronaphthalene	ND	13	ug/L	7.5
2-Chlorophenol	ND	13	ug/L	3.7
4-Chlorophenyl phenyl ether	ND	13	ug/L	1.8
Chrysene	ND	13	ug/L	1.7
Dibenz(a,h)anthracene	ND	13	ug/L	0.48
Dibenzofuran	ND	13	ug/L	7.7
3,3'-Dichlorobenzidine	ND	64	ug/L	8.7
2,4-Dichlorophenol	ND	13	ug/L	4.3
Diethyl phthalate	3.5 J	13	ug/L	1.9
2,4-Dimethylphenol	ND	13	ug/L	4.5
Dimethyl phthalate	ND	13	ug/L	1.6

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-001 Work Order #...: JLX8V1DT Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	13	ug/L	1.6
4,6-Dinitro-2-methylphenol	ND	64	ug/L	25
2,4-Dinitrophenol	ND	64	ug/L	28
2,4-Dinitrotoluene	ND	13	ug/L	6.7
2,6-Dinitrotoluene	ND	13	ug/L	1.4
Di-n-octyl phthalate	ND	13	ug/L	2.1
Fluoranthene	ND	13	ug/L	2.3
Fluorene	ND	13	ug/L	1.9
Hexachlorobenzene	ND	13	ug/L	8.6
Hexachlorobutadiene	ND	13	ug/L	10
Hexachlorocyclopentadiene	ND	64	ug/L	1.3
Hexachloroethane	ND	13	ug/L	9.1
Indeno(1,2,3-cd)pyrene	ND	13	ug/L	2.9
Isophorone	ND	13	ug/L	8.0
2-Methylnaphthalene	ND	13	ug/L	2.7
2-Methylphenol	ND	13	ug/L	3.3
4-Methylphenol	ND	13	ug/L	1.9
Naphthalene	**4.4 J**	13	ug/L	3.1
2-Nitroaniline	ND	64	ug/L	11
3-Nitroaniline	ND	64	ug/L	13
4-Nitroaniline	ND	64	ug/L	16
Nitrobenzene	ND	13	ug/L	3.0
2-Nitrophenol	ND	13	ug/L	4.3
4-Nitrophenol	ND	64	ug/L	21
N-Nitrosodi-n-propylamine	ND	13	ug/L	5.0
N-Nitrosodiphenylamine	ND	13	ug/L	4.0
2,2'-oxybis(1-Chloropropane)	ND	13	ug/L	7.9
Pentachlorophenol	ND	64	ug/L	27
Phenanthrene	ND	13	ug/L	7.7
Phenol	ND	13	ug/L	3.5
Pyrene	ND	13	ug/L	5.0
2,4,5-Trichlorophenol	ND	13	ug/L	5.0
2,4,6-Trichlorophenol	ND	13	ug/L	3.9

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-001 Work Order #...: JLX8V1DT Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	69	(19 - 138)
2-Fluorobiphenyl	73	(35 - 115)
2-Fluorophenol	58	(10 - 118)
Nitrobenzene-d5	70	(39 - 115)
Phenol-d5	62	(18 - 115)
Terphenyl-d14	31	(17 - 129)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

NTC01GWTW0101

GC/MS Semivolatiles

Lot-Sample #: C6L210188-001 Work Order #: JLX8V1DT Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC/MS Semivolatiles

Lot-Sample #...:	C6L210188-002	Work Order #...:	JLX9C1A8	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6360072
Prep Date.....:	12/26/06	Analysis Date..:	01/08/07		
Prep Batch #...:	6360096	Analysis Time..:	15:38		
Dilution Factor:	1.05	Initial Wgt/Vol:	950 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	003200	Instrument ID..:	731		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	10	ug/L	6.7
Acenaphthylene	ND	10	ug/L	4.7
Acetophenone	ND	10	ug/L	7.7
Anthracene	ND	10	ug/L	1.6
Atrazine	ND	10	ug/L	3.1
Benzo(a)anthracene	ND	10	ug/L	1.5
Benzo(a)pyrene	ND	10	ug/L	3.8
Benzo(b)fluoranthene	ND	10	ug/L	1.5
Benzo(ghi)perylene	ND	10	ug/L	2.9
Benzo(k)fluoranthene	ND	10	ug/L	2.8
Benzaldehyde	ND	10	ug/L	1.1
1,1'-Biphenyl	ND	10	ug/L	5.6
bis(2-Chloroethoxy) methane	ND	10	ug/L	4.2
bis(2-Chloroethyl)-ether	ND	10	ug/L	2.6
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	1.7
4-Bromophenyl phenyl ether	ND	10	ug/L	1.0
Butyl benzyl phthalate	ND	10	ug/L	3.0
Caprolactam	ND	10	ug/L	0.94
Carbazole	ND	10	ug/L	3.8
4-Chloroaniline	ND	10	ug/L	1.1
4-Chloro-3-methylphenol	ND	10	ug/L	1.1
2-Chloronaphthalene	ND	10	ug/L	6.2
2-Chlorophenol	ND	10	ug/L	3.1
4-Chlorophenyl phenyl ether	ND	10	ug/L	1.5
Chrysene	ND	10	ug/L	1.4
Dibenz(a,h)anthracene	ND	10	ug/L	0.39
Dibenzofuran	ND	10	ug/L	6.4
3,3'-Dichlorobenzidine	ND	52	ug/L	7.2
2,4-Dichlorophenol	ND	10	ug/L	3.5
Diethyl phthalate	ND	10	ug/L	1.5
2,4-Dimethylphenol	ND	10	ug/L	3.7
Dimethyl phthalate	ND	10	ug/L	1.3

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-002 Work Order #...: JLX9C1A8 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	10	ug/L	1.3
4,6-Dinitro-2-methylphenol	ND	52	ug/L	21
2,4-Dinitrophenol	ND	52	ug/L	23
2,4-Dinitrotoluene	ND	10	ug/L	5.5
2,6-Dinitrotoluene	ND	10	ug/L	1.2
Di-n-octyl phthalate	ND	10	ug/L	1.7
Fluoranthene	ND	10	ug/L	1.9
Fluorene	ND	10	ug/L	1.6
Hexachlorobenzene	ND	10	ug/L	7.1
Hexachlorobutadiene	ND	10	ug/L	8.6
Hexachlorocyclopentadiene	ND	52	ug/L	1.1
Hexachloroethane	ND	10	ug/L	7.5
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	2.4
Isophorone	ND	10	ug/L	6.6
2-Methylnaphthalene	ND	10	ug/L	2.2
2-Methylphenol	ND	10	ug/L	2.8
4-Methylphenol	ND	10	ug/L	1.6
Naphthalene	ND	10	ug/L	2.5
2-Nitroaniline	ND	52	ug/L	8.9
3-Nitroaniline	ND	52	ug/L	11
4-Nitroaniline	ND	52	ug/L	14
Nitrobenzene	ND	10	ug/L	2.5
2-Nitrophenol	ND	10	ug/L	3.6
4-Nitrophenol	ND	52	ug/L	17
N-Nitrosodi-n-propylamine	ND	10	ug/L	4.1
N-Nitrosodiphenylamine	ND	10	ug/L	3.3
2,2'-oxybis(1-Chloropropane)	ND	10	ug/L	6.5
Pentachlorophenol	ND	52	ug/L	22
Phenanthrene	ND	10	ug/L	6.3
Phenol	ND	10	ug/L	2.9
Pyrene	ND	10	ug/L	4.1
2,4,5-Trichlorophenol	ND	10	ug/L	4.1
2,4,6-Trichlorophenol	ND	10	ug/L	3.2

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-002 Work Order #...: JLX9C1A8 Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	75	(19 - 138)
2-Fluorobiphenyl	69	(35 - 115)
2-Fluorophenol	56	(10 - 118)
Nitrobenzene-d5	65	(39 - 115)
Phenol-d5	63	(18 - 115)
Terphenyl-d14	53	(17 - 129)

Tetra Tech NUS, Inc

NTC01GWTW0201

GC/MS Semivolatiles

Lot-Sample #: C6L210188-002 **Work Order #:** JLX9C1A8 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC/MS Semivolatiles

Lot-Sample #...:	C6L210188-003	Work Order #...:	JLX9D1A8	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6360072
Prep Date.....:	12/26/06	Analysis Date..:	01/08/07		
Prep Batch #...:	6360096	Analysis Time..:	16:06		
Dilution Factor:	1.09	Initial Wgt/Vol:	920 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	003200	Instrument ID..:	731		
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	11	ug/L	7.0
Acenaphthylene	ND	11	ug/L	4.9
Acetophenone	ND	11	ug/L	7.9
Anthracene	ND	11	ug/L	1.6
Atrazine	ND	11	ug/L	3.3
Benzo(a)anthracene	ND	11	ug/L	1.6
Benzo(a)pyrene	ND	11	ug/L	4.0
Benzo(b)fluoranthene	ND	11	ug/L	1.5
Benzo(ghi)perylene	ND	11	ug/L	3.0
Benzo(k)fluoranthene	ND	11	ug/L	2.9
Benzaldehyde	ND	11	ug/L	1.1
1,1'-Biphenyl	ND	11	ug/L	5.9
bis(2-Chloroethoxy) methane	ND	11	ug/L	4.3
bis(2-Chloroethyl)-ether	ND	11	ug/L	2.7
bis(2-Ethylhexyl) phthalate	ND	11	ug/L	1.7
4-Bromophenyl phenyl ether	ND	11	ug/L	1.1
Butyl benzyl phthalate	ND	11	ug/L	3.2
Caprolactam	ND	11	ug/L	0.98
Carbazole	ND	11	ug/L	3.9
4-Chloroaniline	ND	11	ug/L	1.2
4-Chloro-3-methylphenol	ND	11	ug/L	1.2
2-Chloronaphthalene	ND	11	ug/L	6.4
2-Chlorophenol	ND	11	ug/L	3.2
4-Chlorophenyl phenyl ether	ND	11	ug/L	1.5
Chrysene	ND	11	ug/L	1.4
Dibenz(a,h)anthracene	ND	11	ug/L	0.41
Dibenzofuran	ND	11	ug/L	6.6
3,3'-Dichlorobenzidine	ND	54	ug/L	7.5
2,4-Dichlorophenol	ND	11	ug/L	3.7
Diethyl phthalate	ND	11	ug/L	1.6
2,4-Dimethylphenol	ND	11	ug/L	3.8
Dimethyl phthalate	ND	11	ug/L	1.4

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Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-003 Work Order #...: JLX9D1A8 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Di-n-butyl phthalate	ND	11	ug/L	1.4
4,6-Dinitro-2-methylphenol	ND	54	ug/L	22
2,4-Dinitrophenol	ND	54	ug/L	24
2,4-Dinitrotoluene	ND	11	ug/L	5.7
2,6-Dinitrotoluene	ND	11	ug/L	1.2
Di-n-octyl phthalate	ND	11	ug/L	1.8
Fluoranthene	ND	11	ug/L	1.9
Fluorene	ND	11	ug/L	1.7
Hexachlorobenzene	ND	11	ug/L	7.4
Hexachlorobutadiene	ND	11	ug/L	9.0
Hexachlorocyclopentadiene	ND	54	ug/L	1.2
Hexachloroethane	ND	11	ug/L	7.8
Indeno(1,2,3-cd)pyrene	ND	11	ug/L	2.5
Isophorone	ND	11	ug/L	6.8
2-Methylnaphthalene	ND	11	ug/L	2.3
2-Methylphenol	ND	11	ug/L	2.9
4-Methylphenol	ND	11	ug/L	1.6
Naphthalene	ND	11	ug/L	2.6
2-Nitroaniline	ND	54	ug/L	9.3
3-Nitroaniline	ND	54	ug/L	11
4-Nitroaniline	ND	54	ug/L	14
Nitrobenzene	ND	11	ug/L	2.5
2-Nitrophenol	ND	11	ug/L	3.7
4-Nitrophenol	ND	54	ug/L	18
N-Nitrosodi-n-propylamine	ND	11	ug/L	4.3
N-Nitrosodiphenylamine	ND	11	ug/L	3.4
2,2'-oxybis(1-Chloropropane)	ND	11	ug/L	6.8
Pentachlorophenol	ND	54	ug/L	23
Phenanthrene	ND	11	ug/L	6.6
Phenol	ND	11	ug/L	3.0
Pyrene	ND	11	ug/L	4.3
2,4,5-Trichlorophenol	ND	11	ug/L	4.3
2,4,6-Trichlorophenol	ND	11	ug/L	3.4

(Continued on next page)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC/MS Semivolatiles

Lot-Sample #...: C6L210188-003 Work Order #...: JLX9D1A8 Matrix.....: WATER

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	55	(19 - 138)
2-Fluorobiphenyl	63	(35 - 115)
2-Fluorophenol	59	(10 - 118)
Nitrobenzene-d5	63	(39 - 115)
Phenol-d5	64	(18 - 115)
Terphenyl-d14	57	(17 - 129)

Tetra Tech NUS, Inc

NTC01GWTW0301

GC/MS Semivolatiles

Lot-Sample #: C6L210188-003 Work Order #: JLX9D1A8 Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene		ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC Semivolatiles

Lot-Sample #...:	C6L210188-001	Work Order #...:	JLX8V1D1	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6360230
Prep Date.....:	12/26/06	Analysis Date..:	01/02/07		
Prep Batch #...:	6360417	Analysis Time..:	15:45		
Dilution Factor:	1	Initial Wgt/Vol:	500 mL	Final Wgt/Vol..:	5 mL
Analyst ID.....:	402331	Instrument ID..:	A/B		
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	0.050	ug/L	0.016
beta-BHC	ND	0.050	ug/L	0.016
delta-BHC	ND	0.050	ug/L	0.018
gamma-BHC (Lindane)	ND	0.050	ug/L	0.014
Heptachlor	ND	0.050	ug/L	0.015
Aldrin	ND	0.050	ug/L	0.019
Heptachlor epoxide	ND	0.050	ug/L	0.023
Endosulfan I	ND	0.050	ug/L	0.016
Dieldrin	ND	0.050	ug/L	0.022
4,4'-DDE	ND	0.050	ug/L	0.016
Endrin	ND	0.050	ug/L	0.018
Endrin ketone	ND	0.050	ug/L	0.018
Endrin aldehyde	ND	0.050	ug/L	0.016
Endosulfan II	ND	0.050	ug/L	0.022
4,4'-DDD	ND	0.050	ug/L	0.019
Endosulfan sulfate	ND	0.050	ug/L	0.025
4,4'-DDT	ND	0.050	ug/L	0.017
Methoxychlor	ND	0.10	ug/L	0.030
alpha-Chlordane	ND	0.050	ug/L	0.024
gamma-Chlordane	ND	0.050	ug/L	0.015
Toxaphene	ND	2.0	ug/L	0.084

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	77	(39 - 130)
Decachlorobiphenyl	94	(10 - 147)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC Semivolatiles

Lot-Sample #...: C6L210188-002
Date Sampled...: 12/19/06
Prep Date.....: 12/26/06
Prep Batch #...: 6360417
Dilution Factor: 0.99
Analyst ID.....: 402331

Work Order #...: JLX9C1A0
Date Received..: 12/21/06
Analysis Date..: 01/02/07
Analysis Time..: 17:11
Initial Wgt/Vol: 1010 mL
Instrument ID..: A/B
Method.....: SW846 8081A

Matrix.....: WATER
MS Run #.....: 6360230

Final Wgt/Vol..: 10 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	0.050	ug/L	0.016
beta-BHC	ND	0.050	ug/L	0.016
delta-BHC	ND	0.050	ug/L	0.017
gamma-BHC (Lindane)	ND	0.050	ug/L	0.014
Heptachlor	ND	0.050	ug/L	0.015
Aldrin	ND	0.050	ug/L	0.019
Heptachlor epoxide	ND	0.050	ug/L	0.023
Endosulfan I	ND	0.050	ug/L	0.016
Dieldrin	ND	0.050	ug/L	0.022
4,4'-DDE	ND	0.050	ug/L	0.015
Endrin	ND	0.050	ug/L	0.018
Endrin ketone	ND	0.050	ug/L	0.017
Endrin aldehyde	ND	0.050	ug/L	0.016
Endosulfan II	ND	0.050	ug/L	0.022
4,4'-DDD	ND	0.050	ug/L	0.019
Endosulfan sulfate	ND	0.050	ug/L	0.025
4,4'-DDT	ND	0.050	ug/L	0.017
Methoxychlor	ND	0.099	ug/L	0.030
alpha-Chlordane	ND	0.050	ug/L	0.024
gamma-Chlordane	ND	0.050	ug/L	0.015
Toxaphene	ND	2.0	ug/L	0.083

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	75	(39 - 130)
Decachlorobiphenyl	92	(10 - 147)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC Semivolatiles

Lot-Sample #...: C6L210188-003	Work Order #...: JLX9D1A0	Matrix.....: WATER
Date Sampled...: 12/19/06	Date Received..: 12/21/06	MS Run #.....: 6360230
Prep Date.....: 12/26/06	Analysis Date..: 01/02/07	
Prep Batch #...: 6360417	Analysis Time..: 17:40	
Dilution Factor: 1	Initial Wgt/Vol: 1000 mL	Final Wgt/Vol..: 10 mL
Analyst ID.....: 402331	Instrument ID..: A/B	
	Method.....: SW846 8081A	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	0.050	ug/L	0.016
beta-BHC	ND	0.050	ug/L	0.016
delta-BHC	ND	0.050	ug/L	0.018
gamma-BHC (Lindane)	ND	0.050	ug/L	0.014
Heptachlor	ND	0.050	ug/L	0.015
Aldrin	ND	0.050	ug/L	0.019
Heptachlor epoxide	ND	0.050	ug/L	0.023
Endosulfan I	ND	0.050	ug/L	0.016
Dieldrin	ND	0.050	ug/L	0.022
4,4'-DDE	ND	0.050	ug/L	0.016
Endrin	ND	0.050	ug/L	0.018
Endrin ketone	ND	0.050	ug/L	0.018
Endrin aldehyde	ND	0.050	ug/L	0.016
Endosulfan II	ND	0.050	ug/L	0.022
4,4'-DDD	ND	0.050	ug/L	0.019
Endosulfan sulfate	ND	0.050	ug/L	0.025
4,4'-DDT	ND	0.050	ug/L	0.017
Methoxychlor	ND	0.10	ug/L	0.030
alpha-Chlordane	ND	0.050	ug/L	0.024
gamma-Chlordane	ND	0.050	ug/L	0.015
Toxaphene	ND	2.0	ug/L	0.084

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	74	(39 - 130)
Decachlorobiphenyl	90	(10 - 147)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

HPLC

Lot-Sample #...:	C6L210188-001	Work Order #...:	JLX8V1D7	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6356248
Prep Date.....:	12/22/06	Analysis Date..:	12/31/06		
Prep Batch #...:	6356473	Analysis Time..:	12:55		
Dilution Factor:	1.02	Initial Wgt/Vol:	980 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	5.9	1.0	ug/L	0.12
Acenaphthylene	5.0	1.0	ug/L	0.11
Acenaphthene	0.19 J,PG	1.0	ug/L	0.11
Fluorene	0.23 PG	0.20	ug/L	0.022
Phenanthrene	0.35	0.20	ug/L	0.025
Anthracene	0.035 J,PG	0.20	ug/L	0.025
Fluoranthene	ND	0.20	ug/L	0.026
Pyrene	0.039 J,PG	0.20	ug/L	0.025
Benzo(a)anthracene	ND	0.20	ug/L	0.026
Chrysene	ND	0.20	ug/L	0.026
Benzo(b)fluoranthene	ND	0.20	ug/L	0.029
Benzo(k)fluoranthene	ND	0.20	ug/L	0.030
Benzo(a)pyrene	ND	0.20	ug/L	0.028
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	0.023
Dibenzo(a,h)anthracene	ND	0.20	ug/L	0.024
Benzo(ghi)perylene	ND	0.20	ug/L	0.025
Carbazole	0.15 J,PG	1.0	ug/L	0.11
2-Methylnaphthalene	1.3	1.0	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	98	(78 - 125)
Terphenyl-d14	94	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

HPLC

Lot-Sample #...: C6L210188-002
Date Sampled...: 12/19/06
Prep Date.....: 12/22/06
Prep Batch #...: 6356473
Dilution Factor: 1.02
Analyst ID.....: 014878

Work Order #...: JLX9C1A2
Date Received..: 12/21/06
Analysis Date..: 12/31/06
Analysis Time..: 14:57
Initial Wgt/Vol: 980 mL
Instrument ID..: G
Method.....: SW846 8310

Matrix.....: WATER
MS Run #.....: 6356248

Final Wgt/Vol..: 1 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1.0	ug/L	0.12
Acenaphthylene	ND	1.0	ug/L	0.11
Acenaphthene	ND	1.0	ug/L	0.11
Fluorene	0.025 J	0.20	ug/L	0.022
Phenanthrene	0.12 J	0.20	ug/L	0.025
Anthracene	ND	0.20	ug/L	0.025
Fluoranthene	ND	0.20	ug/L	0.026
Pyrene	ND	0.20	ug/L	0.025
Benzo(a)anthracene	ND	0.20	ug/L	0.026
Chrysene	ND	0.20	ug/L	0.026
Benzo(b)fluoranthene	ND	0.20	ug/L	0.029
Benzo(k)fluoranthene	ND	0.20	ug/L	0.030
Benzo(a)pyrene	ND	0.20	ug/L	0.028
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	0.023
Dibenzo(a,h)anthracene	ND	0.20	ug/L	0.024
Benzo(ghi)perylene	ND	0.20	ug/L	0.025
Carbazole	ND	1.0	ug/L	0.11
2-Methylnaphthalene	ND	1.0	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	97	(78 - 125)
Terphenyl-d14	91	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

HPLC

Lot-Sample #...:	C6L210188-003	Work Order #...:	JLX9D1A2	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6356248
Prep Date.....:	12/22/06	Analysis Date..:	12/31/06		
Prep Batch #...:	6356473	Analysis Time..:	15:37		
Dilution Factor:	1.02	Initial Wgt/Vol:	980 mL	Final Wgt/Vol..:	1 mL
Analyst ID.....:	014878	Instrument ID..:	G		
		Method.....:	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Naphthalene	ND	1.0	ug/L	0.12
Acenaphthylene	ND	1.0	ug/L	0.11
Acenaphthene	ND	1.0	ug/L	0.11
Fluorene	**0.029 J**	**0.20**	**ug/L**	**0.022**
Phenanthrene	**0.14 J**	**0.20**	**ug/L**	**0.025**
Anthracene	ND	0.20	ug/L	0.025
Fluoranthene	ND	0.20	ug/L	0.026
Pyrene	ND	0.20	ug/L	0.025
Benzo(a)anthracene	ND	0.20	ug/L	0.026
Chrysene	ND	0.20	ug/L	0.026
Benzo(b)fluoranthene	ND	0.20	ug/L	0.029
Benzo(k)fluoranthene	ND	0.20	ug/L	0.030
Benzo(a)pyrene	ND	0.20	ug/L	0.028
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	0.023
Dibenzo(a,h)anthracene	ND	0.20	ug/L	0.024
Benzo(ghi)perylene	ND	0.20	ug/L	0.025
Carbazole	ND	1.0	ug/L	0.11
2-Methylnaphthalene	ND	1.0	ug/L	0.12

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(e)pyrene	97	(78 - 125)
Terphenyl-d14	91	(72 - 125)

NOTE(S):

J Estimated result. Result is less than RL.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC Semivolatiles

Lot-Sample #...: C6L210188-001
Date Sampled...: 12/19/06
Prep Date.....: 12/22/06
Prep Batch #...: 6356273
Dilution Factor: 1.08
Analyst ID.....: 401414

Work Order #...: JLX8V1D4
Date Received..: 12/21/06
Analysis Date..: 12/24/06
Analysis Time..: 11:44
Initial Wgt/Vol: 930 mL
Instrument ID..: M/N
Method.....: SW846 8151A

Matrix.....: WATER
MS Run #.....: 6356148

Final Wgt/Vol..: 10 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	4.3	ug/L	0.47
2,4,5-TP (Silvex)	ND	1.1	ug/L	0.10
2,4,5-T	ND	1.1	ug/L	0.10
Pentachlorophenol	ND	1.1	ug/L	0.051

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	77	(53 - 119)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC Semivolatiles

Lot-Sample #...: C6L210188-002
Date Sampled...: 12/19/06
Prep Date.....: 12/22/06
Prep Batch #...: 6356273
Dilution Factor: 1.14
Analyst ID.....: 401414

Work Order #...: JLX9C1A1
Date Received..: 12/21/06
Analysis Date..: 12/24/06
Analysis Time..: 13:22
Initial Wgt/Vol: 880 mL
Instrument ID..: M/N
Method.....: SW846 8151A

Matrix.....: WATER
MS Run #.....: 6356148

Final Wgt/Vol..: 10 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	4.6	ug/L	0.50
2,4,5-TP (Silvex)	ND	1.1	ug/L	0.11
2,4,5-T	ND	1.1	ug/L	0.11
Pentachlorophenol	ND	1.1	ug/L	0.054

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	72	(53 - 119)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC Semivolatiles

Lot-Sample #...:	C6L210188-003	Work Order #...:	JLX9D1A1	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6356148
Prep Date.....:	12/22/06	Analysis Date..:	12/24/06		
Prep Batch #...:	6356273	Analysis Time..:	13:54		
Dilution Factor:	1.08	Initial Wgt/Vol:	930 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	401414	Instrument ID..:	M/N		
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	4.3	ug/L	0.47
2,4,5-TP (Silvex)	ND	1.1	ug/L	0.10
2,4,5-T	ND	1.1	ug/L	0.10
Pentachlorophenol	ND	1.1	ug/L	0.051

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	63	(53 - 119)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0101

GC Semivolatiles

Lot-Sample #...:	C6L210188-001	Work Order #...:	JLX8V1DW	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6360233
Prep Date.....:	12/26/06	Analysis Date..:	12/28/06		
Prep Batch #...:	6360423	Analysis Time..:	15:58		
Dilution Factor:	1	Initial Wgt/Vol:	500 mL	Final Wgt/Vol..:	5 mL
Analyst ID.....:	402360	Instrument ID..:	S/T		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	1.0	ug/L	0.49
Aroclor 1221	ND	1.0	ug/L	0.45
Aroclor 1232	ND	1.0	ug/L	0.53
Aroclor 1242	ND	1.0	ug/L	0.25
Aroclor 1248	ND	1.0	ug/L	0.34
Aroclor 1254	ND	1.0	ug/L	0.35
Aroclor 1260	ND	1.0	ug/L	0.58

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	113	(45 - 120)
Decachlorobiphenyl	151 *	(24 - 128)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0201

GC Semivolatiles

Lot-Sample #...:	C6L210188-002	Work Order #...:	JLX9C1A9	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6360233
Prep Date.....:	12/26/06	Analysis Date..:	12/28/06		
Prep Batch #...:	6360423	Analysis Time..:	17:04		
Dilution Factor:	0.99	Initial Wgt/Vol:	1010 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	402360	Instrument ID..:	S/T		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	0.99	ug/L	0.49
Aroclor 1221	ND	0.99	ug/L	0.45
Aroclor 1232	ND	0.99	ug/L	0.53
Aroclor 1242	ND	0.99	ug/L	0.25
Aroclor 1248	ND	0.99	ug/L	0.34
Aroclor 1254	ND	0.99	ug/L	0.35
Aroclor 1260	ND	0.99	ug/L	0.58

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	66	(45 - 120)
Decachlorobiphenyl	79	(24 - 128)

Tetra Tech NUS, Inc

Client Sample ID: NTC01GWTW0301

GC Semivolatiles

Lot-Sample #...:	C6L210188-003	Work Order #...:	JLX9D1A9	Matrix.....:	WATER
Date Sampled...:	12/19/06	Date Received..:	12/21/06	MS Run #.....:	6360233
Prep Date.....:	12/26/06	Analysis Date..:	12/28/06		
Prep Batch #...:	6360423	Analysis Time..:	17:25		
Dilution Factor:	1	Initial Wgt/Vol:	1000 mL	Final Wgt/Vol..:	10 mL
Analyst ID.....:	402360	Instrument ID..:	S/T		
		Method.....:	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	1.0	ug/L	0.49
Aroclor 1221	ND	1.0	ug/L	0.45
Aroclor 1232	ND	1.0	ug/L	0.53
Aroclor 1242	ND	1.0	ug/L	0.25
Aroclor 1248	ND	1.0	ug/L	0.34
Aroclor 1254	ND	1.0	ug/L	0.35
Aroclor 1260	ND	1.0	ug/L	0.58

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	66	(45 - 120)
Decachlorobiphenyl	76	(24 - 128)

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLX8V **Client ID:** NTC01GWTW0101

Matrix: Water **Units:** ug/L **Prep Date:** 1/2/2007 **Prep Batch:** 7002044

~~Weight~~ 50 **Volume:** 50 **Percent Moisture:** NA

WBM 1-5-07

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	4.7	200	132	B	1	ICPST	1/3/2007	13:09
Antimony	220.35	1.4	10.0	1.4	U	1	ICPST	1/3/2007	13:09
Arsenic	189.04	1.7	10.0	2.4	B	1	ICPST	1/3/2007	13:09
Barium	493.41	0.16	200	566		1	ICPST	1/3/2007	13:09
Beryllium	313.04	0.12	4.0	0.12	U	1	ICPST	1/3/2007	13:09
Cadmium	226.50	0.23	5.0	0.23	U	1	ICPST	1/3/2007	13:09
Calcium	317.93	6.0	5000	53400		1	ICPST	1/3/2007	13:09
Chromium	267.72	0.38	5.0	1.6	B	1	ICPST	1/3/2007	13:09
Cobalt	228.62	0.53	50.0	3.6	B	1	ICPST	1/3/2007	13:09
Copper	324.75	0.39	25.0	2.0	B	1	ICPST	1/3/2007	13:09
Iron	271.44	10.5	100	17600		1	ICPST	1/3/2007	13:09
Lead	220.35	0.97	3.0	8.4		1	ICPST	1/3/2007	13:09
Magnesium	279.08	6.5	5000	69600		1	ICPST	1/3/2007	13:09
Manganese	257.61	0.12	15.0	104		1	ICPST	1/3/2007	13:09
Nickel	231.60	1.1	40.0	3.5	B	1	ICPST	1/3/2007	13:09
Potassium	766.49	14.2	5000	42000	E	1	ICPST	1/3/2007	13:09
Selenium	220.35	1.8	5.0	3.8	B	1	ICPST	1/3/2007	13:09
Silver	328.07	0.67	5.0	0.67	U	1	ICPST	1/3/2007	13:09
Sodium	330.23	148	5000	380000		1	ICPST	1/3/2007	13:09
Thallium	190.86	2.9	10.0	6.1	B	1	ICPST	1/3/2007	13:09
Vanadium	292.40	1.7	50.0	2.8	B	1	ICPST	1/3/2007	13:09
Zinc	213.86	0.47	20.0	19.0	B	1	ICPST	1/3/2007	13:09

Comments: Lot #: C6L210188 Sample #: 1

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLX9C **Client ID:** NTC01GWTW0201

Matrix: Water **Units:** ug/L **Prep Date:** 1/2/2007 **Prep Batch:** 7002044

~~Weight:~~ INT.VOL- 50 **Volume:** 50 **Percent Moisture:** NA

NBM 1-5-07

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	4.7	200	90.2	B	1	ICPST	1/3/2007	13:31
Antimony	220.35	1.4	10.0	2.3	B	1	ICPST	1/3/2007	13:31
Arsenic	189.04	1.7	10.0	2.4	B	1	ICPST	1/3/2007	13:31
Barium	493.41	0.16	200	99.7	B	1	ICPST	1/3/2007	13:31
Beryllium	313.04	0.12	4.0	0.12	U	1	ICPST	1/3/2007	13:31
Cadmium	226.50	0.23	5.0	0.23	U	1	ICPST	1/3/2007	13:31
Calcium	317.93	6.0	5000	14300		1	ICPST	1/3/2007	13:31
Chromium	267.72	0.38	5.0	0.85	B	1	ICPST	1/3/2007	13:31
Cobalt	228.62	0.53	50.0	0.53	U	1	ICPST	1/3/2007	13:31
Copper	324.75	0.39	25.0	0.55	B	1	ICPST	1/3/2007	13:31
Iron	271.44	10.5	100	198		1	ICPST	1/3/2007	13:31
Lead	220.35	0.97	3.0	2.0	B	1	ICPST	1/3/2007	13:31
Magnesium	279.08	6.5	5000	25300		1	ICPST	1/3/2007	13:31
Manganese	257.61	0.12	15.0	57.3		1	ICPST	1/3/2007	13:31
Nickel	231.60	1.1	40.0	2.5	B	1	ICPST	1/3/2007	13:31
Potassium	766.49	14.2	5000	22300	E	1	ICPST	1/3/2007	13:31
Selenium	220.35	1.8	5.0	4.0	B	1	ICPST	1/3/2007	13:31
Silver	328.07	0.67	5.0	0.67	U	1	ICPST	1/3/2007	13:31
Sodium	330.23	148	5000	367000		1	ICPST	1/3/2007	13:31
Thallium	190.86	2.9	10.0	5.9	B	1	ICPST	1/3/2007	13:31
Vanadium	292.40	1.7	50.0	1.7	U	1	ICPST	1/3/2007	13:31
Zinc	213.86	0.47	20.0	6.8	B	1	ICPST	1/3/2007	13:31

Comments: Lot #: C6L210188 Sample #: 2

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLX9D **Client ID:** NTC01GWTW0301

Matrix: Water **Units:** ug/L **Prep Date:** 1/2/2007 **Prep Batch:** 7002044

INT. VOL **Weight:** 50 **Volume:** 50 **Percent Moisture:** NA

HBM 1-5-07

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	**308.22**	**4.7**	**200**	**27.9**	**B**	**1**	**ICPST**	**1/4/2007**	**13:53**
Antimony	220.35	1.4	10.0	1.4	U	1	ICPST	1/4/2007	13:53
Arsenic	189.04	1.7	10.0	1.7	U	1	ICPST	1/4/2007	13:53
Barium	**493.41**	**0.16**	**200**	**566**		**1**	**ICPST**	**1/4/2007**	**13:53**
Beryllium	313.04	0.12	4.0	0.12	U	1	ICPST	1/4/2007	13:53
Cadmium	226.50	0.23	5.0	0.23	U	1	ICPST	1/4/2007	13:53
Calcium	**317.93**	**6.0**	**5000**	**44300**		**1**	**ICPST**	**1/4/2007**	**13:53**
Chromium	**267.72**	**0.38**	**5.0**	**0.65**	**B**	**1**	**ICPST**	**1/4/2007**	**13:53**
Cobalt	228.62	0.53	50.0	0.53	U	1	ICPST	1/4/2007	13:53
Copper	324.75	0.39	25.0	0.39	U	1	ICPST	1/4/2007	13:53
Iron	**271.44**	**10.5**	**100**	**3290**		**1**	**ICPST**	**1/4/2007**	**13:53**
Lead	**220.35**	**0.97**	**3.0**	**1.2**	**B**	**1**	**ICPST**	**1/4/2007**	**13:53**
Magnesium	**279.08**	**6.5**	**5000**	**106000**		**1**	**ICPST**	**1/4/2007**	**13:53**
Manganese	**257.61**	**0.12**	**15.0**	**39.6**		**1**	**ICPST**	**1/4/2007**	**13:53**
Nickel	231.60	1.1	40.0	1.1	U	1	ICPST	1/4/2007	13:53
Potassium	**766.49**	**14.2**	**5000**	**30700**	**E**	**1**	**ICPST**	**1/4/2007**	**13:53**
Selenium	220.35	1.8	5.0	1.8	U	1	ICPST	1/4/2007	13:53
Silver	328.07	0.67	5.0	0.67	U	1	ICPST	1/4/2007	13:53
Sodium	**330.23**	**148**	**5000**	**75800**		**1**	**ICPST**	**1/4/2007**	**13:53**
Thallium	190.86	2.9	10.0	2.9	U	1	ICPST	1/4/2007	13:53
Vanadium	**292.40**	**1.7**	**50.0**	**3.1**	**B**	**1**	**ICPST**	**1/4/2007**	**13:53**
Zinc	**213.86**	**0.47**	**20.0**	**7.3**	**B**	**1**	**ICPST**	**1/4/2007**	**13:53**

Comments: Lot #: C6L210188 Sample #: 3

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLX8V **Client ID:** NTC01GWTW0101

Matrix: Water **Units:** ug/L **Prep Date:** 1/5/2007 **Prep Batch:** 7005016

INT. VOL ~~**Weight:**~~ 100 **Volume:** 100 **Percent Moisture:** NA

MBm 1-5-07

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.015	0.20	0.015	U	1	CVAA	1/5/2007	8:46

Comments: Lot #: C6L210188 Sample #: 1

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLX9C **Client ID:** NTC01GWTW0201

Matrix: Water **Units:** ug/L **Prep Date:** 1/5/2007 **Prep Batch:** 7005016

Lot Vol - **~~Weight:~~** 100 **Volume:** 100 **Percent Moisture:** NA

HBM 1-5-07

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.015	0.20	0.015	U	1	CVAA	1/5/2007	8:52

Comments: Lot #: C6L210188 Sample #: 2

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JLX9D **Client ID:** NTC01GWTW0301

Matrix: Water **Units:** ug/L **Prep Date:** 1/5/2007 **Prep Batch:** 7005016

INT.VOL ~~Weight~~ 100 **Volume:** 100 **Percent Moisture:** NA

MBM 1-5-07

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.015	0.20	0.015	U	1	CVAA	1/5/2007	8:53

Comments: Lot #: C6L210188 Sample #: 3

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form I Equivalent

NS Great Lakes, IL

Cyanide, Total

Lab Name:	STL PITTSBURGH	**Method:**	SW846 9012A
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C6L210188
Matrix:	WATER		

Distillation procedure

Client Sample ID	Sample Number	Workorder	Result	Units	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01GWTW0101	C6L210188 001	JLX8V1AA	ND	ug/L	10.0	1	12/29/2006 - 12/29/2006 00:00	6363080
NTC01GWTW0201	C6L210188 002	JLX9C1AE	ND	ug/L	10.0	1	12/29/2006 - 12/29/2006 00:00	6363080
NTC01GWTW0301	C6L210188 003	JLX9D1AE	ND	ug/L	10.0	1	12/29/2006 - 12/29/2006 00:00	6363080

NS Great Lakes, IL

Flashpoint

Lab Name:	STL PITTSBURGH	**Method:**	SW846 1010
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C7C130125
Matrix:	WATER		

Pensky-Martens Flashpoint

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
NTC01GWTW0101	C7C130125 001	JQXE41AA	>200	deg F			1	3/14/2007 - 3/14/2007 00:00	7073352

APPENDIX E.2

SOLID IDW

Form #4

AMERICAN WASTE PROCESSING, LTD.
2100 W. Madison Street
Maywood, IL 60153

PHONE (708) 681-3999
FAX: (708) 681-5583

RECERTIFICATION
WASTE PRODUCT INFORMATION SHEET

The EPA requires that a Generator recertify each waste stream they generate on an annual basis. The following waste requires a current recertification to be on file. Every five years the Generator is required to furnish new lab analysis.
(AWP can do this at your request – Please contact your Salesperson).

Return this form with any attachments to: American Waste Processing, Ltd.
2100 W. Madison St., Maywood, IL 60153-0306

GENERAL INFORMATION

GENERATOR NAME DEPT OF NAVY/ACOS INSTALLATION & ENVIRONMENT TELEPHONE 847-774-8581
FACILITY ADDRESS 201 DECATUR AVE, BLDG 221 GREAT LAKES IL 60088 USEPA I.D. IL 7170024577
IEPA I.D. 0971255004

AUTHORIZATION NO.
NAME OF WASTE
TECHNICAL CONTACT MARK S. HOYER TITLE

CHANGES OR ADDITIONS SINCE LAST WASTE PRODUCT INFORMATION SHEET PREPARATION (circle one)

1.	Have you obtained any laboratory analysis of this waste? (if yes, attach results)	Y	N
2.	Have you changed the raw material used in the waste generating process?	Y	N
3.	Have you changed the waste generating process itself?	Y	N
4.	Are you aware of any facts or circumstances which have, or reasonably could have, altered the physical or hazardous characteristics, or chemical composition of the waste?	Y	N
5.	Are you aware of any human health effects of exposure to the waste not previously described?	Y	N
6.	If you answered "Y" (yes) to questions 2, 3, 4, or 5 please provide a NEW WASTE PRODUCT INFORMATION SHEET		

IF THERE HAVE BEEN ANY SUBSTANTIAL CHANGES, A NEW WASTE PRODUCT INFORMATION SHEET MUST BE SUBMITTED.

RECERTIFICATION

I am an employee of the generator authorized to sign this Recertification The information provided in the recertification of WASTE PRODUCT INFORMATION SHEET attached hereto, and the information supplied above, are complete, true and correct.

NAME MARK S HOYER SIGNATURE Mark S. Hoyer
TITLE ENVIRO OPS MGR DATE 3/28/07

Form #3

GENERATOR KNOWLEDGE OF NON-HAZARDOUS MATERIALS

Per the ILLINOIS EPA, for proper disposal, certain proofs are required that a material is, in fact, non-hazardous.

The following tests are required:

D001	Flash Point	+140 deg F	Sulfide	10 - 500 ppm
D002	pH	2.0 - 12.5	Cyanide	10 - 250 ppm
D0003	Reactivity	None	Physical Appearance	

Toxicity Characteristics (mg/l) - Inorganic

D004	Arsenic	5.0	D008	Lead	5.0
D005	Barium	100.0	D009	Mercury	0.2
D006	Cadmium	1.0	D010	Selenium	1.0
D007	Chromium	5.0	D011	Silver	5.0

Toxicity Characteristics (mg/l) - Organic

D018	Benzene	0.5	D032	Hexachlorobenzene	0.13
D019	Carbon Tetrachloride	0.5	D033	Hexachlorobutadiene	0.5
D020	Chlordane *	0.03	D034	Hexachloroethane	3.0
D021	Chlorobenzene	100.0	D013	Lindane *	0.4
D022	Chloroform	6.0	D014	Methoxychlor *	10.0
D023	o-Cresol	200.0	D035	Methylethylketone	200.0
D024	m-Cresol	200.0	D036	Nitrobenzene	2.0
D025	p-Cresol	200.0	D037	Pentachlorophenol	100.0
D026	Cresol	200.0	D038	Pyridine	5.0
D016	2,4-D *	10.0	D039	Tetrachloroethylene	0.7
D027	1,4-Dichlorobenzene	7.5	D015	Toxephene *	0.5
D028	1,2-Dichloroethane	0.5	D040	Trichloroethylene	0.5
D029	1,1-Dichloroethylene	0.7	D041	2,4,5-Trichlorophenol	400.0
D030	2,4-Dinitrotoluene	0.13	D042	2,4,6-Trichlorophenol	2.0
D012	Endrin *	0.02	D017	2,4,5-TP (Silvex) *	1.0
D031	Heptachlor (and its epoxide)	0.008	D043	Vinyl Chloride	0.2

Waste Product INVESTIGATION DERIVED WASTE - SOIL FROM DRILL CUTTINGS SOIL FROM DRILLING ACTIVITIES TO INVESTIGATE GOLF COURSE LANDFILL

Waste Process

[ ] * These pesticides are not used at the location where this waste was generated, nor are they known to be present in the materials which comprise this waste.

[ ] Based upon my knowledge of this waste material, none of the organic compounds in the toxicity characteristic list are present in this waste material.

[ ] Based upon my knowledge of this waste material, none of the inorganic compounds in the toxicity characteristic list are present in this waste material.

I certify that to my knowledge or with the knowledge gained by interviewing the appropriate company personnel, that this material is non-hazardous and is not subject to any R.C.R.A. (40 CFR 261) regulations for hazardous materials.

Company Name: DEPT OF NAVY / ACAS INSTALLATION + ENVIRONMENT Date: 3/28/07

Authorized Signature: Mark S Hoyer Print Name: MARK S. HOYER

Tetra Tech NUS, Inc

Client Sample ID: COMPOSITE SAMPLE

TCLP GC/MS Semivolatiles

Lot-Sample #...:	C7A080179-001	Work Order #...:	JMJJ21AA	Matrix.....:	SOLID
Date Sampled...:	01/08/07 16:00	Date Received..:	01/08/07 16:00	MS Run #.....:	7011076
Leach Date.....:	01/11/07	Prep Date.....:	01/11/07	Analysis Date..:	01/12/07
Leach Batch #..:	P701013	Prep Batch #...:	7011140	Analysis Time..:	01:45
Dilution Factor:	1	Initial Wgt/Vol:	200 mL	Final Wgt/Vol..:	1 mL
% Moisture.....:		Analyst ID.....:	003200	Instrument ID..:	731
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,4-Dichlorobenzene	ND	0.050	mg/L	0.0050
2,4-Dinitrotoluene	ND	0.050	mg/L	0.024
Hexachlorobenzene	ND	0.050	mg/L	0.027
Hexachlorobutadiene	ND	0.050	mg/L	0.020
Hexachloroethane	ND	0.050	mg/L	0.028
Nitrobenzene	ND	0.050	mg/L	0.023
Pentachlorophenol	ND	0.25	mg/L	0.011
Pyridine	ND	0.10	mg/L	0.044
2,4,5-Trichloro-phenol	ND	0.050	mg/L	0.021
2,4,6-Trichloro-phenol	ND	0.050	mg/L	0.0093
Cresols (total)	ND	0.050	mg/L	0.025

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	86	(39 - 115)
2-Fluorobiphenyl	89	(35 - 115)
Terphenyl-d14	77	(17 - 129)
2-Fluorophenol	83	(10 - 118)
Phenol-d5	85	(18 - 115)
2,4,6-Tribromophenol	77	(19 - 138)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Tetra Tech NUS, Inc

Client Sample ID: COMPOSITE SAMPLE

TCLP GC Semivolatiles

Lot-Sample #...:	C7A080179-001	Work Order #...:	JMJJ21AC	Matrix.....:	SOLID
Date Sampled...:	01/08/07	Date Received..:	01/08/07	MS Run #.....:	7015187
Leach Date.....:	01/11/07	Prep Date.....:	01/15/07	Analysis Date..:	01/18/07
Leach Batch #..:	P701013	Prep Batch #...:	7015329	Analysis Time..:	07:54
Dilution Factor:	1	Initial Wgt/Vol:	100 mL	Final Wgt/Vol..:	10 mL
% Moisture.....:		Analyst ID.....:	402331	Instrument ID..:	A/B
		Method.....:	SW846 8081A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Chlordane (technical)	ND	0.0050	mg/L	0.00025
Endrin	ND	0.00050	mg/L	0.00018
Heptachlor	ND	0.00050	mg/L	0.00015
Methoxychlor	ND	0.0010	mg/L	0.00030
Heptachlor epoxide	ND	0.00050	mg/L	0.00023
Lindane	ND	0.00050	mg/L	0.00014
Toxaphene	ND	0.020	mg/L	0.00084

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	90	(10 - 147)
Tetrachloro-m-xylene	77	(39 - 130)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Tetra Tech NUS, Inc

Client Sample ID: COMPOSITE SAMPLE

TCLP GC Semivolatiles

Lot-Sample #...:	C7A080179-001	Work Order #...:	JMJJ21AD	Matrix.....:	SOLID
Date Sampled...:	01/08/07	Date Received..:	01/08/07	MS Run #.....:	7011085
Leach Date.....:	01/11/07	Prep Date.....:	01/11/07	Analysis Date..:	01/13/07
Leach Batch #..:	P701013	Prep Batch #...:	7011162	Analysis Time..:	15:24
Dilution Factor:	1	Initial Wgt/Vol:	100 mL	Final Wgt/Vol..:	10 mL
% Moisture.....:		Analyst ID.....:	401414	Instrument ID..:	M/N
		Method.....:	SW846 8151A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
2,4-D	ND	0.040	mg/L	0.0044
2,4,5-TP (Silvex)	ND	0.010	mg/L	0.00093

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
DCAA	95	(53 - 119)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: JMJJ2T **Client ID:** COMPOSTITE SAMPLET

Matrix: TCLP **Units:** mg/L **Prep Date:** 1/12/2007 **Prep Batch:** 7012043

Weight: NA **Volume:** 50 **Percent Moisture:** NA

Element	WL/ Mass	IDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	**193.7**	**0.014**	**0.50**	**0.17**	**B**	**1**	**ICP**	**1/12/2007**	**17:14**
Barium	**493.41**	**0.00041**	**10.0**	**0.68**	**B**	**1**	**ICP**	**1/12/2007**	**17:14**
Cadmium	**228.80**	**0.0016**	**0.10**	**0.010**	**B**	**1**	**ICP**	**1/12/2007**	**17:14**
Chromium	267.72	0.00073	0.50	0.00073	U	1	ICP	1/12/2007	17:14
Lead	**220.35**	**0.0092**	**0.50**	**0.066**	**B**	**1**	**ICP**	**1/12/2007**	**17:14**
Selenium	196.03	0.018	0.25	0.018	U	1	ICP	1/12/2007	17:14
Silver	328.07	0.0015	0.50	0.0015	U	1	ICP	1/12/2007	17:14

Comments:

5.04.5

U Result is less than the IDL
B Result is between IDL and RL
E Serial dilution percent difference not within limits

Form 1 Equivalent

NS Great Lakes, IL

Ignitability

Lab Name:	STL PITTSBURGH	**Method:**	SW846 SECTION 7
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C7C130197
Matrix:	SOLID		

Ignitability

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
Composite	C7C130197 001	JQXX21AA	NO	No Units	--	--	1	3/16/2007 - 3/16/2007 00:00	7075189

NS Great Lakes, IL

Paint Filter Test

Lab Name:	STL PITTSBURGH	**Method:**	SW846 9095
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C7C130197
Matrix:	SOLID		

Paint Filter Test

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
Composite	C7C130197 001	JQXX21AD	ND CNF	No Units			1	3/13/2007 - 3/13/2007 00:00	7072242

NS Great Lakes, IL

Percent Solids

Lab Name:	STL PITTSBURGH	**Method:**	MCAWW 160.3 MOD
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C7C130197
Matrix:	SOLID		

Total Residue as Percent Solids

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
Composite	C7C130197 001	JQXX21AE	80.3	%	0.0		1	3/13/2007 - 3/14/2007 08:34	7072300

NS Great Lakes, IL

Total Sulfide

Lab Name:	STL PITTSBURGH	**Method:**	SW846 9030B/9034
Client Name:	Tetra Tech NUS, Inc	**Lot Number:**	C7C130197
Matrix:	SOLID		

Sulfides, Total

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
Composite	C7C130197 001	JQXX21AC	ND	mg/kg	15.3	37.4	1	3/15/2007 - 3/16/2007 00:00	7074152

APPENDIX F

HUMAN HEALTH RISK ASSESSMENT SUPPORT

APPENDIX F.1

RISK ASSESSMENT CALCULATIONS AND RAGS-PART D TABLES

TABLE 2.1
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SUBSURFACE SOIL - DIRECT CONTACT AND INHALATION
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Subsurface Soil
Exposure Point: Entire Site

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Sample of Maximum Concentration	Frequency of Detection	Range of Nondects[2]	Concentration Used for Screening[3]	Background Concentrations[4]	Screening Levels Based on USEPA Region 9 PRGs - Residential Soil[5]	TACO - Soil Remediation Objectives for Residential Properties[6] - Ingestion	Screening Levels Based on USEPA Generic SSLs for Migration from Soil to Air - Residential[7]	TACO - Soil Remediation Objectives for Residential Properties - Inhalation[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
Volatile Organic Compounds (ug/kg)														
78-93-3	2-BUTANONE	3.2 J	12	NTC01SB1001012	3/16	4.5 - 16	12	NA	2200000 N	NA	24000000 sat	NA	No	BSL
67-64-1	ACETONE	6.4 J	59 J	NTC01SB1001012	2/16	18 - 62	59	NA	1400000 N	7800000	NA	100000000	No	BSL
75-09-2	METHYLENE CHLORIDE	2.1 J	2.3 J	NTC01SB0981516	2/16	4.5 - 16	2.3	NA	9100 C	85000	13000 C	13000	No	BSL
Semivolatile Organics (ug/kg)														
91-57-6	2-METHYLNAPHTHALENE	40 J	250 J	NTC01SB0991012	4/4	--	250	NA	5600 N[9]	1600000	NA	NA	No	BSL
95-48-7	2-METHYLPHENOL	39 J	39 J	NTC01SB0991012-D	1/4	400 - 2100	39	NA	310000 N	3900000	NA	NA	No	BSL
106-44-5	4-METHYLPHENOL	13 J	170 J	NTC01SB0991012-D	2/4	660 - 890	170	NA	31000 N	NA	NA	NA	No	BSL
83-32-9	ACENAPHTHENE	11 J	290 J	NTC01SB1020408	3/4	890 - 2100	290	NA	370000 N	4700000	NA	NA	No	BSL
208-96-8	ACENAPHTHYLENE	11 J	100 J	NTC01SB0900812-D	2/4	400 - 890	100	NA	370000 N[10]	4700000	NA	NA	No	BSL
120-12-7	ANTHRACENE	13 J	260 J	NTC01SB1020408	2/4	420 - 2100	260	NA	2200000 N	23000000	NA	NA	No	BSL
100-52-7	BENZALDEHYDE	110 J	150 J	NTC01SB0900812	2/4	400 - 2100	150	NA	610000 N	NA	NA	NA	No	BSL
56-55-3	BENZO(A)ANTHRACENE	320 J	520	NTC01SB0991012-D	2/4	400 - 2100	520	NA	620 C	900	NA	NA	No	BSL
50-32-8	BENZO(A)PYRENE	14 J	500	NTC01SB0991012-D	3/4	400 - 2100	500	NA	62 C	90	NA	NA	Yes	ASL
205-99-2	BENZO(B)FLUORANTHENE	24 J	870	NTC01SB0991012-D	3/4	400 - 2100	870	NA	620 C	900	NA	NA	Yes	ASL
191-24-2	BENZO(G,H,I)PERYLENE	20 J	500	NTC01SB0991012-D	3/4	890 - 2100	500	NA	230000 N[11]	2300000	NA	NA	No	BSL
207-08-9	BENZO(K)FLUORANTHENE	130 J	230 J	NTC01SB0991012-D	2/4	400 - 2100	230	NA	6200 C	9000	NA	NA	No	BSL
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	150 J	660 J	NTC01SB0900812-D	2/4	400 - 890	660	NA	35000 C	46000	NA	31000000	No	BSL
85-68-7	BUTYL BENZYL PHTHALATE	9.8 J	74 J	NTC01SB0950810	4/4	--	74	NA	1200000 N	16000000	NA	930000	No	BSL
86-74-8	CARBAZOLE	100 J	250 J	NTC01SB1020408	2/4	400 - 2100	250	NA	24000 C	32000	NA	NA	No	BSL
218-01-9	CHRYSENE	400 J	680	NTC01SB0991012-D	2/4	400 - 2100	680	NA	62000 C	88000	NA	NA	No	BSL
53-70-3	DIBENZO(A,H)ANTHRACENE	59 J	130 J	NTC01SB0991012-D	2/4	420 - 2100	130	NA	62 C	90	NA	NA	Yes	ASL
132-64-9	DIBENZOFURAN	19 J	100 J	NTC01SB1020408	3/4	890 - 2100	100	NA	15000 N	NA	NA	NA	No	BSL
84-66-2	DIETHYL PHTHALATE	18 J	430 J	NTC01SB0900812-D	2/4	400 - 890	430	NA	4900000 N	63000000	NA	2000000	No	BSL
84-72-2	DI-N-BUTYL PHTHALATE	56 J	340 J	NTC01SB0900812-D	1/4	400 - 890	340	NA	610000 N	7800000	NA	2300000	No	BSL
206-44-0	FLUORANTHENE	45 J	1400 J	NTC01SB0991012-D	3/4	890 - 2100	1400	NA	230000 N	3100000	NA	NA	No	BSL
86-73-7	FLUORENE	11 J	320 J	NTC01SB1020408	3/4	400 - 890	320	NA	270000 N	3100000	NA	NA	No	BSL
193-39-5	INDENO(1,2,3-CD)PYRENE	12 J	400	NTC01SB0991012-D	3/4	890 - 2100	400	NA	620 C	900	NA	NA	No	BSL
91-20-3	NAPHTHALENE	52 J	250 J	NTC01SB0900812-D	4/4	--	250	NA	5600 N	1600000	17000 N	1800	No	BSL
85-01-8	PHENANTHRENE	58 J	1700	NTC01SB1020408	4/4	--	1700	NA	230000 N[11]	2300000	NA	NA	No	BSL
108-95-2	PHENOL	22 J	93 J	NTC01SB0900812-D	2/4	400 - 890	93	NA	1800000 N	47000000	NA	NA	No	BSL
129-00-0	PYRENE	41 J	1300	NTC01SB1020408	3/4	890 - 890	1300	NA	230000 N	2300000	NA	NA	No	BSL
Polynuclear Aromatic Hydrocarbons (ug/kg)														
91-57-6	2-METHYLNAPHTHALENE	7.5 J	3500 J	NTC01SB1020408	15/16	400 - 400	3500	NA	5600 N[9]	1600000	NA	NA	No	BSL
83-32-9	ACENAPHTHENE	14 J	260 J	NTC01SB0991012-D	3/15	38 - 13000	260	NA	370000 N	4700000	NA	NA	No	BSL
208-96-8	ACENAPHTHYLENE	25 J	3100 J	NTC01SB0991012-D	10/16	38 - 13000	3100	NA	370000 N[10]	4700000	NA	NA	No	BSL
120-12-7	ANTHRACENE	1.8 J	5200	NTC01SB1020408	16/16	--	5200	NA	2200000 N	23000000	NA	NA	No	BSL
56-55-3	BENZO(A)ANTHRACENE	41	11000	NTC01SB1020408	9/15	7.8 - 40	11000	NA	620 C	900	NA	NA	Yes	ASL
50-32-8	BENZO(A)PYRENE	1.5 J	9300	NTC01SB1020408	14/16	7.8 - 18	9300	NA	62 C	90	NA	NA	Yes	ASL
205-99-2	BENZO(B)FLUORANTHENE	4.9 J	14000	NTC01SB1020408	14/16	18 - 40	14000	NA	620 C	900	NA	NA	Yes	ASL
191-24-2	BENZO(G,H,I)PERYLENE	0.96 J	7300	NTC01SB1020408	16/16	--	7300	NA	230000 N[11]	2300000	NA	NA	No	BSL
207-08-9	BENZO(K)FLUORANTHENE	1.8 J	4600	NTC01SB1020408	12/16	8.6 - 40	4600	NA	6200 C	9000	NA	NA	No	BSL
86-74-8	CARBAZOLE	12 J	4300 J	NTC01SB1020408	6/15	38 - 400	4300	NA	24000 C	32000	NA	NA	No	BSL
218-01-9	CHRYSENE	1.6 J	12000	NTC01SB1020408	15/16	18 - 18	12000	NA	62000 C	88000	NA	NA	No	BSL
53-70-3	DIBENZO(A,H)ANTHRACENE	4.4 J	850	NTC01SB0880708	7/15	7.8 - 180	850	NA	62 C	90	NA	NA	Yes	ASL
206-44-0	FLUORANTHENE	4.8 J	49000	NTC01SB1020408	16/16	--	49000	NA	230000 N	3100000	NA	NA	No	BSL
86-73-7	FLUORENE	14	3300	NTC01SB1020408	7/15	7.8 - 82	3300	NA	270000 N	3100000	NA	NA	No	BSL
193-39-5	INDENO(1,2,3-CD)PYRENE	1 J	6300	NTC01SB1020408	16/16	--	6300	NA	620 C	900	NA	NA	Yes	ASL
91-20-3	NAPHTHALENE	20 J	3100 J	NTC01SB1020408	13/16	38 - 4100	3100	NA	5600 N	1600000	17000 N	1800	Yes	ASL
85-01-8	PHENANTHRENE	7 J	26000	NTC01SB1020408	16/16	--	26000	NA	230000 N[11]	2300000	NA	NA	No	BSL
129-00-0	PYRENE	4 J	31000	NTC01SB1020408	16/16	--	31000	NA	230000 N	2300000	NA	NA	No	BSL
	BAP EQUIVALENT ZERO ND	0.25	13068	NTC01SB1020408	16/16	--	13068	NA	62 C	90	NA	NA	Yes	ASL
	BAP EQUIVALENT - HALF ND	4.2449	13068	NTC01SB1020408	16/16	--	13068	NA	62 C	90	NA	NA	Yes	ASL

TABLE 2.1
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SUBSURFACE SOIL - DIRECT CONTACT AND INHALATION
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Subsurface Soil
Exposure Point: Entire Site

