N00158.AR.000268
NAS WILLOW GROVE
5090.3a

TETRA TECH NUS

PHIL-21220

TO: RUSS TURNER **DATE:** JULY 17, 2007

FROM: MEGAN N. RITCHIE **COPIES:** FILE

SUBJECT: INORGANIC DATA VALIDATION – METALS, CYANIDE, PERCENT SOLIDS
NAS JRB WILLOW GROVE SITE 3, WILLOW GROVE, PENNSYLVANIA
SDG NO. C7E050116

SAMPLES: 7/Solid/

03TP11-0304-01	03