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Sample of Maximum Concentration	Frequency of Detection	Range of Nondects[2]	Concentration Used for Screening[3]	Background Concentrations[4]	Screening Levels Based on USEPA Region 9 PRGs - Residential Soil[5]	TACO - Soil Remediation Objectives for Residential Properties[6] - Ingestion	Screening Levels Based on USEPA Generic SSLs for Migration from Soil to Air - Residential[7]	TACO - Soil Remediation Objectives for Residential Properties - Inhalation[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
Organochlorine Pesticides/PCBs (ug/kg)														
72-54-8	4,4'-DDD	4.8	280 J	NTC01SB0991012-D	4/4	--	280	NA	2400 C	3000	NA	NA	No	BSL
72-55-9	4,4'-DDE	0.6 J	82 J	NTC01SB0991012-D	4/4	--	82	NA	1700 C	2000	NA	NA	No	BSL
50-29-3	4,4'-DDT	1.4 J	27 J	NTC01SB0991012-D	4/4	--	27	NA	1700 C	2000	750000 C	NA	No	BSL
309-00-2	ALDRIN	1.5 J	1.5 J	NTC01SB0991012-D	1/4	2.2 - 10	1.5	NA	29 C	40	3400 C	3000	No	BSL
319-84-6	ALPHA-BHC	1.7 J	1.7 J	NTC01SB0991012	1/4	2.2 - 10	1.7	NA	90 C	100	750 C	800	No	BSL
5103-71-9	ALPHA-CHLORDANE	2.2 J	2.8 J	NTC01SB0900812	2/4	2.2 - 10	2.8	NA	1600 C[12]	1800	72000 C	22000	No	BSL
12672-29-6	AROCLOR-1248	130 J	130 J	NTC01SB0991012	1/4	40 - 89	130	NA	220 C	1000	NA	NA	No	BSL
11097-69-1	AROCLOR-1254	33 J	33 J	NTC01SB0900812	1/4	40 - 89	33	NA	110 C	1000	NA	NA	No	BSL
11096-82-5	AROCLOR-1260	100 J	100 J	NTC01SB0991012	1/4	40 - 89	100	NA	220 C	1000	NA	NA	No	BSL
319-86-8	DELTA-BHC	1.2 J	1.2 J	NTC01SB0991012	1/4	2.2 - 10	1.2	NA	90 C	NA	NA	NA	No	BSL
60-57-1	DIELDRIN	0.55 J	1.2 J	NTC01SB0991012	2/4	2.2 - 10	1.2	NA	30 C	40	1100 C	1000	No	BSL
959-98-8	ENDOSULFAN I	3.1 J	3.1 J	NTC01SB0991012	1/4	2.2 - 10	3.1	NA	37000 N	470000	NA	NA	No	BSL
33213-65-9	ENDOSULFAN II	3.7 J	6.1 J	NTC01SB0991012	1/4	2.2 - 4.6	6.1	NA	37000 N	470000	NA	NA	No	BSL
1031-07-8	ENDOSULFAN SULFATE	2 J	2 J	NTC01SB0991012-D	1/4	2.2 - 10	2	NA	37000 N	470000	NA	NA	No	BSL
72-20-8	ENDRIN	1.6 J	9.6 J	NTC01SB0991012-D	2/4	2.2 - 10	9.6	NA	1800 N	23000	NA	NA	No	BSL
53494-70-5	ENDRIN KETONE	0.73 J	2.2 J	NTC01SB0991012	2/4	2.2 - 10	2.2	NA	1800 N	23000	NA	NA	No	BSL
58-89-9	GAMMA-BHC (LINDANE)	1.2 J	7.7 J	NTC01SB0991012-D	1/4	2.2 - 4.6	7.7	NA	440 C	500	NA	NA	No	BSL
5103-74-2	GAMMA-CHLORDANE	2 J	6.9 J	NTC01SB0991012	3/4	2.2 - 10	6.9	NA	1600 C[12]	1800	72000 C	22000	No	BSL
76-44-8	HEPTACHLOR	2.4 J	2.4 J	NTC01SB0991012-D	1/4	2.2 - 10	2.4	NA	110 C	100	4100 C	100	No	BSL
1024-57-3	HEPTACHLOR EPOXIDE	2 J	4.4 J	NTC01SB0991012	1/4	2.2 - 4.6	4.4	NA	53 C	70	4700 C	5000	No	BSL
72-43-5	METHOXYCHLOR	2.4 J	2.5 J	NTC01SB0991012-D	1/4	4.2 - 8.9	2.5	NA	31000 N	390000	NA	NA	No	BSL
Herbicides (ug/kg)														
87-86-5	PENTACHLOROPHENOL	4.2 J	4.2 J	NTC01SB0900812-D	1/4	12 - 27	4.2	NA	3000 C	3000	NA	NA	No	BSL
Dioxins/Furans (ng/kg)														
3268-87-9	1,2,3,4,6,7,8,9-OCDD	57	16000 J	NTC01SB0900812-D	4/4	--	16000	NA	13000 C[13]	NA	140000 C	NA	Yes	ASL
39001-02-0	1,2,3,4,6,7,8,9-OCDF	29	20000 J	NTC01SB0900812-D	2/4	5.7 - 38	20000	NA	13000 C[13]	NA	140000 C	NA	Yes	ASL
35822-46-9	1,2,3,4,6,7,8-HPCDD	14	11000 J	NTC01SB0900812-D	4/4	--	11000	NA	390 C[13]	NA	4200 C	NA	Yes	ASL
67562-39-4	1,2,3,4,6,7,8-HPCDF	7.3 J	34000 J	NTC01SB0900812-D	4/4	--	34000	NA	390 C[13]	NA	4200 C	NA	Yes	ASL
55673-89-7	1,2,3,4,7,8,9-HPCDF	3.6 J	3100 J	NTC01SB0900812-D	2/4	0.59 - 2.4	3100	NA	390 C[13]	NA	4200 C	NA	Yes	ASL
39227-28-6	1,2,3,4,7,8-HXCDD	5.8 J	1200 J	NTC01SB0900812-D	2/4	0.89 - 7.4	1200	NA	39 C[13]	NA	420 C	NA	Yes	ASL
70648-26-9	1,2,3,4,7,8-HXCDF	20	8900 J	NTC01SB0900812-D	2/4	3 - 13	8900	NA	39 C[13]	NA	420 C	NA	Yes	ASL
57653-85-7	1,2,3,6,7,8-HXCDD	15	2000 J	NTC01SB0900812-D	3/4	0.86 - 0.86	2000	NA	39 C[13]	NA	420 C	NA	Yes	ASL
57117-44-9	1,2,3,6,7,8-HXCDF	10	6700 J	NTC01SB0900812-D	2/4	1.6 - 7.4	6700	NA	39 C[13]	NA	420 C	NA	Yes	ASL
19408-74-3	1,2,3,7,8,9-HXCDD	12	1600 J	NTC01SB0900812-D	3/4	1.4 - 1.4	1600	NA	39 C[13]	NA	420 C	NA	Yes	ASL
72918-21-9	1,2,3,7,8,9-HXCDF	3.3 J	290 J	NTC01SB0900812-D	1/4	0.5 - 1.2	290	NA	39 C[13]	NA	420 C	NA	Yes	ASL
40321-76-4	1,2,3,7,8-PECDD	9.1	1200 J	NTC01SB0900812-D	2/4	0.84 - 20	1200	NA	3.9 C[13]	NA	42 C	NA	Yes	ASL
57117-41-6	1,2,3,7,8-PECDF	12	6400 J	NTC01SB0900812-D	2/4	1.2 - 8.4	6400	NA	130 C[13]	NA	1400 C	NA	Yes	ASL
60851-34-5	2,3,4,6,7,8-HXCDF	12	8000 J	NTC01SB0900812-D	2/4	1.2 - 10	8000	NA	39 C[13]	NA	420 C	NA	Yes	ASL
57117-31-4	2,3,4,7,8-PECDF	19	12000 J	NTC01SB0900812-D	2/4	1.3 - 11	12000	NA	13 C[13]	NA	140 C	NA	Yes	ASL
1746-01-6	2,3,7,8-TCDD	1.9 J	140 J	NTC01SB0900812-D	2/4	0.4 - 9	140	NA	3.9 C	NA	42 C	NA	Yes	ASL
51207-31-9	2,3,7,8-TCDF	10 J	5500 J	NTC01SB0900812-D	2/4	1 - 11	5500	NA	39 C[13]	NA	420 C	NA	Yes	ASL
	2,3,7,8-TCDD TEQ HALF ND	1.622905	9042.8	NTC01SB0900812-D	4/4	--	9042.8	NA	3.9 C[13]	NA	42 C	NA	Yes	ASL
	2,3,7,8-TCDD TEQ ZERO ND	0.2301	9042.8	NTC01SB0900812-D	4/4	--	9042.8	NA	3.9 C[13]	NA	42 C	NA	Yes	ASL
37871-00-4	TOTAL HPCDD	26	21000 J	NTC01SB0900812-D	4/4	--	21000	NA	NA	NA	NA	NA	No	NA
38998-75-3	TOTAL HPCDF	7.3	47000 J	NTC01SB0900812-D	4/4	--	47000	NA	NA	NA	NA	NA	No	NA
34465-46-8	TOTAL HXCDD	180	21000 J	NTC01SB0900812-D	3/4	3.8 - 3.8	21000	NA	NA	NA	NA	NA	No	NA
55684-94-1	TOTAL HXCDF	21	61000 J	NTC01SB0900812-D	2/4	3.3 - 13	61000	NA	NA	NA	NA	NA	No	NA
36088-22-9	TOTAL PECDD	15 J	16000 J	NTC01SB0900812-D	2/4	0.84 - 25	16000	NA	NA	NA	NA	NA	No	NA
30402-15-4	TOTAL PECDF	47 J	110000 J	NTC01SB0900812-D	2/4	4.4 - 7.3	110000	NA	NA	NA	NA	NA	No	NA
41903-57-5	TOTAL TCDD	42 J	8000 J	NTC01SB0900812-D	2/4	0.62 - 9	8000	NA	NA	NA	NA	NA	No	NA
55722-27-5	TOTAL TCDF	23	100000 J	NTC01SB0900812-D	3/4	11 - 11	100000	NA	NA	NA	NA	NA	No	NA

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CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Sample of Maximum Concentration	Frequency of Detection	Range of Nondects[2]	Concentration Used for Screening[3]	Background Concentrations[4]	Screening Levels Based on USEPA Region 9 PRGs - Residential Soil[5]	TACO - Soil Remediation Objectives for Residential Properties[6] - Ingestion	Screening Levels Based on USEPA Generic SSLs for Migration from Soil to Air - Residential[7]	TACO - Soil Remediation Objectives for Residential Properties - Inhalation[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
Inorganics (mg/kg)														
7429-90-5	ALUMINUM	2750	10300	NTC01SB0921516	16/16	--	10300	9500	7600 N	NA	709000 N	NA	Yes	ASL
7440-36-0	ANTIMONY	0.53	21.4	NTC01SB0900812	11/16	0.28 - 0.65	21.4	4	3.1 N	31	NA	NA	Yes	ASL
7440-38-2	ARSENIC	4.4	19.6	NTC01SB0891112	16/16	--	19.6	13	0.39 C	NA	769 C	750	Yes	ASL
7440-39-3	BARIUM	35.9 J	386 J	NTC01SB0900812	16/16	--	386	110	540 N	5500	70900 N	690000	No	BSL
7440-41-7	BERYLLIUM	0.8	5.7	NTC01SB0950810	9/16	0.74 - 1.3	5.7	0.59	15 N	160	1380 N	1300	No	BSL
7440-43-9	CADMIUM	0.14	2.3	NTC01SB1001012	7/16	0.051 - 0.12	2.3	0.6	3.7 N	78	1840 N	1800	No	BSL
7440-70-2	CALCIUM	2840	66300	NTC01SB1031919	16/16	--	66300	9300	NA	NA	NA	NA	No	NUT
7440-47-3	CHROMIUM	6 J	55.9 J	NTC01SB0981516	16/16	--	55.9	16.2	30 C[14]	230	276 C	270	Yes	ASL
7440-48-4	COBALT	3.7	13	NTC01SB0981516	16/16	--	13	8.9	140 N[15]	4700	1180 N	NA	No	BSL
7440-50-8	COPPER	19.2 J	1530 J	NTC01SB0991012-D	16/16	--	1530	19.6	310 N	2900	NA	NA	Yes	ASL
7439-89-6	IRON	11400 J	102000 J	NTC01SB0981516	16/16	--	102000	15900	2300 N	NA	NA	NA	Yes	ASL
7439-92-1	LEAD	11.9 J	1410 J	NTC01SB0900812	16/16	--	1410	36	400	400	NA	NA	Yes	ASL
7439-95-4	MAGNESIUM	855 J	36600 J	NTC01SB1031919	16/16	--	36600	4820	NA	NA	NA	NA	No	NUT
7439-96-5	MANGANESE	59.1 J	1000 J	NTC01SB0991012	16/16	--	1000	636	180 N	3700	7090 N	8700	Yes	ASL
7439-97-6	MERCURY	0.056	0.75 J	NTC01SB0941416	15/16	0.014 - 0.014	0.75	0.06	2.3 N	23	1 N	10	No	BSL
7440-02-0	NICKEL	11.6 J	52.7 J	NTC01SB0981516	16/16	--	52.7	18	160 N	1600	NA	13000	No	BSL
7440-09-7	POTASSIUM	420	1880	NTC01SB0921516	16/16	--	1880	1268	NA	NA	NA	NA	No	NUT
7782-49-2	SELENIUM	0.83	5.7	NTC01SB0891112	13/16	1.2 - 4.5	5.7	0.48	39 N	390	NA	NA	No	BSL
7440-22-4	SILVER	0.34 J	709	NTC01SB0991012	10/16	0.063 - 0.47	709	0.55	39 N	390	NA	NA	Yes	ASL
7440-23-5	SODIUM	128	1240	NTC01SB0981516	16/16	--	1240	130	NA	NA	NA	NA	No	NUT
7440-28-0	THALLIUM	0.73	1.5	NTC01SB0950810	3/16	0.3 - 0.73	1.5	0.32	0.52 N	6.3	NA	NA	Yes	ASL
7440-62-2	VANADIUM	13.8	122	NTC01SB0950810	16/16	--	122	25.2	7.8 N	550	NA	NA	Yes	ASL
7440-66-6	ZINC	44.9 J	2170 J	NTC01SB1001012	16/16	--	2170	95	2300 N	23000	NA	NA	No	BSL
Miscellaneous Parameters (mg/kg)														
57-12-5	CYANIDE	2.9	2.9	NTC01SB0941416	1/16	0.58 - 1.3	2.9	0.51	120 N	NA	NA	NA	No	BSL

Footnotes
1 Sample and duplicate are counted as two separate samples when determining the minimum and maximum detected concentrations.
2 Values presented are sample-specific quantitation limits.
3 The maximum detected concentration is used for screening purposes.
4 If the maximum concentration of a chemical is less than the Illinois EPA background concentration, that chemical is not selected as a COPC.
5 The risk-based COPC screening level for residential soil is presented. The value is based on a target hazard quotient of 0.1 for noncarcinogens (denoted with a "N" flag) or an incremental cancer risk of 1E-6 for carcinogens (denoted with a "C" flag) (USEPA, Region 9, October 2004).
6 Illinois EPA Tier 1 Soil Remediation Objectives for Residential Properties (Illinois EPA, online, July, 2007).
7 USEPA Soil Screening Levels. Calculated online at http://risk.lsd.ornl.gov/calc_start.htm (Soil to air SSLs for noncarcinogens are divided by 10).
8 The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level and the Illinois EPA background level.
9 Naphthalene is used a the surroage for 2-methylnaphthalene.
10 Acenaphthene is used a the surroage for acenaphthylene.
11 Pyrene is used as the surrogate for benzo(g,h,i)perylene and phananthrene.
12 Value is for chlordane.
13 Value is derived by multiplying carteria for 2,3,7,8-TCDD by WHO Toxicity Equivalent Factors (See Section 6.3.5 of text).
14 Value is for hexavalent chromium.
15 Screening level for cobalt is based on 0.1 of the noncarcinogenic PRG because this value is less than the carcinogenic PRG (USEPA, Region 9, October 2004).

Associated Samples

NTC01SB08807(	NTC01SB0930810	NTC01SB0991012	NTC01SB1031919	NTC01SB2072838
NTC01SB08911	NTC01SB0941416	NTC01SB0991012-D	NTC01SB2050414	NTC01SB2090717
NTC01SB09008	NTC01SB0950810	NTC01SB1001012	NTC01SB2072838	NTC01SB2050414
NTC01SB09008	NTC01SB0961012	NTC01SB1010406	NTC01SB2090717	NTC01SB2072838
NTC01SB09108	NTC01SB0970304	NTC01SB1020408	NTC01SB2050414	NTC01SB2090717
NTC01SB09215	NTC01SB0981516			

Definitions:
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available
PRG = Preliminary Remediation Goal
TACO = Illinois EPA Tiered Approach to Corrective Action Objectives.

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For Elimination as a COPC:
BKG = Within background levels
BSL = Below COPC Screening Level
NTX = No Toxicity Information
NUT = Essential Nutrient

TABLE 2.2
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SUBSURFACE SOIL - MIGRATION FROM SOIL TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Subsurface Soil
Exposure Point: Entire Site

CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Sample of Maximum Concentration	Frequency of Detection	Range of Nondects(2)	Concentration Used for Screening(3)	Background Concentrations(4)	Screening Levels Based on USEPA Generic SSLs for Migration from Soil to Groundwater (DAF 1) - Residential(5)	TACO - Soil Component of the Groundwater Ingestion Route Objectives - Residential(6)	COPC Flag	Rationale for Contaminant Deletion or Selection(7)
Volatile Organic Compounds (ug/kg)												
78-93-3	2-BUTANONE	3.2 J	12	NTC01SB1001012	3/16	4.5 - 16	12	NA	4400 N	NA	No	BSL
67-64-1	ACETONE	6.4 J	59 J	NTC01SB1001012	2/16	18 - 62	59	NA	6600 N	16000	No	BSL
75-09-2	METHYLENE CHLORIDE	2.1 J	2.3 J	NTC01SB0981516	2/16	4.5 - 16	2.3	NA	1.2 C	20	Yes	ASL
Semivolatile Organics (ug/kg)												
91-57-6	2-METHYLNAPHTHALENE	40 J	250 J	NTC01SB0991012	4/4	--	250	NA	NA	NA	No	BSL
95-48-7	2-METHYLPHENOL	39 J	39 J	NTC01SB0991012-D	1/4	400 - 2100	39	NA	700 N	15000	No	BSL
106-44-5	4-METHYLPHENOL	13 J	170 J	NTC01SB0991012-D	2/4	660 - 890	170	NA	66 N	NA	Yes	ASL
83-32-9	ACENAPHTHENE	11 J	290 J	NTC01SB1020408	3/4	890 - 2100	290	NA	31000 N	570000	No	BSL
208-96-8	ACENAPHTHYLENE	11 J	100 J	NTC01SB0900812-D	2/4	400 - 890	100	NA	NA	NA	No	BSL
120-12-7	ANTHRACENE	13 J	260 J	NTC01SB1020408	2/4	420 - 2100	260	NA	650000 N	12000000	No	BSL
100-52-7	BENZALDEHYDE	110 J	150 J	NTC01SB0900812	2/4	400 - 2100	150	NA	860 N	NA	No	BSL
56-55-3	BENZO(A)ANTHRACENE	320 J	520	NTC01SB0991012-D	2/4	400 - 2100	520	NA	160 MCL	2000	Yes	ASL
50-32-8	BENZO(A)PYRENE	14 J	500	NTC01SB0991012-D	3/4	400 - 2100	500	NA	410 MCL	8000	Yes	ASL
205-99-2	BENZO(B)FLUORANTHENE	24 J	870	NTC01SB0991012-D	3/4	400 - 2100	870	NA	490 MCL	5000	Yes	ASL
191-24-2	BENZO(G,H,I)PERYLENE	20 J	500	NTC01SB0991012-D	3/4	890 - 2100	500	NA	NA	NA	No	BSL
207-08-9	BENZO(K)FLUORANTHENE	130 J	230 J	NTC01SB0991012-D	2/4	400 - 2100	230	NA	490 MCL	49000	No	BSL
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	150 J	660 J	NTC01SB0900812-D	2/4	400 - 890	660	NA	180000 MCL	3600000	No	BSL
85-68-7	BUTYL BENZYL PHTHALATE	9.8 J	74 J	NTC01SB0950810	4/4	--	74	NA	840000 N	930000	No	BSL
86-74-8	CARBAZOLE	100 J	250 J	NTC01SB1020408	2/4	400 - 2100	250	NA	30 C	600	Yes	ASL
218-01-9	CHRYSENE	400 J	680	NTC01SB0991012-D	2/4	400 - 2100	680	NA	160 MCL	160000	Yes	ASL
53-70-3	DIBENZO(A,H)ANTHRACENE	59 J	130 J	NTC01SB0991012-D	2/4	420 - 2100	130	NA	1500 MCL	2000	No	BSL
132-64-9	DIBENZOFURAN	19 J	100 J	NTC01SB1020408	3/4	890 - 2100	100	NA	2400 N	NA	No	BSL
84-66-2	DIETHYL PHTHALATE	18 J	430 J	NTC01SB0900812-D	2/4	400 - 890	430	NA	23000 N	470000	No	BSL
84-74-2	DI-N-BUTYL PHTHALATE	56 J	340 J	NTC01SB0900812-D	1/4	400 - 890	340	NA	250000 N	2300000	No	BSL
206-44-0	FLUORANTHENE	45 J	1400 J	NTC01SB0991012-D	3/4	890 - 2100	1400	NA	310000 N	4300000	No	BSL
86-73-7	FLUORENE	11 J	320 J	NTC01SB1020408	3/4	400 - 890	320	NA	41000 N	560000	No	BSL
193-39-5	INDENO(1,2,3-CD)PYRENE	12 J	400	NTC01SB0991012-D	3/4	890 - 2100	400	NA	1400 MCL	14000	No	BSL
91-20-3	NAPHTHALENE	52 J	250 J	NTC01SB0900812-D	4/4	--	250	NA	3100 N	12000	No	BSL
85-01-8	PHENANTHRENE	58 J	1700	NTC01SB1020408	4/4	--	1700	NA	NA	NA	No	BSL
108-95-2	PHENOL	22 J	93 J	NTC01SB0900812-D	2/4	400 - 890	93	NA	2800 N	100000	No	BSL
129-00-0	PYRENE	41 J	1300	NTC01SB1020408	3/4	890 - 890	1300	NA	230000 N	4200000	No	BSL
Polynuclear Aromatic Hydrocarbons (ug/kg)												
91-57-6	2-METHYLNAPHTHALENE	7.5 J	3500 J	NTC01SB1020408	15/16	400 - 400	3500	NA	NA	NA	No	BSL
83-32-9	ACENAPHTHENE	14 J	260 J	NTC01SB0991012-D	3/15	38 - 13000	260	NA	31000 N	570000	No	BSL
208-96-8	ACENAPHTHYLENE	25 J	3100 J	NTC01SB0991012-D	10/16	38 - 13000	3100	NA	NA	NA	No	BSL
120-12-7	ANTHRACENE	1.8 J	5200	NTC01SB1020408	16/16	--	5200	NA	650000 N	12000000	No	BSL
56-55-3	BENZO(A)ANTHRACENE	41	11000	NTC01SB1020408	9/15	7.8 - 40	11000	NA	160 MCL	2000	Yes	ASL
50-32-8	BENZO(A)PYRENE	1.5 J	9300	NTC01SB1020408	14/16	7.8 - 18	9300	NA	410 MCL	8000	Yes	ASL
205-99-2	BENZO(B)FLUORANTHENE	4.9 J	14000	NTC01SB1020408	14/16	18 - 40	14000	NA	490 MCL	5000	Yes	ASL
191-24-2	BENZO(G,H,I)PERYLENE	0.96 J	7300	NTC01SB1020408	16/16	--	7300	NA	NA	NA	No	BSL
207-08-9	BENZO(K)FLUORANTHENE	1.8 J	4600	NTC01SB1020408	12/16	8.6 - 40	4600	NA	490 MCL	49000	Yes	ASL
86-74-8	CARBAZOLE	12 J	4300 J	NTC01SB1020408	6/15	38 - 400	4300	NA	30 C	600	Yes	ASL
218-01-9	CHRYSENE	1.6 J	12000	NTC01SB1020408	15/16	18 - 18	12000	NA	160 MCL	160000	Yes	ASL
53-70-3	DIBENZO(A,H)ANTHRACENE	4.4 J	850	NTC01SB0880708	7/15	7.8 - 180	850	NA	1500 MCL	2000	No	BSL
206-44-0	FLUORANTHENE	4.8 J	49000	NTC01SB1020408	16/16	--	49000	NA	310000 N	4300000	No	BSL
86-73-7	FLUORENE	14	3300	NTC01SB1020408	7/15	7.8 - 82	3300	NA	41000 N	560000	No	BSL
193-39-5	INDENO(1,2,3-CD)PYRENE	1 J	6300	NTC01SB1020408	16/16	--	6300	NA	1400 MCL	14000	Yes	ASL
91-20-3	NAPHTHALENE	20 J	3100 J	NTC01SB1020408	13/16	38 - 4100	3100	NA	3100 N	12000	No	BSL
85-01-8	PHENANTHRENE	7 J	26000	NTC01SB1020408	16/16	--	26000	NA	NA	NA	No	BSL
129-00-0	PYRENE	4 J	31000	NTC01SB1020408	16/16	--	31000	NA	230000 N	4200000	No	BSL
	BAP EQUIVALENT ZERO ND	0.25	13068	NTC01SB1020408	16/16	--	13068	NA	410 MCL	8000	Yes	ASL
	BAP EQUIVALENT - HALF ND	4.2449	13068	NTC01SB1020408	16/16	--	13068	NA	410 MCL	8000	Yes	ASL

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NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Subsurface Soil
Exposure Point: Entire Site

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Sample of Maximum Concentration	Frequency of Detection	Range of Nondects[2]	Concentration Used for Screening[3]	Background Concentrations[4]	Screening Levels Based on USEPA Generic SSLs for Migration from Soil to Groundwater (DAF 1) - Residential[5]	TACO - Soil Component of the Groundwater Ingestion Route Objectives - Residential[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Organochlorine Pesticides/PCBs (ug/kg)												
72-54-8	4,4'-DDD	4.8	280 J	NTC01SB0991012-D	4/4	--	280	NA	710 C	16000	No	BSL
72-55-9	4,4'-DDE	0.6 J	82 J	NTC01SB0991012-D	4/4	--	82	NA	2200 C	54000	No	BSL
50-29-3	4,4'-DDT	1.4 J	27 J	NTC01SB0991012-D	4/4	--	27	NA	1300 C	32000	No	BSL
309-00-2	ALDRIN	1.5 J	1.5 J	NTC01SB0991012-D	1/4	2.2 - 10	1.5	NA	25 C	500	No	BSL
319-84-6	ALPHA-BHC	1.7 J	1.7 J	NTC01SB0991012	1/4	2.2 - 10	1.7	NA	0.036 C	0.5	Yes	ASL
5103-71-9	ALPHA-CHLORDANE	2.2 J	2.8 J	NTC01SB0900812	2/4	2.2 - 10	2.8	NA	480 MCL	10000	No	BSL
12672-29-6	AROCLOR-1248	130 J	130 J	NTC01SB0991012	1/4	40 - 89	130	NA	NA	NA	No	BSL
11097-69-1	AROCLOR-1254	33 J	33 J	NTC01SB0900812	1/4	40 - 89	33	NA	NA	NA	No	BSL
11096-82-5	AROCLOR-1260	100 J	100 J	NTC01SB0991012	1/4	40 - 89	100	NA	NA	NA	No	BSL
319-86-8	DELTA-BHC	1.2 J	1.2 J	NTC01SB0991012	1/4	2.2 - 10	1.2	NA	NA	NA	No	BSL
60-57-1	DIELDRIN	0.55 J	1.2 J	NTC01SB0991012	2/4	2.2 - 10	1.2	NA	0.23 C	4	Yes	ASL
959-98-8	ENDOSULFAN I	3.1 J	3.1 J	NTC01SB0991012	1/4	2.2 - 10	3.1	NA	980 N	18000	No	BSL
33213-65-9	ENDOSULFAN II	3.7 J	6.1 J	NTC01SB0991012	1/4	2.2 - 4.6	6.1	NA	980 N	18000	No	BSL
1031-07-8	ENDOSULFAN SULFATE	2 J	2 J	NTC01SB0991012-D	1/4	2.2 - 10	2	NA	980 N	NA	No	BSL
72-20-8	ENDRIN	1.6 J	9.6 J	NTC01SB0991012-D	2/4	2.2 - 10	9.6	NA	50 MCL	1000	No	BSL
53494-70-5	ENDRIN KETONE	0.73 J	2.2 J	NTC01SB0991012	2/4	2.2 - 10	2.2	NA	NA	NA	No	BSL
58-89-9	GAMMA-BHC (LINDANE)	1.2 J	7.7 J	NTC01SB0991012-D	1/4	2.2 - 4.6	7.7	NA	0.47 MCL	9	Yes	ASL
5103-74-2	GAMMA-CHLORDANE	2 J	6.9 J	NTC01SB0991012	3/4	2.2 - 10	6.9	NA	480 MCL	10000	No	BSL
76-44-8	HEPTACHLOR	2.4 J	2.4 J	NTC01SB0991012-D	1/4	2.2 - 10	2.4	NA	1100 MCL	23000	No	BSL
1024-57-3	HEPTACHLOR EPOXIDE	2 J	4.4 J	NTC01SB0991012	1/4	2.2 - 4.6	4.4	NA	33 MCL	700	No	BSL
72-43-5	METHOXYCHLOR	2.4 J	2.5 J	NTC01SB0991012-D	1/4	4.2 - 8.9	2.5	NA	7800 MCL	160000	No	BSL
Herbicides (ug/kg)												
87-86-5	PENTACHLOROPHENOL	4.2 J	4.2 J	NTC01SB0900812-D	1/4	12 - 27	4.2	NA	1.4 MCL	30	Yes	ASL
Dioxins/Furans (ng/kg)												
3268-87-9	1,2,3,4,6,7,8,9-OCDD	57	16000 J	NTC01SB0900812-D	4/4	--	16000	NA	930 C[8]	NA	Yes	ASL
39001-02-0	1,2,3,4,6,7,8,9-OCDF	29	20000 J	NTC01SB0900812-D	2/4	5.7 - 38	20000	NA	930 C[8]	NA	Yes	ASL
35822-46-9	1,2,3,4,6,7,8-HPCDD	14	11000 J	NTC01SB0900812-D	4/4	--	11000	NA	28 C[8]	NA	Yes	ASL
67562-39-4	1,2,3,4,6,7,8-HPCDF	7.3 J	34000 J	NTC01SB0900812-D	4/4	--	34000	NA	28 C[8]	NA	Yes	ASL
55673-89-7	1,2,3,4,7,8,9-HPCDF	3.6 J	3100 J	NTC01SB0900812-D	2/4	0.59 - 2.4	3100	NA	28 C[8]	NA	Yes	ASL
39227-28-6	1,2,3,4,7,8-HXCDD	5.8 J	1200 J	NTC01SB0900812-D	2/4	0.89 - 7.4	1200	NA	2.8 C[8]	NA	Yes	ASL
70648-26-9	1,2,3,4,7,8-HXCDF	20	8900 J	NTC01SB0900812-D	2/4	3 - 13	8900	NA	2.8 C[8]	NA	Yes	ASL
57653-85-7	1,2,3,6,7,8-HXCDD	15	2000 J	NTC01SB0900812-D	3/4	0.86 - 0.86	2000	NA	2.8 C[8]	NA	Yes	ASL
57117-44-9	1,2,3,6,7,8-HXCDF	10	6700 J	NTC01SB0900812-D	2/4	1.6 - 7.4	6700	NA	2.8 C[8]	NA	Yes	ASL
19408-74-3	1,2,3,7,8,9-HXCDD	12	1600 J	NTC01SB0900812-D	3/4	1.4 - 1.4	1600	NA	2.8 C[8]	NA	Yes	ASL
72918-21-9	1,2,3,7,8,9-HXCDF	3.3 J	290 J	NTC01SB0900812-D	1/4	0.5 - 1.2	290	NA	2.8 C[8]	NA	Yes	ASL
40321-76-4	1,2,3,7,8-PECDD	9.1	1200 J	NTC01SB0900812-D	2/4	0.84 - 20	1200	NA	0.28 C[8]	NA	Yes	ASL
57117-41-6	1,2,3,7,8-PECDF	12	6400 J	NTC01SB0900812-D	2/4	1.2 - 8.4	6400	NA	9.3 C[8]	NA	Yes	ASL
60851-34-5	2,3,4,6,7,8-HXCDF	12	8000 J	NTC01SB0900812-D	2/4	1.2 - 10	8000	NA	2.8 C[8]	NA	Yes	ASL
57117-31-4	2,3,4,7,8-PECDF	19	12000 J	NTC01SB0900812-D	2/4	1.3 - 11	12000	NA	0.93 C[8]	NA	Yes	ASL
1746-01-6	2,3,7,8-TCDD	1.9 J	140 J	NTC01SB0900812-D	2/4	0.4 - 9	140	NA	0.28 C	NA	Yes	ASL
51207-31-9	2,3,7,8-TCDF	10 J	5500 J	NTC01SB0900812-D	2/4	1 - 11	5500	NA	2.8 C[8]	NA	Yes	ASL
	2,3,7,8-TCDD TEQ HALF ND	1.622905	9042.8	NTC01SB0900812-D	4/4	--	9042.8	NA	0.28 C[8]	NA	Yes	ASL
	2,3,7,8-TCDD TEQ ZERO ND	0.2301	9042.8	NTC01SB0900812-D	4/4	--	9042.8	NA	0.28 C[8]	NA	Yes	ASL
37871-00-4	TOTAL HPCDD	26	21000 J	NTC01SB0900812-D	4/4	--	21000	NA	NA	NA	No	NTX
38998-75-3	TOTAL HPCDF	7.3	47000 J	NTC01SB0900812-D	4/4	--	47000	NA	NA	NA	No	NTX
34465-46-8	TOTAL HXCDD	180	21000 J	NTC01SB0900812-D	3/4	3.8 - 3.8	21000	NA	NA	NA	No	NTX
55684-94-1	TOTAL HXCDF	21	61000 J	NTC01SB0900812-D	2/4	3.3 - 13	61000	NA	NA	NA	No	NTX
36088-22-9	TOTAL PECDD	15 J	16000 J	NTC01SB0900812-D	2/4	0.84 - 25	16000	NA	NA	NA	No	NTX
30402-15-4	TOTAL PECDF	47 J	110000 J	NTC01SB0900812-D	2/4	4.4 - 7.3	110000	NA	NA	NA	No	NTX
41903-57-5	TOTAL TCDD	42 J	8000 J	NTC01SB0900812-D	2/4	0.62 - 9	8000	NA	NA	NA	No	NTX
55722-27-5	TOTAL TCDF	23	100000 J	NTC01SB0900812-D	3/4	11 - 11	100000	NA	NA	NA	No	NTX

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Inorganics (mg/kg)												
7429-90-5	ALUMINUM	2750	10300	NTC01SB0921516	16/16	--	10300	9500	NA N	NA	No	BSL
7440-36-0	ANTIMONY	0.53	21.4	NTC01SB0900812	11/16	0.28 - 0.65	21.4	4	0.27 MCL	NA	Yes	ASL
7440-38-2	ARSENIC	4.4	19.6	NTC01SB0891112	16/16	--	19.6	13	0.29 MCL	NA	Yes	ASL
7440-39-3	BARIUM	35.9 J	386 J	NTC01SB0900812	16/16	--	386	110	82 MCL	NA	Yes	ASL
7440-41-7	BERYLLIUM	0.8	5.7	NTC01SB0950810	9/16	0.74 - 1.3	5.7	0.59	3.2 MCL	NA	Yes	ASL
7440-43-9	CADMIUM	0.14	2.3	NTC01SB1001012	7/16	0.051 - 0.12	2.3	0.6	0.38 MCL	NA	Yes	ASL
7440-70-2	CALCIUM	2840	66300	NTC01SB1031919	16/16	--	66300	9300	NA	NA	No	NUT
7440-47-3	CHROMIUM	6 J	55.9 J	NTC01SB0981516	16/16	--	55.9	16.2	2.1 N	NA	Yes	ASL
7440-48-4	COBALT	3.7	13	NTC01SB0981516	16/16	--	13	8.9	0.17 N	NA	Yes	ASL
7440-50-8	COPPER	19.2 J	1530 J	NTC01SB0991012-D	16/16	--	1530	19.6	560 MCL	NA	Yes	ASL
7439-89-6	IRON	11400 J	102000 J	NTC01SB0981516	16/16	--	102000	15900	NA	NA	No	BSL
7439-92-1	LEAD	11.9 J	1410 J	NTC01SB0900812	16/16	--	1410	36	NA	NA	No	BSL
7439-95-4	MAGNESIUM	855 J	36600 J	NTC01SB1031919	16/16	--	36600	4820	NA	NA	No	NUT
7439-96-5	MANGANESE	59.1 J	1000 J	NTC01SB0991012	16/16	--	1000	636	110 N	NA	Yes	ASL
7439-97-6	MERCURY	0.056	0.75 J	NTC01SB0941416	15/16	0.014 - 0.014	0.75	0.06	0.1 MCL	NA	Yes	ASL
7440-02-0	NICKEL	11.6 J	52.7 J	NTC01SB0981516	16/16	--	52.7	18	14 N	NA	Yes	ASL
7440-09-7	POTASSIUM	420	1880	NTC01SB0921516	16/16	--	1880	1268	NA	NA	No	NUT
7782-49-2	SELENIUM	0.83	5.7	NTC01SB0891112	13/16	1.2 - 4.5	5.7	0.48	0.26 N	NA	Yes	ASL
7440-22-4	SILVER	0.34 J	709	NTC01SB0991012	10/16	0.063 - 0.47	709	0.55	1.6 N	NA	Yes	ASL
7440-23-5	SODIUM	128	1240	NTC01SB0981516	16/16	--	1240	130	NA	NA	No	NUT
7440-28-0	THALLIUM	0.73	1.5	NTC01SB0950810	3/16	0.3 - 0.73	1.5	0.32	0.056 N	NA	Yes	ASL
7440-62-2	VANADIUM	13.8	122	NTC01SB0950810	16/16	--	122	25.2	260 N	NA	No	BSL
7440-66-6	ZINC	44.9 J	2170 J	NTC01SB1001012	16/16	--	2170	95	680 N	NA	Yes	ASL
Miscellaneous Parameters (mg/kg)												
57-12-5	CYANIDE	2.9	2.9	NTC01SB0941416	1/16	0.58 - 1.3	2.9	0.51	2 MCL	NA	Yes	ASL

Footnotes
1 Sample and duplicate are counted as two separate samples when determining the minimum and maximum detected concentrations.
2 Values presented are sample-specific quantitation limits.
3 The maximum detected concentration is used for screening purposes.
4 If the maximum concentration of a chemical is less than the Illinois EPA background concentration, that chemical is not selected as a COPC.
5 USEPA Generic Soil Screening Levels for Migration to Groundwater (DAF1) calculated online at http://risk.lsd.ornl.gov/calc_start.shtml using methodology from the USEPA's Soil Screening Guidance (USEPA, July 1996).
6 Tier 1 Soil Remediation Objectives for Residential Properties for the Soil Component of the Groundwater Ingestion Exposure Route (DAF 20) (Illinois EPA, online, January 2004).
7 The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level and the Illinois EPA background level.
8 Value is derived by multiplying carteria for 2,3,7,8-TCDD by WHO Toxicity Equivalent Factors (See Section 6.3.5 of text).

Associated Samples

NTC01SB08807(	NTC01SB0930810	NTC01SB0991012	NTC01SB1031919	NTC01SB2072838
NTC01SB08911	NTC01SB0941416	NTC01SB0991012-D	NTC01SB2050414	NTC01SB2090717
NTC01SB09008	NTC01SB0950810	NTC01SB1001012	NTC01SB2072838	NTC01SB2050414
NTC01SB09008	NTC01SB0961012	NTC01SB1010406	NTC01SB2090717	NTC01SB2072838
NTC01SB09108	NTC01SB0970304	NTC01SB1020408	NTC01SB2050414	NTC01SB2090717
NTC01SB09215	NTC01SB0981516			

Definitions:
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available
PRG = Preliminary Remediation Goal
TACO = Illinois EPA Tiered Approach to Correctiv

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For Elimination as a COPC:
BKG = Within background levels
BSL = Below COPC Screening Level
NTX = No Toxicity Information
NUT = Essential Nutrient

TABLE 2.3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site

CAS Number	Chemical	Minimum Concentration (1)	Minimum Qualifier	Maximum Concentration (1)	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency (1)	Range of Nondetects(2)	Concentration Used for Screening(3)	Background Value(4)	Risk-Based COPC Screening Level(5)		Federal Maximum Contaminant Level (MCL)(6)	TACO - Groundwater Remediation Objectives for Class 1 Groundwater(7)	COPC Flag	Rationale for Contaminant Deletion or Selection(8)
Volatile Organics (ug/L)																
106-46-7	1,4-DICHLOROBENZENE	0.27	J	0.27	J	NTC01GWTW0101, NTC01GWTW0101-D	1/14	1	0.27	NA	0.5	C	75	75	No	BSL
67-64-1	ACETONE	2.7	J	5	J	NTC01GWTW0401	2/14	5	5	NA	550	N	NA	700	No	BSL
71-43-2	BENZENE	0.26	J	0.44	J	NTC01GWTW0201	2/14	1	0.44	NA	0.35	C	5	5	Yes	ASL
75-15-0	CARBON DISULFIDE	0.33	J	0.42	J	NTC01GWTW0101	2/14	1	0.42	NA	100	N	NA	700	No	BSL
108-90-7	CHLOROBENZENE	0.71	J	0.76	J	NTC01GWTW0101-D	1/14	1	0.76	NA	11	N	100	100	No	BSL
110-82-7	CYCLOHEXANE	2.1		2.1		NTC01GWTW0101	1/14	1	2.1	NA	1000	N	NA	NA	No	BSL
98-82-8	ISOPROPYLBENZENE	0.19	J	0.19		NTC01GWTW0101	1/14	1	0.19	NA	66	N	NA	NA	No	BSL
108-87-2	METHYL CYCLOHEXANE	1.7		1.7		NTC01GWTW0101	1/14	1	1.7	NA	520	N	NA	NA	No	BSL
108-88-3	TOLUENE	0.2	J	0.2		NTC01GWTW0101	1/14	1	0.2	NA	72	N	1000	1000	No	BSL
1330-20-7	TOTAL XYLENES	0.65	J	1.6	J	NTC01GWTW0101	2/14	3	1.6	NA	21	N	10000	10000	No	BSL
Semivolatile Organics (ug/L)																
100-52-7	BENZALDEHYDE	1	J	1		NTC01GWTW0101-D	1/3	10 - 13	1	NA	360	N	NA	NA	No	BSL
84-66-2	DIETHYL PHTHALATE	3.5	J	4		NTC01GWTW0101-D	1/3	10 - 11	4	NA	2900	N	NA	5600	No	BSL
91-20-3	NAPHTHALENE	4.4	J	5.2		NTC01GWTW0101-D	1/3	10 - 11	5.2	NA	0.62	N	NA	140	Yes	ASL
Polynuclear Aromatic Hydrocarbons (ug/L)																
91-57-6	2-METHYLNAPHTHALENE	1.3		1.5		NTC01GWTW0101-D	1/13	0.95 - 1	1.5	NA	0.62	N(9)	NA	NA	Yes	ASL
83-32-9	ACENAPHTHENE	0.19	J	0.23	J	NTC01GWTW0101-D	1/13	0.95 - 1	0.23	NA	37	N	NA	420	No	BSL
208-96-8	ACENAPHTHYLENE	5		5.9		NTC01GWTW0101-D	1/13	0.95 - 1	5.9	NA	37	N(10)	NA	NA	No	BSL
120-12-7	ANTHRACENE	0.035	J	0.039	J	NTC01GWTW0101-D	1/13	0.19 - 0.2	0.039	NA	180	N	NA	2100	No	BSL
86-74-8	CARBAZOLE	0.15	J	0.17	J	NTC01GWTW0101-D	1/13	0.95 - 1	0.17	NA	3.4	C	NA	NA	No	BSL
206-44-0	FLUORANTHENE	0.039	J	0.039		NTC01GW0401	1/13	0.19 - 0.2	0.039	NA	150	N	NA	280	No	BSL
86-73-7	FLUORENE	0.025	J	0.23	J	NTC01GWTW0101, NTC01GWTW0101-D	5/13	0.19 - 0.2	0.23	NA	24	N	NA	280	No	BSL
91-20-3	NAPHTHALENE	5.9		6.8	J	NTC01GWTW0101-D	1/13	0.95 - 1	6.8	NA	0.62	N	NA	140	Yes	ASL
85-01-8	PHENANTHRENE	0.056	J	0.35		NTC01GWTW0101	13/13	--	0.35	NA	18	N(11)	NA	NA	No	BSL
129-00-0	PYRENE	0.025	J	0.043	J	NTC01GW0401, NTC01GWTW0101-D	3/13	0.19 - 0.2	0.043	NA	18	N	NA	210	No	BSL
Metals (ug/L)																
7429-90-5	ALUMINUM	68.3		8650		NTC01GW0301	8/13	27.9 - 90.2	8650	NA	3600	N	NA	NA	Yes	ASL
7440-38-2	ARSENIC	2.4		3.3		NTC01GW0301	3/13	1.7 - 3.3	3.3	NA	0.045	C	10	50	Yes	ASL
7440-39-3	BARIUM	29.3		566		NTC01GWTW0101, NTC01GWTW0301	13/13	--	566	NA	260	N	2000	2000	Yes	ASL
7440-70-2	CALCIUM	14300		634000		NTC01GW0601	13/13	--	634000	NA	NA		NA	NA	No	NUT
7440-47-3	CHROMIUM	0.65		14.1		NTC01GW0301	8/13	0.93	14.1	NA	11	N(12)	100	100	Yes	ASL
7440-48-4	COBALT	3.1		12.1		NTC01GW0601, NTC01GW0801	7/13	0.53 - 0.92	12.1	NA	73	N	NA	1000	No	BSL
7440-50-8	COPPER	1.2		12.4		NTC01GW0301	6/13	0.39 - 2	12.4	NA	150	N	1300	650	No	BSL
7439-89-6	IRON	106		17600		NTC01GWTW0101	12/13	18	17600	NA	1100	N	NA	5000	Yes	ASL
7439-89-6	LEAD	1.2		8.4		NTC01GWTW0101	5/13	1.6	8.4	NA	NA		15	7.5	Yes	ASL
7439-95-4	MAGNESIUM	25300		349000		NTC01GW0601	13/13	--	349000	NA	NA		NA	NA	No	NUT
7439-96-5	MANGANESE	9.4		5070		NTC01GW0901	13/13	--	5070	NA	88	N	NA	150	Yes	ASL
7440-02-0	NICKEL	1.9		33.4		NTC01GW0601	10/13	1.1 - 1.2	33.4	NA	73	N	NA	100	No	BSL
7440-09-7	POTASSIUM	1500		42000	J	NTC01GWTW0101	13/13	--	42000	NA	NA		NA	NA	No	NUT
7782-49-2	SELENIUM	10.7		13.5		NTC01GW0101	1/13	1.8 - 4	13.5	NA	18	N	50	50	No	BSL
7440-22-4	SILVER	0.32		1.6		NTC01GW0801	6/13	0.3 - 0.67	1.6	NA	18	N	NA	50	No	BSL
7440-23-5	SODIUM	16500		601000		NTC01GW0601	13/13	--	601000	NA	NA		NA	NA	No	NUT
7440-62-2	VANADIUM	1.6		20.7		NTC01GW0301	12/13	1.7	20.7	NA	3.6	N	NA	49	Yes	ASL
7440-66-6	ZINC	27.2		309		NTC01GW0101	5/13	6.3 - 19	309	NA	1100	N	NA	5000	No	BSL

TABLE 2.3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site

CAS Number	Chemical	Minimum Concentration (1)	Minimum Qualifier	Maximum Concentration (1)	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency (1)	Range of Nondetects(2)	Concentration Used for Screening(3)	Background Value(4)	Risk-Based COPC Screening Level(5)		Federal Maximum Contaminant Level (MCL)(6)	TACO - Groundwater Remediation Objectives for Class 1 Groundwater(7)	COPC Flag	Rationale for Contaminant Deletion or Selection(8)
Metals, Filtered (ug/L)																
7440-39-3	BARIUM - FILTERED	76.3		178		NTC01GW0601	2/2	--	178	NA	260	N	2000	2000	No	BSL
7440-70-2	CALCIUM - FILTERED	116000		645000		NTC01GW0601	2/2	--	645000	NA	NA		NA	NA	No	NUT
7440-48-4	COBALT - FILTERED	5		8.5		NTC01GW0601	2/2	--	8.5	NA	73	N	NA	1000	No	BSL
7440-50-8	COPPER - FILTERED	1.2		1.2		NTC01GW0601	1/2	0.73	1.2	NA	150	N	1300	650	No	BSL
7439-95-4	MAGNESIUM - FILTERED	117000		353000		NTC01GW0601	2/2	--	353000	NA	NA		NA	NA	No	NUT
7439-96-5	MANGANESE - FILTERED	165		293		NTC01GW0601	2/2	--	293	NA	88	N	NA	150	Yes	ASL
7440-02-0	NICKEL - FILTERED	12.2		23.4		NTC01GW0601	2/2	--	23.4	NA	73	N	NA	100	No	BSL
7440-09-7	POTASSIUM - FILTERED	3650		10900		NTC01GW0601	2/2	--	10900	NA	NA		NA	NA	No	NUT
7440-22-4	SILVER - FILTERED	0.59		0.73		NTC01GW0601	2/2	--	0.73	NA	18	N	NA	50	No	BSL
7440-23-5	SODIUM - FILTERED	15300		629000		NTC01GW0601	2/2	--	629000	NA	NA		NA	NA	No	NUT
7440-62-2	VANADIUM - FILTERED	4.8		5.3		NTC01GW0601	2/2	--	5.3	NA	3.6	N	NA	49	Yes	ASL

Footnotes:

1 Sample and duplicate are counted as two separate samples when determining the minimum and maximum detected concentrations.
2 Values presented are sample-specific quantitation limits.
3 The maximum detected concentration is used for screening purposes.
4 No background or upgradient well data are available.
5 The risk-based COPC screening level for tap water use is presented. The value is based on a target hazard quotient of 0.1 for noncarcinogens (denoted with a "N" flag) or an incremental cancer risk of 1E-6 for carcinogens (denoted with a "C" flag) (USEPA, Region 9, October 2004).
6 Federal Maximum Contaminant Level (USEPA, Summaer 2006).
7 Illinois EPA Remediation Objectives for Class 1 Grounwater (Illinois EPA, online, July, 2007).
8 The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level and/or an ARAR/TBC(s).
9 Naphthalene is used a the surroage for 2-methylnaphthalene.
10 Acenaphthene is used as the surrogate for acenaphthylene.
11 Pyrene is used as the surrogate for phananthrene.
12 Value is for hexavalent chromium.

Associated Samples:

NTC01GW0101	NTC01GW0401	NTC01GW0801	NTC01GWTW0101-D
NTC01GW0101-D	NTC01GW0501	NTC01GW0901	NTC01GWTW0201
NTC01GW0201	NTC01GW0601	NTC01GW1001	NTC01GWTW0301
NTC01GW0301	NTC01GW0701	NTC01GWTW0101	NTC01GWTW0401

Definitions:

ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
C = Carcinogen
COPC = Chemical of Potential Concern
J = Estimated Value
N = Noncarcinogen
NA = Not Applicable.
TACO = Illinois EPA Tiered Approach to Corrective Action Objectives.

Rationale Codes:

For Selection as a COPC:
ASL = Above COPC Screening Level/ARAR/TBC

For Elimination as a COPC:
BKG = Within background levels
BSL = Below COPC Screening Level/ARAR/TBC
NUT = Essential Nutrient

TABLE 2.4
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - GROUNDWATER - VAPOR INTRUSION
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site

CAS Number	Chemical	Minimum Concentration (1)	Minimum Qualifier	Maximum Concentration (1)	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency (1)	Range of Nondetects(2)	Concentration Used for Screening(3)	Background Value(4)	Risk-Based COPC Screening Level(5)		COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Volatile Organics (ug/L)														
106-46-7	1,4-DICHLOROBENZENE	0.27	J	0.27	J	NTC01GWTW0101, NTC01GWTW0101-D	1/14	1	0.27	NA	8200	C	No	BSL
67-64-1	ACETONE	2.7	J	5	J	NTC01GWTW0401	2/14	5	5	NA	220000	N	No	BSL
71-43-2	BENZENE	0.26	J	0.44	J	NTC01GWTW0201	2/14	1	0.44	NA	5	C	No	BSL
75-15-0	CARBON DISULFIDE	0.33	J	0.42	J	NTC01GWTW0101	2/14	1	0.42	NA	560	N	No	BSL
108-90-7	CHLOROBENZENE	0.71	J	0.76	J	NTC01GWTW0101-D	1/14	1	0.76	NA	390	N	No	BSL
110-82-7	CYCLOHEXANE	2.1		2.1		NTC01GWTW0101	1/14	1	2.1	NA	NA	N	No	BSL
98-82-8	ISOPROPYLBENZENE	0.19	J	0.19		NTC01GWTW0101	1/14	1	0.19	NA	8.4	N	No	BSL
108-87-2	METHYL CYCLOHEXANE	1.7		1.7		NTC01GWTW0101	1/14	1	1.7	NA	710	N	No	BSL
108-88-3	TOLUENE	0.2	J	0.2		NTC01GWTW0101	1/14	1	0.2	NA	1500	N	No	BSL
1330-20-7	TOTAL XYLENES	0.65	J	1.6	J	NTC01GWTW0101	2/14	3	1.6	NA	22000	N	No	BSL
Semivolatile Organics (ug/L)														
100-52-7	BENZALDEHYDE	1	J	1		NTC01GWTW0101-D	1/3	10 - 13	1	NA	360000	N	No	BSL
84-66-2	DIETHYL PHTHALATE	3.5	J	4		NTC01GWTW0101-D	1/3	10 - 11	4	NA	NA	N	No	BSL
91-20-3	NAPHTHALENE	4.4	J	5.2		NTC01GWTW0101-D	1/3	10 - 11	5.2	NA	150	N	No	BSL
Polynuclear Aromatic Hydrocarbons (ug/L)														
91-57-6	2-METHYLNAPHTHALENE	1.3		1.5		NTC01GWTW0101-D	1/13	0.95 - 1	1.5	NA	3300	N	No	BSL
83-32-9	ACENAPHTHENE	0.19	J	0.23	J	NTC01GWTW0101-D	1/13	0.95 - 1	0.23	NA	NA	N	No	BSL
208-96-8	ACENAPHTHYLENE	5		5.9		NTC01GWTW0101-D	1/13	0.95 - 1	5.9	NA	NA	N	No	BSL
120-12-7	ANTHRACENE	0.035	J	0.039	J	NTC01GWTW0101-D	1/13	0.19 - 0.2	0.039	NA	NA	N	No	BSL
86-74-8	CARBAZOLE	0.15	J	0.17	J	NTC01GWTW0101-D	1/13	0.95 - 1	0.17	NA	NA	C	No	BSL
206-44-0	FLUORANTHENE	0.039	J	0.039		NTC01GW0401	1/13	0.19 - 0.2	0.039	NA	NA	N	No	BSL
86-73-7	FLUORENE	0.025	J	0.23	J	NTC01GWTW0101, NTC01GWTW0101-D	5/13	0.19 - 0.2	0.23	NA	NA	N	No	BSL
91-20-3	NAPHTHALENE	5.9		6.8	J	NTC01GWTW0101-D	1/13	0.95 - 1	6.8	NA	150	N	No	BSL
85-01-8	PHENANTHRENE	0.056	J	0.35		NTC01GWTW0101	13/13	--	0.35	NA	NA	N	No	BSL
129-00-0	PYRENE	0.025	J	0.043	J	NTC01GW0401, NTC01GWTW0101-D	3/13	0.19 - 0.2	0.043	NA	NA	N	No	BSL

Footnotes:

1 Sample and duplicate are counted as two separate samples when determining the minimum and maximum detected concentrations.
2 Values presented are sample-specific quantitation limits.
3 The maximum detected concentration is used for screening purposes.
4 No background or upgradient well data are available.
5 Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils. November 2002. EPA530-F-02-052. Values are from Table 2c and correspond to a target cancer risk level of 1E-6 or HI =1 and an attenuation factor of 0.001.
6 The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level

Associated Samples:

				NTC01GWTW0101-D
NTC01GW0101	NTC01GW0301	NTC01GW0601	NTC01GW0901	NTC01GWTW0201
NTC01GW0101-D	NTC01GW0401	NTC01GW0701	NTC01GW1001	NTC01GWTW0301
NTC01GW0201	NTC01GW0501	NTC01GW0801	NTC01GWTW0101	NTC01GWTW0401

Definitions:

C = Carcinogen
COPC = Chemical of Potential Concern
J = Estimated Value
N = Noncarcinogen
NA = Not Applicable.

Rationale Codes:

For Selection as a COPC:
ASL = Above COPC Screening Level/ARAR/TBC

For Elimination as a COPC:
BSL = Below COPC Screening Level/ARAR/TBC

TABLE 2.5
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SEDIMENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Sample of Maximum Concentration	Frequency of Detection	Range of Nondects[2]	Concentration Used for Screening[3]	Background Concentrations[4]	Screening Levels Based on USEPA Region 9 PRGs - Residential Soil[5]	TACO - Soil Remediation Objectives for Residential Properties[6] - Ingestion	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Semivolatile Organics (ug/kg)												
91-57-6	2-METHYLNAPHTHALENE	220 J	220 J	NTC01SD0101	1/4	2500 - 4400	220	140	5600 N[8]	1600000	No	BSL
83-32-9	ACENAPHTHENE	130 J	1000 J	NTC01SD0101	3/4	2500 - 2500	1000	130	370000 N	4700000	No	BSL
208-96-8	ACENAPHTHYLENE	79 J	87 J	NTC01SD0400	2/4	2500 - 4400	87	70	370000 N[9]	4700000	No	BSL
120-12-7	ANTHRACENE	150 J	1800 J	NTC01SD0200	4/4	--	1800	400	2200000 N	23000000	No	BSL
56-55-3	BENZO(A)ANTHRACENE	690 J	4500 J	NTC01SD0101	4/4	--	4500	1800	620 C	900	Yes	ASL
50-32-8	BENZO(A)PYRENE	810 J	4900	NTC01SD0101, NTC01SD0200	4/4	--	4900	2100	62 C	90	Yes	ASL
205-99-2	BENZO(B)FLUORANTHENE	110 J	6400	NTC01SD0101, NTC01SD0200	4/4	--	6400	2100	620 C	900	Yes	ASL
191-24-2	BENZO(G,H,I)PERYLENE	680 J	2800 J	NTC01SD0200	4/4	--	2800	1700	230000 N[10]	2300000	No	BSL
207-08-9	BENZO(K)FLUORANTHENE	480 J	2700 J	NTC01SD0101	4/4	--	2700	1700	6200 C	9000	No	BSL
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	580 J	2100 J	NTC01SD0101	4/4	--	2100	2700	35000 C	46000	No	BSL
85-68-7	BUTYL BENZYL PHTHALATE	150 J	190 J	NTC01SD0101	2/4	3700 - 4400	190	NA	1200000 N	16000000	No	BSL
86-74-8	CARBAZOLE	140 J	1100 J	NTC01SD0101	4/4	--	1100	NA	24000 C	32000	No	BSL
218-01-9	CHRYSENE	960 J	5500	NTC01SD0101	4/4	--	5500	2700	62000 C	88000	No	BSL
53-70-3	DIBENZO(A,H)ANTHRACENE	150 J	770 J	NTC01SD0200	4/4	--	770	420	62 C	90	Yes	ASL
132-64-9	DIBENZOFURAN	130 J	510 J	NTC01SD0101	3/4	2500 - 4400	510	NA	15000 N	NA	No	BSL
117-84-0	DI-N-OCTYL PHTHALATE	120 J	180 J	NTC01SD0101	2/4	3700 - 4400	180	NA	240000 N	1600000	No	BSL
206-44-0	FLUORANTHENE	1900 J	12000	NTC01SD0101, NTC01SD0200	4/4	--	12000	4100	230000 N	3100000	No	BSL
86-73-7	FLUORENE	160 J	1000 J	NTC01SD0101	3/4	2500 - 2500	1000	180	270000 N	3100000	No	BSL
193-39-5	INDENO(1,2,3-CD)PYRENE	710 J	3100 J	NTC01SD0200	4/4	--	3100	1600	620 C	900	Yes	ASL
91-20-3	NAPHTHALENE	160 J	440 J	NTC01SD0101	2/4	2500 - 4400	440	200	5600 N	1600000	No	BSL
85-01-8	PHENANTHRENE	780 J	7600	NTC01SD0200	4/4	--	7600	2500	230000 N[10]	2300000	No	BSL
129-00-0	PYRENE	150 J	9400	NTC01SD0101	4/4	--	9400	3000	230000 N	2300000	No	BSL
Polynuclear Aromatic Hydrocarbons (ug/kg)												
91-57-6	2-METHYLNAPHTHALENE	23 J	1300 J	NTC01SD0101	8/10	1200 - 1800	1300	140	5600 N[8]	1600000	No	BSL
208-96-8	ACENAPHTHYLENE	62 J	420 J	NTC01SD0200	9/10	5800 - 5800	420	70	370000 N[9]	4700000	No	BSL
120-12-7	ANTHRACENE	28 J	1300	NTC01SD0101	10/10	--	1300	400	2200000 N	23000000	No	BSL
56-55-3	BENZO(A)ANTHRACENE	110	4100	NTC01SD0101	10/10	--	4100	1800	620 C	900	Yes	ASL
50-32-8	BENZO(A)PYRENE	250	3500	NTC01SD0101	9/10	180 - 180	3500	2100	62 C	90	Yes	ASL
205-99-2	BENZO(B)FLUORANTHENE	200	4000	NTC01SD0101	9/10	360 - 360	4000	2100	620 C	900	Yes	ASL
191-24-2	BENZO(G,H,I)PERYLENE	260	2300	NTC01SD0101	10/10	--	2300	1700	230000 N[10]	2300000	No	BSL
207-08-9	BENZO(K)FLUORANTHENE	100	1700	NTC01SD0101	9/10	360 - 360	1700	1700	6200 C	9000	No	BSL
86-74-8	CARBAZOLE	190 J	420 J	NTC01SD0200	4/10	180 - 5800	420	NA	24000 C	32000	No	BSL
218-01-9	CHRYSENE	160	3600	NTC01SD0101	10/10	--	3600	2700	62000 C	88000	No	BSL
53-70-3	DIBENZO(A,H)ANTHRACENE	50 J	440 J	NTC01SD0101	10/10	--	440	420	62 C	90	Yes	ASL
206-44-0	FLUORANTHENE	230	9400	NTC01SD0101	10/10	--	9400	4100	230000 N	3100000	No	BSL
86-73-7	FLUORENE	11 J	580 J	NTC01SD0101	7/10	180 - 360	580	180	270000 N	3100000	No	BSL
193-39-5	INDENO(1,2,3-CD)PYRENE	280	2900	NTC01SD0101	10/10	--	2900	1600	620 C	900	Yes	ASL
91-20-3	NAPHTHALENE	120 J	660 J	NTC01SD0200	3/10	180 - 5800	660	200	5600 N	1600000	No	BSL
85-01-8	PHENANTHRENE	100	5700	NTC01SD0101	10/10	--	5700	2500	230000 N[10]	2300000	No	BSL
129-00-0	PYRENE	170	6800	NTC01SD0101	10/10	--	6800	3000	230000 N	2300000	No	BSL
	BAP EQUIVALENT ZERO ND	377.1	5060.6	NTC01SD0101	10/10	--	5060.6	NA	62 C	90	Yes	ASL
	BAP EQUIVALENT - HALF ND	377.1	5060.6	NTC01SD0101	10/10	--	5060.6	NA	62 C	90	Yes	ASL
Organochlorine Pesticides/PCBs (ug/kg)												
72-54-8	4,4'-DDD	5.5 J	86 J	NTC01SD0101	4/4	--	86	NA	2400 C	3000	No	BSL
72-55-9	4,4'-DDE	10 J	79 J	NTC01SD0101	4/4	--	79	NA	1700 C	2000	No	BSL
50-29-3	4,4'-DDT	4.9 J	7.4 J	NTC01SD0400	3/4	150 - 150	7.4	NA	1700 C	2000	No	BSL
5103-71-9	ALPHA-CHLORDANE	5 J	5.5 J	NTC01SD0200	2/4	13 - 150	5.5	NA	1600 C[11]	1800	No	BSL
12672-29-6	AROCLOR-1248	82	820	NTC01SD0101	1/4	50 - 89	820	NA	220 C	1000	Yes	ASL

TABLE 2.5
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SEDIMENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Sample of Maximum Concentration	Frequency of Detection	Range of Nondects[2]	Concentration Used for Screening[3]	Background Concentrations[4]	Screening Levels Based on USEPA Region 9 PRGs - Residential Soil[5]	TACO - Soil Remediation Objectives for Residential Properties[6] - Ingestion	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
60-57-1	DIELDRIN	4.4 J	4.4 J	NTC01SD0400	1/4	13 - 150	4.4	NA	30 C	40	No	BSL
33213-65-9	ENDOSULFAN II	3.6 J	4.8 J	NTC01SD0400	1/4	13 - 150	4.8	NA	37000 N	470000	No	BSL
72-20-8	ENDRIN	2.7 J	6.7 J	NTC01SD0400	1/4	13 - 150	6.7	NA	1800 N	23000	No	BSL
7421-93-4	ENDRIN ALDEHYDE	41 J	41 J	NTC01SD0101	1/4	13 - 23	41	NA	1800 N	23000	No	BSL
5103-74-2	GAMMA-CHLORDANE	2.9 J	2.9 J	NTC01SD0200	1/4	13 - 150	2.9	NA	1600 C[11]	1800	No	BSL
Dioxins/Furans (ng/kg)												
3268-87-9	1,2,3,4,6,7,8,9-OCDD	1400	7700 J	NTC01SD0101	4/4	--	7700	NA	13000 C[12]	NA	No	BSL
39001-02-0	1,2,3,4,6,7,8,9-OCDF	13	330	NTC01SD0101	4/4	--	330	NA	13000 C[12]	NA	No	BSL
35822-46-9	1,2,3,4,6,7,8-HPCDD	13	580	NTC01SD0101	4/4	--	580	NA	390 C[12]	NA	Yes	ASL
67562-39-4	1,2,3,4,6,7,8-HPCDF	3	99	NTC01SD0101	4/4	--	99	NA	390 C[12]	NA	No	BSL
55673-89-7	1,2,3,4,7,8,9-HPCDF		9	NTC01SD0101	1/4	2.1 - 4.6	9	NA	390 C[12]	NA	No	BSL
57653-85-7	1,2,3,6,7,8-HXCDD	5 J	23	NTC01SD0101	4/4	--	23	NA	39 C[12]	NA	No	BSL
19408-74-3	1,2,3,7,8,9-HXCDD	6.8 J	11 J	NTC01SD0400, NTC01SD0400-D	4/4	--	11	NA	39 C[12]	NA	No	BSL
1746-01-6	2,3,7,8-TCDD	0.76 J	0.76 J	NTC01SD0100	1/4	0.62 - 0.84	0.76	NA	3.9 C[12]	NA	No	BSL
51207-31-9	2,3,7,8-TCDF	1 J	5.7	NTC01SD0101	4/4	--	5.7	NA	39 C[12]	NA	No	BSL
	2,3,7,8-TCDD TEQ HALF ND	5.303	15.723	NTC01SD0101	4/4	--	15.723	NA	3.9 C[12]	NA	Yes	ASL
	2,3,7,8-TCDD TEQ ZERO ND	4.149	12.899	NTC01SD0101	4/4	--	12.899	NA	3.9 C[12]	NA	Yes	ASL
37871-00-4	TOTAL HPCDD	250	1100	NTC01SD0101	4/4	--	1100	NA	NA	NA	No	NA
38998-75-3	TOTAL HPCDF	95	510	NTC01SD0101	4/4	--	510	NA	NA	NA	No	NA
34465-46-8	TOTAL HXCDD	41	120	NTC01SD0101	4/4	--	120	NA	NA	NA	No	NA
55684-94-1	TOTAL HXCDF	18	110	NTC01SD0101	4/4	--	110	NA	NA	NA	No	NA
30402-15-4	TOTAL PECDF	5	29	NTC01SD0101	4/4	--	29	NA	NA	NA	No	NA
41903-57-5	TOTAL TCDD	1	4.3	NTC01SD0100	4/4	--	4.3	NA	NA	NA	No	NA
55722-27-5	TOTAL TCDF	1	81	NTC01SD0101	4/4	--	81	NA	NA	NA	No	NA
Inorganics (mg/kg)												
7429-90-5	ALUMINUM	1180	11800	NTC01SD0400-D	10/10	--	11800	NA	7600 N	NA	Yes	ASL
7440-36-0	ANTIMONY	0.45 J	2.1 J	NTC01SD0200, NTC01SD0400	6/10	0.33 - 0.44	2.1	NA	3.1 N	31	No	BSL
7440-38-2	ARSENIC	2.1	10.1	NTC01SD0400-D	10/10	--	10.1	8	0.39 C	NA	Yes	ASL
7440-39-3	BARIUM	10	101	NTC01SD0400-D	10/10	--	101	145	540 N	5500	No	BSL,BKG
7440-43-9	CADMIUM	0.4	0.48	NTC01SD0101	1/10	0.05 - 0.12	0.48	0.5	3.7 N	78	No	BSL,BKG
7440-70-2	CALCIUM	20700	117000	NTC01SD0500	10/10	--	117000	NA	NA	NA	No	NUT
7440-47-3	CHROMIUM	3.2	44.2	NTC01SD0101	10/10	--	44.2	16	30 C[13]	230	Yes	ASL
7440-48-4	COBALT	2.2	12.8	NTC01SD0400-D	10/10	--	12.8	NA	140 N[14]	4700	No	BSL
7440-50-8	COPPER	29	83.3	NTC01SD0101	10/10	--	83.3	38	310 N	2900	No	BSL
7439-89-6	IRON	5290	28500	NTC01SD0400-D	10/10	--	28500	18000	2300 N	NA	Yes	ASL
7439-92-1	LEAD	30	113	NTC01SD0101	10/10	--	113	28	400	400	No	BSL
7439-95-4	MAGNESIUM	1160	67100	NTC01SD0500	10/10	--	67100	NA	NA	NA	No	NUT
7439-96-5	MANGANESE	257	1200	NTC01SD0400-D	10/10	--	1200	1300	180 N	3700	No	BKG
7439-97-6	MERCURY	0.058 J	0.3 J	NTC01SD0200	9/10	0.015 - 0.015	0.3	0.07	2.3 N	23	No	BSL
7440-02-0	NICKEL	5.6	29.4	NTC01SD0400-D	10/10	--	29.4	26	160 N	1600	No	BSL
7440-09-7	POTASSIUM	297	1760	NTC01SD0400-D	10/10	--	1760	1500	NA	NA	No	NUT
7782-49-2	SELENIUM	1	2.5	NTC01SD0400-D	8/10	0.26 - 0.35	2.5	NA	39 N	390	No	BSL
7440-22-4	SILVER	0.3	0.39	NTC01SD0301	1/10	0.076 - 0.5	0.39	NA	39 N	390	No	BSL
7440-23-5	SODIUM	239	1290	NTC01SD0101	10/10	--	1290	NA	NA	NA	No	NUT
7440-28-0	THALLIUM	0.6	0.63	NTC01SD0400, NTC01SD0401	2/10	0.3 - 0.7	0.63	NA	0.52 N	6.3	Yes	ASL
7440-62-2	VANADIUM	4	31	NTC01SD0400-D	10/10	--	31	NA	7.8 N	550	Yes	ASL
7440-66-6	ZINC	13	439	NTC01SD0101	10/10	--	439	80	2300 N	23000	No	BSL

TABLE 2.5
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SEDIMENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Sample of Maximum Concentration	Frequency of Detection	Range of Nondects[2]	Concentration Used for Screening[3]	Background Concentrations[4]	Screening Levels Based on USEPA Region 9 PRGs - Residential Soil[5]	TACO - Soil Remediation Objectives for Residential Properties[6] - Ingestion	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Miscellaneous Parameters (mg/kg)												
	TOTAL ORGANIC CARBON	2200	54400	NTC01SD0501	10/10	--	54400	NA	NA	NA	No	NTX

Footnotes
1 Sample and duplicate are counted as two separate samples when determining the minimum and maximum detected concentrations.
2 Values presented are sample-specific quantitation limits.
3 The maximum detected concentration is used for screening purposes.
4 Illinois EPA background concentrations for sediment (See Section 6.1.2.3 of text)..
5 The risk-based COPC screening level for residential soil is presented. The value is based on a target hazard quotient of 0.1 for noncarcinogens (denoted with a "N" flag) or an incremental cancer risk of 1E-6 for carcinogens (denoted with a "C" flag) (USEPA, Region 9, October 2004).
6 Illinois EPA Tier 1 Soil Remediation Objectives for Residential Properties (Illinois EPA, online, July, 2007).
7 The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level and the facility background level.
8 Naphthalene is used a the surroage for 2-methylnaphthalene.
9 Acenaphthene is used a the surroage for acenaphthylene.
10 Pyrene is used as the surrogate for benzo(g,h,i)perylene and phananthrene.
11 Value is for chlordane.
12 Value is derived by multiplying carteria for 2,3,7,8-TCDD by WHO Toxicity Equivalent Factors (See Section 6.3.5 of text).
13 Value is for hexavalent chromium.
14 Screening level for cobalt is based on 0.1 of the noncarcinogenic PRG because this value is less than the carcinogenic PRG (USEPA, Region 9, October 2004).

Associated Samples

NTC01SD0100	NTC01SD0400
NTC01SD0101	NTC01SD0400-D
NTC01SD0200	NTC01SD0401
NTC01SD0201	NTC01SD0500
NTC01SD0300	NTC01SD0501
NTC01SD0301	

Definitions:
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available
PRG = Preliminary Remediation Goal
TACO = Illinois EPA Tiered Approach to Correcti\

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For Elimination as a COPC:
BKG = Within background levels
BSL = Below COPC Screening Level
NTX = No Toxicity Information
NUT = Essential Nutrient

TABLE 2.6
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch

CAS Number	Chemical	Minimum Concentration (1)	Minimum Qualifier	Maximum Concentration (1)	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency (1)	Range of Nondetects(2)	Concentration Used for Screening(3)	Background Value(4)	Risk-Based COPC Screening Level(5)		Federal Maximum Contaminant Level (MCL)(6)	TACO - Groundwater Remediation Objectives for Class 1 Groundwater(7)	COPC Flag	Rationale for Contaminant Deletion or Selection(8)
Volatile Organics (ug/L)																
75-34-3	1,1-DICHLOROETHANE	0.21	J	0.39	J	NTC01SW0400	3/5	1 - 1	0.39	NA	81	N	NA	700	No	BSL
156-59-2	CIS-1,2-DICHLOROETHENE	0.9		1.7		NTC01SW0400	5/5	--	1.7	NA	6.1	N	70	70	No	BSL
75-01-4	VINYL CHLORIDE	0.25	J	0.34	J	NTC01SW0400	2/5	1 - 1	0.34	NA	0.02	C	2	2	Yes	ASL
Polynuclear Aromatic Hydrocarbons (ug/L)																
50-32-8	BENZO(A)PYRENE	0.035	J	0.039	J	NTC01SW0100	3/5	0.2 - 0.2	0.039	NA	0.0092	C	0.2	0.2	Yes	ASL
205-99-2	BENZO(B)FLUORANTHENE	0.051	J	0.065	J	NTC01SW0300-D	3/5	0.2 - 0.2	0.065	NA	0.092	C	NA	0.18	No	BSL
191-24-2	BENZO(G,H,I)PERYLENE	0.044	J	0.065	J	NTC01SW0300-D	5/5	--	0.065	NA	18	N(9)	NA	NA	No	BSL
218-01-9	CHRYSENE	0.034	J	0.041	J	NTC01SW0300-D	4/5	0.2 - 0.2	0.041	NA	9.2	C	NA	1.5	No	BSL
206-44-0	FLUORANTHENE	0.1	J	0.17	J	NTC01SW0100	5/5	--	0.17	NA	150	N	NA	280	No	BSL
86-73-7	FLUORENE	0.021	J	0.036	J	NTC01SW0300-D	5/5	--	0.036	NA	24	N	NA	280	No	BSL
193-39-5	INDENO(1,2,3-CD)PYRENE	0.029	J	0.056	J	NTC01SW0300-D	5/5	--	0.056	NA	0.092	C	NA	0.43	No	BSL
85-01-8	PHENANTHRENE	0.12	J	0.17	J	NTC01SW0100, NTC01SW0300-D	5/5	--	0.17	NA	18	N(9)	NA	NA	No	BSL
129-00-0	PYRENE	0.056	J	0.084	J	NTC01SW0300-D	5/5	--	0.084	NA	18	N	NA	210	No	BSL
	BAP EQUIVALENT ZERO ND	0.0029		0.050141		NTC01SW0300-D	5/5	--	0.050141	NA	0.0092	C	0.2	0.2	Yes	ASL
	BAP EQUIVALENT - HALF ND	0.153689		0.224234		NTC01SW0500	5/5	--	0.224234	NA	0.0092	C	0.2	0.2	Yes	ASL
Dioxins/Furans (pg/L)																
3268-87-9	1,2,3,4,6,7,8,9-OCDD	130		130		NTC01SW0500	1/5	22 - 44	130	NA	1500	C(10)	NA	NA	No	BSL
	2,3,7,8-TCDD TEQ HALF ND	3.33171		3.76772		NTC01SW0300-D	5/5	--	3.76772	NA	0.45	C	30	NA	Yes	ASL
	2,3,7,8-TCDD TEQ ZERO ND	0.039		0.039		NTC01SW0500	1/5	0 - 0	0.039	NA	0.45	C	30	NA	No	BSL
Metals (ug/L)																
7429-90-5	ALUMINUM	224		407		NTC01SW0200	3/5	296 - 311	407	NA	3600	N	NA	NA	No	BSL
7440-36-0	ANTIMONY	3.2		3.6		NTC01SW0300	2/5	2.4 - 2.4	3.6	NA	1.5	N	6	6	Yes	ASL
7440-39-3	BARIUM	48.8		52.4		NTC01SW0500	5/5	--	52.4	NA	260	N	2000	2000	No	BSL
7440-70-2	CALCIUM	83300		91300		NTC01SW0400	5/5	--	91300	NA	NA		NA	NA	No	NUT
7440-47-3	CHROMIUM	1.2		1.4		NTC01SW0500	2/5	0.54 - 1.7	1.4	NA	11	N(11)	100	100	No	BSL
7440-50-8	COPPER	1.5		2.6		NTC01SW0500	3/5	1.4 - 1.4	2.6	NA	150	N	1300	650	No	BSL
7439-89-6	IRON	462		677		NTC01SW0100	5/5	--	677	NA	1100	N	NA	5000	No	BSL
7439-92-1	LEAD	2		2.1		NTC01SW0100, NTC01SW0200	3/5	1.8 - 1.8	2.1	NA	NA		15	7.5	No	BSL
7439-95-4	MAGNESIUM	30400		33700		NTC01SW0400	5/5	--	33700	NA	NA		NA	NA	No	NUT
7439-96-5	MANGANESE	69		86		NTC01SW0400	5/5	--	86	NA	88	N	NA	150	No	BSL
7439-97-6	MERCURY	0.052		0.052		NTC01SW0100, NTC01SW0200	2/5	0.015 - 0.022	0.052	NA	1.1	N	2	2	No	BSL
7440-02-0	NICKEL	1.6		2.6		NTC01SW0200	3/5	2.3 - 3	2.6	NA	73	N	NA	100	No	BSL
7440-09-7	POTASSIUM	3440		3670		NTC01SW0100	5/5	--	3670	NA	NA		NA	NA	No	NUT
7440-23-5	SODIUM	226000		253000		NTC01SW0500	5/5	--	253000	NA	NA		NA	NA	No	NUT
7440-28-0	THALLIUM	5.1		5.1		NTC01SW0100	1/5	2.6 - 2.6	5.1	NA	0.24	N	2	2	Yes	ASL
7440-62-2	VANADIUM	0.7		1.5		NTC01SW0100	5/5	--	1.5	NA	3.6	N	NA	49	No	BSL
7440-66-6	ZINC	18.7		18.7		NTC01SW0500	1/5	17.2 - 18.7	18.7	NA	1100	N	NA	5000	No	BSL

TABLE 2.6
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch

CAS Number	Chemical	Minimum Concentration (1)	Minimum Qualifier	Maximum Concentration (1)	Maximum Qualifier	Location of Maximum Concentration	Detection Frequency (1)	Range of Nondetects(2)	Concentration Used for Screening(3)	Background Value(4)	Risk-Based COPC Screening Level(5)	Federal Maximum Contaminant Level (MCL)(6)	TACO - Groundwater Remediation Objectives for Class 1 Groundwater(7)	COPC Flag	Rationale for Contaminant Deletion or Selection(8)

Footnotes:

1 Sample and duplicate are counted as two separate samples when determining the minimum and maximum detected concentrations.
2 Values presented are sample-specific quantitation limits.
3 The maximum detected concentration is used for screening purposes.
4 No background or upgradient well data are available.
5 The risk-based COPC screening level for tap water use is presented. The value is based on a target hazard quotient of 0.1 for noncarcinogens (denoted with a "N" flag) or an incremental cancer risk of 1E-6 for carcinogens (denoted with a "C" flag) (USEPA, Region 9, October 2004).
risk of 1E-6 for carcinogens (denoted with a "C" flag) (USEPA, Region 9, October 2004).
6 Federal Maximum Contaminant Level (USEPA, Summaer 2006).
7 Illinois EPA Remediation Objectives for Class 1 Grounwater (Illinois EPA, online, July, 2007).
8 The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level and/or an ARAR/TBC(s).
9 Pyrene is used as the surrogate for benzo(g,h,i)perylene and phananthrene.
10 Value is derived by multiplying carteria for 2,3,7,8-TCDD by WHO Toxicity Equivalent Factors (See Section 6.3.5 of text).
11 Value is for hexavalent chromium.

Associated Samples:

NTC01SW0100	NTC01SW0300	NTC01SW0400
NTC01SW0200	NTC01SW0300-D	NTC01SW0500

Definitions:

ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
C = Carcinogen
COPC = Chemical of Potential Concern
J = Estimated Value
N = Noncarcinogen
NA = Not Applicable.
TACO = Illinois EPA Tiered Approach to Corrective Action Objectives.

Rationale Codes:

For Selection as a COPC:
ASL = Above COPC Screening Level/ARAR/TBC

For Elimination as a COPC:
BSL = Below COPC Screening Level/ARAR/TBC
NUT = Essential Nutrient

TABLE 3.1
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY - SUBSURFACE SOIL
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Subsurface Soil
Exposure Point: Entire Site 1

Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL of Normal Data	Maximum Detected Concentration	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure			Central Tendency Exposure		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale	Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
2,3,7,8-TCDD TEQ (1/2 DL)	mg/kg	0.0012	NA	0.0046		mg/kg	0.0046	Maximum	(1)	0.0046	Maximum	(1)
BAP EQUIVALENT (1/2 DL)	mg/kg	2	3	13		mg/kg	12	99% UCL	99% Chebyshev(MVUE) UCL	12	99% UCL	99% Chebyshev(MVUE) UCL
ALUMINUM	mg/kg	7170	8030	10300		mg/kg	8030	95% UCL	Student-t (Normal)	8030	95% UCL	Student-t (Normal)
ANTIMONY	mg/kg	3.6	5.5	21.4		mg/kg	7.1	95% UCL	Approximate Gamma 95% UCL	7.1	95% UCL	Approximate Gamma 95% UCL
ARSENIC	mg/kg	10	12	19.6		mg/kg	12	95% UCL	Student-t (Normal)	12	95% UCL	Student-t (Normal)
CHROMIUM	mg/kg	20.6	25.6	55.9	J	mg/kg	26.1	95% UCL	Approximate Gamma 95% UCL	26.1	95% UCL	Approximate Gamma 95% UCL
COPPER	mg/kg	124	213	1530	J	mg/kg	627	99% UCL	99% Chebyshev(Mean, Std) UCL	627	99% UCL	99% Chebyshev(Mean, Std) UCL
IRON	mg/kg	29600	40000	102000	J	mg/kg	39800	95% UCL	H-UCL (Lognormal)	39800	95% UCL	H-UCL (Lognormal)
MANGANESE	mg/kg	416	533	1000	J	mg/kg	533	95% UCL	Student-t (Normal)	533	95% UCL	Student-t (Normal)
SILVER	mg/kg	24.9	63.7	709		mg/kg	94.9	99% UCL	99% Chebyshev(MVUE) UCL	94.9	99% UCL	99% Chebyshev(MVUE) UCL
THALLIUM	mg/kg	0.37	0.55	1.5		mg/kg	0.82	95% UCL	95% Chebyshev(Mean, Std) UCL	0.82	95% UCL	95% Chebyshev(Mean, Std) UCL
VANADIUM	mg/kg	32.4	44	122		mg/kg	42.9	95% UCL	H-UCL (Lognormal)	42.9	95% UCL	H-UCL (Lognormal)
LEAD	mg/kg	209	NA	1410		mg/kg	209	Average	(2)	209	Average	(2)
NAPHTHALENE	mg/kg	0.45	0.83	3.1		mg/kg	1	95% UCL	Adjusted Gamma 95% UCL	1	95% UCL	Adjusted Gamma 95% UCL

Footnotes:

1 - Dataset consists of less than 10 samples. The maximum concentration is used as the EPC.

2 - Per U.S. EPA guidance, the EPC for lead is the arithmetic average.

TABLE 3.2
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY - GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site 1

Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL of Normal Data	Maximum Detected Concentration	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure			Central Tendency Exposure		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale	Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
Benzene	ug/L	0.5	NA	0.44	J	ug/L	0.44	Maximum	(1)	0.44	Maximum	(1)
Naphthalene	ug/L	0.9	NA	6.8	J	ug/L	6.8	Maximum	(1)	6.8	Maximum	(1)
2-methylnaphthalene	ug/L	0.6	NA	1.5		ug/L	1.5	Maximum	(1)	1.5	Maximum	(1)
Aluminum	ug/L	953	NA	8650		ug/L	8650	Maximum	(1)	8650	Maximum	(1)
Arsenic	ug/L	1.8	NA	3.3		ug/L	3.3	Maximum	(1)	3.3	Maximum	(1)
Barium	ug/L	157	NA	566		ug/L	566	Maximum	(1)	566	Maximum	(1)
Chromium	ug/L	2.2	NA	14.1		ug/L	14.1	Maximum	(1)	14.1	Maximum	(1)
Iron	ug/L	3210	NA	17600		ug/L	17600	Maximum	(1)	17600	Maximum	(1)
Manganese	ug/L	911	NA	5070		ug/L	5070	Maximum	(1)	5070	Maximum	(1)
Vanadium	ug/L	5.5	NA	20.7		ug/L	20.7	Maximum	(1)	20.7	Maximum	(1)
Lead	ug/L	2.2	NA	8.4		ug/L	2.2	Average	(2)	2.2	Average	(2)

Footnotes:

1 - Maximum concentrations are used as EPCs per Illinois EPA guidance which states that concentrations in discrete wells should meet State benchmarks..

2 - Per U.S. EPA guidance, the EPC for lead is the arithmetic average.

TABLE 3.3
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY - SEDIMENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch

Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL of Normal Data	Maximum Detected Concentration	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure			Central Tendency Exposure		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale	Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
2,3,7,8-TCDD TEQ (1/2 ND)	mg/kg	0.00001	NA	0.000016		mg/kg	0.000016	Maximum	(1)	0.000016	Maximum	(1)
BAP EQUIVALENT (1/2 ND)	mg/kg	2	3	5.1		mg/kg	3	95% UCL	Student-t (Normal)	3	95% UCL	Student-t (Normal)
AROCLOR-1248	mg/kg	0.23	NA	0.82		mg/kg	0.82	Maximum	(1)	0.82	Maximum	(1)
ALUMINUM	mg/kg	6870	8520	11800		mg/kg	8520	95% UCL	Student-t (Normal)	8520	95% UCL	Student-t (Normal)
ARSENIC	mg/kg	7	8.5	10.1		mg/kg	8.5	95% UCL	Student-t (Normal)	8.5	95% UCL	Student-t (Normal)
CHROMIUM	mg/kg	20.5	26.6	44.2		mg/kg	26.6	95% UCL	Student-t (Normal)	26.6	95% UCL	Student-t (Normal)
IRON	mg/kg	17800	21400	28500		mg/kg	21400	99% UCL	Student-t (Normal)	21400	99% UCL	Student-t (Normal)
THALLIUM	mg/kg	0.32	0.42	0.63		mg/kg	0.44	95% UCL	Approximate Gamma 95% UCL	0.44	95% UCL	Approximate Gamma 95% UCL
VANADIUM	mg/kg	19.6	23.7	31		mg/kg	23.7	95% UCL	Student-t (Normal)	23.7	95% UCL	Student-t (Normal)

Footnotes:

1 - Dataset consists of less than 10 samples. The maximum concentration is used as the EPC.

TABLE 3.4
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY - SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch

Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL of Normal Data	Maximum Detected Concentration	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure			Central Tendency Exposure		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale	Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
VINYL CHLORIDE	ug/L	0.3	NA	0.34	J	ug/L	0.34	Maximum	(1)	0.34	Maximum	(1)
2,3,7,8-TCDD TEQ (1/2 ND)	ug/L	0.0000035	NA	0.000004		ug/L	0.000004	Maximum	(1)	0.000004	Maximum	(1)
BAP EQUIVALENT (1/2 ND)	ug/L	0.18	NA	0.2		ug/L	0.2	Maximum	(1)	0.2	Maximum	(1)
ANTIMONY	ug/L	1.8	NA	3.6		ug/L	3.6	Maximum	(1)	3.6	Maximum	(1)
THALLIUM	ug/L	2.1	NA	5.1		ug/L	5.1	Maximum	(1)	5.1	Maximum	(1)

Footnotes:

1 - Dataset consists of less than 10 samples. The maximum concentration is used as the EPC.

TABLE 5.1
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal[1]	Absorbed RfD for Dermal[2]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfD:Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s)
Volatile Organic Compounds										
Benzene	Chronic	4.0E-03	mg/kg/day	1	4.0E-03	mg/kg/day	Blood	300/1	IRIS	5/2007
Benzene	Subchronic	1.2E-02	mg/kg/day	1	1.2E-02	mg/kg/day	Blood	NA	IRIS	5/2007
Vinyl Chloride	Chronic	3.0E-03	mg/kg/day	1	3.0E-03	mg/kg/day	Liver	30/1	IRIS	8/2005
Vinyl Chloride	Subchronic	3.0E-03	mg/kg/day	1	3.0E-03	mg/kg/day	Liver	30/1	IRIS	8/2005
Semivolatile Organic Compounds										
BAP EQUIVALENT	NA	NA	NA	NA	NA	NA	NA	NA	NA	5/2007
Naphthalene	Chronic	2.0E-02	mg/kg/day	1	2.0E-02	mg/kg/day	Body Weight	3000/1	IRIS	5/2007
Naphthalene	Subchronic	2.0E-01	mg/kg/day	1	2.0E-01	mg/kg/day	Body Weight	300/1	IRIS	5/2007
2-Methylnaphthalene	Chronic	4.0E-03	mg/kg/day	1	4.0E-03	mg/kg/day	Lungs	1000/1	IRIS	5/2007
2-Methylnaphthalene	Subchronic	4.0E-03	mg/kg/day	1	4.0E-03	mg/kg/day	Lungs	1000/1	IRIS	5/2007
Dioxins/Furans										
2,3,7,8-TCDD TEQ	NA	NA	NA	NA	NA	NA	NA	NA	5/2007	10/2004
Inorganics										
Aluminum	Chronic	1.0E+00	mg/kg/day	1	1.0E+00	mg/kg/day	Body Weight	NA	EPA 3	5/2007
Aluminum	Subchronic	2.0E+00	mg/kg/day	1	2.0E+00	mg/kg/day	Body Weight	NA	ATSDR	9/2006
Antimony	Chronic	4.0E-04	mg/kg/day	0.15	6.0E-05	mg/kg/day	Blood	1000/1	IRIS	5/2007
Antimony	Subchronic	2.0E-04	mg/kg/day	0.15	3.0E-05	mg/kg/day	Blood	2000/1	NCEA	5/2007
Arsenic	Chronic	3.0E-04	mg/kg/day	1	3.0E-04	mg/kg/day	Skin, CVS	3/1	IRIS	5/2007
Arsenic	Subchronic	3.0E-04	mg/kg/day	1	3.0E-04	mg/kg/day	Skin, CVS	3/1	HEAST	7/1997
Barium	Chronic	7.0E-02	mg/kg/day	0.07	4.9E-03	mg/kg/day	Kidney	3/1	IRIS	5/2007
Barium	Subchronic	7.0E-01	mg/kg/day	0.07	4.9E-02	mg/kg/day	Kidney	NA	ATSDR	8/2007
Chromium	Chronic	3.0E-03	mg/kg/day	0.025	7.5E-05	mg/kg/day	Fetotoxicity/GS/Bone	300/3	IRIS	5/2007
Chromium	Subchronic	8.0E-03	mg/kg/day	0.025	2.0E-04	mg/kg/day	Fetotoxicity/GS/Bone	NA	IRIS	5/2007
Copper	Chronic	4.0E-02	mg/kg/day	1	4.0E-02	mg/kg/day	GS	NA	HEAST	7/1997
Copper	Subchronic	4.0E-02	mg/kg/day	1	4.0E-02	mg/kg/day	GS	NA	HEAST	7/1997
Iron	Chronic	7.0E-01	mg/kg/day	1	7.0E-01	mg/kg/day	NA	NA	NCEA	5/2007
Iron	Subchronic	7.0E-01	mg/kg/day	1	7.0E-01	mg/kg/day	NA	NA	NCEA	5/2007
Manganese	Chronic	2.0E-02	mg/kg/day	0.04	8.0E-04	mg/kg/day	CNS	1/1	IRIS	5/2007
Manganese	Subchronic	2.0E-02	mg/kg/day	0.04	8.0E-04	mg/kg/day	CNS	1/1	IRIS	5/2007
Silver	Chronic	5.0E-03	mg/kg/day	1	5.0E-03	mg/kg/day	Skin	3/1	IRIS	8/2005
Silver	Subchronic	5.0E-03	mg/kg/day	1	5.0E-03	mg/kg/day	Skin	3/1	HEAST	7/1997
Thallium	Chronic	7.0E-05	mg/kg/day	1	7.0E-05	mg/kg/day	Liver	NA	EPA 3	5/2007
Thallium	Subchronic	8.0E-04	mg/kg/day	1	8.0E-04	mg/kg/day	Liver	NA	IRIS	5/2007
Vanadium	Chronic	1.0E-03	mg/kg/day	0.026	2.6E-05	mg/kg/day	Kidney	300	NCEA	4/2005
Vanadium	Subchronic	7.0E-03	mg/kg/day	0.026	1.8E-04	mg/kg/day	Kidney	NA	HEAST	7/1997

Notes:
1 - USEPA, July 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.
2 - Adjusted dermal RfD = Oral RfD x Oral Absorption Efficiency for Dermal.

Definitions:
CNS = Central Nervous System
CVS = Cardiovascular system
GS = Gastrointestinal System
EPA 3 = USEPA Region 3 RBC Table, April, 2007.
HEAST= Health Effects Assessment Summary Tables
IRIS = Integrated Risk Information System
NA = Not Applicable
NCEA = USEPA National Center for Environmental Assessment

TABLE 5.2
NON-CANCER TOXICITY DATA -- INHALATION
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD[1]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s)
Volatile Organic Compounds									
Benzene	Chronic	3.0E-02	mg/m^3	8.6E-03	(mg/kg/day)	Blood	300/1	IRIS	5/2007
Benzene	Subchronic	8.0E-02	mg/m^3	2.3E-02	(mg/kg/day)	Blood	NA	IRIS	5/2007
Vinyl Chloride	Chronic	1.0E-01	mg/m^3	3.0E-02	(mg/kg/day)	Liver	30/1	IRIS	5/2007
Vinyl Chloride	Subchronic	1.0E-01	mg/m^3	3.0E-02	(mg/kg/day)	Liver	30/1	IRIS	5/2007
Semivolatile Organic Compounds									
Naphthalene	Chronic	3.0E-03	mg/m^3	8.6E-04	(mg/kg/day)	Nasal Effects	3000/1	IRIS	5/2007
Naphthalene	Subchronic	3.0E-03	mg/m^3	8.6E-04	(mg/kg/day)	Nasal Effects	3000/1	IRIS	5/2007
2-Methylnaphthalene	Chronic	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	Subchronic	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

1 - Extrapolated RfD = RfC *$20m^3$/day / 70 kg

Definitions:

IRIS = Integrated Risk Information System

NA = Not Applicable

TABLE 6.1
CANCER TOXICITY DATA -- ORAL/DERMAL
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal[1]	Absorbed Cancer Slope Factor for Dermal[2]		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Volatile Organic Compounds								
Benzene	5.5E-02	$(mg/kg/day)^{-1}$	1	5.5E-02	$(mg/kg/day)^{-1}$	A	IRIS	5/2007
Vinyl Chloride (child)	1.5E+00	$(mg/kg/day)^{-1}$	1	1.5E+00	$(mg/kg/day)^{-1}$	A	IRIS	8//2005
Vinyl Chloride (adult)	7.2E-01	$(mg/kg/day)^{-1}$	1	7.2E-01	$(mg/kg/day)^{-1}$	A	IRIS	8//2005
Semivolatile Organic Compounds								
BAP EQUIVALENT	7.3E+00	$(mg/kg/day)^{-1}$	1	7.3E+00	$(mg/kg/day)^{-1}$	B2	IRIS	5/2007
Polychlorinated Biphenyls (PCBs)								
Aroclor1248	2.0E+00	$(mg/kg/day)^{-1}$	1	2.0E+00	$(mg/kg/day)^{-1}$	B2	IRIS	5/2007
Dioxins/Furans								
2,3,7,8-TCDD TEQ	1.5E+05	$(mg/kg/day)^{-1}$	1	1.5E+05	$(mg/kg/day)^{-1}$	B2	HEAST	7/1997
Metals								
Arsenic	1.5E+00	$(mg/kg/day)^{-1}$	1	1.5E+00	$(mg/kg/day)^{-1}$	A	IRIS	10/2007

Notes:
1 - USEPA, July 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.
2 - Adjusted cancer slope factor for dermal = Oral cancer slope factor / Oral Absorption Efficiency for Dermal.

Definitions:

IRIS = Integrated Risk Information System.

HEAST= Health Effects Assessment Summary Tables

EPA Group:
A - Human carcinogen.
B1 - Probable human carcinogen - indicates that limited human data are available.
B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans .
C - Possible human carcinogen.
D - Not classifiable as a human carcinogen.
E - Evidence of noncarcinogenicity.

TABLE 6.2
CANCER TOXICITY DATA - INHALATION
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor[1]		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Volatile Organic Compounds							
Benzene	7.8E-03	$(mg/m^3)^{-1}$	2.7E-02	$(mg/kg/day)^{-1}$	A	IRIS	5/2007
Dioxins/Furans							
2,3,7,8-TCDD TEQ	3.3E+04	$(mg/m^3)^{-1}$	1.5E+05	$(mg/kg/day)^{-1}$	B2	HEAST	7/1997

Notes:

1 - Inhalation CSF = Unit Risk * 70 kg / $20m^3$/day.

Definitions:

IRIS = Integrated Risk Information System.

HEAST= Health Effects Assessment Summary Tables

EPA Group:

A - Human carcinogen.

B1 - Probable human carcinogen - indicates that limited human data are available.

B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans .

C - Possible human carcinogen.

D - Not classifiable as a human carcinogen.

E - Evidence of noncarcinogenicity.

TABLE 4.1

VALUES USED FOR DAILY INTAKE CALCULATIONS
EXPOSURE OF CONSTRUCTION WORKERS TO SUBSURFACE SOIL
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Subsurface Soil
Exposure Point: Entire Site
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Csoil	Chemical Concentration in Soil	mg/kg	95% UCL or Max	USEPA, December 2002	95% UCL or Max	USEPA, December 2002	Ingestion Intake (mg/kg/day) =
	IR	Ingestion Rate of Soil	mg/day	330	USEPA, December 2002	165	Professional Judgment	Csoil x IR x Fi x EF x ED x CF
	Fi	Fraction Ingested	unitless	1	USEPA, May 1993	1	USEPA, May 1993	BW x AT
	EF	Exposure Frequency	days/year	30	IEPA, April 2004	30	IEPA, April 2004	U.S. EPA, December 1989
	ED	Exposure Duration	years	1	Professional Judgement	1	Professional Judgement	
	CF	Conversion Factor	kg/mg	1.0E-06	USEPA, December 1989	1.0E-06	USEPA, December 1989	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	42	USEPA, December 1989	42	USEPA, December 1989	
Dermal	Csoil	Chemical Concentration in Soil	mg/kg	95% UCL or Max	USEPA, December 2002	95% UCL or Max	USEPA, December 2002	Dermal Intake (mg/kg/day) =
	CF	Conversion Factor	kg/mg	1.0E-06	USEPA, December 1989	1.0E-06	USEPA, December 1989	Csoil x CF x SA x AF x ABS x EF x ED
	SA	Skin Surface Area	cm^2/day	3,300	USEPA, July 2004	3,300	USEPA, July 2004	BW x AT
	AF	Soil to Skin Adherence Factor	mg/cm^2	0.3	USEPA, July 2004	0.1	USEPA, July 2004	U.S. EPA, December 1989
	ABS	Dermal Absorption Factor (Solid)	unitless	chemical -specific	USEPA, July 2004	chemical -specific	USEPA, July 2004	
	EF	Exposure Frequency	days/year	30	IEPA, April 2004	30	IEPA, April 2004	
	ED	Exposure Duration	years	1	Professional Judgement	1	Professional Judgement	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	42	IEPA, Janaury 2003	42	IEPA, Janaury 2003	

Daily Intake Calculations

Ingestion Intake = (IR x Fi x EF x ED x CF) / (BW x AT)
Dermal Intake = (CF x SA x AF x ABS x EF x ED) / (BW x AT)

Cancer Ingestion Intake - RME = 5.54E-09
Noncancer Ingestion Intake - RME = 3.37E-06

Cancer Ingestion Intake - CTE = 2.77E-09
Noncancer Ingestion Intake - CTE = 1.68E-06

Cancer Dermal Intake - RME = 1.66E-08
Noncancer Dermal Intake - RME = 1.01E-05

Cancer Dermal Intake - CTE = 5.54E-09
Noncancer Dermal Intake - CTE = 3.37E-06

TABLE 7.1 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF CONSTRUCTION WORKERS TO SUBSURFACE SOIL
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Subsurface Soil
Exposure Point: Entire Site
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	2,3,7,8-TCDD TEQ (1/2 DL)	4.6E-03	mg/kg	4.60E-03	mg/kg	M	1.5E-08	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 DL)	1.3E+01	mg/kg	1.30E+01	mg/kg	M	4.4E-05	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	1.0E+04	mg/kg	1.03E+04	mg/kg	M	3.5E-02	mg/kg-day	2.0E+00	mg/kg-day	NA	NA	1.7E-02
	ANTIMONY	2.1E+01	mg/kg	2.14E+01	mg/kg	M	7.2E-05	mg/kg-day	2.0E-04	mg/kg-day	NA	NA	3.6E-01
	ARSENIC	2.0E+01	mg/kg	1.96E+01	mg/kg	M	6.6E-05	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.2E-01
	CHROMIUM	5.6E+01	mg/kg	5.59E+01	mg/kg	M	1.9E-04	mg/kg-day	8.0E-03	mg/kg-day	NA	NA	2.4E-02
	COPPER	1.5E+03	mg/kg	1.53E+03	mg/kg	M	5.2E-03	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	1.3E-01
	IRON	1.0E+05	mg/kg	1.02E+05	mg/kg	M	3.4E-01	mg/kg-day	7.0E-01	mg/kg-day	NA	NA	4.9E-01
	MANGANESE	1.0E+03	mg/kg	1.00E+03	mg/kg	M	3.4E-03	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.7E-01
	SILVER	7.1E+02	mg/kg	7.09E+02	mg/kg	M	2.4E-03	mg/kg-day	5.0E-03	mg/kg-day	NA	NA	4.8E-01
	THALLIUM	1.5E+00	mg/kg	1.50E+00	mg/kg	M	5.1E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	6.3E-03
	VANADIUM	1.2E+02	mg/kg	1.22E+02	mg/kg	M	4.1E-04	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	5.9E-02
	(total)												**2.0E+00**
Dermal	2,3,7,8-TCDD TEQ (1/2 DL)	4.6E-03	mg/kg	4.60E-03	mg/kg	M	1.4E-09	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 DL)	1.3E+01	mg/kg	1.30E+01	mg/kg	M	1.7E-05	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	1.0E+04	mg/kg	1.03E+04	mg/kg	M		mg/kg-day	2.0E+00	mg/kg-day	NA	NA	
	ANTIMONY	2.1E+01	mg/kg	2.14E+01	mg/kg	M		mg/kg-day	3.0E-05	mg/kg-day	NA	NA	
	ARSENIC	2.0E+01	mg/kg	1.96E+01	mg/kg	M	5.9E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.0E-02
	CHROMIUM	5.6E+01	mg/kg	5.59E+01	mg/kg	M		mg/kg-day	2.0E-04	mg/kg-day	NA	NA	
	COPPER	1.5E+03	mg/kg	1.53E+03	mg/kg	M		mg/kg-day	4.0E-02	mg/kg-day	NA	NA	
	IRON	1.0E+05	mg/kg	1.02E+05	mg/kg	M		mg/kg-day	7.0E-01	mg/kg-day	NA	NA	
	MANGANESE	1.0E+03	mg/kg	1.00E+03	mg/kg	M		mg/kg-day	8.0E-04	mg/kg-day	NA	NA	
	SILVER	7.1E+02	mg/kg	7.09E+02	mg/kg	M		mg/kg-day	2.0E-04	mg/kg-day	NA	NA	
	THALLIUM	1.5E+00	mg/kg	1.50E+00	mg/kg	M		mg/kg-day	8.0E-04	mg/kg-day	NA	NA	
	VANADIUM	1.2E+02	mg/kg	1.22E+02	mg/kg	M		mg/kg-day	1.8E-04	mg/kg-day	NA	NA	
	(total)												**2.0E-02**
												Total Hazard Index Across All Exposure Routes/Pathways	**2.0E+00**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03

PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.

TABLE 8.1 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF CONSTRUCTION WORKERS TO SUBSURFACE SOIL
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Subsurface Soil
Exposure Point: Entire Site
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	2,3,7,8-TCDD TEQ (1/2 DL)	4.6E-03	mg/kg	4.60E-03	mg/kg	M	2.5E-11	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	3.8E-06
	BAP EQUIVALENT (1/2 DL)	1.3E+01	mg/kg	1.30E+01	mg/kg	M	7.2E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	5.3E-07
	ALUMINUM	1.0E+04	mg/kg	1.03E+04	mg/kg	M	5.7E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ANTIMONY	2.1E+01	mg/kg	2.14E+01	mg/kg	M	1.2E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	2.0E+01	mg/kg	1.96E+01	mg/kg	M	1.1E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.6E-07
	CHROMIUM	5.6E+01	mg/kg	5.59E+01	mg/kg	M	3.1E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	COPPER	1.5E+03	mg/kg	1.53E+03	mg/kg	M	8.5E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	1.0E+05	mg/kg	1.02E+05	mg/kg	M	5.6E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	MANGANESE	1.0E+03	mg/kg	1.00E+03	mg/kg	M	5.5E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	SILVER	7.1E+02	mg/kg	7.09E+02	mg/kg	M	3.9E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	1.5E+00	mg/kg	1.50E+00	mg/kg	M	8.3E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	1.2E+02	mg/kg	1.22E+02	mg/kg	M	6.8E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**4.5E-06**
Dermal	2,3,7,8-TCDD TEQ (1/2 DL)	4.6E-03	mg/kg	4.60E-03	mg/kg	M	2.3E-12	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	3.4E-07
	BAP EQUIVALENT (1/2 DL)	1.3E+01	mg/kg	1.30E+01	mg/kg	M	2.8E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.0E-07
	ALUMINUM	1.0E+04	mg/kg	1.03E+04	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ANTIMONY	2.1E+01	mg/kg	2.14E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	2.0E+01	mg/kg	1.96E+01	mg/kg	M	9.8E-09	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.5E-08
	CHROMIUM	5.6E+01	mg/kg	5.59E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	COPPER	1.5E+03	mg/kg	1.53E+03	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	1.0E+05	mg/kg	1.02E+05	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	MANGANESE	1.0E+03	mg/kg	1.00E+03	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	SILVER	7.1E+02	mg/kg	7.09E+02	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	1.5E+00	mg/kg	1.50E+00	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	1.2E+02	mg/kg	1.22E+02	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**5.6E-07**
										Total Risk Across All Exposure Routes/Pathways	**5.1E-06**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.

TABLE 7.1a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF CONSTRUCTION WORKERS TO SUBSURFACE SOIL
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Subsurface Soil
Exposure Point: Entire Site
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	2,3,7,8-TCDD TEQ (1/2 DL)	4.6E-03	mg/kg	4.60E-03	mg/kg	M	7.7E-09	mg/kg-day		mg/kg-day	NA	NA	
``	BAP EQUIVALENT (1/2 DL)	1.3E+01	mg/kg	1.30E+01	mg/kg	M	2.2E-05	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	1.0E+04	mg/kg	1.03E+04	mg/kg	M	1.7E-02	mg/kg-day	2.0E+00	mg/kg-day	NA	NA	8.7E-03
	ANTIMONY	2.1E+01	mg/kg	2.14E+01	mg/kg	M	3.6E-05	mg/kg-day	2.0E-04	mg/kg-day	NA	NA	1.8E-01
	ARSENIC	2.0E+01	mg/kg	1.96E+01	mg/kg	M	3.3E-05	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.1E-01
	CHROMIUM	5.6E+01	mg/kg	5.59E+01	mg/kg	M	9.4E-05	mg/kg-day	8.0E-03	mg/kg-day	NA	NA	1.2E-02
	COPPER	1.5E+03	mg/kg	1.53E+03	mg/kg	M	2.6E-03	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	6.4E-02
	IRON	1.0E+05	mg/kg	1.02E+05	mg/kg	M	1.7E-01	mg/kg-day	7.0E-01	mg/kg-day	NA	NA	2.5E-01
	MANGANESE	1.0E+03	mg/kg	1.00E+03	mg/kg	M	1.7E-03	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.4E-02
	SILVER	7.1E+02	mg/kg	7.09E+02	mg/kg	M	1.2E-03	mg/kg-day	5.0E-03	mg/kg-day	NA	NA	2.4E-01
	THALLIUM	1.5E+00	mg/kg	1.50E+00	mg/kg	M	2.5E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	3.2E-03
	VANADIUM	1.2E+02	mg/kg	1.22E+02	mg/kg	M	2.1E-04	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	2.9E-02
	(total)												**9.8E-01**
Dermal	2,3,7,8-TCDD TEQ (1/2 DL)	4.6E-03	mg/kg	4.60E-03	mg/kg	M	4.6E-10	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 DL)	1.3E+01	mg/kg	1.30E+01	mg/kg	M	5.7E-06	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	1.0E+04	mg/kg	1.03E+04	mg/kg	M		mg/kg-day	2.0E+00	mg/kg-day	NA	NA	
	ANTIMONY	2.1E+01	mg/kg	2.14E+01	mg/kg	M		mg/kg-day	3.0E-05	mg/kg-day	NA	NA	
	ARSENIC	2.0E+01	mg/kg	1.96E+01	mg/kg	M	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	6.6E-03
	CHROMIUM	5.6E+01	mg/kg	5.59E+01	mg/kg	M		mg/kg-day	2.0E-04	mg/kg-day	NA	NA	
	COPPER	1.5E+03	mg/kg	1.53E+03	mg/kg	M		mg/kg-day	4.0E-02	mg/kg-day	NA	NA	
	IRON	1.0E+05	mg/kg	1.02E+05	mg/kg	M		mg/kg-day	7.0E-01	mg/kg-day	NA	NA	
	MANGANESE	1.0E+03	mg/kg	1.00E+03	mg/kg	M		mg/kg-day	8.0E-04	mg/kg-day	NA	NA	
	SILVER	7.1E+02	mg/kg	7.09E+02	mg/kg	M		mg/kg-day	2.0E-04	mg/kg-day	NA	NA	
	THALLIUM	1.5E+00	mg/kg	1.50E+00	mg/kg	M		mg/kg-day	8.0E-04	mg/kg-day	NA	NA	
	VANADIUM	1.2E+02	mg/kg	1.22E+02	mg/kg	M		mg/kg-day	1.8E-04	mg/kg-day	NA	NA	
	(total)												**6.6E-03**
												Total Hazard Index Across All Exposure Routes/Pathways	**9.8E-01**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03

PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.

TABLE 8.1a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF CONSTRUCTION WORKERS TO SUBSURFACE SOIL
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Subsurface Soil
Exposure Point: Entire Site
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	2,3,7,8-TCDD TEQ (1/2 DL)	4.6E-03	mg/kg	4.60E-03	mg/kg	M	1.3E-11	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	1.9E-06
	BAP EQUIVALENT (1/2 DL)	1.3E+01	mg/kg	1.30E+01	mg/kg	M	3.6E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.6E-07
	ALUMINUM	1.0E+04	mg/kg	1.03E+04	mg/kg	M	2.9E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ANTIMONY	2.1E+01	mg/kg	2.14E+01	mg/kg	M	5.9E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	2.0E+01	mg/kg	1.96E+01	mg/kg	M	5.4E-08	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	8.1E-08
	CHROMIUM	5.6E+01	mg/kg	5.59E+01	mg/kg	M	1.5E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	COPPER	1.5E+03	mg/kg	1.53E+03	mg/kg	M	4.2E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	1.0E+05	mg/kg	1.02E+05	mg/kg	M	2.8E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	MANGANESE	1.0E+03	mg/kg	1.00E+03	mg/kg	M	2.8E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	SILVER	7.1E+02	mg/kg	7.09E+02	mg/kg	M	2.0E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	1.5E+00	mg/kg	1.50E+00	mg/kg	M	4.2E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	1.2E+02	mg/kg	1.22E+02	mg/kg	M	3.4E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**2.3E-06**
Dermal	2,3,7,8-TCDD TEQ (1/2 DL)	4.6E-03	mg/kg	4.60E-03	mg/kg	M	7.6E-13	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	1.1E-07
	BAP EQUIVALENT (1/2 DL)	1.3E+01	mg/kg	1.30E+01	mg/kg	M	9.4E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	6.8E-08
	ALUMINUM	1.0E+04	mg/kg	1.03E+04	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ANTIMONY	2.1E+01	mg/kg	2.14E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	2.0E+01	mg/kg	1.96E+01	mg/kg	M	3.3E-09	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	4.9E-09
	CHROMIUM	5.6E+01	mg/kg	5.59E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	COPPER	1.5E+03	mg/kg	1.53E+03	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	1.0E+05	mg/kg	1.02E+05	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	MANGANESE	1.0E+03	mg/kg	1.00E+03	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	SILVER	7.1E+02	mg/kg	7.09E+02	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	1.5E+00	mg/kg	1.50E+00	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	1.2E+02	mg/kg	1.22E+02	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.9E-07**
										Total Risk Across All Exposure Routes/Pathways	**2.4E-06**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.

TABLE 4.2

VALUES USED FOR DAILY INTAKE CALCULATIONS
EXPOSURE OF CONSTRUCTION WORKERS BY INHALATION FROM SUBSURFACE SOIL
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Subsurfce Soil
Exposure Medium: Air
Exposure Point: Entire Site
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Inhalation	CS	Chemical concentration in soil	mg/kg	95% UCL or Max	USEPA, May 1993	95% UCL or Max	USEPA, May 1993	Intake (mg/kg/day) =
	VF	Volatilization factor - Chemical Specific	m^3/kg	(1)	USEPA, December 2002	(1)	USEPA, December 2002	
	PEF	Particulate emission factor	m^3/kg	1.27E+06	USEPA, December 2002	1.27E+06	USEPA, December 2002	$\frac{CS \times IR \times \left[\frac{1}{VF} + \frac{1}{PEF}\right] \times ET \times EF \times ED}{BW \times AT}$
	IR	Inhalation Rate	m^3/hour	2.5	USEPA, December 2002	1.5	USEPA, August 1997	
	ET	Exposure Time	hours/day	8	USEPA, December 2002	8	USEPA, December 2002	
	EF	Exposure Frequency	days/year	30	IEPA, April 2004	30	IEPA, April 2004	
	ED	Exposure Duration	years	1	Professional Judgement	1	Professional Judgement	
	BW	Body Weight	kg	70	USEPA, December 1989	70	USEPA, December 1989	
	AT-C	Averaging Time (Cancer)	days	25550	USEPA, December 1989	25550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	42	IEPA, Janaury 2003	42	IEPA, Janaury 2003	

Notes:
(1) - Calculated according to USEPA Soil Screening Guidance, December 2002.

Daily Intake Calculations
Inhalation Intake = (IRa x ET x EF x ED x (1/PEF)+(1/VF)) / (BW x AT)

Cancer Inhalation Intake(RME) = 3.35E-04
Noncancer Inhalation Intake(RME) = 2.04E-01

Cancer Inhalation Intake(CTE) = 2.01E-04
Noncancer Inhalation Intake(CTE) = 1.22E-01

TABLE 7.2. REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS
EXPOSURE OF CONSTRUCTION WORKERS BY INHALATION FROM SUBSURFACE SOIL
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Subsurfce Soil
Exposure Medium: Air
Exposure Point: Entire Site
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Inhalation	2,3,7,8-TCDD TEQ (1/2 DL	4.6E-03	mg/kg	3.62E-09	mg/m^3	R	7.4E-10	mg/kg-day		mg/kg-day	NA	mg/m^3	
	NAPHTHALENE	3.1E+00	mg/kg	1.66E-03	mg/m^3	R	3.4E-04	mg/kg-day	8.60E-04	mg/kg-day	3.00E-03	mg/m^3	3.9E-01
	(total)												3.9E-01
												Total Hazard Index Across All Exposure Routes/Pathways	**3.9E-01**

1.87E+03 **VF (naphthalene)**

8.2. REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS
EXPOSURE OF CONSTRUCTION WORKERS BY INHALATION FROM SUBSURFACE SOIL
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Subsurfce Soil
Exposure Medium: Air
Exposure Point: Entire Site
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Inhalation	2,3,7,8-TCDD TEQ (1/2 DL	4.60E-03	mg/kg	3.62E-09	mg/m^3	R	1.2E-12	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	1.8E-07
	NAPHTHALENE	3.10E+00	mg/kg	1.66E-03	mg/m^3	R	5.6E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										1.8E-07
										Total Risk Across All Exposure Routes/Pathways	**1.8E-07**

TABLE 7.2a. CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS
EXPOSURE OF CONSTRUCTION WORKERS BY INHALATION FROM SUBSURFACE SOIL
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Subsurfce Soil
Exposure Medium: Air
Exposure Point: Entire Site
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Inhalation	2,3,7,8-TCDD TEQ (1/2 DL)	4.6E-03	mg/kg	3.62E-09	mg/kg	R	2.2E-10	mg/kg-day		mg/kg-day	NA	mg/m^3	
	NAPHTHALENE	3.1E+00	mg/kg	1.66E-03	mg/m^3	R	1.0E-04	mg/kg-day	8.60E-04	mg/kg-day	3.00E-03	mg/m^3	1.2E-01
	(total)												1.2E-01
												Total Hazard Index Across All Exposure Routes/Pathways	**1.2E-01**

1.87E+03 **VF (naphthalene)**

8.2a. CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS
EXPOSURE OF CONSTRUCTION WORKERS BY INHALATION FROM SUBSURFACE SOIL
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Subsurfce Soil
Exposure Medium: Air
Exposure Point: *Entire Site*
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Inhalation	2,3,7,8-TCDD TEQ (1/2 DL	4.60E-03	mg/kg	3.62E-09	mg/m^3	R	3.6E-13	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	5.5E-08
	NAPHTHALENE	3.10E+00	mg/kg	1.66E-03	mg/m^3	R	1.7E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										5.5E-08
										Total Risk Across All Exposure Routes/Pathways	**5.5E-08**

Calculation of Chemical-Specific Volatilization Factors for Construction Workers - Naval Station Great Lakes

Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (USEPA, December 2002)

Step 1. Calculation of Apparent Diffusivity (Da)

$$D_A = \frac{[((\theta a)^{10/3} DiH') + ((\theta w)^{10/3} Dw)/n^2]}{P_b K_d + \theta w + \theta_a H'}$$

where :

D_A = Apparent diffusivity (cm^2/s)

θa = Air-filled soil porosity

Di = Diffusivity in air (cm^2/s)

H' = Dimensionless Henry's Law constant

θw = Water-filled soil porosity

Dw = Diffusivity in water (cm^2/s)

n = Total soil porosity

P_b = Dry soil bulk density

K_d = Soil-water partition coefficient (cm^3/g)

RhoS = Soil particle density (kg/L) = 2.65

Constituent	θa	Di	H'	θw	Dw	n	P_b	Koc	foc	K_d	D_A
Naphthalene	2.84E-01	5.90E-02	1.98E-02	1.50E-01	7.50E-06	0.43	1.5	2.00E+03	0.006	1.20E+01	5.15E-06

Step 2. Calculation of Volatilization Factor (VF)

$$VF = (Q/C \times (\pi \times D_A \times T)^{1/2} / (2 \times P_b \times D_A) / 0.185 \times 10^{-4}$$

Where:

VF = Volatilization factor (m^3/kg)

Q/C = Inverse of the mean concentration at center of square source (g/m^2-s per kg/m^3)

D_A = Apparent diffusivity (cm^2/s)

T = Exposure Interval (s)

R_b = Dry soil bulk density (g/cm^3)

0.185 = dispersion correction factor (unitless)

Constituent	D_A	Q/C	π	T	P_b	VF
Naphthalene	5.15E-06	1.43E+01	3.1416	8.64E+05	1.5	1.87E+03

Calculations of Blood Lead Concentrations (PbBs) - NAVSTA Great Lakes - Site 1, Subsurface Soil - Construction Worker

U.S. EPA Technical Review Workgroup for Lead, Adult Lead Committee

Version date 05/19/03

Exposure Variable	PbB Equation[1] 1*	2**	Description of Exposure Variable	Units	Values for Non-Residential Exposure Scenario: Using Equation 1, GSDi = Hom	Using Equation 1, GSDi = Het	Using Equation 2, GSDi = Hom	Using Equation 2, GSDi = Het
PbS	X	X	Soil lead concentration	ug/g or ppm	209	209	209	209
$R_{fetal/maternal}$	X	X	Fetal/maternal PbB ratio	--	0.9	0.9	0.9	0.9
BKSF	X	X	Biokinetic Slope Factor	ug/dL per ug/day	0.4	0.4	0.4	0.4
GSD_i	X	X	Geometric standard deviation PbB	--	2.2	2.2	2.2	2.2
PbB_0	X	X	Baseline PbB	ug/dL	1.5	1.5	1.5	1.5
IR_S	X		Soil ingestion rate (including soil-derived indoor dust)	g/day	0.100	0.100	--	--
IR_{S+D}		X	Total ingestion rate of outdoor soil and indoor dust	g/day	--	--	0.100	0.100
W_S		X	Weighting factor; fraction of IR_{S+D} ingested as outdoor soil	--	--	--	1.0	1.0
K_{SD}		X	Mass fraction of soil in dust	--	--	--	0.7	0.7
$AF_{S,D}$	X	X	Absorption fraction (same for soil and dust)	--	0.12	0.12	0.12	0.12
$EF_{S,D}$	X	X	Exposure frequency (same for soil and dust)	days/yr	30	30	30	30
$AT_{S,D}$	X	X	Averaging time (same for soil and dust)	days/yr	42	42	42	42
PbB_{adult}			**PbB of adult worker, geometric mean**	**ug/dL**	**2.2**	**2.2**	**2.2**	**2.2**
$PbB_{fetal,0.95}$			**95th percentile PbB among fetuses of adult workers**	**ug/dL**	**7.3**	**7.3**	**7.3**	**7.3**
PbB_t			**Target PbB level of concern (e.g., 10 ug/dL)**	**ug/dL**	**10.0**	**10.0**	**10.0**	**10.0**
$P(PbB_{fetal} > PbB_t)$			**Probability that fetal PbB > PbB_t, assuming lognormal distribution**	**%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**

[1] Equation 1 does not apportion exposure between soil and dust ingestion (excludes W_S, K_{SD}).
When $IR_S = IR_{S+D}$ and $W_S = 1.0$, the equations yield the same $PbB_{fetal,0.95}$.

***Equation 1, based on Eq. 1, 2 in USEPA (1996).**

PbB_{adult} =	$(PbS*BKSF*IR_{S+D}*AF_{S,D}*EF_S/AT_{S,D}) + PbB_0$
$PbB_{fetal,0.95}$ =	$PbB_{adult} * (GSD_i^{1.645} * R)$

****Equation 2, alternate approach based on Eq. 1, 2, and A-19 in USEPA (1996).**

PbB_{adult} =	$PbS*BKSF*([(IR_{S+D})*AF_S*EF_S*W_S]+[K_{SD}*(IR_{S+D})*(1-W_S)*AF_D*EF_D])/365+PbB_0$
$PbB_{fetal,0.95}$ =	$PbB_{adult} * (GSD_i^{1.645} * R)$

Source: U.S. EPA (1996). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil

Calculations of Blood Lead Concentrations (PbBs) - NAVSTA Great Lakes - Site 1, Subsurface Soil - Construction Worker

U.S. EPA Technical Review Workgroup for Lead, Adult Lead Committee

Version date 05/19/03

Exposure Variable	PbB Equation 1*	PbB Equation 2**	Description of Exposure Variable	Units	Values for Non-Residential Exposure Scenario: Using Equation 1, GSDi = Hom	Using Equation 1, GSDi = Het	Using Equation 2, GSDi = Hom	Using Equation 2, GSDi = Het
PbS	X	X	Soil lead concentration	ug/g or ppm	1410	1410	1410	1410
$R_{fetal/maternal}$	X	X	Fetal/maternal PbB ratio	--	0.9	0.9	0.9	0.9
BKSF	X	X	Biokinetic Slope Factor	ug/dL per ug/day	0.4	0.4	0.4	0.4
GSD_i	X	X	Geometric standard deviation PbB	--	2.2	2.2	2.2	2.2
PbB_0	X	X	Baseline PbB	ug/dL	1.5	1.5	1.5	1.5
IR_S	X		Soil ingestion rate (including soil-derived indoor dust)	g/day	0.100	0.100	--	--
IR_{S+D}		X	Total ingestion rate of outdoor soil and indoor dust	g/day	--	--	0.100	0.100
W_S		X	Weighting factor; fraction of IR_{S+D} ingested as outdoor soil	--	--	--	1.0	1.0
K_{SD}		X	Mass fraction of soil in dust	--	--	--	0.7	0.7
$AF_{S,D}$	X	X	Absorption fraction (same for soil and dust)	--	0.12	0.12	0.12	0.12
$EF_{S,D}$	X	X	Exposure frequency (same for soil and dust)	days/yr	30	30	30	30
$AT_{S,D}$	X	X	Averaging time (same for soil and dust)	days/yr	42	42	42	42
PbB_{adult}	**PbB of adult worker, geometric mean**			**ug/dL**	**6.4**	**6.4**	**6.4**	**6.4**
$PbB_{fetal,0.95}$	**95th percentile PbB among fetuses of adult workers**			**ug/dL**	**20.6**	**20.6**	**20.6**	**20.6**
PbB_t	**Target PbB level of concern (e.g., 10 ug/dL)**			**ug/dL**	**10.0**	**10.0**	**10.0**	**10.0**
$P(PbB_{fetal} > PbB_t)$	**Probability that fetal PbB > PbB_t, assuming lognormal distribution**			**%**	**23.7%**	**23.7%**	**23.7%**	**23.7%**

[1] Equation 1 does not apportion exposure between soil and dust ingestion (excludes W_S, K_{SD}).
When $IR_S = IR_{S+D}$ and $W_S = 1.0$, the equations yield the same $PbB_{fetal,0.95}$.

***Equation 1, based on Eq. 1, 2 in USEPA (1996).**

PbB_{adult} =	$(PbS*BKSF*IR_{S+D}*AF_{S,D}*EF_S/AT_{S,D}) + PbB_0$
$PbB_{fetal,0.95}$ =	$PbB_{adult} * (GSD_i^{1.645} * R)$

****Equation 2, alternate approach based on Eq. 1, 2, and A-19 in USEPA (1996).**

PbB_{adult} =	$PbS*BKSF*([(IR_{S+D})*AF_S*EF_S*W_S]+[K_{SD}*(IR_{S+D})*(1-W_S)*AF_D*EF_D])/365+PbB_0$
$PbB_{fetal,0.95}$ =	$PbB_{adult} * (GSD_i^{1.645} * R)$

Source: U.S. EPA (1996). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil

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TABLE 4.3
VALUES OF DAILY INTAKE CALCULATIONS FOR EXPOSURE OF CONSTRUCTION WORKERS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Dermal	Cgw	Chemical Concentration in Groundwater	mg/L	Maximum	U.S. EPA, December 2002	Maximum	U.S. EPA, December 2002	The equations and parameters for for estimating DAevent and the chemical-specific dermally absorbed dose from water (DAD) are provided in Section 6.2.4.4 of the text.
	A	Skin Surface Area	cm^2	3,300	U.S. EPA, July 2004	3,300	U.S. EPA, July 2004	
	DAevent	Absorbed Dose per Event	mg/cm^2-event	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	
	EV	Event Frequency	event/day	1	Professional Judgement	1	Professional Judgement	
	ED	Exposure Duration	years	1	Professional Judgement	1	Professional Judgement	
	EF	Exposure Frequency	days/year	30	IEPA, April 2004	30	IEPA, April 2004	
	t_{event}	Duration of Event	hour/event	4	Professional Judgement	2	1/2 RME	USEPA, July 2004
	t^*	Time to reach steady state	hour/event	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	
	T	Lag Time	hour/event	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	
	B	Bunge Model Constant	dimensionless	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	
	Kp	Permeability Coefficient from Water	cm/hour	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	42	IEPA, Janaury 2003	42	IEPA, Janaury 2003	

Daily Intake Calculations

Dermal Intake = (A x EV x ED x EF) / (BW x AT)

Cancer Dermal Intake(RME) = 5.54E-02
Noncancer Dermal Intake(RME) = 3.37E+01

Cancer Dermal Intake(CTE) = 5.54E-02
Noncancer Dermal Intake(CTE) = 3.37E+01

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH GROUNDWATER
REASONABLE MAXIMUM EXPOSURE (RME --- CONSTRUCTION WORKERS TO GROUNDWATER

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: U.S. EPA, July 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS: IF tevent < t*, DAevent = 2FA x Kp x C x CF x (6T x tevent/3.1416)$^{0.5}$

IF tevent > t*, DAevent = FA x Kp x C x CF x ((tevent/(1 + B)) + (2T x ((1+3B+3B^2)/(1 + B)^2)))

WHERE:
FA = FRACTION ABSORBED (DIMENSIONLESS)
Kp = PERMEABILITY COEFFICIENT FROM WATER (CM/HR)
C = CONCENTRATION OF CHEMICAL IN WATER (MG/L)
tevent = DURATION OF EVENT (HR/EVENT)
CF = CONVERSION FACTOR (1L/1000 CM^3)
t* = TIME IT TAKES TO REACH STEADY-STATE (HOUR/EVENT)
T = LAG TIME (HOUR/EVENT)
B = BUNGE MODEL CONSTANT (DIMENSIONLESS)

CHEMICAL	GW CONC. (mg/L)		ORGANIC OR INORGANIC?		t* (HR)	tevent	T (HR)		Kp (CM/HR)		B	FA	DAevent
BENZENE	4.40E-04		o		7.00E-01	4.00E+00	2.92E-01		1.49E-02		5.05E-02	1	2.89E-08
NAPHTHALENE	6.80E-03		o		1.34E+00	4.00E+00	5.58E-01		4.66E-02		2.03E-01	1	1.48E-06
2-METHYLNAPHTHALENE	1.50E-03		o		1.58E+00	4.00E+00	6.58E-01		8.94E-02		4.10E-01	1	6.23E-07
ALUMINUM	8.65E+00		i			4.00E+00			1.00E-03			1	3.46E-05
ARSENIC	3.30E-03		i			4.00E+00			1.00E-03			1	1.32E-08
BARIUM	5.66E-01		i			4.00E+00			1.00E-03			1	2.26E-06
CHROMIUM	1.41E-02		i			4.00E+00			2.00E-03			1	1.13E-07
IRON	1.76E+01		i			4.00E+00			1.00E-03			1	7.04E-05
MANGANESE	5.07E+00		i			4.00E+00			1.00E-03			1	2.03E-05
VANADIUM	2.07E-02		i			4.00E+00			1.00E-03			1	8.28E-08

TABLE 7.3 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF CONSTRUCTION WORKERS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	BENZENE	4.40E-04	mg/L	4.40E-04	mg/L	M	9.7E-07	mg/kg-day	1.20E-02	mg/kg-day	NA	NA	8.1E-05
	NAPHTHALENE	6.80E-03	mg/L	6.80E-03	mg/L	M	5.0E-05	mg/kg-day	2.00E-01	mg/kg-day	NA	NA	2.5E-04
	2-METHYLNAPHTHALENE	1.50E-03	mg/L	1.50E-03	mg/L	M	2.1E-05	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	5.2E-03
	ALUMINUM	8.65E+00	mg/L	8.65E+00	mg/L	M	1.2E-03	mg/kg-day	2.00E+00	mg/kg-day	NA	NA	5.8E-04
	ARSENIC	3.30E-03	mg/L	3.30E-03	mg/L	M	4.4E-07	mg/kg-day	3.00E-04	mg/kg-day	NA	NA	1.5E-03
	BARIUM	5.66E-01	mg/L	5.66E-01	mg/L	M	7.6E-05	mg/kg-day	4.90E-02	mg/kg-day	NA	NA	1.6E-03
	CHROMIUM	1.41E-02	mg/L	1.41E-02	mg/L	M	3.8E-06	mg/kg-day	2.00E-04	mg/kg-day	NA	NA	1.9E-02
	IRON	1.76E+01	mg/L	1.76E+01	mg/L	M	2.4E-03	mg/kg-day	7.00E-01	mg/kg-day	NA	NA	3.4E-03
	MANGANESE	5.07E+00	mg/L	5.07E+00	mg/L	M	6.8E-04	mg/kg-day	8.00E-04	mg/kg-day	NA	NA	8.5E-01
	VANADIUM	2.07E-02	mg/L	2.07E-02	mg/L	M	2.8E-06	mg/kg-day	1.82E-04	mg/kg-day	NA	NA	1.5E-02
	(total)												**9.0E-01**

Total Hazard Index Across All Exposure Routes/Pathways **9.0E-01**

TABLE 8.3 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF EXCAVATION/CONSTRUCTION WORKERS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
	BENZENE	4.40E-04	mg/L	4.40E-04	mg/L	M	1.6E-09	mg/kg-day	5.50E-02	$(mg/kg\text{-}day)^{-1}$	8.8E-11
Dermal	NAPHTHALENE	6.80E-03	mg/L	6.80E-03	mg/L	M	8.2E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	2-METHYLNAPHTHALENE	1.50E-03	mg/L	1.50E-03	mg/L	M	3.4E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ALUMINUM	8.65E+00	mg/L	8.65E+00	mg/L	M	1.9E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	3.30E-03	mg/L	3.30E-03	mg/L	M	7.3E-10	mg/kg-day	1.50E+00	$(mg/kg\text{-}day)^{-1}$	1.1E-09
	BARIUM	5.66E-01	mg/L	5.66E-01	mg/L	M	1.3E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	CHROMIUM	1.41E-02	mg/L	1.41E-02	mg/L	M	6.2E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	1.76E+01	mg/L	1.76E+01	mg/L	M	3.9E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	MANGANESE	5.07E+00	mg/L	5.07E+00	mg/L	M	1.1E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.07E-02	mg/L	2.07E-02	mg/L	M	4.6E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										1.2E-09
										Total Risk Across All Exposure Routes/Pathways	**1.2E-09**

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH GROUNDWATER
CENTRAL TENDENCY EXPOSURE (CTE) --- CONSTRUCTION WORKERS TO GROUNDWATER

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: U.S. EPA, July 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS:
IF tevent < t*, DAevent = 2FA x Kp x C x CF x (6T x tevent/3.1416)$^{0.5}$
IF tevent > t*, DAevent = FA x Kp x C x CF x ((tevent/(1 + B)) + (2T x ((1+3B+3B^2)/(1 + B)^2)))

WHERE:
FA = FRACTION ABSORBED (DIMENSIONLESS)
Kp = PERMEABILITY COEFFICIENT FROM WATER (CM/HR)
C = CONCENTRATION OF CHEMICAL IN WATER (MG/L)
tevent = DURATION OF EVENT (HR/EVENT)
CF = CONVERSION FACTOR (1L/1000 CM^3)
t* = TIME IT TAKES TO REACH STEADY-STATE (HOUR/EVENT)
T = LAG TIME (HOUR/EVENT)
B = BUNGE MODEL CONSTANT (DIMENSIONLESS)

CHEMICAL	GW CONC. (mg/L)		ORGANIC OR INORGANIC?		t* (HR)	tevent	T (HR)		Kp (CM/HR)		B	FA	DAevent
BENZENE	4.40E-04		o		7.00E-01	2.00E+00	2.92E-01		1.49E-02		5.05E-02	1	1.65E-08
NAPHTHALENE	6.80E-03		o		1.34E+00	2.00E+00	5.58E-01		4.66E-02		2.03E-01	1	9.50E-07
2-METHYLNAPHTHALENE	1.50E-03		o		1.58E+00	2.00E+00	6.58E-01		8.94E-02		4.10E-01	1	4.33E-07
ALUMINUM	8.65E+00		i			2.00E+00			1.00E-03			1	1.73E-05
ARSENIC	3.30E-03		i			2.00E+00			1.00E-03			1	6.60E-09
BARIUM	5.66E-01		i			2.00E+00			1.00E-03			1	1.13E-06
CHROMIUM	1.41E-02		i			2.00E+00			2.00E-03			1	5.64E-08
IRON	1.76E+01		i			2.00E+00			1.00E-03			1	3.52E-05
MANGANESE	5.07E+00		i			2.00E+00			1.00E-03			1	1.01E-05
VANADIUM	2.07E-02		i			2.00E+00			1.00E-03			1	4.14E-08

TABLE 7.3a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF CONSTRUCTION WORKERS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Dermal	BENZENE	4.40E-04	mg/L	4.40E-04	mg/L	M	5.5E-07	mg/kg-day	1.20E-02	mg/kg-day	NA	NA	4.6E-05
	NAPHTHALENE	6.80E-03	mg/L	6.80E-03	mg/L	M	3.2E-05	mg/kg-day	2.00E-01	mg/kg-day	NA	NA	1.6E-04
	2-METHYLNAPHTHALENE	1.50E-03	mg/L	1.50E-03	mg/L	M	1.5E-05	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	3.6E-03
	ALUMINUM	8.65E+00	mg/L	8.65E+00	mg/L	M	5.8E-04	mg/kg-day	2.00E+00	mg/kg-day	NA	NA	2.9E-04
	ARSENIC	3.30E-03	mg/L	3.30E-03	mg/L	M	2.2E-07	mg/kg-day	3.00E-04	mg/kg-day	NA	NA	7.4E-04
	BARIUM	5.66E-01	mg/L	5.66E-01	mg/L	M	3.8E-05	mg/kg-day	4.90E-02	mg/kg-day	NA	NA	7.8E-04
	CHROMIUM	1.41E-02	mg/L	1.41E-02	mg/L	M	1.9E-06	mg/kg-day	2.00E-04	mg/kg-day	NA	NA	9.5E-03
	IRON	1.76E+01	mg/L	1.76E+01	mg/L	M	1.2E-03	mg/kg-day	7.00E-01	mg/kg-day	NA	NA	1.7E-03
	MANGANESE	5.07E+00	mg/L	5.07E+00	mg/L	M	3.4E-04	mg/kg-day	8.00E-04	mg/kg-day	NA	NA	4.3E-01
	VANADIUM	2.07E-02	mg/L	2.07E-02	mg/L	M	1.4E-06	mg/kg-day	1.82E-04	mg/kg-day	NA	NA	7.7E-03
	(total)												**4.5E-01**

Total Hazard Index Across All Exposure Routes/Pathways **4.5E-01**

TABLE 8.3a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF EXCAVATION/CONSTRUCTION WORKERS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
	BENZENE	4.40E-04	mg/L	4.40E-04	mg/L	M	9.1E-10	mg/kg-day	5.50E-02	$(mg/kg\text{-}day)^{-1}$	5.0E-11
Dermal	NAPHTHALENE	6.80E-03	mg/L	6.80E-03	mg/L	M	5.3E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	2-METHYLNAPHTHALENE	1.50E-03	mg/L	1.50E-03	mg/L	M	2.4E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ALUMINUM	8.65E+00	mg/L	8.65E+00	mg/L	M	9.6E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	3.30E-03	mg/L	3.30E-03	mg/L	M	3.7E-10	mg/kg-day	1.50E+00	$(mg/kg\text{-}day)^{-1}$	5.5E-10
	BARIUM	5.66E-01	mg/L	5.66E-01	mg/L	M	6.3E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	CHROMIUM	1.41E-02	mg/L	1.41E-02	mg/L	M	3.1E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	1.76E+01	mg/L	1.76E+01	mg/L	M	1.9E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	MANGANESE	5.07E+00	mg/L	5.07E+00	mg/L	M	5.6E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.07E-02	mg/L	2.07E-02	mg/L	M	2.3E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**6.0E-10**
										Total Risk Across All Exposure Routes/Pathways	**6.0E-10**

TABLE 4.4

VALUES USED FOR DAILY INTAKE CALCULATIONS
EXPOSURE OF CONSTRUCTION/EXCAVATION WORKERS TO AIR IN A TRENCH
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Air in trench (<15 feet deep)
Receptor Population: Construction/Excavation Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Cair	Chemical Concentration in Air	(mg/m^3)	Derived	VDEQ, August 2002	Derived	VDEQ, August 2002	Chronic Daily Intake (CDI) (mg/kg-day)=
	IRa	Inhalation Rate of volatiles	(m^3/hr)	2.5	USEPA, December 1989	1.5	USEPA, August 1997	Cair x IRa x ET x EF x ED / BW x AT
	EF	Exposure Frequency	(days/year)	30	IEPA, April 2004	30	IEPA, April 2004	
	ED	Exposure Duration	(years)	1	USEPA, May 1993	1	USEPA, May 1993	
	ET	Exposure Time	(hr/day)	4	Professional judgement	2	Professional Judgement	
	BW	Body Weight	(kg)	70	USEPA, December 1989	70	USEPA, December 1989	
	AT-C	Averaging Time (Cancer)	(days)	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Noncancer)	(days)	42	IEPA, January 2003	42	IEPA, January 2003	

Daily Intake Calculations

Inhalation Intake = (IRa x ET x EF x ED) / (BW x AT)

Cancer Inhalation Intake(RME) = 1.68E-04
Noncancer Inhalation Intake(RME) = 1.02E-01

Cancer Inhalation Intake(CTE) = 5.03E-05
Noncancer Inhalation Intake(CTE) = 3.06E-02

TABLE 7.4. REASONABLE MAXIMUM EXPOSURE (RME)

CALCULATION OF NON-CANCER HAZARDS
EXPOSURE OF CONSTRUCTION/EXCAVATION WORKERS TO AIR IN A TRENCH
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Air in trench (<15 feet deep)
Receptor Population: Construction/Excavation Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Inhalation	Benzene	4.40E-04	mg/L	1.83E-05	mg/m^3	R	1.9E-06	mg/kg-day	2.3E-02	mg/kg-day	3.0E-02	mg/m^3	8.2E-05
	Naphthalene	6.80E-03	mg/L	2.00E-04	mg/m^3	R	2.0E-05	mg/kg-day	8.6E-04	mg/kg-day	3.0E-03	mg/m^3	2.4E-02
	2-Methylnaphthalene	1.50E-03	mg/L	4.22E-05	mg/m^3	R	4.3E-06	mg/kg-day		mg/kg-day		mg/m^3	
	(total)												2.4E-02
												Total Hazard Index Across All Exposure Routes/Pathways	**2.4E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.4. REASONABLE MAXIMUM EXPOSURE (RME)

CALCULATION OF CANCER RISKS
EXPOSURE OF CONSTRUCTION/EXCAVATION WORKERS TO AIR IN A TRENCH
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Air in trench (<15 feet deep)
Receptor Population: Construction/Excavation Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Inhalation	Benzene	4.40E-04	mg/L	1.83E-05	mg/m^3	R	3.1E-09	mg/kg-day	2.70E-02	$(mg/kg\text{-}day)^{-1}$	8.3E-11
	Naphthalene	6.80E-03	mg/L	2.00E-04	mg/m^3	R	3.3E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	2-Methylnaphthalene	1.50E-03	mg/L	4.22E-05	mg/m^3	R	7.1E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										8.3E-11
										Total Risk Across All Exposure Routes/Pathways	**8.3E-11**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

TABLE 7.4a. CENTRAL TENDENCY EXPOSURE (CTE)

CALCULATION OF NON-CANCER HAZARDS
EXPOSURE OF CONSTRUCTION/EXCAVATION WORKERS TO AIR IN A TRENCH
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Air in trench (<15 feet deep)
Receptor Population: Construction/Excavation Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Inhalation	Benzene	4.40E-04	mg/L	1.83E-05	mg/m^3	R	5.6E-07	mg/kg-day	2.3E-02	mg/kg-day	3.0E-02	mg/m^3	2.4E-05
	Naphthalene	6.80E-03	mg/L	2.00E-04	mg/m^3	R	6.1E-06	mg/kg-day	8.6E-04	mg/kg-day	3.0E-03	mg/m^3	7.1E-03
	2-Methylnaphthalene	1.50E-03	mg/L	4.22E-05	mg/m^3	R	1.3E-06	mg/kg-day		mg/kg-day		mg/m^3	
	(total)												7.2E-03
												Total Hazard Index Across All Exposure Routes/Pathways	**7.2E-03**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.4a.CENTRAL TENDENCY EXPOSURE (CTE)

CALCULATION OF CANCER RISKS
EXPOSURE OF CONSTRUCTION/EXCAVATION WORKERS TO AIR IN A TRENCH
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Air in trench (<15 feet deep)
Receptor Population: Construction/Excavation Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Inhalation	Benzene	4.40E-04	mg/L	1.83E-05	mg/m^3	R	9.2E-10	mg/kg-day	2.70E-02	$(mg/kg\text{-}day)^{-1}$	2.5E-11
	Naphthalene	6.80E-03	mg/L	2.00E-04	mg/m^3	R	1.0E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	2-Methylnaphthalene	1.50E-03	mg/L	4.22E-05	mg/m^3	R	2.1E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										2.5E-11
										Total Risk Across All Exposure Routes/Pathways	**2.5E-11**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

CALCULATION OF AIR CONCENTRATIONS IN A TRENCH
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

For Mass-Transfer Coefficients			For Emission Flux and Concentration in Trench			Trench dimensions		
Kg,H2O	0.833	cm/s	CF1	1.00E-03	L/cm3	Length	8	ft
MWH2O	18		CF2	1.00E+04	cm2/m2		2.44	m
Kg,O2	0.002	cm/s	CF3	3600	s/hr	Width	11	ft
MWO2	32		F	1			3.35	m
T	77	F	ACH	360	hr-1	Depth	10	ft
T	298	K					3.05	m
R	8.20E-05	atm-m3/mol-K				Width/Depth	1.10	

Table 3.8 Exposure-point concentrations (inhalation) for construction/utility workers in a trench: Groundwater less than 15 feet deep

	CAS No.	Molecular Weight MWi g/mol	Henry's Law Constant Hi atm-m3/mol	Gas-Phase Mass Transfer Coefficient KiG cm/s	Liquid-Phase Mass Transfer Coefficient KiL cm/s	Overall Mass Transfer Coefficient Ki cm/s	Concentration of Contaminant in Groundwater Cgw ug/L	Volatilization Factor VF L/m3	Concentration of Contaminant in Trench Ctrench ug/m3
Benzene	71-43-2	78.11	5.55E-03	5.09E-01	1.28E-03	1.27E-03	4.40E-01	4.15E-02	1.83E-02
Naphthalene	91-20-3	128.17	4.83E-04	4.32E-01	9.99E-04	8.95E-04	6.80E+00	2.93E-02	2.00E-01
Methylnaphthalene-2	91-57-6	142.20	5.17E-04	4.17E-01	9.49E-04	8.57E-04	1.50E+00	2.81E-02	4.22E-02

TABLE 4.5
VALUES OF DAILY INTAKE CALCULATIONS FOR EXPOSURE OF
FUTURE CHILD RESIDENTS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Resident
Receptor Age: Child (0 - 6 years)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Cgw	Chemical Concentration in Groundwater	mg/L	UCL or Maximum	USEPA, May 1993	UCL or Maximum	U.S. EPA, December 2002	Ingestion CDI (mg/kg/day) =
	IRgw	Water Ingestion Rate	L/day	1.5	USEPA, August 1997	0.66	U.S. EPA, May 1993	Cgw x IRgw x EF x ED
	EF	Exposure Frequency	days/year	350	USEPA, May 1993	234	U.S. EPA, May 1993	BW x AT
	ED	Exposure Duration	years	6	USEPA, May 1993	2	U.S. EPA, May 1993	CDI = Chronic Daily Intake
	BW	Body Weight	kg	15	USEPA, May 1993	15	U.S. EPA, May 1993	USEPA, December 1989
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	U.S. EPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	2,190	USEPA, December 1989	730	U.S. EPA, December 1989	
Dermal	Cgw	Chemical Concentration in Groundwater	mg/L	UCL or Maximum	USEPA, May 1993	UCL or Maximum	U.S. EPA, December 2002	The equations and parameters for
	A	Skin Surface Area	cm^2	6,600	U.S. EPA, July 2004	6,600	U.S. EPA, July 2004	for estimating DAevent and the chemical-
	DAevent	Absorbed Dose per Event	mg/cm^2-event	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	specific dermally absorbed dose from
	EV	Event Frequency	event/day	1	Professional Judgement	1	Professional Judgement	water (DAD) are provided in Section 6.2.4.4
	ED	Exposure Duration	years	6	USEPA, May 1993	2	U.S. EPA, May 1993	of the text.
	EF	Exposure Frequency	days/year	350	USEPA, May 1993	234	U.S. EPA, May 1993	
	t_{event}	Duration of Event	hour/event	0.33	U.S. EPA, July 2004	0.25	Professional Judgement	USEPA, July 2004
	t*	Time to reach steady state	hour/event	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	
	T	Lag Time	hour/event	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	
	B	Bunge Model Constant	dimensionless	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	
	Kp	Permeability Coefficient from Water	cm/hour	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	
	BW	Body Weight	kg	15	USEPA, May 1993	15	U.S. EPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	U.S. EPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	2,190	USEPA, December 1989	730	U.S. EPA, December 1989	

Daily Intake Calculations

Ingestion Intake = (IRgw x EF x ED) / (BW x AT)
Dermal Intake = (A x EV x ED x EF) / (BW x AT)

Cancer Ingestion Intake(RME) = 8.22E-03
Noncancer Ingestion Intake(RME) = 9.59E-02

Cancer Ingestion Intake(CTE) = 8.06E-04
Noncancer Ingestion Intake(CTE) = 2.82E-02

Cancer Dermal Intake(RME) = 3.62E+01
Noncancer Dermal Intake(RME) = 4.22E+02

Cancer Dermal Intake(CTE) = 8.06E+00
Noncancer Dermal Intake(CTE) = 2.82E+02

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH GROUNDWATER
REASONABLE MAXIMUM EXPOSURE (RME --- FUTURE CHILD RESIDENTS TO GROUNDWATER

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: U.S. EPA, July 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS: IF tevent < t*, DAevent = 2FA x Kp x C x CF x (6T x tevent/3.1416)$^{0.5}$

IF tevent > t*, DAevent = FA x Kp x C x CF x ((tevent/(1 + B)) + (2T x ((1+3B+3B^2)/(1 + B)^2)))

WHERE:
FA = FRACTION ABSORBED (DIMENSIONLESS)
Kp = PERMEABILITY COEFFICIENT FROM WATER (CM/HR)
C = CONCENTRATION OF CHEMICAL IN WATER (MG/L)
tevent = DURATION OF EVENT (HR/EVENT)
CF = CONVERSION FACTOR (1L/1000 CM^3)
t* = TIME IT TAKES TO REACH STEADY-STATE (HOUR/EVENT)
T = LAG TIME (HOUR/EVENT)
B = BUNGE MODEL CONSTANT (DIMENSIONLESS)

CHEMICAL	GW CONC. (mg/L)		ORGANIC OR INORGANIC?		t* (HR)	tevent	T (HR)		Kp (CM/HR)		B	FA	DAevent
Benzene	4.40E-04		o		7.00E-01	3.33E-01	2.92E-01		1.49E-02		5.05E-02	1	5.64E-09
Naphthalene	6.80E-03		o		1.34E+00	3.33E-01	5.58E-01		4.66E-02		2.03E-01	1	3.78E-07
2-methylnaphthalene	1.50E-03		o		1.58E+00	3.33E-01	6.58E-01		8.94E-02		4.10E-01	1	1.74E-07
Aluminum	8.65E+00		i			3.33E-01			1.00E-03			1	2.88E-06
Arsenic	3.30E-03		i			3.33E-01			1.00E-03			1	1.10E-09
Barium	5.66E-01		i			3.33E-01			1.00E-03			1	1.89E-07
Chromium	1.41E-02		i			3.33E-01			2.00E-03			1	9.40E-09
Iron	1.76E+01		i			3.33E-01			1.00E-03			1	5.87E-06
Manganese	5.07E+00		i			3.33E-01			1.00E-03			1	1.69E-06
Vanadium	2.07E-02		i			3.33E-01			1.00E-03			1	6.90E-09

TABLE 7.5 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF CHILD RESIDENTS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Resident
Receptor Age: Child (0 - 6 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	4.2E-05	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	1.1E-02
	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	6.5E-04	mg/kg-day	2.00E-02	mg/kg-day	NA	NA	3.3E-02
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	1.4E-04	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	3.6E-02
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	8.3E-01	mg/kg-day	1.00E+00	mg/kg-day	NA	NA	8.3E-01
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	3.2E-04	mg/kg-day	3.00E-04	mg/kg-day	NA	NA	1.1E+00
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	5.4E-02	mg/kg-day	2.00E-01	mg/kg-day	NA	NA	2.7E-01
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	1.4E-03	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	4.5E-01
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	1.7E+00	mg/kg-day	7.00E-01	mg/kg-day	NA	NA	2.4E+00
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	4.9E-01	mg/kg-day	2.00E-02	mg/kg-day	NA	NA	2.4E+01
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	2.0E-03	mg/kg-day	1.00E-03	mg/kg-day	NA	NA	2.0E+00
	(total)												**3.1E+01**
Dermal	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	2.4E-06	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	5.9E-04
	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	1.6E-04	mg/kg-day	2.00E-02	mg/kg-day	NA	NA	8.0E-03
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	7.3E-05	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	1.8E-02
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	1.2E-03	mg/kg-day	1.00E+00	mg/kg-day	NA	NA	1.2E-03
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	4.6E-07	mg/kg-day	3.00E-04	mg/kg-day	NA	NA	1.5E-03
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	8.0E-05	mg/kg-day	1.40E-02	mg/kg-day	NA	NA	5.7E-03
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	4.0E-06	mg/kg-day	7.50E-05	mg/kg-day	NA	NA	5.3E-02
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	2.5E-03	mg/kg-day	7.00E-01	mg/kg-day	NA	NA	3.5E-03
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	7.1E-04	mg/kg-day	8.00E-04	mg/kg-day	NA	NA	8.9E-01
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	2.9E-06	mg/kg-day	2.60E-05	mg/kg-day	NA	NA	1.1E-01
	(total)												**1.1E+00**

Total Hazard Index Across All Exposure Routes/Pathways **3.2E+01**

TABLE 8.5 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF CHILD RESIDENTS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Resident
Receptor Age: Child (0 - 6 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	3.6E-06	mg/kg-day	5.50E-02	$(mg/kg\text{-}day)^{-1}$	2.0E-07
	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	5.6E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	1.2E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	7.1E-02	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	2.7E-05	mg/kg-day	1.50E+00	$(mg/kg\text{-}day)^{-1}$	4.1E-05
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	4.7E-03	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	1.2E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	1.4E-01	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	4.2E-02	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	1.7E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**4.1E-05**
Dermal	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	2.0E-07	mg/kg-day	5.50E-02	$(mg/kg\text{-}day)^{-1}$	1.1E-08
	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	1.4E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	6.3E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	1.0E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	4.0E-08	mg/kg-day	1.50E+00	$(mg/kg\text{-}day)^{-1}$	6.0E-08
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	6.8E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	3.4E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	2.1E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	6.1E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	2.5E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**7.1E-08**
										Total Risk Across All Exposure Routes/Pathways	**4.1E-05**

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH GROUNDWATER
CENTRAL TENDENCY EXPOSURE (CTE) --- FUTURE CHILD RESIDENTS TO GROUNDWATER

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: U.S. EPA, July 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS: IF tevent < t*, DAevent = 2FA x Kp x C x CF x (6T x tevent/3.1416)$^{0.5}$

IF tevent > t*, DAevent = FA x Kp x C x CF x ((tevent/(1 + B)) + (2T x ((1+3B+3B^2)/(1 + B)^2)))

WHERE: FA = FRACTION ABSORBED (DIMENSIONLESS)
Kp = PERMEABILITY COEFFICIENT FROM WATER (CM/HR)
C = CONCENTRATION OF CHEMICAL IN WATER (MG/L)
tevent = DURATION OF EVENT (HR/EVENT)
CF = CONVERSION FACTOR (1L/1000 CM^3)
t* = TIME IT TAKES TO REACH STEADY-STATE (HOUR/EVENT)
T = LAG TIME (HOUR/EVENT)
B = BUNGE MODEL CONSTANT (DIMENSIONLESS)

CHEMICAL	GW CONC. (mg/L)		ORGANIC OR INORGANIC?		t* (HR)	tevent	T (HR)		Kp (CM/HR)		B	FA	DAevent
Benzene	4.40E-04		o		7.00E-01	2.50E-01	2.92E-01		1.49E-02		5.05E-02	1	4.88E-09
Naphthalene	6.80E-03		o		1.34E+00	2.50E-01	5.58E-01		4.66E-02		2.03E-01	1	3.27E-07
2-methylnaphthalene	1.50E-03		o		1.58E+00	2.50E-01	6.58E-01		8.94E-02		4.10E-01	1	1.50E-07
Aluminum	8.65E+00		i			2.50E-01			1.00E-03			1	2.16E-06
Arsenic	3.30E-03		i			2.50E-01			1.00E-03			1	8.25E-10
Barium	5.66E-01		i			2.50E-01			1.00E-03			1	1.42E-07
Chromium	1.41E-02		i			2.50E-01			2.00E-03			1	7.05E-09
Iron	1.76E+01		i			2.50E-01			1.00E-03			1	4.40E-06
Manganese	5.07E+00		i			2.50E-01			1.00E-03			1	1.27E-06
Vanadium	2.07E-02		i			2.50E-01			1.00E-03			1	5.18E-09

TABLE 7.5a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF CHILD RESIDENTS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Resident
Receptor Age: Child (0 - 6 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	1.2E-05	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	3.1E-03
	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	1.9E-04	mg/kg-day	2.00E-02	mg/kg-day	NA	NA	9.6E-03
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	4.2E-05	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	1.1E-02
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	2.4E-01	mg/kg-day	1.00E+00	mg/kg-day	NA	NA	2.4E-01
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	9.3E-05	mg/kg-day	3.00E-04	mg/kg-day	NA	NA	3.1E-01
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	1.6E-02	mg/kg-day	2.00E-01	mg/kg-day	NA	NA	8.0E-02
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	4.0E-04	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	1.3E-01
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	5.0E-01	mg/kg-day	7.00E-01	mg/kg-day	NA	NA	7.1E-01
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	1.4E-01	mg/kg-day	2.00E-02	mg/kg-day	NA	NA	7.2E+00
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	5.8E-04	mg/kg-day	1.00E-03	mg/kg-day	NA	NA	5.8E-01
	(total)												**9.2E+00**
Dermal	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	1.4E-06	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	3.4E-04
	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	9.2E-05	mg/kg-day	2.00E-02	mg/kg-day	NA	NA	4.6E-03
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	4.2E-05	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	1.1E-02
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	6.1E-04	mg/kg-day	1.00E+00	mg/kg-day	NA	NA	6.1E-04
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	2.3E-07	mg/kg-day	3.00E-04	mg/kg-day	NA	NA	7.8E-04
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	4.0E-05	mg/kg-day	1.40E-02	mg/kg-day	NA	NA	2.9E-03
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	2.0E-06	mg/kg-day	7.50E-05	mg/kg-day	NA	NA	2.7E-02
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	1.2E-03	mg/kg-day	7.00E-01	mg/kg-day	NA	NA	1.8E-03
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	3.6E-04	mg/kg-day	8.00E-04	mg/kg-day	NA	NA	4.5E-01
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	1.5E-06	mg/kg-day	2.60E-05	mg/kg-day	NA	NA	5.6E-02
	(total)												**5.5E-01**
												Total Hazard Index Across All Exposure Routes/Pathways	**9.8E+00**

TABLE 8.5a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF CHILD RESIDENTS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Resident
Receptor Age: Child (0 - 6 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	3.5E-07	mg/kg-day	5.50E-02	$(mg/kg\text{-}day)^{-1}$	2.0E-08
	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	5.5E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	1.2E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	7.0E-03	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	2.7E-06	mg/kg-day	1.50E+00	$(mg/kg\text{-}day)^{-1}$	4.0E-06
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	4.6E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	1.1E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	1.4E-02	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	4.1E-03	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	1.7E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**4.0E-06**
	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	3.9E-08	mg/kg-day	5.50E-02	$(mg/kg\text{-}day)^{-1}$	2.2E-09
Dermal	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	2.6E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	1.2E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	1.7E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	6.6E-09	mg/kg-day	1.50E+00	$(mg/kg\text{-}day)^{-1}$	1.0E-08
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	1.1E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	5.7E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	3.5E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	1.0E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	4.2E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.2E-08**
										Total Risk Across All Exposure Routes/Pathways	**4.0E-06**

TABLE 4.6
VALUES OF DAILY INTAKE CALCULATIONS FOR EXPOSURE OF FUTURE ADULT RESIDENTS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Cgw	Chemical Concentration in Groundwater	mg/L	Maximum	U.S. EPA, December 2002	Maximum	U.S. EPA, December 2002	Ingestion CDI (mg/kg/day) =
	IRgw	Water Ingestion Rate	L/day	2	U.S. EPA, May 1993	1.4	U.S. EPA, May 1993	Cgw x IRgw x EF x ED
	EF	Exposure Frequency	days/year	350	U.S. EPA, May 1993	234	U.S. EPA, May 1993	BW x AT
	ED	Exposure Duration	years	24	U.S. EPA, May 1993	7	U.S. EPA, May 1993	CDI = Chronic Daily Intake
	BW	Body Weight	kg	70	U.S. EPA, May 1993	70	U.S. EPA, May 1993	USEPA, December 1989
	AT-C	Averaging Time (Cancer)	days	25,550	U.S. EPA, December 1989	25,550	U.S. EPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	U.S. EPA, December 1989	2,555	U.S. EPA, December 1989	
Dermal	Cgw	Chemical Concentration in Groundwater	mg/L	Maximum	U.S. EPA, December 2002	Maximum	U.S. EPA, December 2002	The equations and parameters for
	A	Skin Surface Area	cm^2	18,000	U.S. EPA, July 2004	18,000	U.S. EPA, July 2004	for estimating DAevent and the chemical-
	DAevent	Absorbed Dose per Event	mg/cm^2-event	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	specific dermally absorbed dose from
	EV	Event Frequency	event/day	1	Professional Judgement	1	Professional Judgement	water (DAD) are provided in Section 6.2.4.4
	ED	Exposure Duration	years	24	U.S. EPA, May 1993	7	U.S. EPA, May 1993	of the text.
	EF	Exposure Frequency	days/year	350	U.S. EPA, May 1993	234	U.S. EPA, May 1993	
	t_{event}	Duration of Event	hour/event	0.33	Professional Judgement	0.25	Professional Judgement	USEPA, July 2004
	t*	Time to reach steady state	hour/event	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	
	T	Lag Time	hour/event	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	
	B	Bunge Model Constant	dimensionless	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	
	Kp	Permeability Coefficient from Water	cm/hour	chemical-specific	U.S. EPA, July 2004	chemical-specific	U.S. EPA, July 2004	
	BW	Body Weight	kg	70	U.S. EPA, May 1993	70	U.S. EPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	U.S. EPA, December 1989	25,550	U.S. EPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	U.S. EPA, December 1989	2,555	U.S. EPA, December 1989	

Daily Intake Calculations

Ingestion Intake = (IRgw x EF x ED) / (BW x AT)
Dermal Intake = (A x EV x ED x EF) / (BW x AT)

Cancer Ingestion Intake(RME) = 9.39E-03
Noncancer Ingestion Intake(RME) = 2.74E-02

Cancer Ingestion Intake(CTE) = 1.28E-03
Noncancer Ingestion Intake(CTE) = 1.28E-02

Cancer Dermal Intake(RME) = 8.45E+01
Noncancer Dermal Intake(RME) = 2.47E+02

Cancer Dermal Intake(CTE) = 1.65E+01
Noncancer Dermal Intake(CTE) = 1.65E+02

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH GROUNDWATER
REASONABLE MAXIMUM EXPOSURE (RME --- FUTURE ADULT RESIDENTS TO GROUNDWATER

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: U.S. EPA, July 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS:
IF tevent < t*, DAevent = 2FA x Kp x C x CF x (6T x tevent/3.1416)$^{0.5}$
IF tevent > t*, DAevent = FA x Kp x C x CF x ((tevent/(1 + B)) + (2T x ((1+3B+3B^2)/(1 + B)^2)))

WHERE:
FA = FRACTION ABSORBED (DIMENSIONLESS)
Kp = PERMEABILITY COEFFICIENT FROM WATER (CM/HR)
C = CONCENTRATION OF CHEMICAL IN WATER (MG/L)
tevent = DURATION OF EVENT (HR/EVENT)
CF = CONVERSION FACTOR (1L/1000 CM^3)
t* = TIME IT TAKES TO REACH STEADY-STATE (HOUR/EVENT)
T = LAG TIME (HOUR/EVENT)
B = BUNGE MODEL CONSTANT (DIMENSIONLESS)

CHEMICAL	GW CONC. (mg/L)		ORGANIC OR INORGANIC?		t* (HR)	tevent	T (HR)		Kp (CM/HR)		B	FA	DAevent
Benzene	4.40E-04		o		7.00E-01	3.33E-01	2.92E-01		1.49E-02		5.05E-02	1	5.64E-09
Naphthalene	6.80E-03		o		1.34E+00	3.33E-01	5.58E-01		4.66E-02		2.03E-01	1	3.78E-07
2-methylnaphthalene	1.50E-03		o		1.58E+00	3.33E-01	6.58E-01		8.94E-02		4.10E-01	1	1.74E-07
Aluminum	8.65E+00		i			3.33E-01			1.00E-03			1	2.88E-06
Arsenic	3.30E-03		i			3.33E-01			1.00E-03			1	1.10E-09
Barium	5.66E-01		i			3.33E-01			1.00E-03			1	1.89E-07
Chromium	1.41E-02		i			3.33E-01			2.00E-03			1	9.40E-09
Iron	1.76E+01		i			3.33E-01			1.00E-03			1	5.87E-06
Manganese	5.07E+00		i			3.33E-01			1.00E-03			1	1.69E-06
Vanadium	2.07E-02		i			3.33E-01			1.00E-03			1	6.90E-09

TABLE 7.6 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF ADULT RESIDENTS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	1.2E-05	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	3.0E-03
	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	1.9E-04	mg/kg-day	2.00E-02	mg/kg-day	NA	NA	9.3E-03
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	4.1E-05	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	1.0E-02
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	2.4E-01	mg/kg-day	1.00E+00	mg/kg-day	NA	NA	2.4E-01
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	9.0E-05	mg/kg-day	3.00E-04	mg/kg-day	NA	NA	3.0E-01
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	1.6E-02	mg/kg-day	2.00E-01	mg/kg-day	NA	NA	7.8E-02
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	3.9E-04	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	1.3E-01
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	4.8E-01	mg/kg-day	7.00E-01	mg/kg-day	NA	NA	6.9E-01
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	1.4E-01	mg/kg-day	2.00E-02	mg/kg-day	NA	NA	6.9E+00
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	5.7E-04	mg/kg-day	1.00E-03	mg/kg-day	NA	NA	5.7E-01
	(total)												***9.0E+00***
Dermal	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	1.4E-06	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	3.5E-04
	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	9.3E-05	mg/kg-day	2.00E-02	mg/kg-day	NA	NA	4.7E-03
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	4.3E-05	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	1.1E-02
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	7.1E-04	mg/kg-day	1.00E+00	mg/kg-day	NA	NA	7.1E-04
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	2.7E-07	mg/kg-day	3.00E-04	mg/kg-day	NA	NA	9.0E-04
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	4.7E-05	mg/kg-day	1.40E-02	mg/kg-day	NA	NA	3.3E-03
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	2.3E-06	mg/kg-day	7.50E-05	mg/kg-day	NA	NA	3.1E-02
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	1.4E-03	mg/kg-day	7.00E-01	mg/kg-day	NA	NA	2.1E-03
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	4.2E-04	mg/kg-day	8.00E-04	mg/kg-day	NA	NA	5.2E-01
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	1.7E-06	mg/kg-day	2.60E-05	mg/kg-day	NA	NA	6.5E-02
	(total)												**6.4E-01**
												Total Hazard Index Across All Exposure Routes/Pathways	**9.6E+00**

TABLE 8.6 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF ADULT RESIDENTS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	4.1E-06	mg/kg-day	5.50E-02	$(mg/kg\text{-}day)^{-1}$	2.3E-07
	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	6.4E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	1.4E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	8.1E-02	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	3.1E-05	mg/kg-day	1.50E+00	$(mg/kg\text{-}day)^{-1}$	4.6E-05
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	5.3E-03	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	1.3E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	1.7E-01	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	4.8E-02	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	1.9E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**4.7E-05**
Dermal	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	4.8E-07	mg/kg-day	5.50E-02	$(mg/kg\text{-}day)^{-1}$	2.6E-08
	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	3.2E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	1.5E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	2.4E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	9.3E-08	mg/kg-day	1.50E+00	$(mg/kg\text{-}day)^{-1}$	1.4E-07
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	1.6E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	7.9E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	5.0E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	1.4E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	5.8E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.7E-07**
										Total Risk Across All Exposure Routes/Pathways	**4.7E-05**

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH GROUNDWATER
CENTRAL TENDENCY EXPOSURE (CTE) --- FUTURE ADULT RESIDENTS TO GROUNDWATER

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: U.S. EPA, July 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS: IF tevent < t*, DAevent = 2FA x Kp x C x CF x $(6T \times tevent/3.1416)^{0.5}$

IF tevent > t*, DAevent = FA x Kp x C x CF x $((tevent/(1 + B)) + (2T \times ((1+3B+3B^2)/(1 + B)^2)))$

WHERE:
FA = FRACTION ABSORBED (DIMENSIONLESS)
Kp = PERMEABILITY COEFFICIENT FROM WATER (CM/HR)
C = CONCENTRATION OF CHEMICAL IN WATER (MG/L)
tevent = DURATION OF EVENT (HR/EVENT)
CF = CONVERSION FACTOR (1L/1000 CM^3)
t* = TIME IT TAKES TO REACH STEADY-STATE (HOUR/EVENT)
T = LAG TIME (HOUR/EVENT)
B = BUNGE MODEL CONSTANT (DIMENSIONLESS)

CHEMICAL	GW CONC. (mg/L)		ORGANIC OR INORGANIC?		t* (HR)	tevent	T (HR)		Kp (CM/HR)		B	FA	DAevent
Benzene	4.40E-04		o		7.00E-01	2.50E-01	2.92E-01		1.49E-02		5.05E-02	1	4.88E-09
Naphthalene	6.80E-03		o		1.34E+00	2.50E-01	5.58E-01		4.66E-02		2.03E-01	1	3.27E-07
2-methylnaphthalene	1.50E-03		o		1.58E+00	2.50E-01	6.58E-01		8.94E-02		4.10E-01	1	1.50E-07
Aluminum	8.65E+00		i			2.50E-01			1.00E-03			1	2.16E-06
Arsenic	3.30E-03		i			2.50E-01			1.00E-03			1	8.25E-10
Barium	5.66E-01		i			2.50E-01			1.00E-03			1	1.42E-07
Chromium	1.41E-02		i			2.50E-01			2.00E-03			1	7.05E-09
Iron	1.76E+01		i			2.50E-01			1.00E-03			1	4.40E-06
Manganese	5.07E+00		i			2.50E-01			1.00E-03			1	1.27E-06
Vanadium	2.07E-02		i			2.50E-01			1.00E-03			1	5.18E-09

TABLE 7.6a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF ADULT RESIDENTS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	5.6E-06	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	1.4E-03
	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	8.7E-05	mg/kg-day	2.00E-02	mg/kg-day	NA	NA	4.4E-03
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	1.9E-05	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	4.8E-03
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	1.1E-01	mg/kg-day	1.00E+00	mg/kg-day	NA	NA	1.1E-01
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	4.2E-05	mg/kg-day	3.00E-04	mg/kg-day	NA	NA	1.4E-01
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	7.3E-03	mg/kg-day	2.00E-01	mg/kg-day	NA	NA	3.6E-02
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	1.8E-04	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	6.0E-02
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	2.3E-01	mg/kg-day	7.00E-01	mg/kg-day	NA	NA	3.2E-01
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	6.5E-02	mg/kg-day	2.00E-02	mg/kg-day	NA	NA	3.3E+00
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	2.7E-04	mg/kg-day	1.00E-03	mg/kg-day	NA	NA	2.7E-01
	(total)												**4.2E+00**
Dermal	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	8.1E-07	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	2.0E-04
	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	5.4E-05	mg/kg-day	2.00E-02	mg/kg-day	NA	NA	2.7E-03
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	2.5E-05	mg/kg-day	4.00E-03	mg/kg-day	NA	NA	6.2E-03
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	3.6E-04	mg/kg-day	1.00E+00	mg/kg-day	NA	NA	3.6E-04
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	1.4E-07	mg/kg-day	3.00E-04	mg/kg-day	NA	NA	4.5E-04
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	2.3E-05	mg/kg-day	1.40E-02	mg/kg-day	NA	NA	1.7E-03
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	1.2E-06	mg/kg-day	7.50E-05	mg/kg-day	NA	NA	1.5E-02
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	7.3E-04	mg/kg-day	7.00E-01	mg/kg-day	NA	NA	1.0E-03
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	2.1E-04	mg/kg-day	8.00E-04	mg/kg-day	NA	NA	2.6E-01
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	8.5E-07	mg/kg-day	2.60E-05	mg/kg-day	NA	NA	3.3E-02
	(total)												**3.2E-01**
												Total Hazard Index Across All Exposure Routes/Pathways	**4.5E+00**

TABLE 8.6a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF ADULT RESIDENTS TO GROUNDWATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Entire Site
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	5.6E-07	mg/kg-day	5.50E-02	$(mg/kg\text{-}day)^{-1}$	3.1E-08
	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	8.7E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	1.9E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	1.1E-02	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	4.2E-06	mg/kg-day	1.50E+00	$(mg/kg\text{-}day)^{-1}$	6.3E-06
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	7.3E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	1.8E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	2.3E-02	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	6.5E-03	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	2.7E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**6.4E-06**
	Benzene	4.40E-04	mg/L	4.40E-04	mg/L	M	8.1E-08	mg/kg-day	5.50E-02	$(mg/kg\text{-}day)^{-1}$	4.4E-09
Dermal	Naphthalene	6.80E-03	mg/L	6.80E-03	mg/L	M	5.4E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	2-methylnaphthalene	1.50E-03	mg/L	1.50E-03	mg/L	M	2.5E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Aluminum	8.65E+00	mg/L	8.65E+00	mg/L	M	3.6E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Arsenic	3.30E-03	mg/L	3.30E-03	mg/L	M	1.4E-08	mg/kg-day	1.50E+00	$(mg/kg\text{-}day)^{-1}$	2.0E-08
	Barium	5.66E-01	mg/L	5.66E-01	mg/L	M	2.3E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Chromium	1.41E-02	mg/L	1.41E-02	mg/L	M	1.2E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Iron	1.76E+01	mg/L	1.76E+01	mg/L	M	7.3E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Manganese	5.07E+00	mg/L	5.07E+00	mg/L	M	2.1E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Vanadium	2.07E-02	mg/L	2.07E-02	mg/L	M	8.5E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**2.5E-08**
										Total Risk Across All Exposure Routes/Pathways	**6.4E-06**

TABLE 4.7

VALUES USED FOR DAILY INTAKE CALCULATIONS
EXPOSURE OF FUTURE ADULT RESIDENTS TO VAPORS FROM GROUNDWATER WHILE SHOWERING
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES
GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Tap Water
Receptor Population: Resident
Receptor Age: Child (0 - 6 years of age)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Inhalation	S	Volatile Chemical Generation Rate	(ug/m^3-min shower)	Derived	Foster&Chrostowski , 1987	Derived	Foster&Chrostowski , 1987	Chronic Daily Intake (CDI) (mg/kg-day)=
	IRsh	Inhalation Rate of volatiles in shower	(L/min)	10	USEPA, December 1989	10	USEPA, December 1989	S x IRsh x K x EF x ED / BW x AT x Ra x CF
	EF	Exposure Frequency	(days/year)	350	USEPA, May 1993	234	USEPA, May 1993	
	K	Masss Transfer Coefficient	(min)	Derived	Foster&Chrostowski , 1987	Derived	Foster&Chrostowski , 1987	K = Ds + exp(-Ra x Dt)/Ra -.[exp(Ra) x (Ds-Dt)]/Ra
	ED	Exposure Duration	(years)	6	USEPA, May 1993	2	USEPA, May 1993	
	BW	Body Weight	(kg)	15	USEPA, May 1993	15	USEPA, May 1993	
	Ra	Air Exchange Rate	(min^{-1})	0.025	Foster&Chrostowski , 1987	0.025	Foster&Chrostowski , 1987	
	Ds	Shower Duration	(min)	15	Professional judgement	10	Professional Judgement	
	Dt	Total Time in Bathroom	(min)	20	Professional judgement	15	Professional Judgement	
	AT-C	Averaging Time (Cancer)	(days)	25,550	USEPA, December 1989	25550	USEPA, December 1989	
	AT-N	Averaging Time (Noncancer)	(days)	2,190	USEPA, December 1989	730	USEPA, December 1989	

TABLE 7.7 - REASONABLE MAXIMUM EXPOSURE (RME)

CALCULATION OF NON-CANCER HAZARDS
EXPOSURE OF FUTURE ADULT RESIDENTS TO VAPORS FROM GROUNDWATER WHILE SHOWERING
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES
GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Shower Room
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Inhalation	BENZENE	4.00E-04	mg/L	1.71E-04	(mg/m^3- min)	R	1.7E-05	mg/kg-day	8.57E-03	mg/kg-day	3.00E-02	NA	2.0E-03
	NAPHTHALENE	6.80E-03	mg/L	1.63E-03	(mg/m^3- min)	R	1.6E-04	mg/kg-day	8.57E-04	mg/kg-day	3.00E-03	NA	1.9E-01
													1.9E-01
												Total Hazard Index Across All Exposure Routes/Pathways	**1.9E-01**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.7 - REASONABLE MAXIMUM EXPOSURE (RME)

CALCULATION OF CANCER RISKS
EXPOSURE OF FUTURE ADULT RESIDENTS TO VAPORS FROM GROUNDWATER WHILE SHOWERING
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES
GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Tap Water
Receptor Population: Resident
Receptor Age: Child (0 - 6 years of age)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Inhalation	BENZENE	4.00E-04	mg/L	1.71E-04	(mg/m^3- min)	R	1.5E-06	mg/kg-day	2.70E-02	(mg/kg-day)$^{-1}$	4.0E-08
	NAPHTHALENE	6.80E-03	mg/L	1.63E-03	(mg/m^3- min)	R	1.4E-05	mg/kg-day		(mg/kg-day)$^{-1}$	
											4.0E-08
										Total Risk Across All Exposure Routes/Pathways	**4.0E-08**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

TABLE 7.7a - CENTRAL TENDENCY EXPOSURE (CTE)

CALCULATION OF NON-CANCER HAZARDS
EXPOSURE OF FUTURE ADULT RESIDENTS TO VAPORS FROM GROUNDWATER WHILE SHOWERING
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES
GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Shower Room
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Inhalation	BENZENE	4.00E-04	mg/L	1.56E-04	(mg/m^3- min)	R	5.8E-06	mg/kg-day	8.57E-03	mg/kg-day	3.00E-02	NA	6.8E-04
	NAPHTHALENE	6.80E-03	mg/L	1.63E-03	(mg/m^3- min)	R	6.1E-05	mg/kg-day	8.57E-04	mg/kg-day	3.00E-03	NA	7.1E-02
													7.2E-02
												Total Hazard Index Across All Exposure Routes/Pathways	**7.2E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.7a - CENTRAL TENDENCY EXPOSURE (CTE)

CALCULATION OF CANCER RISKS
EXPOSURE OF FUTURE ADULT RESIDENTS TO VAPORS FROM GROUNDWATER WHILE SHOWERING
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES
GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Tap Water
Receptor Population: Resident
Receptor Age: Child (0 - 6 years of age)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Inhalation	BENZENE	4.00E-04	mg/L	1.56E-04	(mg/m^3- min)	R	1.7E-07	mg/kg-day	2.70E-02	(mg/kg-day)$^{-1}$	4.5E-09
	NAPHTHALENE	6.80E-03	mg/L	1.63E-03	(mg/m^3- min)	R	1.7E-06	mg/kg-day		(mg/kg-day)$^{-1}$	
											4.5E-09
										Total Risk Across All Exposure Routes/Pathways	**4.5E-09**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

TABLE 4.8

VALUES USED FOR DAILY INTAKE CALCULATIONS
EXPOSURE OF FUTURE ADULT RESIDENTS TO VAPORS FROM GROUNDWATER WHILE SHOWERING
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES
GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Tap Water
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Inhalation	S	Volatile Chemical Generation Rate	(ug/m^3-min shower)	Derived	Foster&Chrostowski 1987	Derived	Foster & Chrostowski 1987	Chronic Daily Intake (CDI) (mg/kg-day)=
	IRsh	Inhalation Rate of volatiles in shower	(L/min)	10	USEPA, December 1989	10	USEPA, December 1989	S x IRsh x K x EF x ED
	EF	Exposure Frequency	(days/year)	350	USEPA, May 1993	234	USEPA, May 1993	BW x AT x Ra x CF
	K	Masss Transfer Coefficient	(min)	Derived	Foster&Chrostowski 1987	Derived	Foster & Chrostowski 1987	K = Ds + exp(-Ra x Dt)/Ra - [exp(Ra) x (Ds-Dt)]/Ra
	ED	Exposure Duration	(years)	24	USEPA, May 1993	7	USEPA, May 1993	
	BW	Body Weight	(kg)	70	USEPA, May 1993	70	USEPA, May 1993	
	Ra	Air Exchange Rate	(min^{-1})	0.025	Foster&Chrostowski 1987	0.025	Foster & Chrostowski 1987	
	Ds	Shower Duration	(min)	15	Professional judgement	10	Professional judgement	
	Dt	Total Time in Bathroom	(min)	20	Professional judgement	15	Professional Judgement	
	AT-C	Averaging Time (Cancer)	(days)	25,550	USEPA, December 1989	25550	USEPA, December 1989	
	AT-N	Averaging Time (Noncancer)	(days)	8,760	USEPA, December 1989	2,555	USEPA, December 1989	

TABLE 7.8 - REASONABLE MAXIMUM EXPOSURE (RME)

CALCULATION OF NON-CANCER HAZARDS
EXPOSURE OF FUTURE ADULT RESIDENTS TO VAPORS FROM GROUNDWATER WHILE SHOWERING
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Shower Room
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Inhalation	BENZENE	4.00E-04	mg/L	1.71E-04	(mg/m^3- min)	R	3.7E-06	mg/kg-day	8.57E-03	mg/kg-day	3.00E-02	NA	4.3E-04
	NAPHTHALENE	6.80E-03	mg/L	1.63E-03	(mg/m^3- min)	R	3.5E-05	mg/kg-day	8.57E-04	mg/kg-day	3.00E-03	NA	4.1E-02
													4.2E-02
												Total Hazard Index Across All Exposure Routes/Pathways	**4.2E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.8 - REASONABLE MAXIMUM EXPOSURE (RME)

CALCULATION OF CANCER RISKS
EXPOSURE OF FUTURE ADULT RESIDENTS TO VAPORS FROM GROUNDWATER WHILE SHOWERING
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Tap Water
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Inhalation	BENZENE	4.00E-04	mg/L	1.71E-04	(mg/m^3- min)	R	1.3E-06	mg/kg-day	2.70E-02	(mg/kg-day)$^{-1}$	3.4E-08
	NAPHTHALENE	6.80E-03	mg/L	1.63E-03	(mg/m^3- min)	R	1.2E-05	mg/kg-day		(mg/kg-day)$^{-1}$	
											3.4E-08
										Total Risk Across All Exposure Routes/Pathways	**3.4E-08**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

TABLE 7.8a - CENTRAL TENDENCY EXPOSURE (CTE)

CALCULATION OF NON-CANCER HAZARDS
EXPOSURE OF FUTURE ADULT RESIDENTS TO VAPORS FROM GROUNDWATER WHILE SHOWERING
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Shower Room
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Inhalation	BENZENE	4.00E-04	mg/L	1.56E-04	(mg/m^3- min)	R	1.3E-06	mg/kg-day	8.57E-03	mg/kg-day	3.00E-02	NA	1.5E-04
	NAPHTHALENE	6.80E-03	mg/L	1.63E-03	(mg/m^3- min)	R	1.3E-05	mg/kg-day	8.57E-04	mg/kg-day	3.00E-03	NA	1.5E-02
													1.5E-02
												Total Hazard Index Across All Exposure Routes/Pathways	**1.5E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.8a - CENTRAL TENDENCY EXPOSURE (CTE)

CALCULATION OF CANCER RISKS
EXPOSURE OF FUTURE ADULT RESIDENTS TO VAPORS FROM GROUNDWATER WHILE SHOWERING
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Tap Water
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Inhalation	BENZENE	4.00E-04	mg/L	1.56E-04	(mg/m^3- min)	R	1.3E-07	mg/kg-day	2.70E-02	(mg/kg-day)$^{-1}$	3.4E-09
	NAPHTHALENE	6.80E-03	mg/L	1.63E-03	(mg/m^3- min)	R	1.3E-06	mg/kg-day		(mg/kg-day)$^{-1}$	
											3.4E-09
										Total Risk Across All Exposure Routes/Pathways	**3.4E-09**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Volatilization From Showering - RME
Source: Foster & Chrostowski, 1987.
SITE 1 - Golf Course Landfill

Parameter	Value	Definition
Ra	0.025	air exchange rate, (min^{-1})
Ds	15	shower duration, (min)
Dt	20	total time in bathroom, (min)
Fr	10	shower water flow rate, (L/min)
Sv	12	shower room air volume, (m^3)
ts	2	shower dropler drop time, (sec)
d	1	shower droplet diameter, (mm)
T1	293	calibration water temperature, (K)
Ts	318	shower water temperature, (K)
m1	0.982	water viscosity at T1, (cp)
ms	0.616	water viscosity at Ts, (cp)
K	3.96	mass transfer coefficient, (min)

Chemical	Cw (mg/L)	MW (g/mole)	H (atm-m^3/mol	Kl (cm/hr)	Kg (cm/hr)	KL (cm/hr)	Kal (cm/hr)	Cwd mg/L	S
BENZENE	4.40E-04	7.80E+01	5.56E-03	1.50E+01	1.44E+03	1.44E+01	1.89E+01	2.06E-04	1.71E-04
NAPHTHALENE	6.80E-03	1.28E+02	4.83E-04	1.17E+01	1.12E+03	7.72E+00	1.01E+01	1.95E-03	1.63E-03

RISK ASSESSMENT SPREADSHEET - INHALATION OF VOLATILES FROM GROUNDWATER

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
EXPOSURE SCENARIO: INHALATION OF VAPOR WHILE SHOWERING- ADULT RESIDENT - RME
MEDIA: GROUNDWATER TO INDOOR AIR
DATE: 03/04/08

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH THE INHALATION OF VOLATILES WHILE SHOWERING ARE CONSIDERED.
INTAKE EQUATION IS BASED ON EPA, 1989 AND FOSTER AND CHROSTOWSKI, 1987.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: $$\text{Intake} = \frac{S \times IR_{SW} \times K \times EF \times ED}{BW \times AT \times R_a \times CF}$$

WHERE:			
	K = :	3.96	Mass transfer coefficient (min)
	IR_{sh} = :	10	Inhalation rate (L/min)
	S = :		Volatile chemical generation rate (mg/m^3-min-shower)
	EF = :	350	Exposure Frequency (days/year)
	ED = :	24	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	Atn = :	8,760	Averaging time for noncarcinogenic exposures (days)
	R_a = :	0.025	Air exchange rate (min^{-1})
	CF = :	1.00E+03	Convesrion Factor (L/m^3)

Unit Dose

Lifetime Chronic Daily Intake =	7.4E-03	(min-m^3-shower)/(kg-day)
Chronic Daily Intake = :	2.2E-02	(min-m^3-shower)/(kg-day)

RISK ASSESSMENT SPREADSHEET - INHALATION OF VOLATILES FROM GROUNDWATER

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
EXPOSURE SCENARIO: INHALATION OF VAPOR WHILE SHOWERING- ADULT RESIDENT - RME
MEDIA: GROUNDWATER TO INDOOR AIR
DATE: 03/04/08

CHEMICAL	S (mg/m^3- min - shower)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
BENZENE	1.71E-04	1.3E-06	3.7E-06	2.70E-02	8.57E-03	3.4E-08	100.0%	4.3E-04	1.0%
NAPHTHALENE	1.63E-03	1.2E-05	3.5E-05		8.57E-04	NA	NA	4.1E-02	99.0%
					Total	**3.4E-08**	**100.0%**	**4.2E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INHALATION OF VOLATILES FROM GROUNDWATER

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
EXPOSURE SCENARIO: INHALATION OF VAPOR WHILE SHOWERING- CHILD RESIDENT - RME
MEDIA: GROUNDWATER TO INDOOR AIR
DATE: 03/04/08

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH THE INHALATION OF VOLATILES WHILE SHOWERING ARE CONSIDERED.
INTAKE EQUATION IS BASED ON EPA, 1989 AND FOSTER AND CHROSTOWSKI, 1987.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: $$\text{Intake} = \frac{S \times IR_{SW} \times K \times EF \times ED}{BW \times AT \times R_a \times CF}$$

WHERE:			
	K = :	3.96	Mass transfer coefficient (min)
	IR_{sh} = :	10	Inhalation rate (L/min)
	S = :		Volatile chemical generation rate (mg/m^3-min-shower)
	EF = :	350	Exposure Frequency (days/year)
	ED = :	6	Exposure Duration (years)
	BW = :	15	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	Atn = :	2,190	Averaging time for noncarcinogenic exposures (days)
	R_a = :	0.025	Air exchange rate (min^{-1})
	CF = :	1.00E+03	Convesrion Factor (L/m^3)

Unit Dose

Lifetime Chronic Daily Intake =	*8.7E-03*	*(min-m^3-shower)/(kg-day)*
Chronic Daily Intake = :	1.0E-01	(min-m^3-shower)/(kg-day)

RISK ASSESSMENT SPREADSHEET - INHALATION OF VOLATILES FROM GROUNDWATER

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
EXPOSURE SCENARIO: INHALATION OF VAPOR WHILE SHOWERING- CHILD RESIDENT - RME
MEDIA: GROUNDWATER TO INDOOR AIR
DATE: 03/04/08

CHEMICAL	S (mg/m^3- min - shower)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
BENZENE	1.71E-04	1.5E-06	1.7E-05	2.70E-02	8.57E-03	4.0E-08	100.0%	2.0E-03	1.0%
NAPHTHALENE	1.63E-03	1.4E-05	1.6E-04		8.57E-04	NA	NA	1.9E-01	99.0%
					Total	**4.0E-08**	**100.0%**	**1.9E-01**	**100.0%**

Volatilization From Showering - CTE
Source: Foster & Chrostowski, 1987.
SITE 1 - Golf Course Landfill

Parameter	Value	Definition
Ra	0.025	air exchange rate, (min^{-1})
Ds	10	shower duration, (min)
Dt	15	total time in bathroom, (min)
Fr	10	shower water flow rate, (L/min)
Sv	12	shower room air volume, (m^3)
ts	2	shower dropler drop time, (sec)
d	1	shower droplet diameter, (mm)
T1	293	calibration water temperature, (K)
Ts	318	shower water temperature, (K)
m1	0.982	water viscosity at T1, (cp)
ms	0.616	water viscosity at Ts, (cp)
K	2.19	mass transfer coefficient, (min)

Chemical	Cw (mg/L)	MW (g/mole)	H (atm-m^3/mol	Kl (cm/hr)	Kg (cm/hr)	KL (cm/hr)	Kal (cm/hr)	Cwd mg/L	S
BENZENE	4.00E-04	7.80E+01	5.56E-03	1.50E+01	1.44E+03	1.44E+01	1.89E+01	1.87E-04	1.56E-04
NAPHTHALENE	6.80E-03	1.28E+02	4.83E-04	1.17E+01	1.12E+03	7.72E+00	1.01E+01	1.95E-03	1.63E-03

RISK ASSESSMENT SPREADSHEET - INHALATION OF VOLATILES FROM GROUNDWATER

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
EXPOSURE SCENARIO: INHALATION OF VAPOR WHILE SHOWERING- ADULT RESIDENT - CTE
MEDIA: GROUNDWATER TO INDOOR AIR
DATE: 03/04/08

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH THE INHALATION OF VOLATILES WHILE SHOWERING ARE CONSIDERED.
INTAKE EQUATION IS BASED ON EPA, 1989 AND FOSTER AND CHROSTOWSKI, 1987.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: $$\text{Intake} = \frac{S \times IR_{SW} \times K \times EF \times ED}{BW \times AT \times R_a \times CF}$$

WHERE:			
	K = :	2.19	Mass transfer coefficient (min)
	IR_{sh} = :	10	Inhalation rate (L/min)
	S = :		Volatile chemical generation rate (mg/m^3-min-shower)
	EF = :	234	Exposure Frequency (days/year)
	ED = :	7	Exposure Duration (years)
	BW = :	70	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	Atn = :	2,555	Averaging time for noncarcinogenic exposures (days)
	R_a = :	0.025	Air exchange rate (min^{-1})
	CF = :	1.00E+03	Convesrion Factor (L/m^3)

Unit Dose

Lifetime Chronic Daily Intake =	8.0E-04	(min-m^3-shower)/(kg-day)
Chronic Daily Intake = :	8.0E-03	(min-m^3-shower)/(kg-day)

RISK ASSESSMENT SPREADSHEET - INHALATION OF VOLATILES FROM GROUNDWATER

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
EXPOSURE SCENARIO: INHALATION OF VAPOR WHILE SHOWERING- ADULT RESIDENT - CTE
MEDIA: GROUNDWATER TO INDOOR AIR
DATE: 03/04/08

CHEMICAL	S (mg/m^3- min - shower)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
BENZENE	1.56E-04	1.3E-07	1.3E-06	2.70E-02	8.57E-03	3.4E-09	100.0%	1.5E-04	0.9%
NAPHTHALENE	1.63E-03	1.3E-06	1.3E-05		8.57E-04	NA	NA	1.5E-02	99.1%
					Total	**3.4E-09**	**100.0%**	**1.5E-02**	**100.0%**

RISK ASSESSMENT SPREADSHEET - INHALATION OF VOLATILES FROM GROUNDWATER

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
EXPOSURE SCENARIO: INHALATION OF VAPOR WHILE SHOWERING- CHILD RESIDENT - RME
MEDIA: GROUNDWATER TO INDOOR AIR
DATE: 03/04/08

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH THE INHALATION OF VOLATILES WHILE SHOWERING ARE CONSIDERED.
INTAKE EQUATION IS BASED ON EPA, 1989 AND FOSTER AND CHROSTOWSKI, 1987.
ASSUMPTIONS ARE OUTLINED BELOW.

RELEVANT EQUATION: $$\text{Intake} = \frac{S \times IR_{SW} \times K \times EF \times ED}{BW \times AT \times R_a \times CF}$$

WHERE:			
	K = :	2.19	Mass transfer coefficient (min)
	IR_{sh} = :	10	Inhalation rate (L/min)
	S = :		Volatile chemical generation rate (mg/m^3-min-shower)
	EF = :	234	Exposure Frequency (days/year)
	ED = :	2	Exposure Duration (years)
	BW = :	15	Body Weight (kg)
	ATc = :	25,550	Averaging time for carcinogenic exposures (days)
	Atn = :	730	Averaging time for noncarcinogenic exposures (days)
	R_a = :	0.025	Air exchange rate (min^{-1})
	CF = :	1.00E+03	Convesrion Factor (L/m^3)

Unit Dose

Lifetime Chronic Daily Intake =	1.1E-03	(min-m^3-shower)/(kg-day)
Chronic Daily Intake = :	3.7E-02	(min-m^3-shower)/(kg-day)

RISK ASSESSMENT SPREADSHEET - INHALATION OF VOLATILES FROM GROUNDWATER

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
EXPOSURE SCENARIO: INHALATION OF VAPOR WHILE SHOWERING- CHILD RESIDENT - RME
MEDIA: GROUNDWATER TO INDOOR AIR
DATE: 03/04/08

CHEMICAL	S (mg/m^3- min - shower)	Lifetime Chronic Daily Intake (mg/kg/day)	Chronic Daily Intake (mg/kg/day)	Cancer Slope Factor $(mg/kg/day)^{-1}$	Reference Dose (mg/kg/day)	Lifetime Cancer Risk	Percent Cancer Risk	Hazard Quotient	Percent Hazard Quotient
BENZENE	1.56E-04	1.7E-07	5.8E-06	2.70E-02	8.57E-03	4.5E-09	100.0%	6.8E-04	0.9%
NAPHTHALENE	1.63E-03	1.7E-06	6.1E-05		8.57E-04	NA	NA	7.1E-02	99.1%
					Total	**4.5E-09**	**100.0%**	**7.2E-02**	**100.0%**

TABLE 4.9

VALUES USED FOR DAILY INTAKE CALCULATIONS
EXPOSURE OF CONSTRUCTION WORKERS TO SEDIMENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Csoil	Chemical Concentration in Soil	mg/kg	95% UCL or Max	USEPA, December 2002	95% UCL or Max	USEPA, December 2002	Ingestion Intake (mg/kg/day) =
	IR	Ingestion Rate of Soil	mg/day	330	USEPA, December 2002	165	Professional Judgment	Csed x IR x Fi x EF x ED x CF
	Fi	Fraction Ingested	unitless	1	USEPA, May 1993	1	USEPA, May 1993	BW x AT
	EF	Exposure Frequency	days/year	30	IEPA, April 2004	30	IEPA, April 2004	U.S. EPA, December 1989
	ED	Exposure Duration	years	1	Professional judgment	1	Professional judgment	
	CF	Conversion Factor	kg/mg	1.0E-06	USEPA, December 1989	1.0E-06	USEPA, December 1989	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	42	IEPA, Janaury 2003	42	IEPA, Janaury 2003	
Dermal	Csoil	Chemical Concentration in Soil	mg/kg	95% UCL or Max	USEPA, December 2002	95% UCL or Max	USEPA, December 2002	Dermal Intake (mg/kg/day) =
	CF	Conversion Factor	kg/mg	1.0E-06	USEPA, December 1989	1.0E-06	USEPA, December 1989	Csed x CF x SA x AF x ABS x EF x ED
	SA	Skin Surface Area	cm^2/day	3,300	USEPA, July 2004	3,300	USEPA, July 2004	BW x AT
	AF	Soil to Skin Adherence Factor	mg/cm^2	0.3	USEPA, July 2004	0.1	USEPA, July 2004	U.S. EPA, December 1989
	ABS	Dermal Absorption Factor (Solid)	unitless	chemical specific	USEPA, July 2004	chemical specific	USEPA, July 2004	
	EF	Exposure Frequency	days/year	30	IEPA, April 2004	30	IEPA, April 2004	
	ED	Exposure Duration	years	1	USEPA, May 1993	1	USEPA, May 1993	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	42	IEPA, Janaury 2003	42	IEPA, Janaury 2003	

Daily Intake Calculations

Ingestion Intake = (IR x Fi x EF x ED x CF) / (BW x AT)
Dermal Intake = (CF x SA x AF x ABS x EF x ED) / (BW x AT)

Cancer Ingestion Intake - RME = 5.54E-09
Noncancer Ingestion Intake - RME = 3.37E-06

Cancer Ingestion Intake - CTE = 2.77E-09
Noncancer Ingestion Intake - CTE = 1.68E-06

Cancer Dermal Intake - RME = 1.66E-08
Noncancer Dermal Intake - RME = 1.01E-05

Cancer Dermal Intake - CTE = 5.54E-09
Noncancer Dermal Intake - CTE = 3.37E-06

TABLE 7.9 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF CONSTRUCTION WORKERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	5.4E-11	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.0E-05	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	2.8E-06	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	2.9E-02	mg/kg-day	2.0E+00	mg/kg-day	NA	NA	1.4E-02
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	2.9E-05	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	9.5E-02
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	9.0E-05	mg/kg-day	8.0E-03	mg/kg-day	NA	NA	1.1E-02
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	7.2E-02	mg/kg-day	7.0E-01	mg/kg-day	NA	NA	1.0E-01
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	1.5E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.9E-03
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	8.0E-05	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	1.1E-02
	(total)												**2.4E-01**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	4.8E-12	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	3.9E-06	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	1.2E-06	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day	2.0E+00	mg/kg-day	NA	NA	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	2.6E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	8.6E-03
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day	2.0E-04	mg/kg-day	NA	NA	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day	7.0E-01	mg/kg-day	NA	NA	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day	8.0E-04	mg/kg-day	NA	NA	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day	1.8E-04	mg/kg-day	NA	NA	
	(total)												**8.6E-03**
												Total Hazard Index Across All Exposure Routes/Pathways	**2.5E-01**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 8.9 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF CONSTRUCTION WORKERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	8.9E-14	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	1.3E-08
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.7E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.2E-07
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	4.5E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	9.1E-09
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	4.7E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	4.7E-08	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	7.1E-08
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	1.5E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	1.2E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	2.4E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	1.3E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**2.1E-07**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	8.0E-15	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	1.2E-09
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	6.5E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	4.7E-08
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	1.9E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	3.8E-09
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	4.2E-09	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	6.4E-09
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**5.9E-08**
										Total Risk Across All Exposure Routes/Pathways	**2.7E-07**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 7.9a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF CONSTRUCTION WORKERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	2.7E-11	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	5.1E-06	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	1.4E-06	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	1.4E-02	mg/kg-day	2.0E+00	mg/kg-day	NA	NA	7.2E-03
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.8E-02
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	4.5E-05	mg/kg-day	8.0E-03	mg/kg-day	NA	NA	5.6E-03
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	3.6E-02	mg/kg-day	7.0E-01	mg/kg-day	NA	NA	5.1E-02
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	7.4E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	9.3E-04
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	4.0E-05	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	5.7E-03
	(total)												**1.2E-01**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.6E-12	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.3E-06	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	3.9E-07	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day	2.0E+00	mg/kg-day	NA	NA	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	8.6E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.9E-03
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day	2.0E-04	mg/kg-day	NA	NA	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day	7.0E-01	mg/kg-day	NA	NA	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day	8.0E-04	mg/kg-day	NA	NA	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day	1.8E-04	mg/kg-day	NA	NA	
	(total)												**2.9E-03**
												Total Hazard Index Across All Exposure Routes/Pathways	**1.2E-01**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 8.9a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF CONSTRUCTION WORKERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	4.4E-14	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	6.6E-09
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	8.3E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	6.1E-08
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	2.3E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	4.5E-09
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	2.4E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	2.4E-08	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	3.5E-08
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	7.4E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	5.9E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	1.2E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	6.6E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.1E-07**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	2.7E-15	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	4.0E-10
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	2.2E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.6E-08
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	6.4E-10	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	1.3E-09
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	1.4E-09	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	2.1E-09
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**2.0E-08**
										Total Risk Across All Exposure Routes/Pathways	**1.3E-07**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03
PAHs - 0.13
PCBs - 0.14
Arsenic - 0.03
Other Metals and Volatiles - not evaluated for dermal contact with soil.

TABLE 4.10

VALUES USED FOR DAILY INTAKE CALCULATIONS
EXPOSURE OF MAINTENANCE WORKERS TO SEDIMENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Maintenance Workers
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Csoil	Chemical Concentration in Soil	mg/kg	95% UCL or Max	USEPA, December 2002	95% UCL or Max	USEPA, December 2002	Ingestion Intake (mg/kg/day) =
	IR	Ingestion Rate of Soil	mg/day	100	USEPA, May 1993	50	USEPA, May 1993	Csed x IR x Fi x EF x ED x CF
	Fi	Fraction Ingested	unitless	1	USEPA, May 1993	1	USEPA, May 1993	BW x AT
	EF	Exposure Frequency	days/year	30	Professional Judgment	15	Professional Judgment	U.S. EPA, December 1989
	ED	Exposure Duration	years	25	USEPA, May 1993	9	USEPA, May 1993	
	CF	Conversion Factor	kg/mg	1.0E-06	USEPA, December 1989	1.0E-06	USEPA, December 1989	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	9,125	USEPA, December 1989	3,285	USEPA, December 1989	
Dermal	Csoil	Chemical Concentration in Soil	mg/kg	95% UCL or Max	USEPA, December 2002	95% UCL or Max	USEPA, December 2002	Dermal Intake (mg/kg/day) =
	CF	Conversion Factor	kg/mg	1.0E-06	USEPA, December 1989	1.0E-06	USEPA, December 1989	Csed x CF x SA x AF x ABS x EF x ED
	SA	Skin Surface Area	cm^2/day	3,300	USEPA, July 2004	3,300	USEPA, July 2004	BW x AT
	AF	Soil to Skin Adherence Factor	mg/cm^2	0.2	USEPA, July 2004	0.02	USEPA, July 2004	U.S. EPA, December 1989
	ABS	Dermal Absorption Factor (Solid)	unitless	chemical specific	USEPA, July 2004	chemical specific	USEPA, July 2004	
	EF	Exposure Frequency	days/year	30	Professional Judgment	15	Professional Judgment	
	ED	Exposure Duration	years	25	USEPA, May 1993	9	USEPA, May 1993	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	9,125	USEPA, December 1989	3,285	USEPA, December 1989	

Daily Intake Calculations

Ingestion Intake = (IR x Fi x EF x ED x CF) / (BW x AT)
Dermal Intake = (CF x SA x AF x ABS x EF x ED) / (BW x AT)

Cancer Ingestion Intake - RME = 4.19E-08
Noncancer Ingestion Intake - RME = 1.17E-07

Cancer Ingestion Intake - CTE = 3.77E-09
Noncancer Ingestion Intake - CTE = 2.94E-08

Cancer Dermal Intake - RME = 2.77E-07
Noncancer Dermal Intake - RME = 7.75E-07

Cancer Dermal Intake - CTE = 4.98E-09
Noncancer Dermal Intake - CTE = 3.87E-08

TABLE 7.10 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF MAINTENANCE WORKERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Maintenance Workers
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.9E-12	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	3.5E-07	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	9.6E-08	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	1.0E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	1.0E-03
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	1.0E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.3E-03
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	3.1E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.0E-03
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	2.5E-03	mg/kg-day	7.0E-01	mg/kg-day	NA	NA	3.6E-03
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	5.2E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	7.4E-04
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	2.8E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	2.8E-03
	(total)												**1.2E-02**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	3.7E-13	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	3.0E-07	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	8.9E-08	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day	1.0E+00	mg/kg-day	NA	NA	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	2.0E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	6.6E-04
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day	7.5E-05	mg/kg-day	NA	NA	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day	7.0E-01	mg/kg-day	NA	NA	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day	7.0E-05	mg/kg-day	NA	NA	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day	2.6E-05	mg/kg-day	NA	NA	
	(total)												**6.6E-04**
												Total Hazard Index Across All Exposure Routes/Pathways	**1.3E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 8.10 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF MAINTENANCE WORKERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Maintenance Workers
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	6.7E-13	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	1.0E-07
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.3E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	9.2E-07
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	3.4E-08	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	6.9E-08
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	3.6E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	3.6E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	5.3E-07
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	1.1E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	9.0E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	1.8E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	9.9E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.6E-06**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.3E-13	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	2.0E-08
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.1E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	7.9E-07
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	3.2E-08	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	6.4E-08
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	7.1E-08	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.1E-07
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**9.8E-07**
										Total Risk Across All Exposure Routes/Pathways	**2.6E-06**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 7.10a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF MAINTENANCE WORKERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Maintenance Workers
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	4.7E-13	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	8.8E-08	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	2.4E-08	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	2.5E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	2.5E-04
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	2.5E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	8.3E-04
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	7.8E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.6E-04
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	6.3E-04	mg/kg-day	7.0E-01	mg/kg-day	NA	NA	9.0E-04
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	1.3E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.8E-04
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	7.0E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	7.0E-04
	(total)												**3.1E-03**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.9E-14	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.5E-08	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	4.4E-09	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day	1.0E+00	mg/kg-day	NA	NA	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	9.9E-09	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.3E-05
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day	7.5E-05	mg/kg-day	NA	NA	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day	7.0E-01	mg/kg-day	NA	NA	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day	7.0E-05	mg/kg-day	NA	NA	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day	2.6E-05	mg/kg-day	NA	NA	
	(total)												**3.3E-05**
												Total Hazard Index Across All Exposure Routes/Pathways	**3.2E-03**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 8.10a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF MAINTENANCE WORKERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Maintenance Workers
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	6.0E-14	mg/kg-day	1.5E+05	(mg/kg-day)$^{-1}$	9.1E-09
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.1E-08	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	8.3E-08
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	3.1E-09	mg/kg-day	2.0E+00	(mg/kg-day)$^{-1}$	6.2E-09
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	3.2E-05	mg/kg-day		(mg/kg-day)$^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	3.2E-08	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	4.8E-08
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	1.0E-07	mg/kg-day		(mg/kg-day)$^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	8.1E-05	mg/kg-day		(mg/kg-day)$^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	1.7E-09	mg/kg-day		(mg/kg-day)$^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	8.9E-08	mg/kg-day		(mg/kg-day)$^{-1}$	
	(total)										**1.5E-07**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	2.4E-15	mg/kg-day	1.5E+05	(mg/kg-day)$^{-1}$	3.6E-10
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.9E-09	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	1.4E-08
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	5.7E-10	mg/kg-day	2.0E+00	(mg/kg-day)$^{-1}$	1.1E-09
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day		(mg/kg-day)$^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	1.3E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	1.9E-09
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day		(mg/kg-day)$^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day		(mg/kg-day)$^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day		(mg/kg-day)$^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day		(mg/kg-day)$^{-1}$	
	(total)										**1.8E-08**
										Total Risk Across All Exposure Routes/Pathways	**1.6E-07**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 *Other Metals and Volatiles - not evaluated for dermal contact with soil.*
PCBs - 0.14

TABLE 4.11

VALUES USED FOR DAILY INTAKE CALCULATIONS
EXPOSURE OF ADOLESCENT TRESPASSERS TO SEDIMENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: *Current/Future*
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Trespasser
Receptor Age: Adolescent (7 - 16 years)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Csoil	Chemical Concentration in Soil	mg/kg	95% UCL or Max	USEPA, December 2002	95% UCL or Max	USEPA, December 2002	Ingestion Intake (mg/kg/day) =
	IR	Ingestion Rate of Soil	mg/day	100	USEPA, May 1993	50	Professional Judgement	Csed x IR x Fi x EF x ED x CF
	Fi	Fraction Ingested	unitless	1	USEPA, May 1993	1	USEPA, May 1993	BW x AT
	EF	Exposure Frequency	days/year	60	Professional Judgement	30	Professional Judgement	U.S. EPA, December 1989
	ED	Exposure Duration	years	10	Adolescent, Age 7 - 16	10	Adolescent, Age 7 - 16	
	CF	Conversion Factor	kg/mg	1.0E-06	USEPA, December 1989	1.0E-06	USEPA, December 1989	
	BW	Body Weight	kg	42	USEPA, August 1997	42	USEPA, August 1997	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	3,650	USEPA, December 1989	3,650	USEPA, December 1989	
Dermal	Csoil	Chemical Concentration in Soil	mg/kg	95% UCL or Max	USEPA, December 2002	95% UCL or Max	USEPA, December 2002	Dermal Intake (mg/kg/day) =
	CF	Conversion Factor	kg/mg	1.0E-06	USEPA, December 1989	1.0E-06	USEPA, December 1989	Csed x CF x SA x AF x ABS x EF x ED
	SA	Skin Surface Area	cm^2/day	3,280	USEPA, August 1997	3,100	USEPA, August 1997	BW x AT
	AF	Soil to Skin Adherence Factor	mg/cm^2	0.2	USEPA, July 2004	0.04	USEPA, July 2004	U.S. EPA, December 1989
	ABS	Dermal Absorption Factor (Solid)	unitless	chemical specific	USEPA, July 2004	chemical specific	USEPA, July 2004	
	EF	Exposure Frequency	days/year	60	Professional Judgement	30	Professional Judgement	
	ED	Exposure Duration	years	10	Adolescent, Age 7 - 16	10	Adolescent, Age 7 - 16	
	BW	Body Weight	kg	42	USEPA, August 1997	42	USEPA, August 1997	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	3,650	USEPA, December 1989	3,650	USEPA, December 1989	

Daily Intake Calculations

Ingestion Intake = (IR x Fi x EF x ED x CF) / (BW x AT)
Dermal Intake = (CF x SA x AF x ABS x EF x ED) / (BW x AT)

Cancer Ingestion Intake - RME = 5.59E-08
Noncancer Ingestion Intake - RME = 3.91E-07

Cancer Ingestion Intake - CTE = 1.40E-08
Noncancer Ingestion Intake - CTE = 9.78E-08

Cancer Dermal Intake - RME = 3.67E-07
Noncancer Dermal Intake - RME = 2.57E-06

Cancer Dermal Intake - CTE = 3.47E-08
Noncancer Dermal Intake - CTE = 2.43E-07

TABLE 7.11 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF ADOLESCENT TRESPASSERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Trespasser
Receptor Age: Adolescent (7 - 16 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	6.3E-12	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.2E-06	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	3.2E-07	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	3.3E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	3.3E-03
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	3.3E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.1E-02
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	1.0E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.5E-03
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	8.4E-03	mg/kg-day	7.0E-01	mg/kg-day	NA	NA	1.2E-02
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	1.7E-07	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	2.5E-03
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	9.3E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	9.3E-03
	(total)												**4.2E-02**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.2E-12	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.0E-06	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	2.9E-07	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day	1.0E+00	mg/kg-day	NA	NA	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	6.5E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.2E-03
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day	7.5E-05	mg/kg-day	NA	NA	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day	7.0E-01	mg/kg-day	NA	NA	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day	7.0E-05	mg/kg-day	NA	NA	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day	2.6E-05	mg/kg-day	NA	NA	
	(total)												**2.2E-03**
												Total Hazard Index Across All Exposure Routes/Pathways	**4.4E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 8.11 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF ADOLESCENT TRESPASSERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Trespasser
Receptor Age: Adolescent (7 - 16 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	8.9E-13	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	1.3E-07
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.7E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.2E-06
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	4.6E-08	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	9.2E-08
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	4.8E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	4.8E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	7.1E-07
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	1.5E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	1.2E-03	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	2.5E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	1.3E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**2.2E-06**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.8E-13	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	2.6E-08
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.4E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.0E-06
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	4.2E-08	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	8.4E-08
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	9.4E-08	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.4E-07
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.3E-06**
										Total Risk Across All Exposure Routes/Pathways	**3.5E-06**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 7.11a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF ADOLESCENT TRESPASSERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Trespasser
Receptor Age: Adolescent (7 - 16 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.6E-12	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	2.9E-07	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	8.0E-08	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	8.3E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	8.3E-04
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	8.3E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.8E-03
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	2.6E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	8.7E-04
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	2.1E-03	mg/kg-day	7.0E-01	mg/kg-day	NA	NA	3.0E-03
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	4.3E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	6.2E-04
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	2.3E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	2.3E-03
	(total)												**1.0E-02**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.2E-13	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	9.5E-08	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	2.8E-08	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day	1.0E+00	mg/kg-day	NA	NA	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	6.2E-08	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.1E-04
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day	7.5E-05	mg/kg-day	NA	NA	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day	7.0E-01	mg/kg-day	NA	NA	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day	7.0E-05	mg/kg-day	NA	NA	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day	2.6E-05	mg/kg-day	NA	NA	
	(total)												**2.1E-04**
												Total Hazard Index Across All Exposure Routes/Pathways	**1.1E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 8.11a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF ADOLESCENT TRESPASSERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Trespasser
Receptor Age: Adolescent (7 - 16 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	2.2E-13	mg/kg-day	1.5E+05	(mg/kg-day)$^{-1}$	3.4E-08
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	4.2E-08	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	3.1E-07
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	1.1E-08	mg/kg-day	2.0E+00	(mg/kg-day)$^{-1}$	2.3E-08
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	1.2E-04	mg/kg-day		(mg/kg-day)$^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	1.8E-07
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	3.7E-07	mg/kg-day		(mg/kg-day)$^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	3.0E-04	mg/kg-day		(mg/kg-day)$^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	6.2E-09	mg/kg-day		(mg/kg-day)$^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	3.3E-07	mg/kg-day		(mg/kg-day)$^{-1}$	
	(total)										**5.4E-07**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.7E-14	mg/kg-day	1.5E+05	(mg/kg-day)$^{-1}$	2.5E-09
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.4E-08	mg/kg-day	7.3E+00	(mg/kg-day)$^{-1}$	9.9E-08
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	4.0E-09	mg/kg-day	2.0E+00	(mg/kg-day)$^{-1}$	8.0E-09
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day		(mg/kg-day)$^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day)$^{-1}$	1.3E-08
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day		(mg/kg-day)$^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day		(mg/kg-day)$^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day		(mg/kg-day)$^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day		(mg/kg-day)$^{-1}$	
	(total)										**1.2E-07**
										Total Risk Across All Exposure Routes/Pathways	**6.6E-07**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03
PAHs - 0.13
PCBs - 0.14
Arsenic - 0.03
Other Metals and Volatiles - not evaluated for dermal contact with soil.

TABLE 4.12

VALUES USED FOR DAILY INTAKE CALCULATIONS
EXPOSURE OF ADULT RECREATIONAL USERS TO SEDIMENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Recreational User
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Csoil	Chemical Concentration in Soil	mg/kg	95% UCL or Max	USEPA, December 2002	95% UCL or Max	USEPA, December 2002	Ingestion Intake (mg/kg/day) =
	IR	Ingestion Rate of Soil	mg/day	100	USEPA, May 1993	50	USEPA, May 1993	Csed x IR x Fi x EF x ED x CF
	Fi	Fraction Ingested	unitless	1	USEPA, May 1993	1	USEPA, May 1993	BW x AT
	EF	Exposure Frequency	days/year	30	Professional judgment	15	Professional judgment	U.S. EPA, December 1989
	ED	Exposure Duration	years	24	USEPA, May 1993	7	USEPA, May 1993	
	CF	Conversion Factor	kg/mg	1.0E-06	USEPA, December 1989	1.0E-06	USEPA, December 1989	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, December 1989	2,555	USEPA, December 1989	
Dermal	Csoil	Chemical Concentration in Soil	mg/kg	95% UCL or Max	USEPA, December 2002	95% UCL or Max	USEPA, December 2002	Dermal Intake (mg/kg/day) =
	CF	Conversion Factor	kg/mg	1.0E-06	USEPA, December 1989	1.0E-06	USEPA, December 1989	Csed x CF x SA x AF x ABS x EF x ED
	SA	Skin Surface Area	cm^2/day	5,700	USEPA, July 2004	5,700	USEPA, July 2004	BW x AT
	AF	Soil to Skin Adherence Factor	mg/cm^2	0.07	USEPA, July 2004	0.01	USEPA, July 2004	U.S. EPA, December 1989
	ABS	Dermal Absorption Factor (Solid)	unitless	chemical specific	USEPA, July 2004	chemical specific	USEPA, July 2004	
	EF	Exposure Frequency	days/year	30	Professional judgment	15	Professional judgment	
	ED	Exposure Duration	years	24	USEPA, May 1993	7	USEPA, May 1993	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, December 1989	2,555	USEPA, December 1989	

Daily Intake Calculations

Ingestion Intake = (IR x Fi x EF x ED x CF) / (BW x AT)
Dermal Intake = (CF x SA x AF x ABS x EF x ED) / (BW x AT)

Cancer Ingestion Intake - RME = 4.03E-08
Noncancer Ingestion Intake - RME = 1.17E-07

Cancer Ingestion Intake - CTE = 2.94E-09
Noncancer Ingestion Intake - CTE = 2.94E-08

Cancer Dermal Intake - RME = 1.61E-07
Noncancer Dermal Intake - RME = 4.68E-07

Cancer Dermal Intake - CTE = 3.35E-09
Noncancer Dermal Intake - CTE = 3.35E-08

TABLE 7.12 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF ADULT RECREATIONAL USERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.9E-12	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	3.5E-07	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	9.6E-08	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	1.0E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	1.0E-03
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	1.0E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.3E-03
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	3.1E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.0E-03
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	2.5E-03	mg/kg-day	7.0E-01	mg/kg-day	NA	NA	3.6E-03
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	5.2E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	7.4E-04
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	2.8E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	2.8E-03
	(total)												**1.2E-02**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	2.2E-13	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.8E-07	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	5.4E-08	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day	1.0E+00	mg/kg-day	NA	NA	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	1.2E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.0E-04
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day	7.5E-05	mg/kg-day	NA	NA	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day	7.0E-01	mg/kg-day	NA	NA	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day	7.0E-05	mg/kg-day	NA	NA	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day	2.6E-05	mg/kg-day	NA	NA	
	(total)												**4.0E-04**
												Total Hazard Index Across All Exposure Routes/Pathways	**1.3E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 8.12 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF ADULT RECREATIONAL USERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Recrerational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	6.4E-13	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	9.7E-08
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.2E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	8.8E-07
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	3.3E-08	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	6.6E-08
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	3.4E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	3.4E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	5.1E-07
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	1.1E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	8.6E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	1.8E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	9.5E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.6E-06**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	7.7E-14	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	1.2E-08
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	6.3E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	4.6E-07
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	1.8E-08	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	3.7E-08
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	4.1E-08	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	6.1E-08
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**5.7E-07**
										Total Risk Across All Exposure Routes/Pathways	**2.1E-06**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 7.12a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF ADULT RECREATIONAL USERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	4.7E-13	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	8.8E-08	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	2.4E-08	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	2.5E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	2.5E-04
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	2.5E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	8.3E-04
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	7.8E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.6E-04
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	6.3E-04	mg/kg-day	7.0E-01	mg/kg-day	NA	NA	9.0E-04
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	1.3E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.8E-04
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	7.0E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	7.0E-04
	(total)												**3.1E-03**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.6E-14	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.3E-08	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	3.8E-09	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day	1.0E+00	mg/kg-day	NA	NA	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	8.5E-09	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.8E-05
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day	7.5E-05	mg/kg-day	NA	NA	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day	7.0E-01	mg/kg-day	NA	NA	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day	7.0E-05	mg/kg-day	NA	NA	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day	2.6E-05	mg/kg-day	NA	NA	
	(total)												**2.8E-05**
												Total Hazard Index Across All Exposure Routes/Pathways	**3.1E-03**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 8.12a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF ADULT RECREATIONAL USERS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Recrerational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	4.7E-14	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	7.0E-09
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	8.8E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	6.4E-08
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	2.4E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	4.8E-09
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	2.5E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	2.5E-08	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	3.7E-08
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	7.8E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	6.3E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	1.3E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	7.0E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.1E-07**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.6E-15	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	2.4E-10
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.3E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	9.5E-09
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	3.8E-10	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	7.7E-10
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	8.5E-10	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.3E-09
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.2E-08**
										Total Risk Across All Exposure Routes/Pathways	**1.3E-07**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03
PAHs - 0.13
PCBs - 0.14
Arsenic - 0.03
Other Metals and Volatiles - not evaluated for dermal contact with soil.

TABLE 4.13

VALUES USED FOR DAILY INTAKE CALCULATIONS
EXPOSURE OF FUTURE CHILD RESIDENTS TO SEDIMENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Resident
Receptor Age: Child (0 - 6 years of age)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Csoil	Chemical Concentration in Soil	mg/kg	95% UCL or Max	USEPA, December 2002	95% UCL or Max	USEPA, December 2002	Ingestion Intake (mg/kg/day) =
	IR	Ingestion Rate of Soil	mg/day	200	USEPA, May 1993	100	USEPA, May 1993	Csed x IR x Fi x EF x ED x CF
	Fi	Fraction Ingested	unitless	1	USEPA, May 1993	1	USEPA, May 1993	BW x AT
	EF	Exposure Frequency	days/year	30	Professional Judgement	15	Professional Judgement	U.S. EPA, December 1989
	ED	Exposure Duration	years	6	USEPA, May 1993	2	USEPA, May 1993	
	CF	Conversion Factor	kg/mg	1.0E-06	USEPA, December 1989	1.0E-06	USEPA, December 1989	
	BW	Body Weight	kg	15	USEPA, May 1993	15	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	2,190	USEPA, December 1989	730	USEPA, December 1989	
Dermal	Csoil	Chemical Concentration in Soil	mg/kg	95% UCL or Max	USEPA, December 2002	95% UCL or Max	USEPA, December 2002	Dermal Intake (mg/kg/day) =
	CF	Conversion Factor	kg/mg	1.0E-06	USEPA, December 1989	1.0E-06	USEPA, December 1989	Csed x CF x SA x AF x ABS x EF x ED
	SA	Skin Surface Area	cm^2/day	2,800	USEPA, July 2004	2,800	USEPA, July 2004	BW x AT
	AF	Soil to Skin Adherence Factor	mg/cm^2	0.2	USEPA, July 2004	0.04	USEPA, July 2004	U.S. EPA, December 1989
	ABS	Dermal Absorption Factor (Solid)	unitless	chemical specific	USEPA, July 2004	chemical specific	USEPA, July 2004	
	EF	Exposure Frequency	days/year	30	Professional Judgement	15	Professional Judgement	
	ED	Exposure Duration	years	6	USEPA, December 1989	2	USEPA, December 1989	
	BW	Body Weight	kg	15	USEPA, May 1993	15	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	2,190	USEPA, December 1989	730	USEPA, December 1989	

Daily Intake Calculations

Ingestion Intake = (IR x Fi x EF x ED x CF) / (BW x AT)
Dermal Intake = (CF x SA x AF x ABS x EF x ED) / (BW x AT)

Cancer Ingestion Intake - RME = 9.39E-08
Noncancer Ingestion Intake - RME = 1.10E-06

Cancer Ingestion Intake - CTE = 7.83E-09
Noncancer Ingestion Intake - CTE = 2.74E-07

Cancer Dermal Intake - RME = 2.63E-07
Noncancer Dermal Intake - RME = 3.07E-06

Cancer Dermal Intake - CTE = 8.77E-09
Noncancer Dermal Intake - CTE = 3.07E-07

TABLE 7.13 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF FUTURE CHILD RESIDENTS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Resident
Receptor Age: Child (0 - 6 years of age)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.8E-11	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	3.3E-06	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	9.0E-07	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	9.3E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	9.3E-03
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	9.3E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.1E-02
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	2.9E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	9.7E-03
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	2.3E-02	mg/kg-day	7.0E-01	mg/kg-day	NA	NA	3.4E-02
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	4.8E-07	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	6.9E-03
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	2.6E-05	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	2.6E-02
	(total)												**1.2E-01**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.5E-12	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.2E-06	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	3.5E-07	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day	1.0E+00	mg/kg-day	NA	NA	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	7.8E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.6E-03
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day	7.5E-05	mg/kg-day	NA	NA	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day	7.0E-01	mg/kg-day	NA	NA	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day	7.0E-05	mg/kg-day	NA	NA	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day	2.6E-05	mg/kg-day	NA	NA	
	(total)												**2.6E-03**
												Total Hazard Index Across All Exposure Routes/Pathways	**1.2E-01**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 8.13 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF FUTURE CHILD RESIDENTS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Resident
Receptor Age: Child (0 - 6 years of age)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.5E-12	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	2.3E-07
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	2.8E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.1E-06
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	7.7E-08	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	1.5E-07
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	8.0E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	8.0E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.2E-06
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	2.5E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	2.0E-03	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	4.1E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	2.2E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**3.6E-06**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.3E-13	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	1.9E-08
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.0E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	7.5E-07
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	3.0E-08	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	6.0E-08
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	6.7E-08	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.0E-07
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**9.3E-07**
										Total Risk Across All Exposure Routes/Pathways	**4.6E-06**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 7.13a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF FUTURE CHILD RESIDENTS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Resident
Receptor Age: Child (0 - 6 years of age)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	4.4E-12	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	8.2E-07	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	2.2E-07	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	2.3E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	2.3E-03
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	2.3E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	7.8E-03
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	7.3E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.4E-03
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	5.9E-03	mg/kg-day	7.0E-01	mg/kg-day	NA	NA	8.4E-03
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	1.2E-07	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.7E-03
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	6.5E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	6.5E-03
	(total)												**2.9E-02**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.5E-13	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.2E-07	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	3.5E-08	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day	1.0E+00	mg/kg-day	NA	NA	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	7.8E-08	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.6E-04
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day	7.5E-05	mg/kg-day	NA	NA	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day	7.0E-01	mg/kg-day	NA	NA	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day	7.0E-05	mg/kg-day	NA	NA	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day	2.6E-05	mg/kg-day	NA	NA	
	(total)												**2.6E-04**
												Total Hazard Index Across All Exposure Routes/Pathways	**2.9E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 8.13a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF FUTURE CHILD RESIDENTS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Resident
Receptor Age: Child (0 - 6 years of age)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.3E-13	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	1.9E-08
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	2.3E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	1.7E-07
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	6.4E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	1.3E-08
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	6.7E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	6.7E-08	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.0E-07
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	2.1E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	1.7E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	3.4E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	1.9E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**3.0E-07**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	4.2E-15	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	6.3E-10
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	3.4E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	2.5E-08
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	1.0E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	2.0E-09
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	2.2E-09	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	3.4E-09
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**3.1E-08**
										Total Risk Across All Exposure Routes/Pathways	**3.3E-07**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 4.14

VALUES USED FOR DAILY INTAKE CALCULATIONS
EXPOSURE OF FUTURE ADULT RESIDENTS TO SEDIMENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Csoil	Chemical Concentration in Soil	mg/kg	95% UCL or Max	USEPA, December 2002	95% UCL or Max	USEPA, December 2002	Ingestion Intake (mg/kg/day) =
	IR	Ingestion Rate of Soil	mg/day	100	USEPA, May 1993	50	USEPA, May 1993	Csed x IR x Fi x EF x ED x CF
	Fi	Fraction Ingested	unitless	1	USEPA, May 1993	1	USEPA, May 1993	BW x AT
	EF	Exposure Frequency	days/year	30	Professional Judgment	15	Professional Judgment	U.S. EPA, December 1989
	ED	Exposure Duration	years	24	USEPA, May 1993	7	USEPA, May 1993	
	CF	Conversion Factor	kg/mg	1.0E-06	USEPA, December 1989	1.0E-06	USEPA, December 1989	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, December 1989	2,555	USEPA, December 1989	
Dermal	Csoil	Chemical Concentration in Soil	mg/kg	95% UCL or Max	USEPA, December 2002	95% UCL or Max	USEPA, December 2002	Dermal Intake (mg/kg/day) =
	CF	Conversion Factor	kg/mg	1.0E-06	USEPA, December 1989	1.0E-06	USEPA, December 1989	Csed x CF x SA x AF x ABS x EF x ED
	SA	Skin Surface Area	cm^2/day	5,700	USEPA, July 2004	5,700	USEPA, July 2004	BW x AT
	AF	Soil to Skin Adherence Factor	mg/cm^2	0.07	USEPA, July 2004	0.01	USEPA, July 2004	U.S. EPA, December 1989
	ABS	Dermal Absorption Factor (Solid)	unitless	chemical specific	USEPA, July 2004	chemical specific	USEPA, July 2004	
	EF	Exposure Frequency	days/year	30	Professional Judgment	15	Professional Judgment	
	ED	Exposure Duration	years	24	USEPA, December 1989	7	USEPA, December 1989	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, December 1989	2,555	USEPA, December 1989	

Daily Intake Calculations

Ingestion Intake = (IR x Fi x EF x ED x CF) / (BW x AT)
Dermal Intake = (CF x SA x AF x ABS x EF x ED) / (BW x AT)

Cancer Ingestion Intake - RME = 4.03E-08
Noncancer Ingestion Intake - RME = 1.17E-07

Cancer Ingestion Intake - CTE = 2.94E-09
Noncancer Ingestion Intake - CTE = 2.94E-08

Cancer Dermal Intake - RME = 1.61E-07
Noncancer Dermal Intake - RME = 4.68E-07

Cancer Dermal Intake - CTE = 3.35E-09
Noncancer Dermal Intake - CTE = 3.35E-08

TABLE 7.14 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF FUTURE ADULT RESIDENTS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.9E-12	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	3.5E-07	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	9.6E-08	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	1.0E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	1.0E-03
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	1.0E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.3E-03
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	3.1E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.0E-03
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	2.5E-03	mg/kg-day	7.0E-01	mg/kg-day	NA	NA	3.6E-03
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	5.2E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	7.4E-04
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	2.8E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	2.8E-03
	(total)												**1.2E-02**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	2.2E-13	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.8E-07	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	5.4E-08	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day	1.0E+00	mg/kg-day	NA	NA	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	1.2E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.0E-04
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day	7.5E-05	mg/kg-day	NA	NA	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day	7.0E-01	mg/kg-day	NA	NA	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day	7.0E-05	mg/kg-day	NA	NA	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day	2.6E-05	mg/kg-day	NA	NA	
	(total)												**4.0E-04**
												Total Hazard Index Across All Exposure Routes/Pathways	**1.3E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 8.14 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF FUTURE ADULT RESIDENTS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	6.4E-13	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	9.7E-08
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.2E-07	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	8.8E-07
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	3.3E-08	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	6.6E-08
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	3.4E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	3.4E-07	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	5.1E-07
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	1.1E-06	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	8.6E-04	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	1.8E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	9.5E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.6E-06**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	7.7E-14	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	1.2E-08
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	6.3E-08	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	4.6E-07
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	1.8E-08	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	3.7E-08
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	4.1E-08	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	6.1E-08
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**5.7E-07**
										Total Risk Across All Exposure Routes/Pathways	**2.1E-06**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03
PAHs - 0.13
PCBs - 0.14
Arsenic - 0.03
Other Metals and Volatiles - not evaluated for dermal contact with soil.

TABLE 7.14a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF FUTURE ADULT RESIDENTS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	4.7E-13	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	8.8E-08	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	2.4E-08	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	2.5E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	2.5E-04
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	2.5E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	8.3E-04
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	7.8E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.6E-04
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	6.3E-04	mg/kg-day	7.0E-01	mg/kg-day	NA	NA	9.0E-04
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	1.3E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.8E-04
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	7.0E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	7.0E-04
	(total)												**3.1E-03**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.6E-14	mg/kg-day		mg/kg-day	NA	NA	
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.3E-08	mg/kg-day		mg/kg-day	NA	NA	
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	3.8E-09	mg/kg-day		mg/kg-day	NA	NA	
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day	1.0E+00	mg/kg-day	NA	NA	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	8.5E-09	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.8E-05
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day	7.5E-05	mg/kg-day	NA	NA	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day	7.0E-01	mg/kg-day	NA	NA	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day	7.0E-05	mg/kg-day	NA	NA	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day	2.6E-05	mg/kg-day	NA	NA	
	(total)												**2.8E-05**
												Total Hazard Index Across All Exposure Routes/Pathways	**3.1E-03**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03 Arsenic - 0.03
PAHs - 0.13 Other Metals and Volatiles - not evaluated for dermal contact with soil.
PCBs - 0.14

TABLE 8.14a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF FUTURE ADULT RESIDENTS TO SEDIMENT
VALUES USED FOR DAILY INTAKE CALCULATIONS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Skokie Ditch
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	4.7E-14	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	7.0E-09
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	8.8E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	6.4E-08
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	2.4E-09	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	4.8E-09
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M	2.5E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	2.5E-08	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	3.7E-08
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M	7.8E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M	6.3E-05	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M	1.3E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M	7.0E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.1E-07**
Dermal	2,3,7,8-TCDD TEQ (1/2 ND)	1.6E-05	mg/kg	1.60E-05	mg/kg	M	1.6E-15	mg/kg-day	1.5E+05	$(mg/kg\text{-}day)^{-1}$	2.4E-10
	BAP EQUIVALENT (1/2 ND)	3.0E+00	mg/kg	3.00E+00	mg/kg	M	1.3E-09	mg/kg-day	7.3E+00	$(mg/kg\text{-}day)^{-1}$	9.5E-09
	AROCLOR-1248	8.2E-01	mg/kg	8.20E-01	mg/kg	M	3.8E-10	mg/kg-day	2.0E+00	$(mg/kg\text{-}day)^{-1}$	7.7E-10
	ALUMINUM	8.5E+03	mg/kg	8.52E+03	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	ARSENIC	8.5E+00	mg/kg	8.50E+00	mg/kg	M	8.5E-10	mg/kg-day	1.5E+00	$(mg/kg\text{-}day)^{-1}$	1.3E-09
	CHROMIUM	2.7E+01	mg/kg	2.66E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	IRON	2.1E+04	mg/kg	2.14E+04	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	4.4E-01	mg/kg	4.40E-01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	VANADIUM	2.4E+01	mg/kg	2.37E+01	mg/kg	M		mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.2E-08**
										Total Risk Across All Exposure Routes/Pathways	**1.3E-07**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for risk calculation.

Dermal Absorption Fraction from Soil(ABS) (USEPA, July 2004):

Dioxins/furans - 0.03
PAHs - 0.13
PCBs - 0.14
Arsenic - 0.03
Other Metals and Volatiles - not evaluated for dermal contact with soil.

TABLE 4.15
VALUES OF DAILY INTAKE CALCULATIONS FOR EXPOSURE OF CONSTRUCTION WORKERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Cw	Chemical Concentration in Water	(mg/L)	Maximum	USEPA, December 2002	Maximum	USEPA, December 2002	Chronic Daily Intake (CDI) (mg/kg-day)=
	IR	Ingestion Rate of Surface Water	(L/hr)	0.01	USEPA Region 4, May 2000	0.01	USEPA Region 4, May 2000	Cw x IR x ET x EF x ED / BW x AT
	EF	Exposure Frequency	(days/year)	30	IEPA, April 2004	30	IEPA, April 2004	
	ED	Exposure Duration	(years)	1	USEPA, May 1993	1	USEPA, May 1993	
	ET	Exposure Time	(hr/day)	4	Professional judgment	2	Professional judgment	
	BW	Body Weight	(kg)	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	(days)	25550	USEPA, December 1989	25550	USEPA, December 1989	
	AT-N	Averaging Time (Noncancer)	(days)	42	IEPA, Janaury 2003	42	IEPA, Janaury 2003	
Dermal	Cw	Chemical Concentration in Water	mg/L	Maximum	USEPA, December 2002	Maximum	USEPA, December 2002	The equations and parameters for
	A	Skin Surface Area	cm^2	3,300	USEPA, July 2004	3,300	USEPA, July 2004	for estimating DAevent and the chemical-
	DAevent	Absorbed Dose per Event	mg/cm^2-event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	specific dermally absorbed dose from
	EV	Event Frequency	event/day	1	Professional judgement	1	Professional judgement	water (DAD) are provided in Section 6.2.4
	ED	Exposure Duration	years	1	USEPA, May 1993	1	USEPA, May 1993	of the text.
	EF	Exposure Frequency	days/year	30	IEPA, April 2004	30	IEPA, April 2004	
	t_{event}	Duration of Event	hour/event	4	Professional judgement	2	Professional judgement	USEPA, July 2004
	t*	Time to reach steady state	hour/event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	T	Lag Time	hour/event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	B	Bunge Model Constant	dimensionless	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	Kp	Permeability Coefficient from Water	cm/hour	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	42	IEPA, Janaury 2003	42	IEPA, Janaury 2003	

Daily Intake Calculations

Ingestion Intake = (IRgw x EF x ED) / (BW x AT)
Dermal Intake = (A x EV x ED x EF) / (BW x AT)

Cancer Ingestion Intake(RME) = 6.71E-07
Noncancer Ingestion Intake(RME) = 4.08E-04

Cancer Ingestion Intake(CTE) = 3.35E-07
Noncancer Ingestion Intake(CTE) = 2.04E-04

Cancer Dermal Intake(RME) = 5.54E-02
Noncancer Dermal Intake(RME) = 3.37E+01

Cancer Dermal Intake(CTE) = 5.54E-02
Noncancer Dermal Intake(CTE) = 3.37E+01

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH SURFACE WATER
CONSTRUCTION WORKERS - REASONABLE MAXIMUM EXPOSURE (RME)

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: USEPA, JULY 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS: IF tevent < t*, DAevent = 2FA x Kp x C x CF x (6T x tevent/3.1416)$^{0.5}$

IF tevent > t*, DAevent = FA x Kp x C x CF x ((tevent/(1 + B)) + (2T x ((1+3B+3B^2)/(1 + B)^2)))

WHERE:

CHEMICAL	SW CONC. (mg/L)	ORGANIC OR INORGANIC?	t* (HR)	tevent	T (HR)	Kp (CM/HR)	B	DAevent	FA	DAevent
VINYL CHLORIDE	3.40E-04	o	5.73E-01	4.00E+00	2.39E-01	5.60E-03	1.70E-02	8.41E-09	1	8.41E-09
BAP EQUIVALENT (1/2 ND)	2.00E-04	o	1.17E+01	4.00E+00	2.69E+00	7.01E-01	4.27E+00	1.27E-06	1	1.27E-06
2,3,7,8-TCDD TEQ (1/2 ND)	4.00E-09	o	3.01E+01	4.00E+00	6.82E+00	8.07E-01	5.57E+00	4.66E-11	0.5	2.33E-11
ANTIMONY	3.60E-03	i		4.00E+00		1.00E-03		1.44E-08	1	1.44E-08
THALLIUM	5.10E-03	i		4.00E+00		1.00E-03		2.04E-08	1	2.04E-08

TABLE 7.15 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF CONSTRUCTION WORKERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	VINYL CHLORIDE	3.40E-04	mg/L	3.40E-04	mg/L	M	1.4E-07	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	4.6E-05
	BAP EQUIVALENT (1/2 ND	2.00E-04	mg/L	2.00E-04	mg/L	M	8.2E-08	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	1.6E-12	mg/kg-day		mg/kg-day	NA	NA	
	ANTIMONY	3.60E-03	mg/L	3.60E-03	mg/L	M	1.5E-06	mg/kg-day	2.00E-04	mg/kg-day	NA	NA	7.3E-03
	THALLIUM	5.10E-03	mg/L	5.10E-03	mg/L	M	2.1E-06	mg/kg-day	8.00E-04	mg/kg-day	NA	NA	2.6E-03
	(total)												**1.0E-02**
Dermal	VINYL CHLORIDE	3.40E-04	mg/L	3.40E-04	mg/L	M	2.8E-07	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	9.4E-05
	BAP EQUIVALENT (1/2 ND	2.00E-04	mg/L	2.00E-04	mg/L	M	4.3E-05	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	7.9E-10	mg/kg-day		mg/kg-day	NA	NA	
	ANTIMONY	3.60E-03	mg/L	3.60E-03	mg/L	M	4.8E-07	mg/kg-day	3.00E-05	mg/kg-day	NA	NA	1.6E-02
	THALLIUM	5.10E-03	mg/L	5.10E-03	mg/L	M	6.9E-07	mg/kg-day	8.00E-04	mg/kg-day	NA	NA	8.6E-04
	(total)												**1.7E-02**
												Total Hazard Index Across All Exposure Routes/Pathways	**2.7E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.15 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF CONSTRUCTION WORKERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	VINYL CHLORIDE	3.40E-04	mg/L	3.40E-04	mg/L	M	2.3E-10	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	1.6E-10
	BAP EQUIVALENT (1/2 ND	2.00E-04	mg/L	2.00E-04	mg/L	M	1.3E-10	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	9.8E-10
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	2.7E-15	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	4.0E-10
	ANTIMONY	3.60E-03	mg/L	3.60E-03	mg/L	M	2.4E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	5.10E-03	mg/L	5.10E-03	mg/L	M	3.4E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.5E-09**
Dermal	VINYL CHLORIDE	3.40E-04	mg/L	3.40E-04	mg/L	M	4.7E-10	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	3.4E-10
	BAP EQUIVALENT (1/2 ND	2.00E-04	mg/L	2.00E-04	mg/L	M	7.0E-08	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	5.1E-07
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	1.3E-12	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	1.9E-07
	ANTIMONY	3.60E-03	mg/L	3.60E-03	mg/L	M	8.0E-10	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	5.10E-03	mg/L	5.10E-03	mg/L	M	1.1E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**7.1E-07**
										Total Risk Across All Exposure Routes/Pathways	**7.1E-07**

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH SURFACE WATER
CONSTRUCTION WORKERS - CENTRAL TENDENCY EXPOSURE (CTE)

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: USEPA, JULY 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS:
IF tevent < t*, DAevent = 2FA x Kp x C x CF x (6T x tevent/3.1416)$^{0.5}$
IF tevent > t*, DAevent = FA x Kp x C x CF x ((tevent/(1 + B)) + (2T x ((1+3B+3B^2)/(1 + B)^2)))

WHERE:

CHEMICAL	SW CONC. (mg/L)	ORGANIC OR INORGANIC?	t* (HR)	tevent	T (HR)	Kp (CM/HR)	B	DAevent	FA	DAevent
VINYL CHLORIDE	3.40E-04	o	5.73E-01	2.00E+00	2.39E-01	5.60E-03	1.70E-02	4.67E-09	1	4.67E-09
BAP EQUIVALENT (1/2 ND)	2.00E-04	o	1.17E+01	2.00E+00	2.69E+00	7.01E-01	4.27E+00	8.99E-07	1	8.99E-07
2,3,7,8-TCDD TEQ (1/2 ND)	4.00E-09	o	3.01E+01	2.00E+00	6.82E+00	8.07E-01	5.57E+00	3.30E-11	0.5	1.65E-11
ANTIMONY	3.60E-03	i		2.00E+00		1.00E-03		7.20E-09	1	7.20E-09
THALLIUM	5.10E-03	i		2.00E+00		1.00E-03		1.02E-08	1	1.02E-08

TABLE 7.15a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF CONSTRUCTION WORKERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	VINYL CHLORIDE	3.40E-04	mg/L	3.40E-04	mg/L	M	6.9E-08	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	2.3E-05
	BAP EQUIVALENT (1/2 ND	2.00E-04	mg/L	2.00E-04	mg/L	M	4.1E-08	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	8.2E-13	mg/kg-day		mg/kg-day	NA	NA	
	ANTIMONY	3.60E-03	mg/L	3.60E-03	mg/L	M	7.3E-07	mg/kg-day	2.00E-04	mg/kg-day	NA	NA	3.7E-03
	THALLIUM	5.10E-03	mg/L	5.10E-03	mg/L	M	1.0E-06	mg/kg-day	8.00E-04	mg/kg-day	NA	NA	1.3E-03
	(total)												**5.0E-03**
Dermal	VINYL CHLORIDE	3.40E-04	mg/L	3.40E-04	mg/L	M	1.6E-07	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	5.2E-05
	BAP EQUIVALENT (1/2 ND	2.00E-04	mg/L	2.00E-04	mg/L	M	3.0E-05	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	5.6E-10	mg/kg-day		mg/kg-day	NA	NA	
	ANTIMONY	3.60E-03	mg/L	3.60E-03	mg/L	M	2.4E-07	mg/kg-day	3.00E-05	mg/kg-day	NA	NA	8.1E-03
	THALLIUM	5.10E-03	mg/L	5.10E-03	mg/L	M	3.4E-07	mg/kg-day	8.00E-04	mg/kg-day	NA	NA	4.3E-04
	(total)												**8.6E-03**
												Total Hazard Index Across All Exposure Routes/Pathways	**1.4E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.15a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF CONSTRUCTION WORKERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	VINYL CHLORIDE	3.40E-04	mg/L	3.40E-04	mg/L	M	1.1E-10	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	8.2E-11
	BAP EQUIVALENT (1/2 ND	2.00E-04	mg/L	2.00E-04	mg/L	M	6.7E-11	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	4.9E-10
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	1.3E-15	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	2.0E-10
	ANTIMONY	3.60E-03	mg/L	3.60E-03	mg/L	M	1.2E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	5.10E-03	mg/L	5.10E-03	mg/L	M	1.7E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**7.7E-10**
Dermal	VINYL CHLORIDE	3.40E-04	mg/L	3.40E-04	mg/L	M	2.6E-10	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	1.9E-10
	BAP EQUIVALENT (1/2 ND	2.00E-04	mg/L	2.00E-04	mg/L	M	5.0E-08	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	3.6E-07
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	9.1E-13	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	1.4E-07
	ANTIMONY	3.60E-03	mg/L	3.60E-03	mg/L	M	4.0E-10	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	THALLIUM	5.10E-03	mg/L	5.10E-03	mg/L	M	5.6E-10	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**5.0E-07**
										Total Risk Across All Exposure Routes/Pathways	**5.0E-07**

TABLE 4.16
VALUES OF DAILY INTAKE CALCULATIONS FOR EXPOSURE OF MAINTENANCE WORKERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Maintenance Workers
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Cw	Chemical Concentration in Water	(mg/L)	Maximum	USEPA, December 2002	Maximum	USEPA, December 2002	Chronic Daily Intake (CDI) (mg/kg-day)=
	IR	Ingestion Rate of Surface Water	(L/hr)	0.01	USEPA Region 4, May 2000	0.01	USEPA Region 4, May 2000	Cw x IR x ET x EF x ED / BW x AT
	EF	Exposure Frequency	(days/year)	30	Professional judgment	15	Professional judgment	
	ED	Exposure Duration	(years)	25	USEPA, May 1993	9	USEPA, May 1993	
	ET	Exposure Time	(hr/day)	2	Professional judgment	1	Professional judgment	
	BW	Body Weight	(kg)	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	(days)	25550	USEPA, December 1989	25550	USEPA, December 1989	
	AT-N	Averaging Time (Noncancer)	(days)	9125	USEPA, December 1989	3,285	USEPA, December 1989	
Dermal	Cw	Chemical Concentration in Water	mg/L	Maximum	USEPA, December 2002	Maximum	USEPA, December 2002	The equations and parameters for for estimating DAevent and the chemical-specific dermally absorbed dose from water (DAD) are provided in Section 6.2.4 of the text.
	A	Skin Surface Area	cm^2	3,300	USEPA, July 2004	3,300	USEPA, July 2004	
	DAevent	Absorbed Dose per Event	mg/cm^2-event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	EV	Event Frequency	event/day	1	Professional judgement	1	Professional judgement	
	ED	Exposure Duration	years	25	USEPA, May 1993	9	USEPA, May 1993	
	EF	Exposure Frequency	days/year	30	Professional judgment	15	Professional judgment	
	t_{event}	Duration of Event	hour/event	2	Professional judgement	1	Professional judgement	USEPA, July 2004
	t*	Time to reach steady state	hour/event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	T	Lag Time	hour/event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	B	Bunge Model Constant	dimensionless	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	Kp	Permeability Coefficient from Water	cm/hour	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	9,125	USEPA, December 1989	3,285	USEPA, December 1989	

Daily Intake Calculations

Ingestion Intake = (IRgw x EF x ED) / (BW x AT)
Dermal Intake = (A x EV x ED x EF) / (BW x AT)

Cancer Ingestion Intake(RME) = 8.39E-06
Noncancer Ingestion Intake(RME) = 2.35E-05

Cancer Ingestion Intake(CTE) = 7.55E-07
Noncancer Ingestion Intake(CTE) = 5.87E-06

Cancer Dermal Intake(RME) = 1.38E+00
Noncancer Dermal Intake(RME) = 3.87E+00

Cancer Dermal Intake(CTE) = 2.49E-01
Noncancer Dermal Intake(CTE) = 1.94E+00

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH SURFACE WATER
MAINTENANCE WORKERS - REASONABLE MAXIMUM EXPOSURE (RME)

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: USEPA, JULY 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS:
IF tevent < t*, DAevent = 2FA x Kp x C x CF x (6T x tevent/3.1416)$^{0.5}$
IF tevent > t*, DAevent = FA x Kp x C x CF x ((tevent/(1 + B)) + (2T x ((1+3B+3B^2)/(1 + B)^2)))

WHERE:

CHEMICAL	SW CONC. (mg/L)	ORGANIC OR INORGANIC?	t* (HR)	tevent	T (HR)	Kp (CM/HR)	B	DAevent	FA	DAevent
Vinyl Chloride	3.40E-04	o	5.73E-01	2.00E+00	2.39E-01	5.60E-03	1.70E-02	4.67E-09	1	4.67E-09
BAP Equivalent (1/2 ND)	2.00E-04	o	1.17E+01	2.00E+00	2.69E+00	7.01E-01	4.27E+00	8.99E-07	1	8.99E-07
2,3,7,8-TCDD TEQ (1/2 ND)	4.00E-09	o	3.01E+01	2.00E+00	6.82E+00	8.07E-01	5.57E+00	3.30E-11	0.5	1.65E-11
Antimony	3.60E-03	i		2.00E+00		1.00E-03		7.20E-09	1	7.20E-09
Thallium	5.10E-03	i		2.00E+00		1.00E-03		1.02E-08	1	1.02E-08

TABLE 7.16 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF MAINTENANCE WORKERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Maintenance Workers
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	8.0E-09	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	2.7E-06
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	4.7E-09	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	9.4E-14	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	8.5E-08	mg/kg-day	4.00E-04	mg/kg-day	NA	NA	2.1E-04
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	1.2E-07	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	1.7E-03
	(total)												**1.9E-03**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	1.8E-08	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	6.0E-06
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	3.5E-06	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	6.4E-11	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	2.8E-08	mg/kg-day	6.00E-05	mg/kg-day	NA	NA	4.6E-04
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	4.0E-08	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	5.6E-04
	(total)												**1.0E-03**
												Total Hazard Index Across All Exposure Routes/Pathways	**3.0E-03**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.16 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF MAINTENANCE WORKERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: *Surface Water*
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Maintenance Workers
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	2.9E-09	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	2.1E-09
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.7E-09	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	1.2E-08
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	3.4E-14	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	5.0E-09
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	3.0E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	4.3E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.9E-08**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	6.5E-09	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	4.6E-09
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.2E-06	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	9.1E-06
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	2.3E-11	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	3.4E-06
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	1.0E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	1.4E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.3E-05**
										Total Risk Across All Exposure Routes/Pathways	**1.3E-05**

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH SURFACE WATER
MAINTENANCE WORKERS - CENTRAL TENDENCY EXPOSURE (CTE)

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: USEPA, JULY 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS:
IF tevent < t*, DAevent = 2FA x Kp x C x CF x (6T x tevent/3.1416)$^{0.5}$
IF tevent > t*, DAevent = FA x Kp x C x CF x ((tevent/(1 + B)) + (2T x ((1+3B+3B^2)/(1 + B)^2)))

WHERE:

CHEMICAL	SW CONC. (mg/L)	ORGANIC OR INORGANIC?	t* (HR)	tevent	T (HR)	Kp (CM/HR)	B	DAevent	FA	DAevent
Vinyl Chloride	3.40E-04	o	5.73E-01	1.00E+00	2.39E-01	5.60E-03	1.70E-02	2.80E-09	1	2.80E-09
BAP Equivalent (1/2 ND)	2.00E-04	o	1.17E+01	1.00E+00	2.69E+00	7.01E-01	4.27E+00	6.36E-07	1	6.36E-07
2,3,7,8-TCDD TEQ (1/2 ND)	4.00E-09	o	3.01E+01	1.00E+00	6.82E+00	8.07E-01	5.57E+00	2.33E-11	0.5	1.17E-11
Antimony	3.60E-03	i		1.00E+00		1.00E-03		3.60E-09	1	3.60E-09
Thallium	5.10E-03	i		1.00E+00		1.00E-03		5.10E-09	1	5.10E-09

TABLE 7.16a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF MAINTENANCE WORKERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Maintenance Workers
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	2.0E-09	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	6.7E-07
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.2E-09	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	2.3E-14	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	2.1E-08	mg/kg-day	4.00E-04	mg/kg-day	NA	NA	5.3E-05
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	3.0E-08	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	4.3E-04
	(total)												**4.8E-04**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	5.4E-09	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	1.8E-06
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.2E-06	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	2.3E-11	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	7.0E-09	mg/kg-day	6.00E-05	mg/kg-day	NA	NA	1.2E-04
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	9.9E-09	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	1.4E-04
	(total)												**2.6E-04**
												Total Hazard Index Across All Exposure Routes/Pathways	**7.4E-04**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.16a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF MAINTENANCE WORKERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Maintenance Workers
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	2.6E-10	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	1.8E-10
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.5E-10	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	1.1E-09
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	3.0E-15	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	4.5E-10
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	2.7E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	3.8E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.7E-09**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	7.0E-10	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	5.0E-10
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.6E-07	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	1.2E-06
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	2.9E-12	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	4.4E-07
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	9.0E-10	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	1.3E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.6E-06**
										Total Risk Across All Exposure Routes/Pathways	**1.6E-06**

TABLE 4.17
VALUES OF DAILY INTAKE CALCULATIONS FOR EXPOSURE OF ADOLESCENT TRESPASSERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Trespasser
Receptor Age: Adolescent (7 - 16 years)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Cw	Chemical Concentration in Water	(mg/L)	Maximum	USEPA, December 2002	Maximum	USEPA, December 2002	Chronic Daily Intake (CDI) (mg/kg-day)=
	IR	Ingestion Rate of Surface Water	(L/hr)	0.01	USEPA Region 4, May 2000	0.01	USEPA Region 4, May 2000	Cw x IR x ET x EF x ED / BW x AT
	EF	Exposure Frequency	(days/year)	60	Professional judgment	30	Professional judgment	
	ED	Exposure Duration	(years)	10	Adolescent, Age 7 - 16	10	Adolescent, Age 7 - 16	
	ET	Exposure Time	(hr/day)	4	Professional judgment	2	Professional judgment	
	BW	Body Weight	(kg)	42	U.S. EPA, August 1997	42	U.S. EPA, August 1997	
	AT-C	Averaging Time (Cancer)	(days)	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Noncancer)	(days)	3,650	USEPA, December 1989	3,650	USEPA, December 1989	
Dermal	Cw	Chemical Concentration in Water	mg/L	Maximum	USEPA, December 2002	Maximum	USEPA, December 2002	The equations and parameters for for estimating DAevent and the chemical-specific dermally absorbed dose from water (DAD) are provided in Section 6.2.4 of the text.
	A	Skin Surface Area	cm^2	3,280	USEPA, August 1997	3,100	USEPA, August 1997	
	DAevent	Absorbed Dose per Event	mg/cm^2-event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	EV	Event Frequency	event/day	1	Professional judgement	1	Professional judgement	
	ED	Exposure Duration	years	10	Adolescent, Age 7 - 16	10	Adolescent, Age 7 - 16	
	EF	Exposure Frequency	days/year	60	Professional judgment	30	Professional judgment	
	t_{event}	Duration of Event	hour/event	4	Professional judgement	2	Professional judgement	USEPA, July 2004
	t*	Time to reach steady state	hour/event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	T	Lag Time	hour/event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	B	Bunge Model Constant	dimensionless	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	Kp	Permeability Coefficient from Water	cm/hour	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	BW	Body Weight	kg	42	U.S. EPA, August 1997	42	U.S. EPA, August 1997	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	3,650	USEPA, December 1989	3,650	USEPA, December 1989	

Daily Intake Calculations

Ingestion Intake = (IRgw x EF x ED) / (BW x AT)
Dermal Intake = (A x EV x ED x EF) / (BW x AT)

Cancer Ingestion Intake(RME) = 2.24E-05
Noncancer Ingestion Intake(RME) = 1.57E-04

Cancer Ingestion Intake(CTE) = 5.59E-06
Noncancer Ingestion Intake(CTE) = 3.91E-05

Cancer Dermal Intake(RME) = 1.83E+00
Noncancer Dermal Intake(RME) = 1.28E+01

Cancer Dermal Intake(CTE) = 8.67E-01
Noncancer Dermal Intake(CTE) = 6.07E+00

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH SURFACE WATER
ADOLESCENT TRESPASSERS- REASONABLE MAXIMUM EXPOSURE (RME)

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: USEPA, JULY 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS:
IF tevent < t*, DAevent = 2FA x Kp x C x CF x (6T x tevent/3.1416)$^{0.5}$
IF tevent > t*, DAevent = FA x Kp x C x CF x ((tevent/(1 + B)) + (2T x ((1+3B+3B^2)/(1 + B)^2)))

WHERE:

CHEMICAL	SW CONC. (mg/L)	ORGANIC OR INORGANIC?	t* (HR)	tevent	T (HR)	Kp (CM/HR)	B	DAevent	FA	DAevent
Vinyl Chloride	3.40E-04	o	5.73E-01	4.00E+00	2.39E-01	5.60E-03	1.70E-02	8.41E-09	1	8.41E-09
BAP Equivalent (1/2 ND)	2.00E-04	o	1.17E+01	4.00E+00	2.69E+00	7.01E-01	4.27E+00	1.27E-06	1	1.27E-06
2,3,7,8-TCDD TEQ (1/2 ND)	4.00E-09	o	3.01E+01	4.00E+00	6.82E+00	8.07E-01	5.57E+00	4.66E-11	0.5	2.33E-11
Antimony	3.60E-03	i		4.00E+00		1.00E-03		1.44E-08	1	1.44E-08
Thallium	5.10E-03	i		4.00E+00		1.00E-03		2.04E-08	1	2.04E-08

TABLE 7.17 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF ADOLESCENT TRESPASSERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Trespasser
Receptor Age: Adolescent (7 - 16 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	5.3E-08	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	1.8E-05
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	3.1E-08	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	6.3E-13	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	5.6E-07	mg/kg-day	4.00E-04	mg/kg-day	NA	NA	1.4E-03
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	8.0E-07	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	1.1E-02
	(total)												**1.3E-02**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	1.1E-07	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	3.6E-05
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.6E-05	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	3.0E-10	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	1.8E-07	mg/kg-day	6.00E-05	mg/kg-day	NA	NA	3.1E-03
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	2.6E-07	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	3.7E-03
	(total)												**6.9E-03**
												Total Hazard Index Across All Exposure Routes/Pathways	**2.0E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.17 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF ADOLESCENT TRESPASSERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Trespasser
Receptor Age: Adolescent (7 - 16 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	7.6E-09	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	5.5E-09
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	4.5E-09	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	3.3E-08
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	8.9E-14	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	1.3E-08
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	8.1E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	1.1E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**5.2E-08**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	1.5E-08	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	1.1E-08
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	2.3E-06	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	1.7E-05
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	4.3E-11	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	6.4E-06
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	2.6E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	3.7E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**2.3E-05**
										Total Risk Across All Exposure Routes/Pathways	**2.4E-05**

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH SURFACE WATER
ADOLESCENT TRESPASSERS- CENTRAL TENDENCY EXPOSURE (CTE)

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: USEPA, JULY 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS:
IF tevent < t*, DAevent = 2FA x Kp x C x CF x (6T x tevent/3.1416)$^{0.5}$
IF tevent > t*, DAevent = FA x Kp x C x CF x ((tevent/(1 + B)) + (2T x ((1+3B+3B^2)/(1 + B)^2)))

WHERE:

CHEMICAL	SW CONC. (mg/L)	ORGANIC OR INORGANIC?	t* (HR)	tevent	T (HR)	Kp (CM/HR)	B	DAevent	FA	DAevent
Vinyl Chloride	3.40E-04	o	5.73E-01	2.00E+00	2.39E-01	5.60E-03	1.70E-02	4.67E-09	1	4.67E-09
BAP Equivalent (1/2 ND)	2.00E-04	o	1.17E+01	2.00E+00	2.69E+00	7.01E-01	4.27E+00	8.99E-07	1	8.99E-07
2,3,7,8-TCDD TEQ (1/2 ND)	4.00E-09	o	3.01E+01	2.00E+00	6.82E+00	8.07E-01	5.57E+00	3.30E-11	0.5	1.65E-11
Antimony	3.60E-03	i		2.00E+00		1.00E-03		7.20E-09	1	7.20E-09
Thallium	5.10E-03	i		2.00E+00		1.00E-03		1.02E-08	1	1.02E-08

TABLE 7.17a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF ADOLESCENT TRESPASSERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Trespasser
Receptor Age: Adolescent (7 - 16 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	1.3E-08	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	4.4E-06
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	7.8E-09	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	1.6E-13	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	1.4E-07	mg/kg-day	4.00E-04	mg/kg-day	NA	NA	3.5E-04
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	2.0E-07	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	2.9E-03
	(total)												**3.2E-03**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	2.8E-08	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	9.4E-06
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	5.5E-06	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	1.0E-10	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	4.4E-08	mg/kg-day	6.00E-05	mg/kg-day	NA	NA	7.3E-04
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	6.2E-08	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	8.8E-04
	(total)												**1.6E-03**
												Total Hazard Index Across All Exposure Routes/Pathways	**4.8E-03**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.17a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF ADOLESCENT TRESPASSERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Trespasser
Receptor Age: Adolescent (7 - 16 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	1.9E-09	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	1.4E-09
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.1E-09	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	8.2E-09
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	2.2E-14	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	3.4E-09
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	2.0E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	2.9E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.3E-08**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	4.0E-09	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	2.9E-09
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	7.8E-07	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	5.7E-06
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	1.4E-11	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	2.1E-06
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	6.2E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	8.8E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**7.8E-06**
										Total Risk Across All Exposure Routes/Pathways	**7.8E-06**

TABLE 4.18
VALUES OF DAILY INTAKE CALCULATIONS FOR EXPOSURE OF
ADULT RECREATIONAL USERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Recrerational User
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Cw	Chemical Concentration in Water	(mg/L)	Maximum	USEPA, December 2002	Maximum	USEPA, December 2002	Chronic Daily Intake (CDI) (mg/kg-day)=
	IR	Ingestion Rate of Surface Water	(L/hr)	0.01	USEPA Region 4, May 2000	0.01	USEPA Region 4, May 2000	Cw x IR x ET x EF x ED
	EF	Exposure Frequency	(days/year)	30	Professional judgment	15	Professional judgment	BW x AT
	ED	Exposure Duration	(years)	24	USEPA, May 1993	7	USEPA, May 1993	
	ET	Exposure Time	(hr/day)	1	Professional judgment	1	Professional judgment	
	BW	Body Weight	(kg)	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	(days)	25550	USEPA, December 1989	25550	USEPA, December 1989	
	AT-N	Averaging Time (Noncancer)	(days)	8760	USEPA, December 1989	2,555	USEPA, December 1989	
Dermal	Cw	Chemical Concentration in Water	mg/L	Maximum	USEPA, December 2002	Maximum	USEPA, December 2002	The equations and parameters for
	A	Skin Surface Area	cm^2	5,700	USEPA, July 2004	5,700	USEPA, July 2004	for estimating DAevent and the chemical-
	DAevent	Absorbed Dose per Event	mg/cm^2-event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	specific dermally absorbed dose from
	EV	Event Frequency	event/day	1	Professional judgement	1	Professional judgement	water (DAD) are provided in Section 6.2.4
	ED	Exposure Duration	years	24	USEPA, May 1993	7	USEPA, May 1993	of the text.
	EF	Exposure Frequency	days/year	30	Professional judgment	15	Professional judgment	
	t_{event}	Duration of Event	hour/event	1	Professional judgement	1	Professional judgement	USEPA, July 2004
	t*	Time to reach steady state	hour/event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	T	Lag Time	hour/event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	B	Bunge Model Constant	dimensionless	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	Kp	Permeability Coefficient from Water	cm/hour	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, December 1989	2,555	USEPA, December 1989	

Daily Intake Calculations

Ingestion Intake = (IRgw x EF x ED) / (BW x AT)
Dermal Intake = (A x EV x ED x EF) / (BW x AT)

Cancer Ingestion Intake(RME) = 4.03E-06
Noncancer Ingestion Intake(RME) = 1.17E-05

Cancer Ingestion Intake(CTE) = 5.87E-07
Noncancer Ingestion Intake(CTE) = 5.87E-06

Cancer Dermal Intake(RME) = 2.29E+00
Noncancer Dermal Intake(RME) = 6.69E+00

Cancer Dermal Intake(CTE) = 3.35E-01
Noncancer Dermal Intake(CTE) = 3.35E+00

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH SURFACE WATER
ADULT RECREATIONAL USER- REASONABLE MAXIMUM EXPOSURE (RME)

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: USEPA, JULY 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS: IF tevent < t*, DAevent = 2FA x Kp x C x CF x $(6T \times tevent/3.1416)^{0.5}$

IF tevent > t*, DAevent = FA x Kp x C x CF x $((tevent/(1 + B)) + (2T \times ((1+3B+3B^2)/(1 + B)^2)))$

WHERE:

CHEMICAL	SW CONC. (mg/L)	ORGANIC OR INORGANIC?	t* (HR)	tevent	T (HR)	Kp (CM/HR)	B	DAevent	FA	DAevent
Vinyl Chloride	3.40E-04	o	5.73E-01	1.00E+00	2.39E-01	5.60E-03	1.70E-02	2.80E-09	1	2.80E-09
BAP Equivalent (1/2 ND)	2.00E-04	o	1.17E+01	1.00E+00	2.69E+00	7.01E-01	4.27E+00	6.36E-07	1	6.36E-07
2,3,7,8-TCDD TEQ (1/2 ND)	4.00E-09	o	3.01E+01	1.00E+00	6.82E+00	8.07E-01	5.57E+00	2.33E-11	0.5	1.17E-11
Antimony	3.60E-03	i		1.00E+00		1.00E-03		3.60E-09	1	3.60E-09
Thallium	5.10E-03	i		1.00E+00		1.00E-03		5.10E-09	1	5.10E-09

TABLE 7.18 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF ADULT RECREATIONAL USERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Recrerational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	4.0E-09	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	1.3E-06
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	2.3E-09	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	4.7E-14	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	4.2E-08	mg/kg-day	4.00E-04	mg/kg-day	NA	NA	1.1E-04
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	6.0E-08	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	8.6E-04
	(total)												**9.6E-04**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	1.9E-08	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	6.2E-06
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	4.3E-06	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	7.8E-11	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	2.4E-08	mg/kg-day	6.00E-05	mg/kg-day	NA	NA	4.0E-04
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	3.4E-08	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	4.9E-04
	(total)												**9.0E-04**
												Total Hazard Index Across All Exposure Routes/Pathways	**1.9E-03**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.18 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF ADULT RECREATIONAL USERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Recrerational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	1.4E-09	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	9.9E-10
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	8.1E-10	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	5.9E-09
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	1.6E-14	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	2.4E-09
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	1.4E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	2.1E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**9.3E-09**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	6.4E-09	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	4.6E-09
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.5E-06	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	1.1E-05
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	2.7E-11	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	4.0E-06
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	8.3E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	1.2E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.5E-05**
										Total Risk Across All Exposure Routes/Pathways	**1.5E-05**

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH SURFACE WATER
ADULT RECREATIONAL USER- CENTRAL TENDENCY EXPOSURE (CTE)

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: USEPA, JULY 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS: IF tevent < t*, DAevent = 2FA x Kp x C x CF x (6T x tevent/3.1416)$^{0.5}$

IF tevent > t*, DAevent = FA x Kp x C x CF x ((tevent/(1 + B)) + (2T x ((1+3B+3B^2)/(1 + B)^2)))

WHERE:

CHEMICAL	SW CONC. (mg/L)	ORGANIC OR INORGANIC?	t* (HR)	tevent	T (HR)	Kp (CM/HR)	B	DAevent	FA	DAevent
Vinyl Chloride	3.40E-04	o	5.73E-01	1.00E+00	2.39E-01	5.60E-03	1.70E-02	2.80E-09	1	2.80E-09
BAP Equivalent (1/2 ND)	2.00E-04	o	1.17E+01	1.00E+00	2.69E+00	7.01E-01	4.27E+00	6.36E-07	1	6.36E-07
2,3,7,8-TCDD TEQ (1/2 ND)	4.00E-09	o	3.01E+01	1.00E+00	6.82E+00	8.07E-01	5.57E+00	2.33E-11	0.5	1.17E-11
Antimony	3.60E-03	i		1.00E+00		1.00E-03		3.60E-09	1	3.60E-09
Thallium	5.10E-03	i		1.00E+00		1.00E-03		5.10E-09	1	5.10E-09

TABLE 7.18a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF ADULT RECREATIONAL USERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Recreational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	2.0E-09	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	6.7E-07
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.2E-09	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	2.3E-14	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	2.1E-08	mg/kg-day	4.00E-04	mg/kg-day	NA	NA	5.3E-05
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	3.0E-08	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	4.3E-04
	(total)												**4.8E-04**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	9.4E-09	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	3.1E-06
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	2.1E-06	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	3.9E-11	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	1.2E-08	mg/kg-day	6.00E-05	mg/kg-day	NA	NA	2.0E-04
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	1.7E-08	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	2.4E-04
	(total)												**4.5E-04**
												Total Hazard Index Across All Exposure Routes/Pathways	**9.3E-04**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.18a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF ADULT RECREATIONAL USERS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Recrerational User
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	2.0E-10	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	1.4E-10
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.2E-10	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	8.6E-10
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	2.3E-15	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	3.5E-10
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	2.1E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	3.0E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.4E-09**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	9.4E-10	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	6.7E-10
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	2.1E-07	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	1.6E-06
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	3.9E-12	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	5.9E-07
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	1.2E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	1.7E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**2.1E-06**
										Total Risk Across All Exposure Routes/Pathways	**2.1E-06**

TABLE 4.19
VALUES OF DAILY INTAKE CALCULATIONS FOR EXPOSURE OF FUTURE CHILD RESIDENTS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Residents
Receptor Age: Child (0 - 6 years)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Cw	Chemical Concentration in Water	(mg/L)	Maximum	USEPA, December 2002	Maximum	USEPA, December 2002	Chronic Daily Intake (CDI) (mg/kg-day)=
	IR	Ingestion Rate of Surface Water	(L/hr)	0.05	USEPA Region 4, May 2000	0.05	USEPA Region 4, May 2000	Cw x IR x ET x EF x ED / BW x AT
	EF	Exposure Frequency	(days/year)	30	Professional judgment	15	Professional judgment	
	ED	Exposure Duration	(years)	6	USEPA, May 1993	2	USEPA, May 1993	
	ET	Exposure Time	(hr/day)	2	Professional judgment	1	Professional judgment	
	BW	Body Weight	(kg)	15	USEPA, May 1993	15	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	(days)	25550	USEPA, December 1989	25550	USEPA, December 1989	
	AT-N	Averaging Time (Noncancer)	(days)	2190	USEPA, December 1989	730	USEPA, December 1989	
Dermal	Cw	Chemical Concentration in Water	mg/L	Maximum	USEPA, December 2002	Maximum	USEPA, December 2002	The equations and parameters for
	A	Skin Surface Area	cm^2	3,300	1/2 Total Body Surface Area	3,300	1/2 Total Body Surface Area	for estimating DAevent and the chemical-
	DAevent	Absorbed Dose per Event	mg/cm^2-event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	specific dermally absorbed dose from
	EV	Event Frequency	event/day	1	Professional judgement	1	Professional judgement	water (DAD) are provided in Section 6.2.4
	ED	Exposure Duration	years	6	USEPA, May 1993	2	USEPA, May 1993	of the text.
	EF	Exposure Frequency	days/year	30	Professional judgment	15	Professional judgment	
	t_{event}	Duration of Event	hour/event	2	Professional judgement	1	Professional judgement	USEPA, July 2004
	t*	Time to reach steady state	hour/event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	T	Lag Time	hour/event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	B	Bunge Model Constant	dimensionless	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	Kp	Permeability Coefficient from Water	cm/hour	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	BW	Body Weight	kg	15	USEPA, May 1993	15	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	2,190	USEPA, December 1989	730	USEPA, December 1989	

Daily Intake Calculations

Ingestion Intake = (IRgw x EF x ED) / (BW x AT)
Dermal Intake = (A x EV x ED x EF) / (BW x AT)

Cancer Ingestion Intake(RME) = 4.70E-05
Noncancer Ingestion Intake(RME) = 5.48E-04

Cancer Ingestion Intake(CTE) = 3.91E-06
Noncancer Ingestion Intake(CTE) = 1.37E-04

Cancer Dermal Intake(RME) = 1.55E+00
Noncancer Dermal Intake(RME) = 1.81E+01

Cancer Dermal Intake(CTE) = 2.58E-01
Noncancer Dermal Intake(CTE) = 9.04E+00

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH SURFACE WATER
FUTURE CHILD RESIDENTS- REASONABLE MAXIMUM EXPOSURE (RME)

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: USEPA, JULY 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS:
IF tevent < t*, DAevent = 2FA x Kp x C x CF x (6T x tevent/3.1416)$^{0.5}$
IF tevent > t*, DAevent = FA x Kp x C x CF x ((tevent/(1 + B)) + (2T x ((1+3B+3B^2)/(1 + B)^2)))

WHERE:

CHEMICAL	SW CONC. (mg/L)	ORGANIC OR INORGANIC?	t* (HR)	tevent	T (HR)	Kp (CM/HR)	B	DAevent	FA	DAevent
Vinyl Chloride	3.40E-04	o	5.73E-01	2.00E+00	2.39E-01	5.60E-03	1.70E-02	4.67E-09	1	4.67E-09
BAP Equivalent (1/2 ND)	2.00E-04	o	1.17E+01	2.00E+00	2.69E+00	7.01E-01	4.27E+00	8.99E-07	1	8.99E-07
2,3,7,8-TCDD TEQ (1/2 ND)	4.00E-09	o	3.01E+01	2.00E+00	6.82E+00	8.07E-01	5.57E+00	3.30E-11	0.5	1.65E-11
Antimony	3.60E-03	i		2.00E+00		1.00E-03		7.20E-09	1	7.20E-09
Thallium	5.10E-03	i		2.00E+00		1.00E-03		1.02E-08	1	1.02E-08

TABLE 7.19 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF FUTURE CHILD RESIDENTS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Residents
Receptor Age: Child (0 - 6 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	1.9E-07	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	6.2E-05
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.1E-07	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	2.2E-12	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	2.0E-06	mg/kg-day	4.00E-04	mg/kg-day	NA	NA	4.9E-03
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	2.8E-06	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	4.0E-02
	(total)												**4.5E-02**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	8.4E-08	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	2.8E-05
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.6E-05	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	3.0E-10	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	1.3E-07	mg/kg-day	6.00E-05	mg/kg-day	NA	NA	2.2E-03
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	1.8E-07	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	2.6E-03
	(total)												**4.8E-03**
												Total Hazard Index Across All Exposure Routes/Pathways	**5.0E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.19 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF FUTURE CHILD RESIDENTS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Residents
Receptor Age: Child (0 - 6 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	1.6E-08	mg/kg-day	1.50E+00	$(mg/kg\text{-}day)^{-1}$	2.4E-08
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	9.4E-09	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	6.9E-08
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	1.9E-13	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	2.8E-08
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	1.7E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	2.4E-07	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.2E-07**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	7.2E-09	mg/kg-day	1.50E+00	$(mg/kg\text{-}day)^{-1}$	1.1E-08
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.4E-06	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	1.0E-05
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	2.6E-11	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	3.8E-06
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	1.1E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	1.6E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.4E-05**
										Total Risk Across All Exposure Routes/Pathways	**1.4E-05**

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH SURFACE WATER
FUTURE CHILD RESIDENTS- CENTRAL TENDENCY EXPOSURE (CTE)

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: USEPA, JULY 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS:
IF tevent < t*, DAevent = 2FA x Kp x C x CF x (6T x tevent/3.1416)$^{0.5}$
IF tevent > t*, DAevent = FA x Kp x C x CF x ((tevent/(1 + B)) + (2T x ((1+3B+3B^2)/(1 + B)^2)))

WHERE:

CHEMICAL	SW CONC. (mg/L)	ORGANIC OR INORGANIC?	t* (HR)	tevent	T (HR)	Kp (CM/HR)	B	DAevent	FA	DAevent
Vinyl Chloride	3.40E-04	o	5.73E-01	1.00E+00	2.39E-01	5.60E-03	1.70E-02	2.80E-09	1	2.80E-09
BAP Equivalent (1/2 ND)	2.00E-04	o	1.17E+01	1.00E+00	2.69E+00	7.01E-01	4.27E+00	6.36E-07	1	6.36E-07
2,3,7,8-TCDD TEQ (1/2 ND)	4.00E-09	o	3.01E+01	1.00E+00	6.82E+00	8.07E-01	5.57E+00	2.33E-11	0.5	1.17E-11
Antimony	3.60E-03	i		1.00E+00		1.00E-03		3.60E-09	1	3.60E-09
Thallium	5.10E-03	i		1.00E+00		1.00E-03		5.10E-09	1	5.10E-09

TABLE 7.19a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF FUTURE CHILD RESIDENTS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Residents
Receptor Age: Child (0 - 6 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	4.7E-08	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	1.6E-05
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	2.7E-08	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	5.5E-13	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	4.9E-07	mg/kg-day	4.00E-04	mg/kg-day	NA	NA	1.2E-03
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	7.0E-07	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	1.0E-02
	(total)												**1.1E-02**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	2.5E-08	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	8.4E-06
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	5.8E-06	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	1.1E-10	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	3.3E-08	mg/kg-day	6.00E-05	mg/kg-day	NA	NA	5.4E-04
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	4.6E-08	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	6.6E-04
	(total)												**1.2E-03**
												Total Hazard Index Across All Exposure Routes/Pathways	**1.2E-02**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.19a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF FUTURE CHILD RESIDENTS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Residents
Receptor Age: Child (0 - 6 years)

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	1.3E-09	mg/kg-day	1.50E+00	$(mg/kg\text{-}day)^{-1}$	2.0E-09
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	7.8E-10	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	5.7E-09
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	1.6E-14	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	2.3E-09
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	1.4E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	2.0E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.0E-08**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	7.2E-10	mg/kg-day	1.50E+00	$(mg/kg\text{-}day)^{-1}$	1.1E-09
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.6E-07	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	1.2E-06
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	3.0E-12	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	4.5E-07
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	9.3E-10	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	1.3E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.7E-06**
										Total Risk Across All Exposure Routes/Pathways	**1.7E-06**

TABLE 4.20
VALUES OF DAILY INTAKE CALCULATIONS FOR EXPOSURE OF
FUTURE ADULT RESIDENTS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Residents
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CTE Value	CTE Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Cw	Chemical Concentration in Water	(mg/L)	Maximum	USEPA, December 2002	Maximum	USEPA, December 2002	Chronic Daily Intake (CDI) (mg/kg-day)=
	IR	Ingestion Rate of Surface Water	(L/hr)	0.01	USEPA Region 4, May 2000	0.01	USEPA Region 4, May 2000	Cw x IR x ET x EF x ED / BW x AT
	EF	Exposure Frequency	(days/year)	30	Professional judgment	15	Professional judgment	
	ED	Exposure Duration	(years)	24	USEPA, May 1993	7	USEPA, May 1993	
	ET	Exposure Time	(hr/day)	2	Professional judgment	1	Professional judgment	
	BW	Body Weight	(kg)	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	(days)	25550	USEPA, December 1989	25550	USEPA, December 1989	
	AT-N	Averaging Time (Noncancer)	(days)	8760	USEPA, December 1989	2,555	USEPA, December 1989	
Dermal	Cw	Chemical Concentration in Water	mg/L	Maximum	USEPA, December 2002	Maximum	USEPA, December 2002	The equations and parameters for for estimating DAevent and the chemical-specific dermally absorbed dose from water (DAD) are provided in Section 6.2.4 of the text.
	A	Skin Surface Area	cm^2	5,700	USEPA, July 2004	5,700	USEPA, July 2004	
	DAevent	Absorbed Dose per Event	mg/cm^2-event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	EV	Event Frequency	event/day	1	Professional judgement	1	Professional judgement	
	ED	Exposure Duration	years	24	USEPA, May 1993	7	USEPA, May 1993	
	EF	Exposure Frequency	days/year	30	Professional judgment	15	Professional judgment	
	t_{event}	Duration of Event	hour/event	2	Professional judgement	1	Professional judgement	USEPA, July 2004
	t*	Time to reach steady state	hour/event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	T	Lag Time	hour/event	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	B	Bunge Model Constant	dimensionless	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	Kp	Permeability Coefficient from Water	cm/hour	chemical-specific	USEPA, July 2004	chemical-specific	USEPA, July 2004	
	BW	Body Weight	kg	70	USEPA, May 1993	70	USEPA, May 1993	
	AT-C	Averaging Time (Cancer)	days	25,550	USEPA, December 1989	25,550	USEPA, December 1989	
	AT-N	Averaging Time (Non-Cancer)	days	8,760	USEPA, December 1989	2,555	USEPA, December 1989	

Daily Intake Calculations

Ingestion Intake = (IRgw x EF x ED) / (BW x AT)
Dermal Intake = (A x EV x ED x EF) / (BW x AT)

Cancer Ingestion Intake(RME) = 8.05E-06
Noncancer Ingestion Intake(RME) = 2.35E-05

Cancer Ingestion Intake(CTE) = 5.87E-07
Noncancer Ingestion Intake(CTE) = 5.87E-06

Cancer Dermal Intake(RME) = 2.29E+00
Noncancer Dermal Intake(RME) = 6.69E+00

Cancer Dermal Intake(CTE) = 3.35E-01
Noncancer Dermal Intake(CTE) = 3.35E+00

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH SURFACE WATER
FUTURE ADULT RESIDENTS- REASONABLE MAXIMUM EXPOSURE (RME)

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: USEPA, JULY 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT (MG/CM^2/EVENT)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS:
IF tevent < t*, DAevent = 2FA x Kp x C x CF x $(6T \times tevent/3.1416)^{0.5}$
IF tevent > t*, DAevent = FA x Kp x C x CF x $((tevent/(1 + B)) + (2T \times ((1+3B+3B^2)/(1 + B)^2)))$

WHERE:

CHEMICAL	SW CONC. (mg/L)	ORGANIC OR INORGANIC?	t* (HR)	tevent	T (HR)	Kp (CM/HR)	B	DAevent	FA	DAevent
Vinyl Chloride	3.40E-04	o	5.73E-01	2.00E+00	2.39E-01	5.60E-03	1.70E-02	4.67E-09	1	4.67E-09
BAP Equivalent (1/2 ND)	2.00E-04	o	1.17E+01	2.00E+00	2.69E+00	7.01E-01	4.27E+00	8.99E-07	1	8.99E-07
2,3,7,8-TCDD TEQ (1/2 ND)	4.00E-09	o	3.01E+01	2.00E+00	6.82E+00	8.07E-01	5.57E+00	3.30E-11	0.5	1.65E-11
Antimony	3.60E-03	i		2.00E+00		1.00E-03		7.20E-09	1	7.20E-09
Thallium	5.10E-03	i		2.00E+00		1.00E-03		1.02E-08	1	1.02E-08

TABLE 7.20 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF FUTURE ADULT RESIDENTS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Residents
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	8.0E-09	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	2.7E-06
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	4.7E-09	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	9.4E-14	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	8.5E-08	mg/kg-day	4.00E-04	mg/kg-day	NA	NA	2.1E-04
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	1.2E-07	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	1.7E-03
	(total)												**1.9E-03**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	3.1E-08	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	1.0E-05
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	6.0E-06	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	1.1E-10	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	4.8E-08	mg/kg-day	6.00E-05	mg/kg-day	NA	NA	8.0E-04
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	6.8E-08	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	9.8E-04
	(total)												**1.8E-03**
												Total Hazard Index Across All Exposure Routes/Pathways	**3.7E-03**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.20 - REASONABLE MAXIMUM EXPOSURE (RME)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF FUTURE ADULT RESIDENTS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Residents
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	2.7E-09	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	2.0E-09
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.6E-09	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	1.2E-08
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	3.2E-14	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	4.8E-09
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	2.9E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	4.1E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.9E-08**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	1.1E-08	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	7.7E-09
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	2.1E-06	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	1.5E-05
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	3.8E-11	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	5.7E-06
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	1.7E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	2.3E-08	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**2.1E-05**
										Total Risk Across All Exposure Routes/Pathways	**2.1E-05**

CALCULATION OF DAevent - EXPOSURES THROUGH DERMAL CONTACT WITH SURFACE WATER
FUTURE ADULT RESIDENTS- CENTRAL TENDENCY EXPOSURE (CTE)

SITE NAME: SITE 1 - GOLF COURSE LANDFILL
LOCATION: NAVAL STATION GREAT LAKES, ILLINOIS
DATE: 03/04/08

REFERENCES: USEPA, JULY 2004

DERMAL CONTACT:

DAD = (DAevent x EV x ED x EF x A)/(BW x AT)

WHERE: DAD = DERMALLY ABSORBED DOSE (MG/KG/DAY)
DAevent = ABSORBED DOSE PER EVENT ($MG/CM^2/EVENT$)
A = SKIN SURFACE AREA AVAILABLE FOR CONTACT(CM^2)
EV = EVENT FREQUENCY (EVENTS/DAY)
ED = EXPOSURE DURATION (YEARS)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
BW = BODY WEIGHT(KG)
AT = AVERAGING TIME (DAYS)

FOR INORGANICS: DAevent = Kp x C x tevent x CF

FOR ORGANICS: IF tevent < t*, DAevent = $2FA \times Kp \times C \times CF \times (6T \times tevent/3.1416)^{0.5}$

IF tevent > t*, DAevent = $FA \times Kp \times C \times CF \times ((tevent/(1 + B)) + (2T \times ((1+3B+3B^2)/(1 + B)^2)))$

WHERE:

CHEMICAL	SW CONC. (mg/L)	ORGANIC OR INORGANIC?	t* (HR)	tevent	T (HR)	Kp (CM/HR)	B	DAevent	FA	DAevent
Vinyl Chloride	3.40E-04	o	5.73E-01	1.00E+00	2.39E-01	5.60E-03	1.70E-02	2.80E-09	1	2.80E-09
BAP Equivalent (1/2 ND)	2.00E-04	o	1.17E+01	1.00E+00	2.69E+00	7.01E-01	4.27E+00	6.36E-07	1	6.36E-07
2,3,7,8-TCDD TEQ (1/2 ND)	4.00E-09	o	3.01E+01	1.00E+00	6.82E+00	8.07E-01	5.57E+00	2.33E-11	0.5	1.17E-11
Antimony	3.60E-03	i		1.00E+00		1.00E-03		3.60E-09	1	3.60E-09
Thallium	5.10E-03	i		1.00E+00		1.00E-03		5.10E-09	1	5.10E-09

TABLE 7.20a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF NON-CANCER HAZARDS FROM EXPOSURE OF FUTURE ADULT RESIDENTS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Residents
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	2.0E-09	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	6.7E-07
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.2E-09	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	2.3E-14	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	2.1E-08	mg/kg-day	4.00E-04	mg/kg-day	NA	NA	5.3E-05
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	3.0E-08	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	4.3E-04
	(total)												**4.8E-04**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	9.4E-09	mg/kg-day	3.00E-03	mg/kg-day	NA	NA	3.1E-06
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	2.1E-06	mg/kg-day		mg/kg-day	NA	NA	
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	3.9E-11	mg/kg-day		mg/kg-day	NA	NA	
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	1.2E-08	mg/kg-day	6.00E-05	mg/kg-day	NA	NA	2.0E-04
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	1.7E-08	mg/kg-day	7.00E-05	mg/kg-day	NA	NA	2.4E-04
	(total)												**4.5E-04**
												Total Hazard Index Across All Exposure Routes/Pathways	**9.3E-04**

(1) Specify Medium-Specific (M) or Route-Specific (R) EPC selected for hazard calculation.

TABLE 8.20a - CENTRAL TENDENCY EXPOSURE (CTE)
CALCULATION OF CANCER RISKS FROM EXPOSURE OF FUTURE ADULT RESIDENTS TO SURFACE WATER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Skokie Ditch
Receptor Population: Residents
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	2.0E-10	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	1.4E-10
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	1.2E-10	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	8.6E-10
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	2.3E-15	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	3.5E-10
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	2.1E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	3.0E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**1.4E-09**
Dermal	Vinyl Chloride	3.40E-04	mg/L	3.40E-04	mg/L	M	9.4E-10	mg/kg-day	7.20E-01	$(mg/kg\text{-}day)^{-1}$	6.7E-10
	BAP Equivalent (1/2 ND)	2.00E-04	mg/L	2.00E-04	mg/L	M	2.1E-07	mg/kg-day	7.30E+00	$(mg/kg\text{-}day)^{-1}$	1.6E-06
	2,3,7,8-TCDD TEQ (1/2 ND	4.00E-09	mg/L	4.00E-09	mg/L	M	3.9E-12	mg/kg-day	1.50E+05	$(mg/kg\text{-}day)^{-1}$	5.9E-07
	Antimony	3.60E-03	mg/L	3.60E-03	mg/L	M	1.2E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	Thallium	5.10E-03	mg/L	5.10E-03	mg/L	M	1.7E-09	mg/kg-day		$(mg/kg\text{-}day)^{-1}$	
	(total)										**2.1E-06**
										Total Risk Across All Exposure Routes/Pathways	**2.1E-06**

TABLE 9.1. REASONABLE MAXIMUM EXPOSURE (RME)
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs - FUTURE CONSTRUCTION WORKER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Receptor Population: Construction Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Soil	Subsurface Soil	2,3,7,8-TCDD TEQ (1/2 DL)	3.8E-06	1.8E-07	3.4E-07	4.3E-06	2,3,7,8-TCDD TEQ (1/2 DL)	NA				
			BAP EQUIVALENT (1/2 DL)	4.8E-07		1.9E-07	6.7E-07	BAP EQUIVALENT (1/2 DL)	NA				
			ALUMINUM					ALUMINUM	Body Weight	1.4E-02			1.4E-02
			ANTIMONY					ANTIMONY	Blood	1.2E-01			1.2E-01
			ARSENIC	1.0E-07		9.0E-09	1.1E-07	ARSENIC	Skin, CVS	1.3E-01		1.2E-02	1.5E-01
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone	1.1E-02			1.1E-02
			COPPER					COPPER	Gastrointestinal (GS)	5.3E-02			5.3E-02
			IRON					IRON	NA	1.9E-01			1.9E-01
			MANGANESE					MANGANESE	CNS	9.0E-02			9.0E-02
			SILVER					SILVER	Skin	6.4E-02			6.4E-02
			THALLIUM					THALLIUM	Liver	3.5E-03			3.5E-03
			VANADIUM					VANADIUM	Kidney	2.1E-02			2.1E-02
			NAPHTHALENE					NAPHTHALENE	Body Weight, Nasal Effects (Inh)		1.3E-01		1.3E-01
Sediment	Sediment	Skokie Ditch	2,3,7,8-TCDD TEQ (1/2 ND)	1.3E-08		1.2E-09	1.4E-08	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			BAP EQUIVALENT (1/2 ND)	1.2E-07		4.7E-08	1.7E-07	BAP EQUIVALENT (1/2 ND)	NA				
			AROCLOR-1248	9.1E-09		3.8E-09	1.3E-08	AROCLOR-1248	NA				
			ALUMINUM					ALUMINUM	Body Weight	1.4E-02			1.4E-02
			ARSENIC	7.1E-08		6.4E-09	7.7E-08	ARSENIC	Skin, CVS	9.5E-02		8.6E-03	1.0E-01
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone	1.1E-02			1.1E-02
			IRON					IRON	NA	1.0E-01			1.0E-01
			THALLIUM					THALLIUM	Liver	1.9E-03			1.9E-03
			VANADIUM					VANADIUM	Kidney	1.1E-02			1.1E-02
Surface Water	Surface Water	Skokie Ditch	VINYL CHLORIDE	1.6E-10		3.4E-10	5.0E-10	VINYL CHLORIDE	Liver	4.6E-05		9.4E-05	1.4E-04
			BAP EQUIVALENT (1/2 ND)	9.8E-10		5.1E-07	5.1E-07	BAP EQUIVALENT (1/2 ND)	NA				
			2,3,7,8-TCDD TEQ (1/2 ND)	4.0E-10		1.9E-07	1.9E-07	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			ANTIMONY					ANTIMONY	Blood	7.3E-03		1.6E-02	2.4E-02
			THALLIUM					THALLIUM	Liver	2.6E-03		8.6E-04	3.5E-03
Groundwater	Water / Air	Entire Site	BENZENE		8.3E-11	8.8E-11	1.7E-10	BENZENE	Blood		8.2E-05	8.1E-05	1.6E-04
			NAPHTHALENE					NAPHTHALENE	Body Weight, Nasal Effects (Inh)		2.4E-02	2.5E-04	2.4E-02
			2-METHYLNAPHTHALENE					2-METHYLNAPHTHALENE	Lungs			5.2E-03	5.2E-03
			ALUMINUM					ALUMINUM	Body Weight			5.8E-04	5.8E-04
			ARSENIC			1.1E-09	1.1E-09	ARSENIC	Skin, CVS			1.5E-03	1.5E-03
			BARIUM					BARIUM	Kidney			1.6E-03	1.6E-03
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone			1.9E-02	1.9E-02
			IRON					IRON	NA			3.4E-03	3.4E-03
			MANGANESE					MANGANESE	CNS			8.5E-01	8.5E-01
			VANADIUM					VANADIUM	Kidney			1.5E-02	1.5E-02
			Total Risk for Subsurface Soil				5.1E-06		Total HI for Subsurface Soil				8.4E-01
			Total Risk for Sediment				2.7E-07		Total HI for Sediment				2.5E-01
			Total Risk for Surface Water				7.1E-07		Total HI for Surface Water				2.7E-02
			Total Risk for Groundwater				1.3E-09		Total HI for Groundwater				9.2E-01

Total Risk Across All Media and All Exposure Routes: 6.1E-06

Total HI Across All Media and All Exposure Routes: 2.0E+00

Total Body Weight HI =	1.6E-01	Total Gastrointestinal HI =	9.4E-02
Total Blood HI =	1.4E-01	CNS HI =	9.4E-01
Total Skin HI =	3.2E-01	Total Liver HI =	8.9E-03
Total CVS HI =	2.5E-01	Total Kidney HI =	4.7E-02
Total Fetotoxicity & Bone HI =	4.1E-02	Total Lungs HI =	5.2E-03
Total Nasal HI =	1.5E-01		

TABLE 9.2. REASONABLE MAXIMUM EXPOSURE (RME)
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs - MAINTENANCE WORKER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Receptor Population: Maintenance Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Skokie Ditch	2,3,7,8-TCDD TEQ (1/2 ND)	1.0E-07		2.0E-08	1.2E-07	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			BAP EQUIVALENT (1/2 ND)	9.2E-07		7.9E-07	1.7E-06	BAP EQUIVALENT (1/2 ND)	NA				
			AROCLOR-1248	6.9E-08		6.4E-08	1.3E-07	AROCLOR-1248	NA				
			ALUMINUM					ALUMINUM	Body Weight	1.0E-03			1.0E-03
			ARSENIC	5.3E-07		1.1E-07	6.4E-07	ARSENIC	Skin, CVS	3.3E-03		6.6E-04	4.0E-03
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone	1.0E-03			1.0E-03
			IRON					IRON	NA	3.6E-03			3.6E-03
			THALLIUM					THALLIUM	Liver	7.4E-04			7.4E-04
			VANADIUM					VANADIUM	Kidney	2.8E-03			2.8E-03
Surface Water	Surface Water	Skokie Ditch	Vinyl Chloride	2.1E-09		4.6E-09	6.7E-09	Vinyl Chloride	Liver	2.7E-06		6.0E-06	8.7E-06
			BAP Equivalent (1/2 ND)	1.2E-08		9.1E-06	9.1E-06	BAP Equivalent (1/2 ND)	NA				
			2,3,7,8-TCDD TEQ (1/2 ND)	5.0E-09		3.4E-06	3.4E-06	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			Antimony					Antimony	Blood	2.1E-04		4.6E-04	6.8E-04
			Thallium					Thallium	Liver	1.7E-03		5.6E-04	2.3E-03
			Total Risk for Sediment				2.6E-06		Total HI for Sediment				1.3E-02
			Total Risk for Surface Water				1.3E-05		Total HI for Surface Water				3.0E-03

Total Risk Across All Media and All Exposure Routes: 1.5E-05

Total HI Across All Media and All Exposure Routes: 1.6E-02

Total Body Weight HI =	1.0E-03	Total Fetotoxicity & Bone HI =	1.0E-03
Total Blood HI =	6.8E-04	Total Gastrointestinal HI =	1.0E-03
Total Skin HI =	4.0E-03	Total Liver HI =	3.0E-03
Total CVS HI =	4.0E-03	Total Kidney HI =	2.8E-03

TABLE 9.3. REASONABLE MAXIMUM EXPOSURE (RME)
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs - ADOLESCENT TRESPASSER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Receptor Population: Trespasser
Receptor Age: Adolescent (7 - 16 years)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Skokie Ditch	2,3,7,8-TCDD TEQ (1/2 ND)	1.3E-07		2.6E-08	1.6E-07	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			BAP EQUIVALENT (1/2 ND)	1.2E-06		1.0E-06	2.3E-06	BAP EQUIVALENT (1/2 ND)	NA				
			AROCLOR-1248	9.2E-08		8.4E-08	1.8E-07	AROCLOR-1248	NA				
			ALUMINUM					ALUMINUM	Body Weight	3.3E-03			3.3E-03
			ARSENIC	7.1E-07		1.4E-07	8.5E-07	ARSENIC	Skin, CVS	1.1E-02		2.2E-03	1.3E-02
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone	3.5E-03			3.5E-03
			IRON					IRON	NA	1.2E-02			1.2E-02
			THALLIUM					THALLIUM	Liver	2.5E-03			2.5E-03
			VANADIUM					VANADIUM	Kidney	9.3E-03			9.3E-03
Surface Water	Surface Water	Skokie Ditch	Vinyl Chloride	5.5E-09		1.1E-08	1.7E-08	Vinyl Chloride	Liver	1.8E-05		3.6E-05	5.4E-05
			BAP Equivalent (1/2 ND)	3.3E-08		1.7E-05	1.7E-05	BAP Equivalent (1/2 ND)	NA				
			2,3,7,8-TCDD TEQ (1/2 ND)	1.3E-08		6.4E-06	6.4E-06	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			Antimony					Antimony	Blood	1.4E-03		3.1E-03	4.5E-03
			Thallium					Thallium	Liver	1.1E-02		3.7E-03	1.5E-02
			Total Risk for Sediment				3.5E-06		Total HI for Sediment				4.4E-02
			Total Risk for Surface Water				2.4E-05		Total HI for Surface Water				2.0E-02

Total Risk Across All Media and All Exposure Routes: 2.7E-05

Total HI Across All Media and All Exposure Routes: 6.3E-02

Total Body Weight HI =	3.3E-03	Total Fetotoxicity & Bone HI =	3.5E-03
Total Blood HI =	4.5E-03	Total Gastrointestinal HI =	3.5E-03
Total Skin HI =	1.3E-02	Total Liver HI =	1.8E-02
Total CVS HI =	1.3E-02	Total Kidney HI =	9.3E-03

TABLE 9.4. REASONABLE MAXIMUM EXPOSURE (RME)
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs - ADULT RCREATIONAL USER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Skokie Ditch	2,3,7,8-TCDD TEQ (1/2 ND)	9.7E-08		1.2E-08	1.1E-07	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			BAP EQUIVALENT (1/2 ND)	8.8E-07		4.6E-07	1.3E-06	BAP EQUIVALENT (1/2 ND)	NA				
			AROCLOR-1248	6.6E-08		3.7E-08	1.0E-07	AROCLOR-1248	NA				
			ALUMINUM					ALUMINUM	Body Weight	1.0E-03			1.0E-03
			ARSENIC	5.1E-07		6.1E-08	5.7E-07	ARSENIC	Skin, CVS	3.3E-03		4.0E-04	3.7E-03
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone	1.0E-03			1.0E-03
			IRON					IRON	NA	3.6E-03			3.6E-03
			THALLIUM					THALLIUM	Liver	7.4E-04			7.4E-04
			VANADIUM					VANADIUM	Kidney	2.8E-03			2.8E-03
Surface Water	Surface Water	Skokie Ditch	Vinyl Chloride	9.9E-10		4.6E-09	5.6E-09	Vinyl Chloride	Liver	1.3E-06		6.2E-06	7.6E-06
			BAP Equivalent (1/2 ND)	5.9E-09		1.1E-05	1.1E-05	BAP Equivalent (1/2 ND)	NA				
			2,3,7,8-TCDD TEQ (1/2 ND)	2.4E-09		4.0E-06	4.0E-06	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			Antimony					Antimony	Blood	1.1E-04		4.0E-04	5.1E-04
			Thallium					Thallium	Liver	8.6E-04		4.9E-04	1.3E-03
			Total Risk for Sediment				2.1E-06		Total HI for Sediment				1.3E-02
			Total Risk for Surface Water				1.5E-05		Total HI for Surface Water				1.9E-03

Total Risk Across All Media and All Exposure Routes: 1.7E-05

Total HI Across All Media and All Exposure Routes: 1.5E-02

Total Body Weight HI =	1.0E-03	Total Fetotoxicity & Bone HI =	1.0E-03
Total Blood HI =	5.1E-04	Total Gastrointestinal HI =	1.0E-03
Total Skin HI =	3.7E-03	Total Liver HI =	2.1E-03
Total CVS HI =	3.7E-03	Total Kidney HI =	2.8E-03

TABLE 9.5. REASONABLE MAXIMUM EXPOSURE (RME)
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs - FUTURE CHILD RESIDENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child (0 -6 years)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Skokie Ditch	2,3,7,8-TCDD TEQ (1/2 ND)	2.3E-07		1.9E-08	2.4E-07	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			BAP EQUIVALENT (1/2 ND)	2.1E-06		7.5E-07	2.8E-06	BAP EQUIVALENT (1/2 ND)	NA				
			AROCLOR-1248	1.5E-07		6.0E-08	2.1E-07	AROCLOR-1248	NA				
			ALUMINUM					ALUMINUM	Body Weight	9.3E-03			9.3E-03
			ARSENIC	1.2E-06		1.0E-07	1.3E-06	ARSENIC	Skin, CVS	3.1E-02		2.6E-03	3.4E-02
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone	9.7E-03			9.7E-03
			IRON					IRON	NA	3.4E-02			3.4E-02
			THALLIUM					THALLIUM	Liver	6.9E-03			6.9E-03
			VANADIUM					VANADIUM	Kidney	2.6E-02			2.6E-02
Surface Water	Surface Water	Skokie Ditch	Vinyl Chloride	2.4E-08		1.1E-08	3.5E-08	Vinyl Chloride	Liver	6.2E-05		2.8E-05	9.0E-05
			BAP Equivalent (1/2 ND)	6.9E-08		1.0E-05	1.0E-05	BAP Equivalent (1/2 ND)	NA				
			2,3,7,8-TCDD TEQ (1/2 ND)	2.8E-08		3.8E-06	3.9E-06	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			Antimony					Antimony	Blood	4.9E-03		2.2E-03	7.1E-03
			Thallium					Thallium	Liver	4.0E-02		2.6E-03	4.3E-02
Groundwater	Water / Air	Entire Site	Benzene	2.0E-07	4.0E-08	1.1E-08	2.5E-07	Benzene	Blood	1.1E-02	2.0E-03	5.9E-04	1.3E-02
			Naphthalene					Naphthalene	Body Weight, Nasal Effects (Inh)	3.3E-02	1.9E-01	8.0E-03	2.3E-01
			2-methylnaphthalene					2-methylnaphthalene	Lungs	3.6E-02		1.8E-02	5.4E-02
			Aluminum					Aluminum	Body Weight	8.3E-01		1.2E-03	8.3E-01
			Arsenic	4.1E-05		6.0E-08	4.1E-05	Arsenic	Skin, CVS	1.1E+00		1.5E-03	1.1E+00
			Barium					Barium	Kidney	2.7E-01		5.7E-03	2.8E-01
			Chromium					Chromium	Fetotoxicity/GS/Bone	4.5E-01		5.3E-02	5.0E-01
			Iron					Iron	NA	2.4E+00		3.5E-03	2.4E+00
			Manganese					Manganese	CNS	2.4E+01		8.9E-01	2.5E+01
			Vanadium					Vanadium	Kidney	2.0E+00		1.1E-01	2.1E+00
						Total Risk for Sediment	4.6E-06					Total HI for Sediment	1.2E-01
						Total Risk for Surface Water	1.4E-05					Total HI for Surface Water	5.0E-02
						Total Risk for Groundwater	4.1E-05					Total HI for Groundwater	3.3E+01

Total Risk Across All Media and All Exposure Routes: 6.0E-05

Total HI Across All Media and All Exposure Routes: 3.3E+01

Total Body Weight HI =	8.5E-01	Total Gastrointestinal HI =	5.1E-01
Total Blood HI =	2.0E-02	CNS HI =	2.5E+01
Total Skin HI =	1.1E+00	Total Liver HI =	5.0E-02
Total CVS HI =	1.1E+00	Total Kidney HI =	2.1E+00
Total Fetotoxicity & Bone HI =	5.1E-01	Total Lungs HI =	5.4E-02

TABLE 9.6. REASONABLE MAXIMUM EXPOSURE (RME)
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs - FUTURE ADULT RESIDENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Skokie Ditch	2,3,7,8-TCDD TEQ (1/2 ND)	9.7E-08		1.2E-08	1.1E-07	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			BAP EQUIVALENT (1/2 ND)	8.8E-07		4.6E-07	1.3E-06	BAP EQUIVALENT (1/2 ND)	NA				
			AROCLOR-1248	6.6E-08		3.7E-08	1.0E-07	AROCLOR-1248	NA				
			ALUMINUM					ALUMINUM	Body Weight	1.0E-03			1.0E-03
			ARSENIC	5.1E-07		6.1E-08	5.7E-07	ARSENIC	Skin, CVS	3.3E-03		4.0E-04	3.7E-03
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone	1.0E-03			1.0E-03
			IRON					IRON	NA	3.6E-03			3.6E-03
			THALLIUM					THALLIUM	Liver	7.4E-04			7.4E-04
			VANADIUM					VANADIUM	Kidney	2.8E-03			2.8E-03
Surface Water	Surface Water	Skokie Ditch	Vinyl Chloride	2.0E-09		7.7E-09	9.7E-09	Vinyl Chloride	Liver	2.7E-06		1.0E-05	1.3E-05
			BAP Equivalent (1/2 ND)	1.2E-08		1.5E-05	1.5E-05	BAP Equivalent (1/2 ND)	NA				
			2,3,7,8-TCDD TEQ (1/2 ND)	4.8E-09		5.7E-06	5.7E-06	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			Antimony					Antimony	Blood	2.1E-04		8.0E-04	1.0E-03
			Thallium					Thallium	Liver	1.7E-03		9.8E-04	2.7E-03
Groundwater	Water / Air	Entire Site	Benzene	2.3E-07	3.4E-08	2.6E-08	2.9E-07	Benzene	Blood	3.0E-03	4.3E-04	3.5E-04	3.8E-03
			Naphthalene					Naphthalene	Body Weight, Nasal Effects (Inh)	9.3E-03	4.1E-02	4.7E-03	5.5E-02
			2-methylnaphthalene					2-methylnaphthalene	Lungs	1.0E-02		1.1E-02	2.1E-02
			Aluminum					Aluminum	Body Weight	2.4E-01		7.1E-04	2.4E-01
			Arsenic	4.6E-05		1.4E-07	4.7E-05	Arsenic	Skin, CVS	3.0E-01		9.0E-04	3.0E-01
			Barium					Barium	Kidney	7.8E-02		3.3E-03	8.1E-02
			Chromium					Chromium	Fetotoxicity/GS/Bone	1.3E-01		3.1E-02	1.6E-01
			Iron					Iron	NA	6.9E-01		2.1E-03	6.9E-01
			Manganese					Manganese	CNS	6.9E+00		5.2E-01	7.5E+00
			Vanadium					Vanadium	Kidney	5.7E-01		6.5E-02	6.3E-01
			Total Risk for Sediment				2.1E-06		Total HI for Sediment				1.3E-02
			Total Risk for Surface Water				2.1E-05		Total HI for Surface Water				3.7E-03
			Total Risk for Groundwater				4.7E-05		Total HI for Groundwater				9.6E+00

Total Risk Across All Media and All Exposure Routes: 7.0E-05

Total HI Across All Media and All Exposure Routes: 9.7E+00

Total Body Weight HI =	2.4E-01	Total Gastrointestinal HI =	1.6E-01
Total Blood HI =	4.8E-03	CNS HI =	7.5E+00
Total Skin HI =	3.1E-01	Total Liver HI =	3.4E-03
Total CVS HI =	3.1E-01	Total Kidney HI =	6.4E-01
Total Fetotoxicity & Bone HI =	1.6E-01	Total Lungs HI =	2.1E-02

TABLE 9.7. REASONABLE MAXIMUM EXPOSURE (RME)
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs - TOTAL RESIDENTIAL ILCRS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child + Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk			
				Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Skokie Ditch	2,3,7,8-TCDD TEQ (1/2 ND)	3.2E-07		3.1E-08	3.5E-07
			BAP EQUIVALENT (1/2 ND)	2.9E-06		1.2E-06	4.1E-06
			AROCLOR-1248	2.2E-07		9.7E-08	3.2E-07
			ALUMINUM				
			ARSENIC	1.7E-06		1.6E-07	1.9E-06
			CHROMIUM				
			IRON				
			THALLIUM				
			VANADIUM				
Surface Water	Surface Water	Skokie Ditch	Vinyl Chloride	2.6E-08		1.9E-08	4.4E-08
			BAP Equivalent (1/2 ND)	8.0E-08		2.5E-05	2.5E-05
			2,3,7,8-TCDD TEQ (1/2 ND)	3.3E-08		9.5E-06	9.5E-06
			Antimony				
			Thallium				
Groundwater	Water / Air	Entire Site	Benzene	4.3E-07		3.7E-08	4.6E-07
			Naphthalene				
			2-methylnaphthalene				
			Aluminum				
			Arsenic	8.7E-05		2.0E-07	8.7E-05
			Barium				
			Chromium				
			Iron				
			Manganese				
			Vanadium				
			Total Risk for Subsurface Soil				1.4E-03
			Total Risk for Sediment				6.7E-06
			Total Risk for Surface Water				3.5E-05
			Total Risk for Groundwater				8.8E-05

Total Risk Across All Media and All Exposure Routes: 1.3E-04

TABLE 9.1a. CENTRAL TENDENCY EXPOSURE (CTE)
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs - FUTURE CONSTRUCTION WORKER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Receptor Population: Construction Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Soil	Subsurface Soil	2,3,7,8-TCDD TEQ (1/2 DL)	1.9E-06	5.5E-08	1.1E-07	2.1E-06	2,3,7,8-TCDD TEQ (1/2 DL)	NA				
			BAP EQUIVALENT (1/2 DL)	2.4E-07		6.3E-08	3.1E-07	BAP EQUIVALENT (1/2 DL)	NA				
			ALUMINUM					ALUMINUM	Body Weight	6.8E-03			6.8E-03
			ANTIMONY					ANTIMONY	Blood	6.0E-02			6.0E-02
			ARSENIC	5.0E-08		3.0E-09	5.3E-08	ARSENIC	Skin, CVS	6.7E-02		4.0E-03	7.1E-02
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone	5.5E-03			5.5E-03
			COPPER					COPPER	Gastrointestinal (GS)	2.6E-02			2.6E-02
			IRON					IRON	NA	9.6E-02			9.6E-02
			MANGANESE					MANGANESE	CNS	4.5E-02			4.5E-02
			SILVER					SILVER	Skin	3.2E-02			3.2E-02
			THALLIUM					THALLIUM	Liver	1.7E-03			1.7E-03
			VANADIUM					VANADIUM	Kidney	1.0E-02			1.0E-02
			NAPHTHALENE					NAPHTHALENE	Body Weight, Nasal Effects (Inh)		3.8E-02		3.8E-02
Sediment	Sediment	Skokie Ditch	2,3,7,8-TCDD TEQ (1/2 ND)	6.6E-09		4.0E-10	7.0E-09	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			BAP EQUIVALENT (1/2 ND)	6.1E-08		1.6E-08	7.6E-08	BAP EQUIVALENT (1/2 ND)	NA				
			AROCLOR-1248	4.5E-09		1.3E-09	5.8E-09	AROCLOR-1248	NA				
			ALUMINUM					ALUMINUM	Body Weight	7.2E-03			7.2E-03
			ARSENIC	3.5E-08		2.1E-09	3.7E-08	ARSENIC	Skin, CVS	4.8E-02		2.9E-03	5.1E-02
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone	5.6E-03			5.6E-03
			IRON					IRON	NA	5.1E-02			5.1E-02
			THALLIUM					THALLIUM	Liver	9.3E-04			9.3E-04
			VANADIUM					VANADIUM	Kidney	5.7E-03			5.7E-03
Surface Water	Surface Water	Skokie Ditch	VINYL CHLORIDE	8.2E-11		1.9E-10	2.7E-10	VINYL CHLORIDE	Liver	2.3E-05		5.2E-05	7.6E-05
			BAP EQUIVALENT (1/2 ND)	4.9E-10		3.6E-07	3.6E-07	BAP EQUIVALENT (1/2 ND)	NA				
			2,3,7,8-TCDD TEQ (1/2 ND)	2.0E-10		1.4E-07	1.4E-07	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			ANTIMONY					ANTIMONY	Blood	3.7E-03		8.1E-03	1.2E-02
			THALLIUM					THALLIUM	Liver	1.3E-03		4.3E-04	1.7E-03
Groundwater	Water / Air	Entire Site	BENZENE		2.5E-11	5.0E-11	7.5E-11	BENZENE	Blood		2.4E-05	4.6E-05	7.1E-05
			NAPHTHALENE					NAPHTHALENE	Body Weight, Nasal Effects (Inh)		7.1E-03	1.6E-04	7.3E-03
			2-METHYLNAPHTHALENE					2-METHYLNAPHTHALENE	Lungs			3.6E-03	3.6E-03
			ALUMINUM					ALUMINUM	Body Weight			2.9E-04	2.9E-04
			ARSENIC			5.5E-10	5.5E-10	ARSENIC	Skin, CVS			7.4E-04	7.4E-04
			BARIUM					BARIUM	Kidney			7.8E-04	7.8E-04
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone			9.5E-03	9.5E-03
			IRON					IRON	NA			1.7E-03	1.7E-03
			MANGANESE					MANGANESE	CNS			4.3E-01	4.3E-01
			VANADIUM					VANADIUM	Kidney			7.7E-03	7.7E-03
			Total Risk for Subsurface Soil				2.4E-06		Total HI for Subsurface Soil				3.9E-01
			Total Risk for Sediment				1.3E-07		Total HI for Sediment				1.2E-01
			Total Risk for Surface Water				5.0E-07		Total HI for Surface Water				1.4E-02
			Total Risk for Groundwater				6.2E-10		Total HI for Groundwater				4.6E-01

Total Risk Across All Media and All Exposure Routes	3.1E-06	Total HI Across All Media and All Exposure Routes	9.9E-01

Total Body Weight HI =	5.2E-02	Total Gastrointestinal HI =	4.7E-02
Total Blood HI =	7.2E-02	CNS HI =	4.7E-01
Total Skin HI =	1.5E-01	Total Liver HI =	4.5E-03
Total CVS HI =	1.2E-01	Total Kidney HI =	2.4E-02
Total Fetotoxicity & Bone HI =	2.1E-02	Total Lungs HI =	3.6E-03
Total Nasal HI =	4.5E-02		

TABLE 9.2a. CENTRAL TENDENCY EXPOSURE (CTE)
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs - MAINTENANCE WORKER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Receptor Population: Maintenance Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Skokie Ditch	2,3,7,8-TCDD TEQ (1/2 ND)	9.1E-09		3.6E-10	9.4E-09	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			BAP EQUIVALENT (1/2 ND)	8.3E-08		1.4E-08	9.7E-08	BAP EQUIVALENT (1/2 ND)	NA				
			AROCLOR-1248	6.2E-09		1.1E-09	7.3E-09	AROCLOR-1248	NA				
			ALUMINUM					ALUMINUM	Body Weight	2.5E-04			2.5E-04
			ARSENIC	4.8E-08		1.9E-09	5.0E-08	ARSENIC	Skin, CVS	8.3E-04		3.3E-05	8.6E-04
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone	2.6E-04			2.6E-04
			IRON					IRON	NA	9.0E-04			9.0E-04
			THALLIUM					THALLIUM	Liver	1.8E-04			1.8E-04
			VANADIUM					VANADIUM	Kidney	7.0E-04			7.0E-04
Surface Water	Surface Water	Skokie Ditch	Vinyl Chloride	1.8E-10		5.0E-10	6.9E-10	Vinyl Chloride	Liver	6.7E-07		1.8E-06	2.5E-06
			BAP Equivalent (1/2 ND)	1.1E-09		1.2E-06	1.2E-06	BAP Equivalent (1/2 ND)	NA				
			2,3,7,8-TCDD TEQ (1/2 ND)	4.5E-10		4.4E-07	4.4E-07	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			Antimony					Antimony	Blood	5.3E-05		1.2E-04	1.7E-04
			Thallium					Thallium	Liver	4.3E-04		1.4E-04	5.7E-04
			Total Risk for Sediment				1.6E-07		Total HI for Sediment				3.2E-03
			Total Risk for Surface Water				1.6E-06		Total HI for Surface Water				7.4E-04

Total Risk Across All Media and All Exposure Routes	1.8E-06
Total HI Across All Media and All Exposure Routes	3.9E-03

Total Body Weight HI =	2.5E-04	Total Fetotoxicity & Bone HI =	2.6E-04
Total Blood HI =	1.7E-04	Total Gastrointestinal HI =	2.6E-04
Total Skin HI =	8.6E-04	Total Liver HI =	7.6E-04
Total CVS HI =	8.6E-04	Total Kidney HI =	7.0E-04

TABLE 9.3a. CENTRAL TENDENCY EXPOSURE (CTE)
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs - ADOLESCENT TRESPASSER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Receptor Population: Trespasser
Receptor Age: Adolescent (7 - 16 years)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Skokie Ditch	2,3,7,8-TCDD TEQ (1/2 ND)	3.4E-08		2.5E-09	3.6E-08	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			BAP EQUIVALENT (1/2 ND)	3.1E-07		9.9E-08	4.0E-07	BAP EQUIVALENT (1/2 ND)	NA				
			AROCLOR-1248	2.3E-08		8.0E-09	3.1E-08	AROCLOR-1248	NA				
			ALUMINUM					ALUMINUM	Body Weight	8.3E-04			8.3E-04
			ARSENIC	1.8E-07		1.3E-08	1.9E-07	ARSENIC	Skin, CVS	2.8E-03		2.1E-04	3.0E-03
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone	8.7E-04			8.7E-04
			IRON					IRON	NA	3.0E-03			3.0E-03
			THALLIUM					THALLIUM	Liver	6.2E-04			6.2E-04
			VANADIUM					VANADIUM	Kidney	2.3E-03			2.3E-03
Surface Water	Surface Water	Skokie Ditch	Vinyl Chloride	1.4E-09		2.9E-09	4.3E-09	Vinyl Chloride	Liver	4.4E-06		9.4E-06	1.4E-05
			BAP Equivalent (1/2 ND)	8.2E-09		5.7E-06	5.7E-06	BAP Equivalent (1/2 ND)	NA				
			2,3,7,8-TCDD TEQ (1/2 ND)	3.4E-09		2.1E-06	2.1E-06	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			Antimony					Antimony	Blood	3.5E-04		7.3E-04	1.1E-03
			Thallium					Thallium	Liver	2.9E-03		8.8E-04	3.7E-03
			Total Risk for Sediment				6.6E-07		Total HI for Sediment				1.1E-02
			Total Risk for Surface Water				7.8E-06		Total HI for Surface Water				4.8E-03

Total Risk Across All Media and All Exposure Routes: 8.5E-06

Total HI Across All Media and All Exposure Routes: 1.5E-02

Total Body Weight HI =	8.3E-04	Total Fetotoxicity & Bone HI =	8.7E-04
Total Blood HI =	1.1E-03	Total Gastrointestinal HI =	8.7E-04
Total Skin HI =	3.0E-03	Total Liver HI =	4.4E-03
Total CVS HI =	3.0E-03	Total Kidney HI =	2.3E-03

TABLE 9.4a. CENTRAL TENDENCY EXPOSURE (CTE)
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs - ADULT RCREATIONAL USER
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Skokie Ditch	2,3,7,8-TCDD TEQ (1/2 ND)	7.0E-09		2.4E-10	7.3E-09	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			BAP EQUIVALENT (1/2 ND)	6.4E-08		9.5E-09	7.4E-08	BAP EQUIVALENT (1/2 ND)	NA				
			AROCLOR-1248	4.8E-09		7.7E-10	5.6E-09	AROCLOR-1248	NA				
			ALUMINUM					ALUMINUM	Body Weight	2.5E-04			2.5E-04
			ARSENIC	3.7E-08		1.3E-09	3.9E-08	ARSENIC	Skin, CVS	8.3E-04		2.8E-05	8.6E-04
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone	2.6E-04			2.6E-04
			IRON					IRON	NA	9.0E-04			9.0E-04
			THALLIUM					THALLIUM	Liver	1.8E-04			1.8E-04
			VANADIUM					VANADIUM	Kidney	7.0E-04			7.0E-04
Surface Water	Surface Water	Skokie Ditch	Vinyl Chloride	1.4E-10		6.7E-10	8.2E-10	Vinyl Chloride	Liver	6.7E-07		3.1E-06	3.8E-06
			BAP Equivalent (1/2 ND)	8.6E-10		1.6E-06	1.6E-06	BAP Equivalent (1/2 ND)	NA				
			2,3,7,8-TCDD TEQ (1/2 ND)	3.5E-10		5.9E-07	5.9E-07	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			Antimony					Antimony	Blood	5.3E-05		2.0E-04	2.5E-04
			Thallium					Thallium	Liver	4.3E-04		2.4E-04	6.7E-04
			Total Risk for Sediment				1.3E-07		Total HI for Sediment				3.1E-03
			Total Risk for Surface Water				2.1E-06		Total HI for Surface Water				9.3E-04

Total Risk Across All Media and All Exposure Routes: 2.3E-06

Total HI Across All Media and All Exposure Routes: 4.1E-03

Total Body Weight HI =	2.5E-04	Total Fetotoxicity & Bone HI =	2.6E-04
Total Blood HI =	2.5E-04	Total Gastrointestinal HI =	2.6E-04
Total Skin HI =	8.6E-04	Total Liver HI =	8.6E-04
Total CVS HI =	8.6E-04	Total Kidney HI =	7.0E-04

TABLE 9.5a. CENTRAL TENDENCY EXPOSURE (CTE)
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs - FUTURE CHILD RESIDENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child (0 -6 years)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Skokie Ditch	2,3,7,8-TCDD TEQ (1/2 ND)	1.9E-08		6.3E-10	1.9E-08	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			BAP EQUIVALENT (1/2 ND)	1.7E-07		2.5E-08	2.0E-07	BAP EQUIVALENT (1/2 ND)	NA				
			AROCLOR-1248	1.3E-08		2.0E-09	1.5E-08	AROCLOR-1248	NA				
			ALUMINUM					ALUMINUM	Body Weight	2.3E-03			2.3E-03
			ARSENIC	1.0E-07		3.4E-09	1.0E-07	ARSENIC	Skin, CVS	7.8E-03		2.6E-04	8.0E-03
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone	2.4E-03			2.4E-03
			IRON					IRON	NA	8.4E-03			8.4E-03
			THALLIUM					THALLIUM	Liver	1.7E-03			1.7E-03
			VANADIUM					VANADIUM	Kidney	6.5E-03			6.5E-03
Surface Water	Surface Water	Skokie Ditch	Vinyl Chloride	2.0E-09		1.1E-09	3.1E-09	Vinyl Chloride	Liver	1.6E-05		8.4E-06	2.4E-05
			BAP Equivalent (1/2 ND)	5.7E-09		1.2E-06	1.2E-06	BAP Equivalent (1/2 ND)	NA				
			2,3,7,8-TCDD TEQ (1/2 ND)	2.3E-09		4.5E-07	4.5E-07	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			Antimony					Antimony	Blood	1.2E-03		5.4E-04	1.8E-03
			Thallium					Thallium	Liver	1.0E-02		6.6E-04	1.1E-02
Groundwater	Water / Air	Entire Site	Benzene	2.0E-08	4.5E-09	2.2E-09	2.6E-08	Benzene	Blood	3.1E-03	6.8E-04	3.4E-04	4.1E-03
			Naphthalene					Naphthalene	Body Weight, Nasal Effects (Inh)	9.6E-03	7.1E-02	4.6E-03	8.5E-02
			2-methylnaphthalene					2-methylnaphthalene	Lungs	1.1E-02		1.1E-02	2.1E-02
			Aluminum					Aluminum	Body Weight	2.4E-01		6.1E-04	2.4E-01
			Arsenic	4.0E-06		1.0E-08	4.0E-06	Arsenic	Skin, CVS	3.1E-01		7.8E-04	3.1E-01
			Barium					Barium	Kidney	8.0E-02		2.9E-03	8.3E-02
			Chromium					Chromium	Fetotoxicity/GS/Bone	1.3E-01		2.7E-02	1.6E-01
			Iron					Iron	NA	7.1E-01		1.8E-03	7.1E-01
			Manganese					Manganese	CNS	7.2E+00		4.5E-01	7.6E+00
			Vanadium					Vanadium	Kidney	5.8E-01		5.6E-02	6.4E-01
						Total Risk for Sediment	3.3E-07					Total HI for Sediment	2.9E-02
						Total Risk for Surface Water	1.7E-06					Total HI for Surface Water	1.2E-02
						Total Risk for Groundwater	4.0E-06					Total HI for Groundwater	9.9E+00

Total Risk Across All Media and All Exposure Routes: 6.0E-06

Total HI Across All Media and All Exposure Routes: 9.9E+00

Total Body Weight HI =	2.5E-01	Total Gastrointestinal HI =	1.6E-01
Total Blood HI =	5.9E-03	CNS HI =	7.6E+00
Total Skin HI =	3.2E-01	Total Liver HI =	1.2E-02
Total CVS HI =	3.2E-01	Total Kidney HI =	6.5E-01
Total Fetotoxicity & Bone HI =	1.6E-01	Total Lungs HI =	2.1E-02

TABLE 9.6a. CENTRAL TENDENCY EXPOSURE (CTE)
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs - FUTURE ADULT RESIDENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Skokie Ditch	2,3,7,8-TCDD TEQ (1/2 ND)	7.0E-09		2.4E-10	7.3E-09	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			BAP EQUIVALENT (1/2 ND)	6.4E-08		9.5E-09	7.4E-08	BAP EQUIVALENT (1/2 ND)	NA				
			AROCLOR-1248	4.8E-09		7.7E-10	5.6E-09	AROCLOR-1248	NA				
			ALUMINUM					ALUMINUM	Body Weight	2.5E-04			2.5E-04
			ARSENIC	3.7E-08		1.3E-09	3.9E-08	ARSENIC	Skin, CVS	8.3E-04		2.8E-05	8.6E-04
			CHROMIUM					CHROMIUM	Fetotoxicity/GS/Bone	2.6E-04			2.6E-04
			IRON					IRON	NA	9.0E-04			9.0E-04
			THALLIUM					THALLIUM	Liver	1.8E-04			1.8E-04
			VANADIUM					VANADIUM	Kidney	7.0E-04			7.0E-04
Surface Water	Surface Water	Skokie Ditch	Vinyl Chloride	1.4E-10		6.7E-10	8.2E-10	Vinyl Chloride	Liver	6.7E-07		3.1E-06	3.8E-06
			BAP Equivalent (1/2 ND)	8.6E-10		1.6E-06	1.6E-06	BAP Equivalent (1/2 ND)	NA				
			2,3,7,8-TCDD TEQ (1/2 ND)	3.5E-10		5.9E-07	5.9E-07	2,3,7,8-TCDD TEQ (1/2 ND)	NA				
			Antimony					Antimony	Blood	5.3E-05		2.0E-04	2.5E-04
			Thallium					Thallium	Liver	4.3E-04		2.4E-04	6.7E-04
Groundwater	Water / Air	Entire Site	Benzene	3.1E-08	3.4E-09	4.4E-09	3.9E-08	Benzene	Blood	1.4E-03	1.5E-04	2.0E-04	1.8E-03
			Naphthalene					Naphthalene	Body Weight, Nasal Effects (Inh)	4.4E-03	1.5E-02	2.7E-03	2.2E-02
			2-methylnaphthalene					2-methylnaphthalene	Lungs	4.8E-03		6.2E-03	1.1E-02
			Aluminum					Aluminum	Body Weight	1.1E-01		3.6E-04	1.1E-01
			Arsenic	6.3E-06		2.0E-08	6.4E-06	Arsenic	Skin, CVS	1.4E-01		4.5E-04	1.4E-01
			Barium					Barium	Kidney	3.6E-02		1.7E-03	3.8E-02
			Chromium					Chromium	Fetotoxicity/GS/Bone	6.0E-02		1.5E-02	7.6E-02
			Iron					Iron	NA	3.2E-01		1.0E-03	3.2E-01
			Manganese					Manganese	CNS	3.3E+00		2.6E-01	3.5E+00
			Vanadium					Vanadium	Kidney	2.7E-01		3.3E-02	3.0E-01
						Total Risk for Sediment	1.3E-07					Total HI for Sediment	3.1E-03
						Total Risk for Surface Water	2.1E-06					Total HI for Surface Water	9.3E-04
						Total Risk for Groundwater	6.4E-06					Total HI for Groundwater	4.5E+00

Total Risk Across All Media and All Exposure Routes	8.7E-06
Total HI Across All Media and All Exposure Routes	4.5E+00

Total Body Weight HI =	1.1E-01	Total Gastrointestinal HI =	7.6E-02
Total Blood HI =	2.0E-03	CNS HI =	3.5E+00
Total Skin HI =	1.4E-01	Total Liver HI =	8.6E-04
Total CVS HI =	1.4E-01	Total Kidney HI =	3.0E-01
Total Fetotoxicity & Bone HI =	7.6E-02	Total Lungs HI =	1.1E-02

TABLE 9.7a. CENTRAL TENDENCY EXPOSURE (CTE)
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs - TOTAL RESIDENTIAL ILCRS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child + Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk			
				Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Skokie Ditch	2,3,7,8-TCDD TEQ (1/2 ND)	2.6E-08		8.7E-10	2.7E-08
			BAP EQUIVALENT (1/2 ND)	2.4E-07		3.4E-08	2.7E-07
			AROCLOR-1248	1.8E-08		2.8E-09	2.0E-08
			ALUMINUM				
			ARSENIC	1.4E-07		4.6E-09	1.4E-07
			CHROMIUM				
			IRON				
			THALLIUM				
			VANADIUM				
Surface Water	Surface Water	Skokie Ditch	Vinyl Chloride	2.1E-09		1.8E-09	3.9E-09
			BAP Equivalent (1/2 ND)	6.6E-09		2.8E-06	2.8E-06
			2,3,7,8-TCDD TEQ (1/2 ND)	2.7E-09		1.0E-06	1.0E-06
			Antimony				
			Thallium				
Groundwater	Water / Air	Entire Site	Benzene	5.1E-08		6.6E-09	5.7E-08
			Naphthalene				
			2-methylnaphthalene				
			Aluminum				
			Arsenic	1.0E-05		3.0E-08	1.0E-05
			Barium				
			Chromium				
			Iron				
			Manganese				
			Vanadium				
			Total Risk for Sediment				4.6E-07
			Total Risk for Surface Water				3.8E-06
			Total Risk for Groundwater				1.0E-05

Total Risk Across All Media and All Exposure Routes: 1.5E-05

APPENDIX F.2

DATASETS USED IN HHRA
AND
PROUCL STATISTICAL CALCULATIONS

SUBSURFACE SOIL STATISTICAL RESULTS (PROUCL)
SITE 1
NAVSTA, GREAT LAKES, ILLINOIS

Version 2.0 Run Date: 06/17/2007 07:41 PM Chemical	Raw Statistics Frequency of Detection Number	Percent	Number of Unique Results	Number of Rejections	Mininum Non Detected	Maximum Non Detected	Mininum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Median	Standard Deviation	Variance	Coefficient of Variation	Skewness	Data Distribution	EPA's ProUCL Recommended UCL to Use		Comments
project_no																				
BAP EQUIVALENT	16/16	100%	16	0	-	-	4	13000	--	1596	1596	76.5	3738	13974761	2.34	2.65	Lognormal	11658	99% Chebyshev(MVUE) UCL	- -
BAP EQUIVALENT ZEROND	16/16	100%	16	0	-	-	0.3	13000	--	1584	1584	63.0	3740	13989956	2.36	2.65	Gamma	5554	Adjusted Gamma 95% UCL	- -
ALUMINUM	16/16	100%	16	0	-	-	2750	10300	--	7171	7171	7295	1964	3857322	0.274	-0.691	Normal	8032	Student-t	- -
ANTIMONY	11/16	69%	15	0	0.28	0.65	0.53	21.4	--	3.58	5.12	0.948	4.32	18.7	1.21	0.957	Gamma	7.09	Approximate Gamma 95% UCL	- -
ARSENIC	16/16	100%	13	0	-	-	4.4	19.6	--	10.0	10.0	8.35	4.61	21.3	0.460	1.18	Lognormal	12.0, 12.1,12.4	Student's-t, modified-t or H-UCL	- -
CHROMIUM	16/16	100%	15	0	-	-	6 J	55.9 J	--	20.6	20.6	18.5	11.4	130	0.555	2.01	Gamma	26.1	Approximate Gamma 95% UCL	- -
COPPER	16/16	100%	16	0	-	-	19.2 J	1530 J	--	124	124	53.4	202	40801	1.62	2.78	Non-parametric	627	99% Chebyshev(Mean, Std) UCL	- -
IRON	16/16	100%	16	0	-	-	11400 J	102000 J	--	29591	29591	20350	23690	561237406	0.801	2.41	Lognormal	39844	H-UCL	- -
LEAD	16/16	100%	15	0	-	-	11.9 J	1410 J	--	209	209	127	244	59745	1.17	1.52	Gamma	367	Approximate Gamma 95% UCL	- -
MANGANESE	16/16	100%	16	0	-	-	59.1 J	1000 J	--	416	416	429	269	72374	0.647	0.209	Normal	533	Student-t	- -
SILVER	10/16	63%	16	0	0.063	0.47	0.34 J	709	--	24.9	39.8	0.575	88.5	7833	3.56	3.98	Lognormal	94.9	99% Chebyshev(MVUE) UCL	- -
THALLIUM	3/16	19%	13	0	0.3	0.73	0.73	1.5	--	0.369	1.14	0.171	0.413	0.171	1.12	2.14	Non-parametric	0.818	95% Chebyshev(Mean, Std) UCL	- -
VANADIUM	16/16	100%	16	0	-	-	13.8	122	--	32.4	32.4	23.6	26.5	703	0.819	2.90	Lognormal	42.9	H-UCL	- -
NAPHTHALENE	13/16	81%	14	0	38	4100	20 J	3100 J	--	447	375	110	864	746848	1.93	2.62	Gamma	1038	Adjusted Gamma 95% UCL	Max ND > Max & UCL

Footnotes:
Bolded shaded values indicate that percentage of non-detected values is greater than 50 percent.
For non-detects, 1/2 sample quantitation limit was used as a proxy concentration.
The Discordance Outlier test assumes normality after the maximum concentration is removed.
Only one outlier is tested for, the Discordance test does not test for multiple outliers.
1/2 the detection limit was used for B qualified data.
NA(5) - Not applicable, data distribution does not allow the statistic to be calculated.
While the NUS ProUCL program has been extensively checked it is recommended that the user select two or three chemicals and evaluate these chemicals using EPA's ProUCL.

SUBSURFACE SOIL DATA SET USED FOR HUMAN HEALTH RISK ASSESSMENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

LOCATION ID	SAMPLE ID	2,3,7,8-TCDD TEQ (1/2 ND)	BAP EQUIVALENT	NAPHTHALENE	ALUMINUM	ANTIMONY	ARSENIC	CHROMIUM	COPPER	IRON	LEAD	MANGANESE	SILVER	THALLIUM	VANADIUM
		(ng/kg)	(ug/kg)	(ug/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NTC01SB088	NTC01SB0880708		8800	4100 U	7660	12.3	8.4	16.7 J	19.2 J	19800 J	30.1 J	530 J	0.12 U	0.32 U	18.9
NTC01SB089	NTC01SB0891112		450	460	6570	7.5	19.6	29.3 J	112 J	69100 J	445 J	425 J	17.3 J	0.73	28.8
NTC01SB090	NTC01SB0900812	90	32	150 J	8470	21.4	11	27.8 J	829 J	53100 J	1410 J	587 J	16.1 J	0.33 U	25.5
NTC01SB090	NTC01SB0900812-AVG	4600	24	155 J	6815	10.7775	8.8	18.7 J	426.75 J	38300 J	732.45 J	379 J	8.1075 J	0.335 U	23.7
NTC01SB090	NTC01SB0900812-D	9000	17	160 J	5160	0.31 U	6.6	9.6 J	24.5 J	23500 J	54.9 J	171 J	0.23 U	0.34 U	21.9
NTC01SB091	NTC01SB0910812		4	21 J	9840	0.29 U	6.4	18.3 J	28.4 J	19900 J	32.9 J	930 J	0.61 J	0.32 U	23
NTC01SB092	NTC01SB0921516		58	20 J	10300	0.6	16	27.9 J	63.1 J	25600 J	188 J	433 J	0.54 J	0.45 U	27.2
NTC01SB093	NTC01SB0930810		92	66 J	2750	0.88	4.4	7.8 J	37.5 J	13600 J	42.6 J	105 J	0.79 J	0.31 U	13.8
NTC01SB094	NTC01SB0941416		61	110	6400	6.7	8.1	20.6 J	51.7 J	28600 J	160 J	332 J	4.4 J	0.41 U	32.2
NTC01SB095	NTC01SB0950810	2	20	72 J	6970	0.65 U	6.4	15.4 J	38.9 J	20800 J	68.1 J	61.6 J	0.37 U	1.5	122
NTC01SB096	NTC01SB0961012		380	400 U	8640	0.54	14.5	16.7 J	61 J	19200 J	212 J	523 J	0.3 U	0.32 U	22.4
NTC01SB097	NTC01SB0970304		1800	280 J	7680	5.2	6.2	21.2 J	58.8 J	14500 J	355	163 J	4.6	0.35 U	14.7
NTC01SB098	NTC01SB0981516		7	20 J	7790	9.2	8.3	55.9 J	189 J	102000 J	766	612 J	4.5	0.73 U	23.5
NTC01SB099	NTC01SB0991012	15	150	110 J	5110	0.53	9.7	10.4 J	27.9 J	19100 J	185	1000 J	709	0.32 U	34.6
NTC01SB099	NTC01SB0991012-AVG	25	440	440 J	5865	1.015	9.6	26.65 J	778.95 J	29850 J	151	756 J	356.35	0.435 U	31.7
NTC01SB099	NTC01SB0991012-D	35	740	770 J	6620	1.5	9.5	42.9 J	1530 J	40600 J	117	512 J	3.7	0.55 U	28.8
NTC01SB100	NTC01SB1001012		35	25 J	9120	1.6	8.6	20.8 J	55 J	27100 J	102	747 J	0.47 U	0.33 U	56.1
NTC01SB101	NTC01SB1010406		350	110 J	3750	0.28 U	8.1	6 J	22.9 J	11400 J	30.1 J	93.5 J	0.34 J	0.3 U	15.7
NTC01SB102	NTC01SB1020408	35	13000	3100 J	7300	0.48 U	18.9	12.6 J	25.8 J	16000 J	11.9 J	59.1 J	0.093 UJ	1.2	47.4
NTC01SB103	NTC01SB1031919		10	38 U	7290	0.28 U	8.1	14.5 J	22 J	17700 J	19.7 J	499 J	0.063 U	0.3 U	17.2

SEDIMENT STATISTICAL RESULTS (PROUCL)
SITE 1
NAVSTA, GREAT LAKES, ILLINOIS

Version 2.0 Chemical	Raw Statistics: Frequency of Detection Number	Frequency of Detection Percent	Number of Unique Results	Number of Rejections	Minimum Non Detected	Maximum Non Detected	Minimum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Median	Standard Deviation	Variance	Coefficient of Variation	Skewness	Data Distribution	EPA's ProUCL Recommended UCL to Use		Comments
BAP EQUIVALENT (1/2 ND)	10/10	100%	9	0	-	-	380	5100	--	1958	1958	2000	1425	2031396	0.728	1.06	Normal	2784	Student-t	--
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UCL > Max
TEQ MAMMAL (1/2 ND)	4/4	100%	4	0	-	-	5.3	16	--	10.1	10.1	9.45	4.42	19.6	0.440	0.792	Normal	15.3	Student-t	--
ALUMINUM	10/10	100%	10	0	-	-	1180	11800	--	6869	6869	7840	2851	8127745	0.415	-0.905	Normal	8521	Student-t	--
ARSENIC	10/10	100%	10	0	-	-	2.1	10.1	--	7.03	7.03	7.90	2.49	6.21	0.355	-1.238	Normal	8.47	Student-t	--
CHROMIUM	10/10	100%	10	0	-	-	3.2	44.2	--	20.5	20.5	18.6	10.5	111	0.513	0.928	Normal	26.6	Student-t	--
IRON	10/10	100%	10	0	-	-	5290	28500	--	17754	17754	19300	6232	38834604	0.351	-0.790	Normal	21366	Student-t	--
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Max ND > Max & UCL
VANADIUM	10/10	100%	10	0	-	-	4.9	31	--	19.6	19.6	20.9	7.10	50.4	0.362	-1.105	Normal	23.7	Student-t	--

Footnotes:
Bolded shaded values indicate that percentage of non-detected values is greater than 50 percent.
For non-detects, 1/2 sample quantitation limit was used as a proxy concentration.
The Discordance Outlier test assumes normality after the maximum concentration is removed.
Only one outlier is tested for, the Discordance test does not test for multiple outliers.
N/R - Bootstrap statistics can not be calculated because there are less than five unique samples.
1/2 the detection limit was used for B qualified data.
While the NUS ProUCL program has been extensively checked it is recommended that the user select two or three chemicals and evaluate these chemicals using EPA's ProUCL.

SEDIMENT DATA SET USED FOR HUMAN HEALTH RISK ASSESSMENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

LOCATION ID	SAMPLE ID	2,3,7,8-TCDD TEQ (1/2 ND)	BAP EQUIVALENT (1/2 ND)	AROCLOR-1248	ALUMINUM	ARSENIC	CHROMIUM	IRON	THALLIUM	VANADIUM
		(ng/kg)	(ug/kg)	(ug/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NTC01SW/SD01	NTC01SD0100	5.3	2200	50 U	3530	3.3	13.8	11700	0.39 U	11
NTC01SW/SD01	NTC01SD0101	16	5100	820	6130	6.8	44.2	18700	0.46 U	19
NTC01SW/SD02	NTC01SD0200	9.6	2500	89 U	8920	8.1	24.7	23900	0.7 U	25.7
NTC01SW/SD02	NTC01SD0201		380		7920	7.7	19.5	15100	0.47 U	20.3
NTC01SW/SD03	NTC01SD0300		2800		7760	8.4	17.6	20100	0.48 U	23.5
NTC01SW/SD03	NTC01SD0301		1200		7980	9.4	16.2	19900	0.35 U	21.4
NTC01SD04	NTC01SD0400		1900	75 U	8970	7.9	21.5	21400	0.63	22.9
NTC01SD04	NTC01SD0400-AVG	9.3	1800	81.5 U	10385	9	25.4	24950	0.63	26.95
NTC01SD04	NTC01SD0400-D		1800	88 U	11800	10.1	29.3	28500	0.69 U	31
NTC01SD04	NTC01SD0401		2500		9530	9.1	23.8	23800	0.63	26.4
NTC01SD05	NTC01SD0500		570		1180	2.1	3.2	5290	0.3 U	4.9
NTC01SD05	NTC01SD0501		530		5350	6.4	16.9	14100	0.7 U	17

GROUNDWATER DATA USED FOR HUMAN HEALTH RISK ASSESSMENT
SITE 01 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

LOCATION ID	NTC01MW01	NTC01MW01	NTC01MW01	NTC01MW02	NTC01MW03	NTC01MW04
EASTING	1108569.281	1108569.281	1108569.281	1109971.566	1110721.806	1110383.743
NORTHING	2058000.505	2058000.505	2058000.505	2058003.471	2057181.251	2055932.129
SITE	01	01	01	01	01	01
area	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL
SAMPLE ID	NTC01GW0101	NTC01GW0101-AVG	NTC01GW0101-D	NTC01GW0201	NTC01GW0301	NTC01GW0401
sample_coc	NTC01GW0101	NTC01GW0101-AVG	NTC01FD03110701	NTC01GW0201	NTC01GW0301	NTC01GW0401
SAMPLE DATE	03/11/2007	03/11/2007	03/12/2007	03/11/2007	03/12/2007	03/12/2007
sacode	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL
matrix	GW	GW	GW	GW	GW	GW
submatrix	NA	NA	NA	NA	NA	NA
TOP DEPTH	5	5	5	29	13	17
BOTTOM DEPTH	15	15	15	39	23	27
BENZENE	1 U	1 U	1 U	1 U	1 U	1 U
NAPHTHALENE						
2-METHYLNAPHTHALENE	0.97 U	0.965 U	0.96 U	0.96 U	0.98 U	1 U
NAPHTHALENE	0.97 U	0.965 U	0.96 U	0.96 U	0.98 U	1 U
ALUMINUM	73.4	51.05	57.4 U	28 U	8650	73
ARSENIC	3.3 U	3.3 U	3.3 U	3.3 U	3.3	3.3 U
BARIUM	51.5	51.4	51.3	53.6	119	74.2
CHROMIUM	0.93 U	0.7825 J	1.1 J	0.93 U	14.1	0.93 U
IRON	527	493.5	460	2100	11400	18.0 U
MANGANESE	376	374	372	48.9	366	123
VANADIUM	7.9	8.15 J	8.4 J	3.7	20.7	4.1
LEAD	1.6 U	1.6 U	1.6 U	1.6 U	5.8	1.6 U

GROUNDWATER DATA USED FOR HUMAN HEALTH RISK ASSESSMENT
SITE 01 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

LOCATION ID	NTC01MW05	NTC01MW06	NTC01MW07	NTC01MW08	NTC01MW09	NTC01MW10
EASTING	1109624.012	1108991.21	1108359.625	1108121.873	1108142.095	1108143.037
NORTHING	2055474.514	2055471.117	2055524.706	2055947.088	2056814.669	2057447.637
SITE	01	01	01	01	01	01
area	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL
SAMPLE ID	NTC01GW0501	NTC01GW0601	NTC01GW0701	NTC01GW0801	NTC01GW0901	NTC01GW1001
sample_coc	NTC01GW0501	NTC01GW0601	NTC01GW0701	NTC01GW0801	NTC01GW0901	NTC01GW1001
SAMPLE DATE	03/12/2007	03/12/2007	03/11/2007	03/11/2007	03/11/2007	03/11/2007
sacode	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
matrix	GW	GW	GW	GW	GW	GW
submatrix	NA	NA	NA	NA	NA	NA
TOP DEPTH	4	4.5	28	7	7	11
BOTTOM DEPTH	14	14.5	38	17	17	21
BENZENE	1 U	1 U	1 U	1 U	1 U	1 U
NAPHTHALENE						
2-METHYLNAPHTHALENE	0.96 U	1 U	0.95 U	0.95 U	0.95 U	0.97 U
NAPHTHALENE	0.96 U	1 U	0.95 U	0.95 U	0.95 U	0.97 U
ALUMINUM	144	2980	50.2 U	68.3	53.8 U	160
ARSENIC	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
BARIUM	54	216	59.2	87.7	58.8	29.3
CHROMIUM	0.93 U	5	0.93 U	2	1.8	0.93 U
IRON	106	3650	647	1150	980	127
MANGANESE	33.2	455	9.4	4510	5070	651
VANADIUM	1.6	10.7	2.6	3.6	4.2	4.8
LEAD	1.6 U	4.4	1.6 U	1.6 U	1.6 U	1.6 U

GROUNDWATER DATA USED FOR HUMAN HEALTH RISK ASSESSMENT
SITE 01 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

LOCATION ID	NTC01TW01	NTC01TW01	NTC01TW01	NTC01TW02	NTC01TW03	NTC01TW04
EASTING	1108541.534	1108541.534	1108541.534	1108697.117	1108828.513	1108752.372
NORTHING	2056785.597	2056785.597	2056785.597	2056727.093	2056837.751	2057251.304
SITE	01	01	01	01	01	01
area	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL	SITE 01-GOLF COURSE LANDFILL
SAMPLE ID	NTC01GWTW0101	NTC01GWTW0101-AVG	NTC01GWTW0101-D	NTC01GWTW0201	NTC01GWTW0301	NTC01GWTW0401
sample_coc	NTC01GWTW0101	NTC01GWTW0101-AVG	NTC01FD12190602	NTC01GWTW0201	NTC01GWTW0301	NTC01TWGW0401
SAMPLE DATE	12/19/2006	12/19/2006	12/19/2006	12/19/2006	12/19/2006	03/12/2007
sacode	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL
matrix	GW	GW	GW	GW	GW	GW
submatrix	NA	NA	NA	NA	NA	NA
TOP DEPTH	11	11	11	4	7	7
BOTTOM DEPTH	21	21	21	19	22	17
BENZENE	0.32 J	0.29 J	0.26 J	0.44 J	1 U	1 U
NAPHTHALENE	4.4 J	4.8 J	5.2 J	10 U	11 U	
2-METHYLNAPHTHALENE	1.3	1.4	1.5	1 U	1 U	
NAPHTHALENE	5.9	6.35 J	6.8 J	1 U	1 U	
ALUMINUM	132	132		90.2 U	27.9 U	
ARSENIC	2.4	2.4		2.4	1.7 U	
BARIUM	566	566		99.7	566	
CHROMIUM	1.6	1.6		0.85	0.65	
IRON	17600	17600		198	3290	
MANGANESE	104	104		57.3	39.6	
VANADIUM	2.8	2.8		1.7 U	3.1	
LEAD	8.4	8.4		2	1.2	

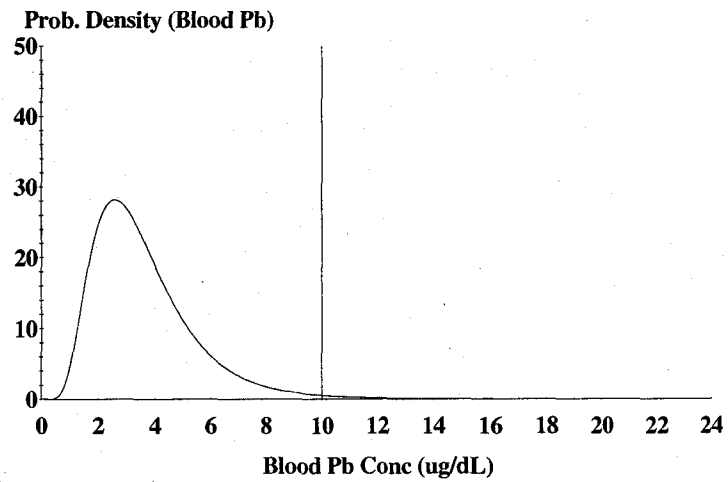
SURFACE WATER DATA SET USED FOR HUMAN HEALTH RISK ASSESSMENT
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

LOCATION ID	SAMPLE ID	VINYL CHLORIDE	2,3,7,8-TCDD TEQ (1/2 ND)	BAP EQUIVALENT	ANTIMONY	THALLIUM
		(ug/L)	(pg/L)	(ug/L)	(ug/L)	(ug/L)
NTC01SW/SD01	NTC01SW0100	1 U	3.8	0.15	2.4 U	5.1
NTC01SW/SD02	NTC01SW0200	1 U	3.3	0.15	3.2	2.6 U
NTC01SW/SD03	NTC01SW0300	1 U	3.5	0.16	3.6	2.6 U
NTC01SW/SD03	NTC01SW0300-D	0.25 J	3.8	0.16	2.4 U	2.6 U
NTC01SW04	NTC01SW0400	0.34 J	3.4	0.22	2.4 U	2.6 U
NTC01SW05	NTC01SW0500	1 U	3.5	0.22	2.4 U	2.6 U

APPENDIX F.3

CHILD (IEUBK) AND ADULT LEAD MODEL RESULTS

SITE 1 - IEUBK MODEL
SOIL CONC. = 209 mg/kg
GW CONC. = 2.2 µg/L



Cutoff = 10.000 ug/dl
Geo Mean = 3.355
GSD = 1.600
% Above = 1.007
% Below = 98.993

Age Range = 0 to 84 months
Time Step = Every 4 Hours
Run Mode = Research

LEAD MODEL FOR WINDOWS Version 1.0

==========
Model Version: 1.0 Build 263
User Name:
Date:
Site Name:
Operable Unit:
Run Mode: Research
==========
The time step used in this model run: 1 - Every 4 Hours (6 times a day).

****** Air ******

Indoor Air Pb Concentration: 30.000 percent of outdoor.
Other Air Parameters:

Age	Time Outdoors (hours)	Ventilation Rate (m^3/day)	Lung Absorption (%)	Outdoor Air Pb Conc (ug Pb/m^3)
.5-1	1.000	2.000	32.000	0.100
1-2	2.000	3.000	32.000	0.100
2-3	3.000	5.000	32.000	0.100
3-4	4.000	5.000	32.000	0.100
4-5	4.000	5.000	32.000	0.100
5-6	4.000	7.000	32.000	0.100
6-7	4.000	7.000	32.000	0.100

****** Diet ******

Age	Diet Intake(ug/day)
.5-1	5.530
1-2	5.780
2-3	6.490
3-4	6.240
4-5	6.010
5-6	6.340
6-7	7.000

****** Drinking Water ******

Water Consumption:

Age	Water (L/day)
.5-1	0.200
1-2	0.500
2-3	0.520
3-4	0.530
4-5	0.550

5-6	0.580
6-7	0.590

Drinking Water Concentration: 2.200 ug Pb/L

****** Soil & Dust ******

Multiple Source Analysis Used
Average multiple source concentration: 156.300 ug/g

Mass fraction of outdoor soil to indoor dust conversion factor: 0.700
Outdoor airborne lead to indoor household dust lead concentration: 100.000
Use alternate indoor dust Pb sources? No

Age	Soil (ug Pb/g)	House Dust (ug Pb/g)
.5-1	209.000	156.300
1-2	209.000	156.300
2-3	209.000	156.300
3-4	209.000	156.300
4-5	209.000	156.300
5-6	209.000	156.300
6-7	209.000	156.300

****** Alternate Intake ******

Age	Alternate (ug Pb/day)
.5-1	0.000
1-2	0.000
2-3	0.000
3-4	0.000
4-5	0.000
5-6	0.000
6-7	0.000

****** Maternal Contribution: Infant Model ******

Maternal Blood Concentration: 2.500 ug Pb/dL

****
CALCULATED BLOOD LEAD AND LEAD UPTAKES:
****

Year	Air (ug/day)	Diet (ug/day)	Alternate (ug/day)	Water (ug/day)
.5-1	0.021	2.553	0.000	0.203
1-2	0.034	2.650	0.000	0.504
2-3	0.062	3.005	0.000	0.530
3-4	0.067	2.922	0.000	0.546

4-5	0.067	2.867	0.000	0.577
5-6	0.093	3.044	0.000	0.613
6-7	0.093	3.371	0.000	0.625

Year	Soil+Dust (ug/day)	Total (ug/day)	Blood (ug/dL)
.5-1	4.238	7.014	3.8
1-2	6.685	9.874	4.1
2-3	6.751	10.348	3.8
3-4	6.828	10.362	3.6
4-5	5.152	8.663	3.1
5-6	4.668	8.418	2.7
6-7	4.422	8.511	2.4

Calculations of Blood Lead Concentrations (PbBs) - NAVSTA Great Lakes - Site 1, Subsurface Soil - Construction Worker

U.S. EPA Technical Review Workgroup for Lead, Adult Lead Committee

Version date 05/19/03

Exposure Variable	PbB Equation[1] 1*	2**	Description of Exposure Variable	Units	Values for Non-Residential Exposure Scenario: Using Equation 1, GSDi = Hom	Using Equation 1, GSDi = Het	Using Equation 2, GSDi = Hom	Using Equation 2, GSDi = Het
PbS	X	X	Soil lead concentration	ug/g or ppm	209	209	209	209
$R_{fetal/maternal}$	X	X	Fetal/maternal PbB ratio	--	0.9	0.9	0.9	0.9
BKSF	X	X	Biokinetic Slope Factor	ug/dL per ug/day	0.4	0.4	0.4	0.4
GSD_i	X	X	Geometric standard deviation PbB	--	2.2	2.2	2.2	2.2
PbB_0	X	X	Baseline PbB	ug/dL	1.5	1.5	1.5	1.5
IR_S	X		Soil ingestion rate (including soil-derived indoor dust)	g/day	0.100	0.100	--	--
IR_{S+D}		X	Total ingestion rate of outdoor soil and indoor dust	g/day	--	--	0.100	0.100
W_S		X	Weighting factor; fraction of IR_{S+D} ingested as outdoor soil	--	--	--	1.0	1.0
K_{SD}		X	Mass fraction of soil in dust	--	--	--	0.7	0.7
$AF_{S,D}$	X	X	Absorption fraction (same for soil and dust)	--	0.12	0.12	0.12	0.12
$EF_{S,D}$	X	X	Exposure frequency (same for soil and dust)	days/yr	30	30	30	30
$AT_{S,D}$	X	X	Averaging time (same for soil and dust)	days/yr	42	42	42	42
PbB_{adult}	**PbB of adult worker, geometric mean**			**ug/dL**	**2.2**	**2.2**	**2.2**	**2.2**
$PbB_{fetal,0.95}$	**95th percentile PbB among fetuses of adult workers**			**ug/dL**	**7.3**	**7.3**	**7.3**	**7.3**
PbB_t	**Target PbB level of concern (e.g., 10 ug/dL)**			**ug/dL**	**10.0**	**10.0**	**10.0**	**10.0**
$P(PbB_{fetal} > PbB_t)$	**Probability that fetal PbB > PbB_t, assuming lognormal distribution**			**%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**

[1] Equation 1 does not apportion exposure between soil and dust ingestion (excludes W_S, K_{SD}).
When $IR_S = IR_{S+D}$ and $W_S = 1.0$, the equations yield the same $PbB_{fetal,0.95}$.

***Equation 1, based on Eq. 1, 2 in USEPA (1996).**

PbB_{adult} =	$(PbS*BKSF*IR_{S+D}*AF_{S,D}*EF_S/AT_{S,D}) + PbB_0$
$PbB_{fetal,0.95}$ =	$PbB_{adult} * (GSD_i^{1.645} * R)$

****Equation 2, alternate approach based on Eq. 1, 2, and A-19 in USEPA (1996).**

PbB_{adult} =	$PbS*BKSF*([(IR_{S+D})*AF_S*EF_S*W_S]+[K_{SD}*(IR_{S+D})*(1-W_S)*AF_D*EF_D])/365+PbB_0$
$PbB_{fetal,0.95}$ =	$PbB_{adult} * (GSD_i^{1.645} * R)$

Source: U.S. EPA (1996). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil

APPENDIX F.4

EXAMPLE RISK ASSESSMENT CALCULATIONS

CALCULATION WORKSHEET

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		**JOB NUMBER:** 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF VAPORS FROM GROUNDWATER BY A CONSTRUCTION WORKER IN A TRENCH		
BASED ON: USEPA, DEC. 1989		
BY: T. JACKMAN	**CHECKED BY:**	**DATE:** 3/11/2008

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from inhalation of volatiles in a trench by construction workers.

EQUATION:

$$IEX = \frac{Ca \times IR \times ET \times EF \times ED}{BW \times AT}$$

Where:

IEX	=	estimated exposure intake (mg/kg-day)
Ca	=	exposure point concentration in air (mg/m^3) calculated by the VDEQ Model
IR	=	inhlation rate (m^3/hr)
ET	=	exposure time (hrs/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFi	=	inhalation carcinogenic slope factor (kg-day/mg)
RfDi	=	inhalation noncarcinogenic reference dose (mg/kg-day)

RISKS:

ICLR (Carcinogens) = Intake (mg/kg/day) x CSFi (kg-day/mg)
HQ (Noncarcinogens) = Intake (mg/kg/day) / RFDi (mg/kg-day)

ASSUMPTIONS:

Ca	=	1.8E-05	mg/m^3	Benzene
IR	=	2.5	m^3/hr	
ET	=	4	hr/day	
EF	=	30	days/year	
ED	=	1	year	
BW	=	70	kg	
ATc	=	25550	days	
ATnc	=	42	days	
CSFi	=	0.027	(kg-day/mg)	
RfDi	=	0.023	mg/kg-day	

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF VAPORS FROM GROUNDWATER BY A CONSTRUCTION WORKER IN A TRENCH		
BASED ON: USEPA, DEC. 1989		
BY: T. JACKMAN	CHECKED BY:	DATE: 3/11/2008

EXAMPLE CARCINOGENIC CALCULATION

$$IEXc = \frac{1.8E\text{-}05\ mg/m3 \times 2.5\ m3/hr \times 4\ hr/day \times 30\ days/year \times 1\ year}{70\ kg \times 25550\ days}$$

IEXc = 3.07E-09 mg/kg-day

ICLR = 3.07E-09 mg/kg-day x 0.027 (kg-day/mg) = Incremental Lifetime Cancer Risk

ICLR = 8.3E-11

EXAMPLE NONCARCINOGENIC CALCULATION

$$IEXnc = \frac{1.8E\text{-}05\ mg/m3 \times 2.5\ m3/hr \times 4\ hr/day \times 30\ days/year \times 1\ year}{70\ kg \times 42\ days}$$

IEXnc = 1.87E-06 mg/kg-day

HQ = 1.87E-06 mg/kg-day / 2.3E-02 mg/kg-day

HQ = **8.2E-05**

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM INGESTION OF GROUNDWATER FUTURE ADULT RESIDENT		
BASED ON: USEPA, DECEMBER 1989		
BY: T. JACKMAN	CHECKED BY:	DATE: 03/11/08

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from ingestion of groundwater by the future adult resident (RME).

EQUATION:

$$IEX = \frac{Cgw \times CF \times IRgw \times EF \times ED}{BW \times AT}$$

Where:

IEX	=	estimated exposure intake (mg/kg/day)
Cgw	=	exposure point concentration in groundwater (µg/L)
CF	=	conversion factor (1.0E-3 mg/µg)
IRgw	=	ingestion rate (L/hour)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFo	=	oral carcinogenic slope factor ($(mg/kg/day)^{-1}$)
RfDo	=	oral noncarcinogenic reference dose (mg/kg/day)

RISKS:

ICLR (Carcinogens) = Intake (mg/kg/day) x CSFo $(mg/kg/day)^{-1}$
HQ (Noncarcinogens) = Intake (mg/kg/day) / RFDo (mg/kg/day)

ASSUMPTIONS:

Cgw	=	0.44	µg/L	Benzene
IRgw	=	2	L/day	
CF	=	1.0E-03	mg/µg	
EF	=	350	days/year	
ED	=	24	years	
BW	=	70	kg	
ATc	=	25,550	days	
ATnc	=	8,760	days	
CSFo	=	5.50E-02	$(mg/kg/day)^{-1}$	
RfDo	=	4.00E-03	(mg/kg/day)	

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM INGESTION OF GROUNDWATER FUTURE ADULT RESIDENT		
BASED ON: USEPA, DECEMBER 1989		
BY: T. JACKMAN	CHECKED BY:	DATE: 03/11/08

EXAMPLE CARCINOGENIC CALCULATION

$$IEXc = \frac{0.44\ mg/L \times 0.001\ mg/mg \times 2\ L/day \times 350\ days/year \times 24\ years}{70\ kg \times 25550\ days}$$

IEXc = 4.13E-06 mg/kg/day

ICLR = 4.13E-06 mg/kg/day x 0.055 (mg/kg/day)-1 = Incremental Lifetime Cancer Risk

ICLR = 2.3E-07

EXAMPLE NONCARCINOGENIC CALCULATION

$$IEXnc = \frac{0.44\ mg/L \times 0.001\ mg/mg \times 2\ L/day \times 350\ days/year \times 24\ years}{70\ kg \times 8760\ days}$$

IEXnc = 1.21E-05 mg/kg/day

HQ = 1.21E-05 mg/kg/day / 0.004 (mg/kg/day) = Hazard Quotient

HQ = 0.003

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH GROUNDWATER FUTURE ADULT RESIDENT		
BASED ON: U.S. EPA, DECEMBER 1989 AND JULY 2004		
BY: T.JACKMAN	CHECKED BY:	DATE: 03/11/08

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from dermal contact with groundwater by the future adult resident.

EQUATION:

$$DAD = \frac{DAevent \times EV \times ED \times EF \times A}{BW \times AT}$$

Where:

DAD	=	dermally absorbed dose (mg/kg/day)
DAevent	=	absorbed does per event (mg/cm^2/event)
EV	=	event frequency (events/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
A	=	skin surface available for contact (cm^2)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFd	=	dermal carcinogenic slope factor ((mg/kg/day)$^{-1}$)
RfDd	=	dermal noncarcinogenic reference dose (mg/kg/day)

RISKS:

ICLR (Carcinogens) = DAD (mg/kg/day) x CSFd (mg/kg/day)$^{-1}$
HQ (Noncarcinogens) = DAD (mg/kg/day) / RFDd (mg/kg/day)

EQUATIONS for DAevent:

For Inorganics:

$$DA_{event} = (K_p)(C_{gw})(t_{event})$$

For Organics:

$$If\ t_{event} < t^*, then: DA_{event} = FA(2K_p)(C_{gw})(CF)\left(\sqrt{\frac{6\tau t_{event}}{\pi}}\right)$$

$$If\ t_{event} > t^*, then: DA_{event} = FA(K_p)(C_{gw})(CF)\left(\frac{t_{event}}{1+B} + 2\tau\left(\frac{1+3B+3B^2}{(1+B)^2}\right)\right)$$

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH GROUNDWATER FUTURE ADULT RESIDENT		
BASED ON: U.S. EPA, DECEMBER 1989 AND JULY 2004		
BY: T.JACKMAN	CHECKED BY:	DATE: 03/11/08

Where:

FA	=	fraction absorbed (dimensionless)
Kp	=	permeability coefficient from water (cm/hr)
Cgw	=	concentration of chemical in groundwater (mg/L)
tevent	=	duration of event (hr/event)
CF	=	conversion factor (0.001 L/cm^3)
t*	=	time it takes to reach steady-state (hr/event)
τ	=	lag time (hr/event)
B	=	Bunge Model Constant (dimensionless)

EXAMPLE CALCULATION OF DAevent

ASSUMPTIONS:

Cgw	=	0.00044	mg/L	Benzene
Kp	=	1.49E-02	cm/hr	
tevent	=	0.33	hr/event	
CF	=	0.001	L/cm^3	
t*	=	7.00E-01	hr/event	
τ	=	2.92E-01	hr/event	
B	=	5.05E-02		
FA	=	1		

tevent < t*, therefore,

$$DAevent = 1 \times (2 \times 0.0149\ cm/hr)\ (0.00044\ mg/L)\ (0.001\ L/cm3) \times \sqrt{\frac{6 \times 0.292\ hr/event \times 0.33\ hr/event}{\pi}}$$

DAevent = 5.62E-09 mg/cm^2-event

RISK CALCULATIONS

ASSUMPTIONS:

A	=	18,000	cm^2/day
EV	=	1	event/day
ED	=	24	years
EF	=	350	days/year
BW	=	70	kg
ATc	=	25550	days
ATnc	=	8760	days
CSFd	=	5.50E-02	$(mg/kg/day)^{-1}$
RfDd	=	4.00E-03	(mg/kg/day)

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH GROUNDWATER FUTURE ADULT RESIDENT		
BASED ON: U.S. EPA, DECEMBER 1989 AND JULY 2004		
BY: T.JACKMAN	CHECKED BY:	DATE: 03/11/08

EXAMPLE CARCINOGENIC CALCULATION

$$DADc = \frac{5.62E\text{-}09 \text{ mg/cm2-event} \times 1 \text{ event/day} \times 24 \text{ years} \times 350 \text{ days/year} \times 18000 \text{ cm2/day}}{70 \text{ kg} \times 25550 \text{ days}}$$

DADc = 4.8E-07 mg/kg/day

DADc = 4.76E-07 mg/kg/day x 0.055 (mg/kg/day)-1 = Incremental Lifetime Cancer Risk

ICLR = 2.6E-08

EXAMPLE NONCARCINOGENIC CALCULATION

$$DADnc = \frac{5.62E\text{-}09 \text{ mg/cm2-event} \times 1 \text{ event/day} \times 24 \text{ years} \times 350 \text{ days/year} \times 18000 \text{ cm2/day}}{70 \text{ kg} \times 8760 \text{ days}}$$

DADnc = 1.4E-06 mg/kg/day

HQ = 1.39E-06 mg/kg/day / 0.004 (mg/kg/day) = Hazard Quotient

HQ = 3.5E-04

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF VOLATILES WHILE SHOWERING BY AN ADULT RESIDENT		
BASED ON: EPA, 1989 AND FOSTER AND CHROSTOWSKI, 1987		
BY: T. JACKMAN	CHECKED BY:	DATE: 03/11/08

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from inhalation of volatiles while showering by an adult resident.

EQUATIONS:

$$\text{Intake} = \frac{S \times IRsh \times K \times EF \times ED}{BW \times AT \times Ra \times CF}$$

Where:

$$K = Ds + \frac{\exp(-Ra \times Dt) - \exp[Ra \times (Ds - Dt)]}{Ra}$$

$S = Cwd \times FR/SV$ $\quad$ $Cwd = Cw \times [1-\exp(-Kal \times ts/60d)]$

$Kal = Kl \times [(T1 \times Us)/(Ts \times U1)^{-0.5}$ $\quad$ $Kl = 1/[1/k1 + RT/(H \times kg)]$

$k1 = 20\ cm/hr \times (44/MW)^{0.5}$ $\quad$ $kg = 3000\ cm/hr \times (18/MW)^{0.5}$

RISKS:

ICLR (Carcinogens) = Intake (mg/kg/day) x CSFi $(mg/kg/day)^{-1}$
HQ (Noncarcinogens) = Intake (mg/kg/day) / RFDi (mg/kg/day)

Where:

Intake	=	estimated exposure intake (mg/kg/day)
S	=	volatile chemical generation rate (mg/m^3-min - shower)
IRsh	=	inhalation rate (m^3/hr)
EF	=	exposure frequency (showers/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
Ra	=	air exchange rate (1/min)
Ds	=	shower duration (min)
Dt	=	total time in bathroom (min)
FR	=	shower water flow rate (L/min)
SV	=	shower room air volume (m^3)
ts	=	shower droplet drop time (sec)
d	=	shower droplet diameter (mm)
MW	=	molecular weight of compound (g/mole)
H	=	Henry's Law constant (atm-m^3/mole)
T1	=	calibration water temperature (K)
Ts	=	shower water temperature (K)
U1	=	water viscosity at T1 (cp)
Us	=	water viscosity at Ts (cp)
CSFi	=	inhalation carcinogenic slope factor ($(mg/kg/day)^{-1}$)
RfDi	=	inhalation noncarcinogenic reference dose (mg/kg/day)

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF VOLATILES WHILE SHOWERING BY AN ADULT RESIDENT		
BASED ON: EPA, 1989 AND FOSTER AND CHROSTOWSKI, 1987		
BY: T. JACKMAN	CHECKED BY:	DATE: 03/11/08

ASSUMPTIONS:

			Benzene
IRsh	=	0.6	m^3/hr
EF	=	350	showers/year
ED	=	24	years
BW	=	70	kg
ATc	=	25550	days
Atn	=	8760	days
Ra	=	0.025	1/min
CF	=	60	min/hr
Ds	=	15	min
Dt	=	20	min
FR	=	10	L/min
SV	=	12	m^3
Cw	=	0.00044	mg/L
ts	=	2	sec
d	=	1	mm
MW	=	78	g/mole
H	=	5.56E-03	atm-m^3/mole
RT	=	2.40E-02	atm-m^3/mole
T1	=	293	K
Ts	=	318	K
U1	=	0.982	cp
Us	=	0.616	cp
CSFi	=	2.70E-02	$(mg/kg/day)^{-1}$
RfDi	=	8.57E-03	(mg/kg/day)

EXAMPLE CALCULATION:

k1 = 20 cm/hr x (44 g/mole / 78 g/mole)^0.5

k1 = **15.0 cm/hr**

kg = 3000 cm/hr x (18 g/mole / 78 g/mole)^0.5

kg = **1441.2 cm/hr**

Kl = 1/[1/15.0 cm/hr + 2.40E-02 atm-m3/mole/(5.56E-03 atm-m3/mole x 1441.2 cm/hr)]

Kl = **1.44E+01 cm/hr**

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF VOLATILES WHILE SHOWERING BY AN ADULT RESIDENT		
BASED ON: EPA, 1989 AND FOSTER AND CHROSTOWSKI, 1987		
BY: T. JACKMAN	CHECKED BY:	DATE: 03/11/08

Kal = 1.44E+01 cm/hr x [(293 K x 0.616 cp)/(318 K x 0.982 cp)]^-0.5

Kal = **18.9 cm/hr**

Cwd = 0.00044 mg/L x [1 - exp((-18.9 cm/hr x 2 sec)/(60 x 1 mm))]

Cwd = **2.06E-04 mg/L**

S = 2.06E-04 mg/L x 10 L/min / 12 m3

S = **1.71E-04 mg/m3-min-shower**

$$K = 15\text{ min} + \frac{\exp(-0.025\text{ 1/min} \times 20\text{ min}) - \exp[0.025\text{ 1/min} \times (15\text{ min} - 20\text{ min})]}{0.025\text{ 1/min}}$$

K = **3.96 min**

CARCINOGENIC INTAKE:

$$\text{Intake} = \frac{1.71\text{E-04 mg/m3-min-shower} \times 0.6\text{ m3/hr} \times 3.96\text{ min} \times 350\text{ showers/year} \times 24\text{ years}}{70\text{ kg} \times 25550\text{ days} \times 0.025\text{ 1/min} \times 60\text{ min/hr}}$$

intake = **1.28E-06 mg/kg-day**

Risk = 0.027 (mg/kg/day)-1 x 1.28E-06 mg/kg-day

Risk = **3.4E-08**

NONCARCINOGENIC INTAKE:

$$\text{Intake} = \frac{1.71\text{E-04 mg/m3-min-shower} \times 0.6\text{ m3/hr} \times 3.96\text{ min} \times 350\text{ showers/year} \times 24\text{ years}}{70\text{ kg} \times 8760\text{ days} \times 0.025\text{ 1/min} \times 60\text{ min/hr}}$$

intake = **3.7E-06 mg/kg-day**

HQ = 3.72E-06 mg/kg-day / 8.57E-03 (mg/kg/day)

HQ = **4.3E-04**

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF PARTICUALATE EMISSION FACTOR FOR CONSTRUCTION WORKERS		
BASED ON: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (USEPA, Dec. 2002)		
BY: T. JACKMAN	CHECKED BY:	DATE: 03/11/08

Equation 5-5
Derivation of the Particulate Emission Factor
Construction Scenario - Construction Worker

$$PEF_{sc} = Q/C_{sr} \times \frac{1}{F_D} \times \left[\frac{T \times A_R}{556 \times \left(\frac{W}{3}\right)^{0.4} \times \frac{(365d/yr - p)}{365d/yr} \times VKT} \right]$$

Parameter/Definition (units)	Default
PEF_{sc}/subchronic road particulate emission factor (m^3/kg)	site-specific
Q/C_{sr}/ inverse of 1-h average air concentration along a straight road segment bisecting a 0.5-acre square site (g/m^2-s per kg/m^3)	23.02
F_D/dispersion correction factor (unitless)	0.185 (*Appendix E*)
T/total time over which construction occurs (s)	site-specific
A_R/surface area of contaminated road segment (m^2) L_R/length of road segment (ft) W_R/width of road segment (ft)	274.213 ($A_R = L_R \times W_R \times 0.092903 m^2/ft^2$)
W/mean vehicle weight (tons)	site-specific
p/number of days with at least 0.01 inches of precipitation (days/year) (see Figure 5-2)	site-specific
• VKT/sum of fleet vehicle kilometers traveled during the exposure duration (km)	site-specific

Calculation of PEF for Construction Workers

Q/C	23.02	(g/m2-s per kg/m3)	
Fd	0.185	dispersion correction factor (unitless)	
T	8.64E+05	sec	3600 sec/hr x 8hr/day x 30days/yr
Area (A)	274.213	m^2	
W	8	tons	
p	110	day/year	
VKT	40.5	km	

PEF = 1.27E+06 m^3/kg

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM INCIDENTAL INGESTION OF SOIL/SEDIMENT CONSTRUCTION/EXCAVATION WORKER		
BASED ON: USEPA, DECEMBER 1989		
BY: T. JACKMAN	CHECKED BY:	DATE: 03/11/08

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from incidental ingestion of subsurface soil by the excavation/construction worker (RME).

EQUATION:

$$IEX = \frac{Cs \times IR \times EF \times ED \times FI \times CF}{BW \times AT}$$

Where:

IEX	=	estimated exposure intake (mg/kg/day)
Cs	=	exposure point concentration in soil/sediment (mg/kg)
IR	=	incidental soil ingestion rate (mg/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
FI	=	fraction ingested from contaminated source (unitless)
CF	=	conversion factor (1.0E-6 kg/mg)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFo	=	oral carcinogenic slope factor ($(mg/kg/day)^{-1}$)
RfDo	=	oral noncarcinogenic reference dose (mg/kg/day)

RISKS:

ICLR (Carcinogens) = Intake (mg/kg/day) x CSFo $(mg/kg/day)^{-1}$
HQ (Noncarcinogens) = Intake (mg/kg/day) / RFDo (mg/kg/day)

ASSUMPTIONS:

Cs	=	12	mg/kg	Arsenic
IR	=	330	mg/day	
EF	=	30	days/year	
ED	=	1	years	
FI	=	1		
CF	=	1.0E-06	kg/mg	
BW	=	70	kg	
ATc	=	25550	days	
ATnc	=	42	days	
CSFo	=	1.5	$(mg/kg/day)^{-1}$	
RfDo	=	3.00E-04	(mg/kg/day)	

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM INCIDENTAL INGESTION OF SOIL/SEDIMENT CONSTRUCTION/EXCAVATION WORKER		
BASED ON: USEPA, DECEMBER 1989		
BY: T. JACKMAN	CHECKED BY:	DATE: 03/11/08

EXAMPLE CARCINOGENIC CALCULATION

$$IEXc = \frac{12 \text{ mg/kg} \times 330 \text{ mg/day} \times 30 \text{ days/year} \times 1 \text{ years} \times 0.000001 \text{ kg/mg}}{70 \text{ kg} \times 25550 \text{ days}}$$

IEXc = 6.64E-08 mg/kg/day

ICLR = 6.64E-08 mg/kg/day x 1.5 (mg/kg/day)-1 = Incremental Lifetime Cancer Risk

ICLR = 1.0E-07

EXAMPLE CARCINOGENIC CALCULATION

$$IEXnc = \frac{12 \text{ mg/kg} \times 330 \text{ mg/day} \times 30 \text{ days/year} \times 1 \text{ years} \times 0.000001 \text{ kg/mg}}{70 \text{ kg} \times 42 \text{ days}}$$

IEXnc = 4.04E-05 mg/kg/day

HQ = 4.04E-05 mg/kg/day / 0.0003 (mg/kg/day) = Hazard Quotient

HQ = 0.13

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: ESTIMATION OF AMBIENT AIR CONCENTRATIONS RESULTING FROM FUGITIVE DUST EMISSIONS AND VOLATILIZATION FROM SOIL - CONSTRUCTION WORKER		
BASED ON: U.S. EPA 1996 AND 2002		
BY: T.JACKMAN	CHECKED BY:	DATE: 03/11/08

PURPOSE: To calculate ambient air concentrations resulting from fugitive dust and volatilization from subsurface soil.

RELEVANT EQUATIONS:

$$Cair = Cs \times (1/PEF + 1/VF)$$

$$VF = \frac{Q/C \times (3.14 \times DA \times T)^{1/2} \times 10^{-4}\ m^2/cm^2}{2 \times pb \times DA \times 0.185}$$

$$DA = \frac{(\theta a^{10/3} \times Di \times H + \theta w^{10/3} \times Dw)/\theta_T^{\ 2}}{pb \times Kd + \theta w + \theta a \times H}$$

$$Csat = S/pb \times (Kd \times pb + \theta w + H \times \theta a)$$

Where:

Cair	=	Chemical concentration in air (mg/m^3)
Cs	=	Chemical concentration in soil (mg/kg)
PEF	=	Particulate emission factor (m^3/kg)
VF	=	Volatilization factor (m^3/kg) - Calculated on USEPA Soil Screening Guidance Website
Q/C	=	Inverse of mean conc. at center of source (g/m^2-s per kg/m^3).
T	=	Exposure interval (seconds).
pb	=	Dry soil bulk density (g/cm^3).
ps	=	soil particle density (g/cm^3).
θ_T	=	Total soil porosity (Lpore/Lsoil).
θw	=	Water-filled soil porosity (Lpore/Lsoil).
θa	=	Air-filled soil porosity (Lair/Lsoil).
Di	=	Diffusivity in air (cm^2/sec).
H	=	Dimensionless Henry's Law Constant.
S	=	Solubility limit (mg/L)
Dw	=	Diffusivity in water (cm^2/sec).
DA	=	Apparent diffusivity (cm^2/sec).
Kd	=	Soil-water partition coefficient (cm^3/g).
Koc	=	Soil organic carbon partition coefficient (cm^3/g).
foc	=	Fraction organic carbon in soil (g/g).
0.185	=	Dispersion Correction Factor (unitless)

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: ESTIMATION OF AMBIENT AIR CONCENTRATIONS RESULTING FROM FUGITIVE DUST EMISSIONS AND VOLATILIZATION FROM SOIL - CONSTRUCTION WORKER		
BASED ON: U.S. EPA 1996 AND 2002		
BY: T.JACKMAN	CHECKED BY:	DATE: 03/11/08

ASSUMPTIONS:

Cs	=	1	mg/kg	Chemical: Naphthalene
PEF	=	1.27E+06	m^3/kg	
VF	=	1.87E+03	m^3/kg	
Q/C	=	14.31	g/m^2-s per kg/m^3	
T	=	8.64E+05	sec	
pb	=	1.5	g/cm^3	
ps	=	2.65	g/cm^3	
θ_T	=	0.434	Lpore/Lsoil	
θw	=	0.15	Lpore/Lsoil	
θa	=	0.284	Lair/Lsoil	
Di	=	5.90E-02	cm^2/sec	
H	=	1.98E-02	Uniltess	
S	=	3.10E+01	mg/L	
Dw	=	7.50E-06	cm^2/sec	
Koc	=	2.00E+03	cm^3/g	
foc	=	0.006	g/g	
Kd	=	12	cm^3/g	

EXAMPLE CALCULATIONS

$$DA = \frac{[(0.284^{10/3}) \times (0.059\ cm2/sec) \times (1.98E\text{-}02) + (0.15^{10/3}) \times (7.50E\text{-}06\ cm2/sec)]/(0.434^2)}{(1.5\ g/cm3 \times 12\ cm3/g) + (0.15 + 0.284 \times 0.0198)}$$

DA = 5.15E-06 cm^2/sec

$$VF = \frac{(14.31\ g/m2\text{-}s\ per\ kg/m3) \times [(3.14) \times (5.15E\text{-}06\ cm2/sec) \times (8.64E+05\ sec)]^{1/2} \times (1E\text{-}4\ m2/cm2)}{2 \times 1.5 g/cm3 \times 5.15E\text{-}06\ cm2/sec \times 0.185}$$

VF = 1.87E+03 m^3/kg

Csat = (3.10E+01 mg/L)/(1.5 g/cm3) x [(12 cm3/g) x (1.5 g/cm3) + (0.15 + 1.98E-02 x 0.284)]

Csat = 3.75E+02 mg/kg

Csat is greater than Cs, therefore, use Cs in calculation of air concentration.

Cair = 1 mg/kg x [(1/1.27E+06 m3/kg) + (1/1.87E+03 m3/kg)]

Cair = 5.35E-04 mg/m^3

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH SOIL/SEDIMENT CONSTRUCTION/EXCAVATION WORKER		
BASED ON: U.S. EPA, DECEMBER 1989 AND JULY 2004		
BY: T. JACKMAN	CHECKED BY:	DATE: 03/11/08

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from dermal contact with subsurface soil by the excavation/construction worker (RME).

EQUATION:

$$DEX = \frac{Cs \times CF \times SA \times AF \times ABS \times EF \times ED}{BW \times AT}$$

Where:

DEX	=	estimated exposure intake (mg/kg/day)
Cs	=	exposure point concentration in soil/sediment (mg/kg)
CF	=	conversion factor (1.0E-6 kg/mg)
SA	=	skin surface available for contact (cm^2/day)
ABS	=	absorption factor (unitless)
AF	=	adherence factor (mg/cm^2)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFd	=	dermal carcinogenic slope factor ($(mg/kg/day)^{-1}$)
RfDd	=	dermal noncarcinogenic reference dose (mg/kg/day)

RISKS:

ICLR (Carcinogens) = Intake (mg/kg/day) x CSFd $(mg/kg/day)^{-1}$
HQ (Noncarcinogens) = Intake (mg/kg/day) / RFDd (mg/kg/day)

ASSUMPTIONS:

Cs	=	12	mg/kg	Arsenic
CF	=	1.0E-06	kg/mg	
SA	=	3,300	cm^2/day	
AF	=	0.3	mg/cm^2	
ABS	=	0.03		
EF	=	30	days/year	
ED	=	1	years	
BW	=	70	kg	
ATc	=	25550	days	
ATnc	=	42	days	
CSFd	=	1.5	$(mg/kg/day)^{-1}$	
RfDd	=	3.00E-04	(mg/kg/day)	

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH SOIL/SEDIMENT CONSTRUCTION/EXCAVATION WORKER		
BASED ON: U.S. EPA, DECEMBER 1989 AND JULY 2004		
BY: T. JACKMAN	CHECKED BY:	DATE: 03/11/08

EXAMPLE CARCINOGENIC CALCULATION

$$DEXc = \frac{12\ mg/kg \times 0.000001\ kg/mg \times 3300cm2/day \times 0.3mg/cm2 \times 0.03 \times 30\ days/year \times 1\ years}{70\ kg \times 25550\ days}$$

DEXc = 5.98E-09 mg/kg/day

ICLR = 5.98E-09 mg/kg/day x 1.5 (mg/kg/day)-1 = Incremental Lifetime Cancer Risk

ICLR = 9.0E-09

EXAMPLE NONCARCINOGENIC CALCULATION

$$DEXnc = \frac{12\ mg/kg \times 0.000001\ kg/mg \times 3300cm2/day \times 0.3mg/cm2 \times 0.03 \times 30\ days/year \times 1\ years}{70\ kg \times 42\ days}$$

DEXnc = 3.64E-06 mg/kg/day

HQ = 3.64E-06 mg/kg/day / 0.0003 (mg/kg/day) = Hazard Quotient

HQ = 0.012

CALCULATION WORKSHEET

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		**JOB NUMBER:** 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF VAPORS AND PARTICULATES BY AN EXCAVATION/CONSTRUCTION WORKER		
BASED ON: USEPA, DEC. 1989		
BY: T. JACKMAN	**CHECKED BY:**	**DATE:** 3/11/2008

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from inhalation of vapors and particulates emitted from soil by construction workers (RME).

EQUATION:

$$IEX = \frac{Ca \times IR \times ET \times EF \times ED}{BW \times AT}$$

Where:

IEX	=	estimated exposure intake (mg/kg-day)
Ca	=	exposure point concentration in air (mg/m^3)
IR	=	inhlation rate (m^3/hr)
ET	=	exposure time (hrs/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFi	=	inhalation carcinogenic slope factor (kg-day/mg)
RfDi	=	inhalation noncarcinogenic reference dose (mg/kg-day)

RISKS:

ICLR (Carcinogens) = Intake (mg/kg/day) x CSFi (kg-day/mg)
HQ (Noncarcinogens) = Intake (mg/kg/day) / RFDi (mg/kg-day)

ASSUMPTIONS:

Ca	=	5.4E-04	mg/m^3	Naphthalene
IR	=	2.5	m^3/hr	
ET	=	8	hr/day	
EF	=	30	days/year	
ED	=	1	year	
BW	=	70	kg	
ATc	=	25550	days	
ATnc	=	42	days	
CSFi	=	NA	(kg-day/mg)	
RfDi	=	0.00086	mg/kg-day	

CLIENT: NAVSTA, GREAT LAKES, ILLINOIS		JOB NUMBER: 00295
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF VAPORS AND PARTICULATES BY AN EXCAVATION/CONSTRUCTION WORKER		
BASED ON: USEPA, DEC. 1989		
BY: T. JACKMAN	CHECKED BY:	DATE: 3/11/2008

EXAMPLE CARCINOGENIC CALCULATION

$$IEXc = \frac{5.4E\text{-}04\ mg/m3 \times 2.5\ m3/hr \times 8\ hr/day \times 30\ days/year \times 1\ year}{70\ kg \times 25550\ days}$$

IEXc = 1.79E-07 mg/kg-day

ICLR = 1.79E-07 mg/kg-day x NA (kg-day/mg) = Incremental Lifetime Cancer Risk

ICLR = NA

EXAMPLE NONCARCINOGENIC CALCULATION

$$IEXnc = \frac{5.4E\text{-}04\ mg/m3 \times 2.5\ m3/hr \times 8\ hr/day \times 30\ days/year \times 1\ year}{70\ kg \times 42\ days}$$

IEXnc = 1.09E-04 mg/kg-day

HQ = 1.09E-04 mg/kg-day / 8.6E-04 mg/kg-day

HQ = **1.3E-01**

EXAMPLE CALCULATION - VAPOR CONCENTRATION OF BENZENE IN A TRENCH
CONSTRUCTION WORKER SCENARIO
SITE 1 - GOLF COURSE LANDFILL

Ctrench = CGW x VF

Where:

Ctrench = concentration of contaminant in the trench $\mu g/m^3$
CGW = concentration of contaminant in groundwater µg/L
VF = volatilization factor L/m^3

1. Calculate kiG (gas-phase mass transfer coefficient of component i)

$kiG = (MWH2O/MWi)^{0.335} \times (T/298)^{1.005} \times kG, H2O$

Where:

kiG = gas-phase mass transfer coefficient of component i cm/s
MW_{H2O} = molecular weight of water = 18 g/mol
MW = molecular weight of benzene = **78.11** g/mol
kG,H_2O = gas-phase mass transfer coefficient of water vapor at 25°C cm/s = 0.833 cm/s
T = average system absolute temperature = **298**
The value of kG, H_2O is 0.833 cm/s (Superfund Exposure Assessment Manual, USEPA, April 1988)

$kiG = (18/78.11)^{0.335} \times (298/298)^{1.005} \times 0.833$ cm/s = 5.09E-01 cm/s

2. Calculate kiL (liquid-phase mass transfer coefficient of component i)

$kiL = (MWO_2/MWi)^{0.5} \times (T/298) \times kL, O_2$

Where:
kiL = liquid-phase mass transfer coefficient of component i cm/s
MW_{O2} = molecular weight of O_2 = 32 g/mol
$MW_{benzene}$ = molecular weight of benzene = **78.11** g/mol
T = average system absolute temperature = **298**
kL, O_2 = liquid-phase mass transfer coefficient of oxygen at 25°C cm/s = 0.002 cm/s

$kiL = (32/78.11)^{0.5} \times (298/298) \times 0.002$ cm/s = 1.28E-03 cm/s

EXAMPLE CALCULATION - VAPOR CONCENTRATION OF BENZENE IN A TRENCH
CONSTRUCTION WORKER SCENARIO
SITE 1 - GOLF COURSE LANDFILL

3. Calculate Ki (overall mass transfer coefficient of contaminant)

Ki = 1 / {(1/kiL) + [(RT) / (Hi x kiG)]}

Where:

kiL = liquid-phase mass transfer coefficient of i cm/s =	**1.28E-03**
R = ideal gas constant atm-m^3/mole-°K =	8.20E-05
T = average system absolute temperature =	**298**
Hi = Henry's Law constant of benzene (atm-m^3/mol) =	**5.55E-03**
KiG = gas-phase mass transfer coefficient of i cm/s	**5.09E-01**

Ki = 1 / {(1/1.28E-3) + [(298 x 5.55E-3) / (1.84E-2 x 0.509]} = 1.27E-03 cm/s

4. Calculation of VF (Volatilization Factor)

VF = (Ki x A x F x 10^{-3} x 10^4 x 3,600) / (ACH x V)

Where:

VF = volatilization factor (L/m^3)		
Ki = overall mass transfer coefficient of contaminant =		**1.27E-03** cm/s
A = area of the trench =		**8.18** m^2
F = fraction of floor through which contaminant can enter (unitless) =		**1**
ACH = air changes per hour =		**360** h^{-1}
V = volume of trench =		**24.92** m^3
10^{-3} = conversion factor L/cm^3	0.001	
10^4 = conversion factor cm^2/m^2	10000	
3,600 = conversion factor seconds/hr	3600	

VF = (1.27E-3 x 8.18 x 1 x 10^{-3} x 10^4 x 3,600) / (360 x 24.92) = 4.15E-02 L/m^3

5. Calculation of C_{trench} (concentration of contaminant in the trench)

C_{trench} = C_{GW} x VF

Where:

C_{trench} = concentration of contaminant in the trench (µg/m^3)	
C_{GW} = concentration of benzene in groundwater =	**0.44** µg/L
VF = volatilization factor =	**4.15E-02** L/m^3

C_{trench} = 0.44 ug/L x 4.15E-02 L/m^3 = 1.83E-02 µg/m^3

APPENDIX G

ECOLOGICAL RISK ASSESSMENT SUPPORT

APPENDIX G.1

CHEMICAL CLASS INFORMATION

This appendix presents a discussion of the different chemical classes that were detected at Naval Station Great Lakes Site 1 including toxicity information, potential food chain and trophic transfer, and bioaccumulation potential.

Metals

Many metals occur naturally at various concentrations in the surface water, and sediment primarily to chemical weathering of rocks and fallout from volcanoes. Most metals are toxic to aquatic (i.e., fish, invertebrates) and terrestrial (i.e., plants, invertebrates, vertebrates) ecological receptors above certain concentrations, with some metals being more toxic at lower concentrations than others. Also, different chemical forms of the metals may be more toxic than others. For example, hexavalent chromium is typically more toxic than trivalent chromium, and methylmercury is more toxic than inorganic mercury. In addition, the toxicity of several metals (cadmium, chromium, copper, lead, nickel, silver, and zinc) to aquatic receptors in freshwater systems decreases with increasing water hardness.

Many factors (e.g., pH, Eh, clay content, organic matter content) influence the bioavailability of metals to invertebrates in sediment. One way to estimate the bioavailable portion of certain divalent metals (cadmium, copper, lead, nickel, and zinc) in sediment is to measure the amount of acid volatile sulfides (AVS) and simultaneously extracted metals (SEM) in a sediment sample. If the molar concentration of AVS is higher than the molar concentration of SEM, than the SEM metals are expected to be unavailable to aquatic invertebrates and, therefore, nontoxic. AVS plays little or no role in determining interstitial water concentrations of metals in aerobic systems or those with low productivity (i.e., where the absence of organic carbon limits sulfate reduction) (Ankley et al., 1995), or when ingestion of sediments is the primary exposure route (Lee at al., 2000).

Semivolatile Organic Compounds

The most common semivolatile organic compounds that are found at naval facilities include polynuclear aromatic hydocarbons (PAHs) and phthalates. PAHs are a diverse group of compounds consisting of two or more substituted and unsubstituted polynuclear aromatic rings formed by the incomplete combustion of carbonaceous materials. PAHs are ubiquitous in the modern environment and commonly are constituents of coal tar, soot, vehicle exhaust, cigarette smoke, certain petroleum products, road tar, mineral oils, creosote, and many cooked foods. PAHs also are released to the environment through natural sources such as volcanoes and forest fires.

PAHs are transferred from surface water by volatilization and sorption to settling particles. The compounds are transformed in surface water by photooxidation, chemical oxidation, and microbial metabolism (ATSDR, 1989a). In soil and sediments, microbial metabolism is the major process for degradation of PAHs (ATSDR, 1989a). Although PAHs accumulate in terrestrial and aquatic plants, many organisms are able to metabolize and eliminate these compounds. Vertebrates can readily metabolize PAHs, but lower forms (insects and worms) cannot metabolize PAHs as quickly. Food chain uptake does not appear to be a major exposure source to PAHs for aquatic animals (ATSDR, 1989a).

PAHs vary substantially in their toxicity to aquatic organisms. In general, toxicity increases as molecular weight increases, with the exception of some high molecular weight PAHs that have low acute toxicity. Most species of aquatic organisms rapidly accumulate PAHs that occur at low concentrations in the ambient medium. However, uptake of PAHs is highly species-specific, it is higher in algae, mollusks, and other species that are incapable of metabolizing PAHs (Eisler, 1987). The ability of fish to metabolize PAHs may explain why benzo(a)pyrene is frequently not detected or is found at only very low levels in fish from environments heavily contaminated with PAHs (ATSDR, 1989a). BSAFs for PAHs are listed as 0.29 (U.S. EPA, 1997).

Phthalates are semivolatile organic compounds that are used in production of plastics (ATSDR, 1993). Most phthalates are expected to sorb to soil or sediment particles after their release because of their high Log K_{oc} values (Howard, 1989). Some phthalates may bioconcentrate in aquatic organisms [Spectrum Laboratories, 1999; Howard, 1989; ATSDR, 1989a].

Pesticides

Pesticides are used to control pestiferous invertebrates and, therefore, they are toxic to many soil and aquatic invertebrates. In addition, many pesticides are toxic to ecological receptors at higher trophic levels such as mammals and birds. For example, DDT compounds have been linked to eggshell thinning and subsequent decreased survival of several birds of prey (such as eagles and falcons). Other pesticides such as chlordanes, dieldrin, aldrin, endrin, and heptachlor also are very toxic to mammals and birds (Newell et al., 1987).

Organochlorine insecticides such as DDT, chlordane, aldrin, dieldrin, heptachlor, endosulfan, and endrin and their associated breakdown products generally degrade very slowly and tend to be soluble in lipids. These result in bioaccumulation and possible increases in concentrations through food webs (Newman, 1998). Pesticides have high Log K_{oc} values so they are expected to sorb strongly to soil and sediment particles when released to the environment. Consequently,

these compounds may migrate from their site of application when the soil is eroded, although they will not have a tendency to leach to groundwater.

DDT, DDE and DDD are highly lipid soluble, which combined with an extremely long half-life, results in bioaccumulation (ATSDR, 1989b). When present in ambient water, DDT and its metabolites are concentrated in freshwater and marine plankton, insects, mollusks, and other invertebrates and fish (ATSDR, 1989b). A progressive accumulation of residues may result in high levels of residues in organisms at the top of the food chain (ATSDR, 1989b). Moderate to significant bioconcentration in aquatic species has been reported for dieldrin, with bioconcentration factors (BCFs) ranging from 100 to 10,000 (Howard, 1991). Heptachlor also has been reported to bioconcentrate in aquatic species, with bioconcentration factors in fish up to about 20,000 (Howard, 1991).

Chlordane will bioconcentrate in both marine and freshwater species (ATSDR, 1989c). In living organisms, chlordane concentrations are usually highest in samples collected near areas where chlordane was used to control termites or other pests, in predatory species, and in tissues with high lipid content (Eisler, 1990). Food chain biomagnification is low except in certain marine mammals (Eisler, 1990).

BSAFs for pesticides range from 0.28 for DDD to 7.7 for DDE (U.S. EPA, 1997).

Volatile Organic Compounds

VOCs are usually very mobile in the environment because they are poorly adsorbed to soil and sediment particles. Also, because they are very volatile, they typically are only detected in surface water, surface soil, and sediment at low concentrations.

Most VOCs have very little potential to bioaccumulate in ecological receptors; therefore, biomagnification through the food chain does not appear to be significant. VOCs are not expected to biomagnify in plants and are typically toxic to ecological receptors at relatively high concentrations.

Dioxins

Dioxin and dioxin-like compounds consist of the following chemical classes: polychlorinated dibenzo-p-dioxins (PCDDs or CDDs), polychlorinated dibenzofurans (PCDFs of CDFs),

polybrominated dibenzodioxins (PBDDs or BDDs), polybrominated dibenzofurans (PBDFs or BDFs), and PCBs (USEPA, 1998). The CDDs and BDDs each include 75 individual compounds, and the CDFs BDFs each include 135 different compounds (USEPA, 1998). Of all these compounds, only 7 of the 75 congeners of CDDs or BDDs are thought to have dioxin-like toxicity, as are 10 of the 135 congeners of CDFs, or BDFs (USEPA, 1998). These are the ones with chlorine/bromine substitutions in, at least, the 2, 3, 7, and 8 positions (USEPA, 1998). Of the 209 PCB congeners, 13 are thought to have dioxin-like toxicity, which include the PCBs with four or more chlorines with just one or no substitution in the ortho position (USEPA, 1998).

There are very few toxicity data for dioxins except for 2,3,7,8-TCDD, which has been associated with lethal, carcinogenic, teratogenic, reproductive, mutagenic, histopathologic, and immunotoxic effects (Eisler, 1986b). 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is the most toxic congener within these groups of compounds (Van den Berg et al., 1998). Because of this, toxicity equivalency factors (developed to estimate the relative toxicity of the dioxin and dioxin-like compounds to 2,3,7,8-TCDD (Van den Berg et al., 1998). There are substantial inter- and intraspecific differences in sensitivity and toxic responses to 2,3,7,8-TCDD (Eisler, 1986b). Two species of earthworms showed no adverse effects at soil concentrations of 5 mg/kg; however, they died at 10 mg/kg of 2,3,7,8-TCDD (Eisler, 1986b). This indicates that terrestrial invertebrates may be resistant to 2,3,7,8-TCDD.

Although there presently is no evidence of biomagnification of PCDDs in birds, it is suspected that piscivorous birds have a greater potential to accumulate PCDDs than the fish that they eat (Eisler, 1986b).

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TABLE G.1

TERRESTRIAL WILDLIFE MODEL SPREADSHEET
PLANT AND INVERTEBRATE BIOTRANSFER AND SEDIMENT UPTAKE FACTORS
NTC GREAT LAKES, ILLINOIS

Contaminants	Fish Bioaccumulation Factors (1) Conservative (2)	Fish Bioaccumulation Factors (1) Average (2)	SD Invertebrate Bioaccumulation Factors Conservative (2)	SD Invertebrate Bioaccumulation Factors(3) Average (2)
Semivolatile Organics				
2-Methylnaphthalene	1.00E+00	1.00E+00	1.00E+00	1.00E+00
Acenaphthene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Acenaphthylene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Anthracene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Benzo(a)anthracene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Benzo(a)pyrene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Benzo(b)fluoranthene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Benzo(g,h,i)perylene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Benzo(k)Fluoranthene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Carbazole	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Chrysene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Dibenzo(a,h)Anthracene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Dibenzofuran	1.00E+00	1.00E+00	1.00E+00	1.00E+00
Di-n-octyl Phthalate	1.00E+00	1.00E+00	1.00E+00	1.00E+00
Fluoranthene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Fluorene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Indeno(1,2,3-cd)pyrene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Naphthalene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Phenanthrene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Pyrene	2.90E-01	2.90E-01	1.00E+00	1.00E+00
Pesticides/ PCBs				
4,4'-DDD	2.80E-01	2.80E-01	1.00E+00	1.00E+00
4,4'-DDE	7.70E+00	7.70E+00	1.00E+00	1.00E+00
4,4'-DDT	1.67E+00	1.67E+00	1.00E+00	1.00E+00
Alpha-Chlordane	4.77E+00	4.77E+00	1.00E+00	1.00E+00
Dieldrin	1.80E+00	1.80E+00	1.00E+00	1.00E+00
Gamma-Chlordane	2.22E+00	2.22E+00	1.00E+00	1.00E+00
Endosulfan II	1.80E+00	1.80E+00	1.00E+00	1.00E+00
Endrin	1.80E+00	1.80E+00	1.00E+00	1.00E+00
Dioxins				
2,3,7,8-TCDD	2.50E-02	2.50E-02	1.00E+00	1.00E+00
Inorganics				
Arsenic	1.00E+00	1.00E+00	6.90E-01	1.43E-01
Chromium	1.00E+00	1.00E+00	4.68E-01	1.00E-01
Copper	1.00E+00	1.00E+00	5.25E+00	1.56E+00
Lead	1.00E+00	1.00E+00	6.07E-01	7.10E-02
Mercury	1.00E+00	1.00E+00	2.87E+00	1.14E+00
Nickel	1.00E+00	1.00E+00	2.32E+00	4.86E-01
Selenium	1.00E+00	1.00E+00	1.00E+00	1.00E+00
Zinc	1.00E+00	1.00E+00	7.53E+00	1.94E+00

Notes:

Default value of 1.0 was used in instances where other information was not available

1 - U.S. EPA, September 1997; only one value is available for conservative and average exposures. Values for organic chemicals are the same for wet and dry wt.
2- Conservative and average refers to the exposure scenarios for which the uptake factors are used
3 - ORNL (Oak Ridge National Laboratory). 1998. Biota Sediment Accumulation Factors for Invertebrates. August.

APPENDIX G.2

RECEPTOR PROFILES

APPENDIX G.2

RECEPTOR PROFILES
SITE 1 - WILLOW GLEN GOLF COURSE
NAVAL STATION GREAT LAKES
GREAT LAKES, ILLINOIS

The following sections present the receptor profiles for the raccoon and belted kingfisher. The majority of the information for the profiles was obtained from the Wildlife Exposure Factors Handbook (USEPA, 1993). The data for the incidental sediment ingestion rates were obtained from the Estimates of Soil Ingestion by Wildlife (Beyer, 1994).

The food and are listed in g/g (of body weight)-day on a wet weight basis but were converted to dry weight for the ERA. The home ranges are presented in hectares in USEPA (1993) but were converted to acres by multiplying the number of hectares by 2.471. Also note that the estimated percent of soil in the diets are listed in dry weight. The attached table presents and describes the calculation of the exposure parameters.

Raccoon (*Procyon lotor*)

Raccoons are found near virtually every aquatic habitat, particularly in hardwood swamps, mangroves, floodplain forests, and freshwater and saltwater marshes. They are also common in suburban residential areas. They use surface waters for both drinking and foraging. They feed on a variety of items including fleshy fruits, nuts, acorns, corn, grains, insects, frogs, crayfish, eggs, and virtually any animal and vegetable matter.

The adult body weights based on data from Illinois, range from 5.34 to 8.86 kg, with an average of 6.865 kg. The conservative and average food ingestion rates of 0.2703 and 0.2176 kg/day were calculated using the maximum and average body weights in the following equation from Nagy (1999):

$$FI = (2.23)\ (BW^{0.85})$$

Where: FI = Food ingestion rate on dry weight basis (kg/day)
BW = Body weight in kg

The water ingestion rate ranges from 0.082 to 0.083 g/g-day, which is converted to the ingestion rate in L/day by multiplying the value by the body weight of the raccoon. The incidental sediment ingestion rate is calculated by multiplying the ingestion rate by the percentage of sediment that is incidentally ingested (9.4 percent), as cited in Beyer (1994).

The home range for the conservative model is assumed to be equal to the size of the site indicating that the

raccoon will spend all of its time at the site. The typical home range sizes for the raccoon are 96 to 6,325 acres for an average home range of 1,558 acres.

Belted Kingfisher (*Ceryle alcyon*)

Belted kingfishers are typically found along rivers, streams, and the edges of lakes and ponds. They are also common along seacoasts and estuaries. They prefer water that is free of thick vegetation and overhanging trees that obscure the view of the water. Because kingfishers eat primarily fish that swim near the surface or in shallow water, they require relatively clear water to see and catch their prey. Although kingfishers feed predominantly on fish, they have been know to consume crayfish, crabs, mussels, lizards, frogs, toads, small snakes, turtles, insects, salamanders, newts, young birds, mice, and berries. Belted kingfishers have been observed at the installation.

Based on data from Michigan, Pennsylvania, Ohio, and Minnesota, the adult body weights range from 0.136 to 0.170 kg, with an average of 0.152 kg. The listed food ingestion rates, based on data from Michigan, range from 0.41 to 0.5 g/g-day with an average value of 0.455 g/g-day. The water ingestion rate is estimated as 0.11 g/g-day. The food and water ingestion rates in kg/day and L/day, respectively, were calculated as shown in the attached table. The food ingestion rates were then multiplied by 0.25, which is the percent solids of fish (Sample et al., 1997) to convert the ingestion rate from a wet-weight value to a dry-weight value. The incidental sediment ingestion rate of was calculated by multiplying the ingestion rate by the percentage of sediment that is incidentally ingested (3.3 percent). The 3.3 percent is based on the incidental sediment ingestion rate of a mallard (Beyer, 1994), which also consumes aquatic organisms, because an incidental sediment ingestion rate was not available for the kingfisher.

The home range for the kingfisher ranges from 0.39 to 2.185 km of shoreline with an average of 1.16 km, based on data from streams in Pennsylvania and Ohio.

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TABLE G.2

CALCULATION OF EXPOSURE PARAMETERS FOR WILDLIFE RECEPTORS
SITE 1 GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Exposure Parameters	Raccoon		Belted Kingfisher
Body Weights (g)	7090	6160	150
	7140	6440	136
	7600	5340	158
	6000	5620	147
	6400	8860	148
	7740	7560	170
	6560	7600	
Minimum	***5340***		***136***
Maximum	***8860***		***170***
Average	***6865***		***152***
Food Ingestion Rate (g/g-day) (1)			0.5
			0.41
Minimum			***0.41***
Maximum			***0.5***
Average			***0.455***
Food Ingestion Rate (kg/day)			
Conservative	***0.2703***		***0.0213***
Average	***0.2176***		***0.0173***
Incidental Sediment Ingestion Rate (kg/day) (2)			
Conservative	***0.0254***		***0.00070125***
Average	***0.0205***		***0.00057057***
Water Ingestion Rate (g/g-day)	0.082	0.083	0.11
Minimum	***0.082***		***0.11***
Maximum	***0.083***		***0.11***
Average	***0.083***		***0.110***
Water Ingestion Rate (L/day)			
Conservative	***0.7354***		***0.0187***
Average	***0.5664***		***0.0167***
Home Range (Ha) (3)	204	108	2.185
			1.028
			1.03
			0.39
Minimum (acres)	***266.9***		***0.39***
Maximum (acres)	***504.1***		***2.19***
Average (acres)	***385.5***		***1.16***

Notes:
Source of data is USEPA, 1993, except for the incidental sediment ingestion rates which is Beyer, 1993.
1 - Food Ingestion Rate (kg/day) for the raccoon was calculated using the following equation:
$FI = (2.23)(BW^{0.85})$, where FI = Food Ingestion Rate (kg/day) and BW = Body Weight (kg).

2 - Incidental Sediment (IS) Ingestion Rate (kg/day) was calculated using the following equations:
$IS = (FI_{cons})(0.094)$, raccoon conservative
$IS = (FI_{avg})(0.094)$, raccoon average
$IS = (FI_{cons})(0.033)$, belted kingfisher conservative
$IS = (FI_{avg})(0.033)$, belted kingfisher average
3 - Home range for the kingfisher is presented in km of shoreline.

Ingestion Rates (kg/day or L/day) (if more than 1 ingestion rate is available)
- Conservative value = Max Ingestion Rate (g/g-day)*Max. Body Weight
- Average value = Avg. Ingestion Rate (g/g-day)*Avg. Body Weight

Ingestion Rates (L/day) (if only 1 ingestion rate is available)
- Conservative value = Ingestion Rate (g/g-day)* Max. Body Weight
- Average value = Ingestion Rate (g/g-day)*Avg. Body Weight

APPENDIX G.3

FOOD-CHAIN MODELS

TETRA TECH NUS, INC. **CALCULATION WORKSHEET** PAGE 1 OF 1

CLIENT Site 17, Pettibone Creek	JOB NUMBER
SUBJECT Percent lipid calculation for fish	
BASED ON USEPA, 1997. The Incidence and Severity of Sediment Contamination in Surface Waters of the US.	DRAWING NUMBER EPA 823-R-97-006.
BY R. Haynie / CHECKED BY A. Bernhardt	APPROVED BY / DATE 5-9-02

Percent lipid content in fish:

Species	Whole fish % lipid content *
Redbreast Sunfish	3.6
Green Sunfish	3.2
Pumpkinseed	3.9
Longear Sunfish	2.8
Bluegill Sunfish	3.5
Bluegill Sunfish	4.4

$3.56\bar{6} \approx 3.6\%$ lipid for fish

* Values taken from Appendix C, Table C-3b, USEPA (1997) The Incidence and Severity of Sediment Contamination in Surface Waters of the United States.

TABLE G.3-1

SOURCES AND ENDPOINTS FOR NOAELS AND LOAELS FOR TERRESTRIAL WILDLIFE

Parameters	Concentration (mg/kg-day)	Endpoint	Effect	Chronic/ Subchronic	Species	Primary Reference	Source of Reference
Semivolatiles Organics							
Acenaphthene	175	NOAEL	systemic	subchronic	mouse	USEPA, 1989a	IRIS, 2002
Acenaphthene	350	LOAEL	systemic	subchronic	mouse	USEPA, 1989a	IRIS, 2002
Acenaphthylene	700	NOAEL	mortality/BW	subchronic	mouse	USEPA, 1989a	PRC, 1996
Anthracene	1000	NOAEL	systemic	subchronic	mouse	USEPA, 1989b	IRIS, 2002
Anthracene	1000	NOAEL	reproductive	Subchronic	mouse	USEPA, 1989b	IT Corp, 1997
Benzo(a)anthracene	17.1	NOAEL	carcinogenic	acute	mouse	Clayson et al., 1968	PRC, 1996
Benzo(a)pyrene	10	LOAEL	reproductive	chronic	mouse	Mackenzie and Angevine, 1981	Sample et.al., 1996
Benzo(b)fluoranthene	40	LOAEL	carcinogenic	chronic	rodent	Lo and Sandi, 1978	PRC, 1996
Benzo(g,h,I)perylene	72	LOAEL	carcinogenic	chronic	rodent	Simms and Overcash, 1983	PRC, 1996
Benzo(k)fluoranthene	72	LOAEL	carcinogenic	chronic	rodent	Lo and Sandi, 1978	PRC, 1996
Chrysene	17.1	NOAEL	carcinogenic	acute	mouse	Clayson et al., 1968	PRC, 1996
Dibenzo(a,h)anthracene	13.3	LOAEL	carcinogenic	chronic	mouse	Lorenz and Stewart, 1948	PRC, 1996
Fluoranthene	125	NOAEL	systemic	subchronic	mouse	USEPA, 1988	IRIS, 2002
Fluoranthene	250	LOAEL	systemic	subchronic	mouse	USEPA, 1988	IRIS, 2002
Fluorene	125	NOAEL	systemic	subchronic	mouse	USEPA, 1989c	IRIS, 2002
Fluorene	250	LOAEL	systemic	subchronic	mouse	USEPA, 1989c	IRIS, 2002
Indeno(1,2,3-cd)pyrene	72	LOAEL	carcinogenic	chronic	rodent	Simms and Overcash, 1983	PRC, 1996
Pyrene	75	NOAEL	systemic	subchronic	mouse	USEPA, 1989c	IRIS, 2002
Pyrene	125	LOAEL	systemic	subchronic	mouse	USEPA, 1989c	IRIS, 2002
Pesticides							
Chlordane	2.14	NOAEL	mortality	chronic	red-winged blackbird	Stickel et al., 1983	Sample et.al., 1996
Chlordane	10.7	LOAEL	mortality	chronic	red-winged blackbird	Stickel et al., 1983	Sample et.al., 1996
Chlordane	4.58	NOAEL	reproduction	chronic	mouse	WHO, 1984	Sample et.al., 1996
Chlordane	9.16	LOAEL	reproduction	chronic	mouse	WHO, 1984	Sample et.al., 1996
4,4'-DDT	0.8	NOAEL	reproductive	chronic	rat	Fitzhugh, 1948	Sample et.al., 1996
4,4'-DDT	4	LOAEL	reproductive	chronic	rat	Fitzhugh, 1948	Sample et.al., 1996
4,4'-DDT	0.052(1)	LOAEL	reproduction	chronic	brown pelican	Anderson et al., 1975	USEPA, 1995
4,4'-DDT	0.009(1)	NOAEL	reproduction	chronic	brown pelican	Anderson et al., 1975	USEPA, 1995
Dieldrin	0.0709	NOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Dieldrin	0.8	LOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Dieldrin	0.015	NOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Dieldrin	1.27	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Endosulfan	1.5	NOAEL	reproduction	subchronic	rat	Dikshith et al., 1984	ATSDR, 1993
Endosulfan	10	NOAEL	reproduction	chronic	gray partridge	Abiola, 1992	Sample et.al., 1996
Endrin	0.92	LOAEL	reproduction	chronic	mouse	Good and Ware, 1969	Sample et.al., 1996
Endrin	0.1035	LOAEL	reproduction	chronic	screech owl	Fleming et al., 1982	Sample et.al., 1996
Methoxychlor	4	NOAEL	reproduction	chronic	rat	Gray et al., 1988	Sample et.al., 1996
Inorganics							
Arsenic	2.24	NOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Arsenic	4.51	LOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Arsenic	1.04	NOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Arsenic	4.55	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Chromium(III)	2.66	NOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Chromium(III)	15.63	LOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Chromium(III)	2.4	NOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Chromium(III)	58.17	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Copper	5.82	NOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Copper	81.4	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Copper	4.05	NOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Copper	34.8	LOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Lead	1.63	NOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Lead	44.6	LOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Lead	4.7	NOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	

TABLE G.3-1

SOURCES AND ENDPOINTS FOR NOAELS AND LOAELS FOR TERRESTRIAL WILDLIFE

Parameters	Concentration (mg/kg-day)	Endpoint	Effect	Chronic/ Subchronic	Species	Primary Reference	Source of Reference
Lead	186	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Mercury	0.064	LOAEL	reproductive	chronic	mallard duck	Heinz, 1979	Sample et.al., 1996
Mercury	0.032	NOAEL	reproductive	chronic	rat	Verschuuren et al., 1976	Sample et.al., 1996
Mercury	0.16	LOAEL	reproductive	chronic	rat	Verschuuren et al., 1976	Sample et.al., 1996
Nickel	1.70	NOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Nickel	14.77	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Nickel	6.71	NOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Nickel	18.57	LOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Selenium	0.4	NOAEL	reproductive	chronic	mallard duck	Heinz et al., 1989	Sample et.al., 1996
Selenium	0.8	LOAEL	reproductive	chronic	mallard duck	Heinz et al., 1989	Sample et.al., 1996
Selenium	0.2	NOAEL	reproductive	chronic	rat	Rosenfeld and Beath, 1954	Sample et.al., 1996
Selenium	0.33	LOAEL	reproductive	chronic	rat	Rosenfeld and Beath, 1954	Sample et.al., 1996
Zinc	160	NOAEL	reproductive	chronic	rat	Schlicker and Cox, 1968	Sample et.al., 1996
Zinc	320	LOAEL	reproductive	chronic	rat	Schlicker and Cox, 1968	Sample et.al., 1996
Zinc	14.49	NOAEL	reproductive	chronic	white leghorn hen	Stahl et al., 1990	Sample et.al., 1996
Zinc	130.9	LOAEL	reproductive	chronic	white leghorn hen	Stahl et al., 1990	Sample et.al., 1996

Notes: The NOAELS and LOAELS for the PAHs that do not have values are based on the benzo(a)pyrene values

The NOAELS and LOAELS for the PAHs for birds were based on 7,12-dimethylbenz(a)anthracene.

The TRVs used for dieldrin and several metals were calculated as the geometric mean of growth and reproduction data from the Ecological Soil Screening Levels (U.S. EPA, 2005).

1 - The LOAEL of 0.052 mg/kg-day was the recalculated LOAEL for the referenced study by assumming a lag time for the reduction of DDT (see USEPA, 1995)
The NOAEL of 0.009 was calculated by dividing the original LOAEL of the referenced study (0.027 mg/kg-day by an uncertainty factor of 3).

TABLE G.3-2

TOXICITY REFERENCE VALUES
SITE 1
NTC GREAT LAKES, ILLINOIS

PARAMETER	Mammal		Bird	
	NOAEL	LOAEL	NOAEL	LOAEL
SEMIVOLATILES				
Acenaphthene	17.5	35	2	20
Acenaphthylene	70	700	2	20
Anthracene	100	1000	2	20
Benzo(a)anthracene	0.17	1.7	2	20
Benzo(a)pyrene	1	10	2	20
Benzo(b)fluoranthene	4	40	2	20
Benzo(g,h,i)perylene	7.2	72	2	20
Benzo(k)fluoranthene	7.2	72	2	20
Chrysene	0.17	1.7	2	20
Dibenzo(a,h)anthracene	1.33	13.3	2	20
Fluoranthene	12.5	25	2	20
Fluorene	12.5	25	2	20
Indeno(1,2,3-cd)pyrene	7.2	72	2	20
Phenanthrene	1	10	2	20
Pyrene	7.5	12.5	2	20
PESTICIDES/PCBs				
4,4'-DDD	0.147	0.274	0.227	0.281
4,4'-DDE	0.147	0.274	0.227	0.281
4,4'-DDT	0.147	0.274	0.227	0.281
Dieldrin	0.015	1.27	0.0709	0.8
Endosulfan II	0.15	1.5	10	100
Endrin	0.092	0.92	0.01035	0.1035
Gamma-Chlordane	4.58	9.16	2.14	10.7
DIOXINS AND FURANS (mg/kg)				
2,3,7,8-TCDD	0.000001	0.00001	0.000014	0.00014
INORGANICS				
Arsenic	2.47	4.55	2.24	4.51
Chromium	2.40	58.17	2.66	15.63
Copper	5.8	81.4	4.05	34.76
Lead	4.7	186.4	1.63	44.63
Mercury	0.032	0.16	0.0064	0.064
Nickel	1.70	14.77	6.71	18.57
Selenium	0.2	0.33	0.4	0.8
Zinc	160	320	14.49	130.9

Notes:

The sources of these NOAELS and LOAELS are presented in the table titled "Sources and Endpoints for NOAELS and LOAELS for Terrestrial Wildlife" in this appendix.

The NOAELS and LOAELS in the source table were divided by 10 if a subchronic study was the basis for the value. Also, if only a NOAEL was available, the value was multiplied by 10 to estimate the LOAEL. If only a LOAEL was available, the value was divided by 10 to estimate the NOAEL.

TABLE G.3-3

TERRESTRIAL WILDLIFE MODEL HAZARD QUOTIENT CALCULATION
RACCOON - CONSERVATIVE INPUTS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Parameter	Max. Sed. Concentration (mg/kg)	Avg. SW Concentration (mg/L)	Biotransfer Factor (sed to fish)	Fish Concentration (mg/kg)	Biotransfer Factor (sed to inv.)	Invertebrate Concentration (mg/kg)	Dose (mg/kg/day)	NOAEL (mg/kg/day)	LOAEL (mg/kg/day)	NOAEL HQ	LOAEL HQ
Semivolatile Organics											
ACENAPHTHENE	7.40E-01	0.00E+00	2.90E-01	0.00E+00	1.00E+00	7.40E-01	2.22E-02	1.75E+01	3.50E+01	1.27E-03	6.36E-04
Polynuclear Aromatic Hydrocarbons											
ACENAPHTHYLENE	4.20E-01	0.00E+00	2.90E-01	0.00E+00	1.00E+00	4.20E-01	1.26E-02	7.00E+01	7.00E+02	1.80E-04	1.80E-05
ANTHRACENE	5.00E-01	0.00E+00	2.90E-01	0.00E+00	1.00E+00	5.00E-01	1.50E-02	1.00E+02	1.00E+03	1.50E-04	1.50E-05
BENZO(A)ANTHRACENE	1.70E+00	0.00E+00	2.90E-01	0.00E+00	1.00E+00	1.70E+00	5.11E-02	1.70E-01	1.70E+00	3.01E-01	3.01E-02
BENZO(A)PYRENE	2.00E+00	4.00E-05	2.90E-01	0.00E+00	1.00E+00	2.00E+00	6.01E-02	1.00E+00	1.00E+01	6.01E-02	6.01E-03
BENZO(B)FLUORANTHENE	2.40E+00	6.00E-05	2.90E-01	0.00E+00	1.00E+00	2.40E+00	7.22E-02	4.00E+00	4.00E+01	1.80E-02	1.80E-03
BENZO(G,H,I)PERYLENE	2.10E+00	6.00E-05	2.90E-01	0.00E+00	1.00E+00	2.10E+00	6.31E-02	7.20E+00	7.20E+01	8.77E-03	8.77E-04
BENZO(K)FLUORANTHENE	1.10E+00	0.00E+00	2.90E-01	0.00E+00	1.00E+00	1.10E+00	3.31E-02	7.20E+00	7.20E+01	4.59E-03	4.59E-04
CHRYSENE	2.00E+00	4.00E-05	2.90E-01	0.00E+00	1.00E+00	2.00E+00	6.01E-02	1.70E-01	1.70E+00	3.54E-01	3.54E-02
DIBENZO(A,H)ANTHRACENE	2.80E-01	0.00E+00	2.90E-01	0.00E+00	1.00E+00	2.80E-01	8.42E-03	1.33E+00	1.33E+01	6.33E-03	6.33E-04
FLUORANTHENE	6.00E+00	1.30E-04	2.90E-01	0.00E+00	1.00E+00	6.00E+00	1.80E-01	1.25E+01	2.50E+01	1.44E-02	7.22E-03
FLUORENE	2.60E-01	3.00E-05	2.90E-01	0.00E+00	1.00E+00	2.60E-01	7.82E-03	1.25E+01	2.50E+01	6.26E-04	3.13E-04
INDENO(1,2,3-CD)PYRENE	1.70E+00	4.00E-05	2.90E-01	0.00E+00	1.00E+00	1.70E+00	5.11E-02	7.20E+00	7.20E+01	7.10E-03	7.10E-04
PHENANTHRENE	3.10E+00	1.50E-04	2.90E-01	0.00E+00	1.00E+00	3.10E+00	9.32E-02	1.00E+00	1.00E+01	9.32E-02	9.32E-03
PYRENE	4.30E+00	7.00E-05	2.90E-01	0.00E+00	1.00E+00	4.30E+00	1.29E-01	7.50E+00	1.25E+01	1.72E-02	1.03E-02
Organochlorine Pesticides/PCBs											
4,4'-DDD	1.70E-02	0.00E+00	2.80E-01	6.22E-03	1.00E+00	1.70E-02	6.68E-04	1.47E-01	2.74E-01	4.55E-03	2.44E-03
4,4'-DDE	3.20E-02	0.00E+00	7.70E+00	3.22E-01	1.00E+00	3.20E-02	9.11E-03	1.47E-01	2.74E-01	6.20E-02	3.32E-02
4,4'-DDT	7.40E-03	0.00E+00	1.67E+00	1.61E-02	1.00E+00	7.40E-03	6.31E-04	1.47E-01	2.74E-01	4.29E-03	2.30E-03
ALPHA-CHLORDANE	5.50E-03	0.00E+00	4.77E+00	3.43E-02	1.00E+00	5.50E-03	1.03E-03	4.58E+00	9.16E+00	2.25E-04	1.13E-04
DIELDRIN	4.40E-03	0.00E+00	1.80E+00	1.03E-02	1.00E+00	4.40E-03	3.94E-04	1.50E-02	1.27E+00	2.63E-02	3.10E-04
ENDOSULFAN II	4.80E-03	0.00E+00	1.80E+00	1.13E-02	1.00E+00	4.80E-03	4.30E-04	1.50E-01	1.50E+00	2.87E-03	2.87E-04
ENDRIN	6.70E-03	0.00E+00	1.80E+00	1.58E-02	1.00E+00	6.70E-03	6.00E-04	9.20E-02	9.20E-01	6.52E-03	6.52E-04
GAMMA-CHLORDANE	2.90E-03	0.00E+00	2.22E+00	8.41E-03	1.00E+00	2.90E-03	3.00E-04	4.58E+00	9.16E+00	6.55E-05	3.28E-05
Dioxins/Furans											
TEQ MAMMAL	6.30E-06	7.80E-12	2.50E-02	2.06E-07	1.00E+00	6.30E-06	1.95E-07	1.00E-06	1.00E-05	1.95E-01	1.95E-02
Metals											
ARSENIC	1.01E+01	0.00E+00	6.90E-01	6.97E+00	6.90E-01	6.97E+00	4.01E-01	2.47E+00	4.55E+00	1.62E-01	8.81E-02
CHROMIUM	2.93E+01	8.90E-04	4.68E-01	1.37E+01	4.68E-01	1.37E+01	8.34E-01	2.40E+00	5.82E+01	3.47E-01	1.43E-02
COPPER	7.13E+01	1.46E-03	5.25E+00	3.74E+02	5.25E+00	3.74E+02	1.93E+01	5.82E+00	8.14E+01	3.31E+00	2.37E-01
LEAD	5.40E+01	1.60E-03	6.07E-01	3.28E+01	6.07E-01	3.28E+01	1.92E+00	4.70E+00	1.86E+02	4.08E-01	1.03E-02
MERCURY	3.00E-01	3.00E-05	2.87E+00	8.60E-01	2.87E+00	8.60E-01	4.50E-02	3.20E-02	1.60E-01	1.41E+00	2.81E-01
NICKEL	2.94E+01	1.89E-03	2.32E+00	6.82E+01	2.32E+00	6.82E+01	3.59E+00	1.70E+00	1.48E+01	2.11E+00	2.43E-01
SELENIUM	2.50E+00	0.00E+00	1.00E+00	2.50E+00	1.00E+00	2.50E+00	1.38E-01	2.00E-01	3.30E-01	6.92E-01	4.19E-01
ZINC	4.00E+02	1.10E-02	7.53E+00	3.01E+03	7.53E+00	3.01E+03	1.54E+02	1.60E+02	3.20E+02	9.64E-01	4.82E-01

Cells are shaded if the EEQ is greater than 1.0
NA = Not applicable

Body Weight = BW	5.340E+00	kg
Food Ingestion Rate = If	2.703E-01	kg/day
Water Ingestion Rate = Iw	7.354E-01	L/day
Sediment Ingestion Rate - Is	2.540E-02	kg/day
Home Range = HR	Assume 100% on site	

%TOC =	2.72E-02
% Lipid =	1.42E-01

$$CDI(inorganics) = \frac{[(If * Cs * BAF_f)/2 + (If * Cs * BAF_i)/2 + (Iw * Cw) + (Is * Cs)] * SUF}{BW}$$

$$CDI(organics) = \frac{[(If * Cs * BSAF_f * \frac{\%L}{\%TOC})/2 + (If * Cs * BSAF_i)/2 + (Iw * Cw) + (Is * Cs)] * SUF}{BW}$$

CDI	=	Chronic daily intake (mg/kg-day)
Cs	=	Chemical concentration in sediment (mg/kg)
BAFf	=	Sediment-to fish bioaccumulation factor (for inorganics) (unitless)
BAFi	=	Sediment-to invertebrate bioaccumulation factor (for inorganics) (unitless)
BSAFf	=	Sediment-to fish bioaccumulation factor (for organics) (unitless)
BSAFi	=	Sediment-to invertebrate bioaccumulation factor (for organics) (unitless)
If	=	Ingestion rate of food (kg/day)
%L	=	Percent lipids of the fish (assumed to be »14.2% dry weight)
%TOC	=	Percent total organic carbon of the sediment (will use actual stream data)
Is	=	Rate of incidental sediment ingestion (kg/day)
Cw	=	Chemical concentration in water using unfiltered metals data (mg/L)
Iw	=	Ingestion rate of water (L/day)
SUF	=	Site use factor [Contaminated area/home area range area ratio (unitless)]
BW	=	Body weight (kg)

TABLE G.3-4

TERRESTRIAL WILDLIFE MODEL HAZARD QUOTIENT CALCULATION
BELTED KINGFISHER - CONSERVATIVE INPUTS
SITE 1 - GOLF COURSE LANDFILL
NAVALSTATION GREAT LAKES, ILLINOIS

Parameter	Max. Sed. Concentration (mg/kg)	Avg. SW Concentration (mg/L)	Biotransfer Factor (sed to fish)	Fish Concentration (mg/kg)	Dose (mg/kg/day)	NOAEL (mg/kg/day)	LOAEL (mg/kg/day)	NOAEL HQ	LOAEL HQ
Organochlorine Pesticides/PCBs									
4,4'-DDD	1.70E-02	0.00E+00	2.80E-01	2.48E-02	3.96E-03	2.27E-01	2.81E-01	1.75E-02	1.41E-02
4,4'-DDE	3.20E-02	0.00E+00	7.70E+00	1.28E+00	2.01E-01	2.27E-01	2.81E-01	8.85E-01	7.15E-01
4,4'-DDT	7.40E-03	0.00E+00	1.67E+00	6.44E-02	1.01E-02	2.27E-01	2.81E-01	4.45E-02	3.59E-02
ALPHA-CHLORDANE	5.50E-03	0.00E+00	4.77E+00	1.37E-01	2.14E-02	2.14E+00	1.07E+01	1.00E-02	2.00E-03
DIELDRIN	4.40E-03	0.00E+00	1.80E+00	4.13E-02	6.47E-03	7.09E-02	8.00E-01	9.13E-02	8.09E-03
ENDOSULFAN II	4.80E-03	0.00E+00	1.80E+00	4.50E-02	7.06E-03	1.00E+01	1.00E+02	7.06E-04	7.06E-05
ENDRIN	6.70E-03	0.00E+00	1.80E+00	6.29E-02	9.86E-03	1.04E-02	1.04E-01	9.52E-01	9.52E-02
GAMMA-CHLORDANE	2.90E-03	0.00E+00	2.22E+00	3.36E-02	5.26E-03	2.14E+00	1.07E+01	2.46E-03	4.91E-04
Dioxins/Furans									
TEQ BIRD	7.00E-06	2.60E-12	2.50E-02	9.12E-07	1.79E-07	1.40E-05	1.40E-04	1.28E-02	1.28E-03
Metals									
ARSENIC	1.01E+01	0.00E+00	6.90E-01	6.97E+00	1.14E+00	2.24E+00	4.51E+00	5.09E-01	2.53E-01
CHROMIUM	2.93E+01	8.90E-04	4.68E-01	1.37E+01	2.29E+00	2.66E+00	1.56E+01	8.63E-01	1.47E-01
COPPER	7.13E+01	1.46E-03	5.25E+00	3.74E+02	5.89E+01	4.05E+00	3.48E+01	1.45E+01	1.69E+00
LEAD	5.40E+01	1.60E-03	6.07E-01	3.28E+01	5.40E+00	1.63E+00	4.46E+01	3.31E+00	1.21E-01
MERCURY	3.00E-01	3.00E-05	2.87E+00	8.60E-01	1.36E-01	6.40E-03	6.40E-02	2.12E+01	2.12E+00
NICKEL	2.94E+01	1.89E-03	2.32E+00	6.82E+01	1.08E+01	6.71E+00	1.86E+01	1.61E+00	5.82E-01
SELENIUM	2.50E+00	0.00E+00	1.00E+00	2.50E+00	4.04E-01	4.00E-01	8.00E-01	1.01E+00	5.04E-01
ZINC	4.00E+02	1.10E-02	7.53E+00	3.01E+03	4.73E+02	1.45E+01	1.31E+02	3.26E+01	3.61E+00

Cells are shaded if the EEQ is greater than 1.0
NA = Not applicable

Body Weight = BW	1.360E-01	kg
Food Ingestion Rate = If	2.125E-02	kg/day
Water Ingestion Rate = Iw	1.870E-02	L/day
Soil Ingestion Rate - Is	7.013E-04	kg/day
Home Range = HR	Assume 100% on site	
%TOC =	0.027246	
% Lipid =	0.142	

$$CDI(inorganics) = \frac{[(Cs * BAF_f * If) + (Cs * Is) + (Cw * Iw)] * SUF}{BW}$$

$$CDI(organics) = \frac{[(Cs * BSAF_f * \frac{\%L}{\%TOC}) * If) + (Cs * Is) + (Cw * Iw)] * SUF}{BW}$$

CDI	=	Chronic daily intake (mg/kg-day)
Cs	=	Chemical concentration in sediment (mg/kg)
BAFf	=	Sediment-to fish bioaccumulation factor (for inorganics) (unitless)
BAFi	=	Sediment-to invertebrate bioaccumulation factor (for inorganics) (unitless)
BSAFf	=	Sediment-to fish bioaccumulation factor (for organics) (unitless)
BSAFi	=	Sediment-to invertebrate bioaccumulation factor (for organics) (unitless)
If	=	Ingestion rate of food (kg/day)
%L	=	Percent lipids of the fish (assumed to be »14.2% dry weight)
%TOC	=	Percent total organic carbon of the sediment (will use actual stream data)
Is	=	Rate of incidental sediment ingestion (kg/day)
Cw	=	Chemical concentration in water using unfiltered metals data (mg/L)
Iw	=	Ingestion rate of water (L/day)
SUF	=	Site use factor [Contaminated area/home area range area ratio (unitless)]
BW	=	Body weight (kg)

TABLE G.3-5

TERRESTRIAL WILDLIFE MODEL HAZARD QUOTIENT CALCULATION
RACCOON - AVERAGE INPUTS
SITE 1 - GOLF COURSE LANDFILL
NAVALSTATION GREAT LAKES, ILLINOIS

Parameter	Avg. Sed. Concentration (mg/kg)	Avg. SW Concentration (mg/L)	Biotransfer Factor (sed to fish)	Fish Concentration (mg/kg)	Biotransfer Factor (sed to inv.)	Invertebrate Concentration (mg/kg)	Dose (mg/kg/day)	NOAEL (mg/kg/day)	LOAEL (mg/kg/day)	NOAEL HQ	LOAEL HQ
Metals											
COPPER	4.84E+01	1.46E-03	1.56E+00	7.53E+01	1.56E+00	7.53E+01	2.53E+00	5.82E+00	8.14E+01	4.35E-01	3.11E-02
MERCURY	1.30E-01	3.00E-05	1.14E+00	1.48E-01	1.14E+00	1.48E-01	5.07E-03	3.20E-02	1.60E-01	1.58E-01	3.17E-02
NICKEL	1.77E+01	1.89E-03	4.86E-01	8.60E+00	4.86E-01	8.60E+00	3.26E-01	1.70E+00	1.48E+01	1.91E-01	2.20E-02

NA = Not applicable

Body Weight = BW	6.865E+00	kg
Food Ingestion Rate = If	2.176E-01	kg/day
Water Ingestion Rate = Iw	5.664E-01	L/day
Sediment Ingestion Rate - Is	2.045E-02	kg/day
Home Range = HR	3.855E+02	acres
%TOC =	2.72E-02	
% Lipid =	1.42E-01	

$$CDI(inorganics) = \frac{[(If * Cs * BAF_f)/2 + (If * Cs * BAF_i)/2 + (Iw * Cw) + (Is * Cs)] * SUF}{BW}$$

$$CDI(organics) = \frac{[(If * Cs * BSAF_f * \frac{\%L}{\%TOC})/2 + (If * Cs * BSAF_i)/2 + (Iw * Cw) + (Is * Cs)] * SUF}{BW}$$

CDI	=	Chronic daily intake (mg/kg-day)
Cs	=	Chemical concentration in sediment (mg/kg)
BAFf	=	Sediment-to fish bioaccumulation factor (for inorganics) (unitless)
BAFi	=	Sediment-to invertebrate bioaccumulation factor (for inorganics) (unitless)
BSAFf	=	Sediment-to fish bioaccumulation factor (for organics) (unitless)
BSAFi	=	Sediment-to invertebrate bioaccumulation factor (for organics) (unitless)
If	=	Ingestion rate of food (kg/day)
%L	=	Percent lipids of the fish (assumed to be »14.2% dry weight)
%TOC	=	Percent total organic carbon of the sediment (will use actual stream data)
Is	=	Rate of incidental sediment ingestion (kg/day)
Cw	=	Chemical concentration in water using unfiltered metals data (mg/L)
Iw	=	Ingestion rate of water (L/day)
SUF	=	Site use factor [Contaminated area/home area range area ratio (unitless)]
BW	=	Body weight (kg)

TABLE G.3-6

TERRESTRIAL WILDLIFE MODEL HAZARD QUOTIENT CALCULATION
BELTED KINGFISHER - AVERAGE INPUTS
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Parameter	Avg. Sed. Concentration (mg/kg)	Avg. SW Concentration (mg/L)	Biotransfer Factor (sed to fish)	Fish Concentration (mg/kg)	Dose (mg/kg/day)	NOAEL (mg/kg/day)	LOAEL (mg/kg/day)	NOAEL HQ	LOAEL HQ
Metals									
COPPER	4.84E+01	1.46E-03	1.56E+00	7.53E+01	8.75E+00	4.05E+00	3.48E+01	2.16E+00	2.52E-01
LEAD	4.04E+01	1.60E-03	7.10E-02	2.87E+00	4.78E-01	1.63E+00	4.46E+01	2.93E-01	1.07E-02
MERCURY	1.30E-01	3.00E-05	1.14E+00	1.48E-01	1.73E-02	6.40E-03	6.40E-02	2.70E+00	2.70E-01
NICKEL	1.77E+01	1.89E-03	4.86E-01	8.60E+00	1.05E+00	6.71E+00	1.86E+01	1.56E-01	5.63E-02
SELENIUM	1.10E+00	0.00E+00	1.00E+00	1.10E+00	1.29E-01	4.00E-01	8.00E-01	3.23E-01	1.62E-01
ZINC	2.65E+02	1.10E-02	1.94E+00	5.13E+02	5.94E+01	1.45E+01	1.31E+02	4.10E+00	4.53E-01

Shaded cells indicate HQ > 1.0

Body Weight = BW	1.520E-01	kg
Food Ingestion Rate = If	1.729E-02	kg/day
Water Ingestion Rate = Iw	1.672E-02	L/day
Soil Ingestion Rate - Is	5.706E-04	kg/day
Home Range = HR	1.160E+00	km
%TOC =	2.725E-02	
% Lipid =	1.420E-01	

$$CDI(inorganics) = \frac{[(Cs * BAF_f * If) + (Cs * Is) + (Cw * Iw)] * SUF}{BW}$$

$$CDI(organics) = \frac{[(Cs * BSAF_f * \frac{\%L}{\%TOC}) * If) + (Cs * Is) + (Cw * Iw)] * SUF}{BW}$$

CDI	=	Chronic daily intake (mg/kg-day)
Cs	=	Chemical concentration in sediment (mg/kg)
BAFf	=	Sediment-to fish bioaccumulation factor (for inorganics) (unitless)
BAFi	=	Sediment-to invertebrate bioaccumulation factor (for inorganics) (unitless)
BSAFf	=	Sediment-to fish bioaccumulation factor (for organics) (unitless)
BSAFi	=	Sediment-to invertebrate bioaccumulation factor (for organics) (unitless)
If	=	Ingestion rate of food (kg/day)
%L	=	Percent lipids of the fish (assumed to be »14.2% dry weight)
%TOC	=	Percent total organic carbon of the sediment (will use actual stream data)
Is	=	Rate of incidental sediment ingestion (kg/day)
Cw	=	Chemical concentration in water using unfiltered metals data (mg/L)
Iw	=	Ingestion rate of water (L/day)
SUF	=	Site use factor [Contaminated area/home area range area ratio (unitless)]
BW	=	Body weight (kg)

TABLE G.3-7

TERRESTRIAL WILDLIFE MODEL HAZARD QUOTIENT CALCULATION
BELTED KINGFISHER - AVERAGE INPUTS W/ AUF
SITE 1 - GOLF COURSE LANDFILL
NAVAL STATION GREAT LAKES, ILLINOIS

Parameter	Avg. Sed. Concentration (mg/kg)	Avg. SW Concentration (mg/L)	Biotransfer Factor (sed to fish)	Fish Concentration (mg/kg)	Dose (mg/kg/day)	NOAEL (mg/kg/day)	LOAEL (mg/kg/day)	NOAEL HQ	LOAEL HQ
Metals									
COPPER	4.84E+01	1.46E-03	1.56E+00	7.53E+01	3.22E+00	4.05E+00	3.48E+01	7.95E-01	9.26E-02
MERCURY	1.30E-01	3.00E-05	1.14E+00	1.48E-01	6.36E-03	6.40E-03	6.40E-02	9.94E-01	9.94E-02
ZINC	2.65E+02	1.10E-02	1.94E+00	5.13E+02	2.18E+01	1.45E+01	1.31E+02	1.51E+00	1.67E-01
Miscellaneous Parameters	*Average Positive*								
TOTAL ORGANIC CARBON	2.72E-02	NA	NA	NA	NA	NA	NA	NA	NA

Shaded cells indicate HQ > 1.0

Body Weight = BW	1.52E-01	kg
Food Ingestion Rate = If	1.73E-02	kg/day
Water Ingestion Rate = Iw	1.67E-02	L/day
Soil Ingestion Rate - Is	5.71E-04	kg/day
Home Range = HR	1.16E+00	km
	3.81E+03	feet
Contaminated Area = CA (length of stream sample area	1.40E+03	feet
Site Use Factor = SUF (CA/HR)	3.68E-01	

CDI	=	Chronic daily intake (mg/kg-day)
Cs	=	Chemical concentration in sediment (mg/kg)
BAFf	=	Sediment-to fish bioaccumulation factor (for inorganics) (unitless)
BAFi	=	Sediment-to invertebrate bioaccumulation factor (for inorganics) (unitless)
BSAFf	=	Sediment-to fish bioaccumulation factor (for organics) (unitless)
BSAFi	=	Sediment-to invertebrate bioaccumulation factor (for organics) (unitless)
If	=	Ingestion rate of food (kg/day)
%L	=	Percent lipids of the fish (assumed to be »14.2% dry weight)
%TOC	=	Percent total organic carbon of the sediment (will use actual stream data)
Is	=	Rate of incidental sediment ingestion (kg/day)
Cw	=	Chemical concentration in water using unfiltered metals data (mg/L)
Iw	=	Ingestion rate of water (L/day)
SUF	=	Site use factor [Contaminated area/home area range area ratio (unitless)]
BW	=	Body weight (kg)

APPENDIX G.3

SOURCES AND ENPOINTS FOR NOAELS AND LOAELS FOR TERRESTRIAL WILDLIFE

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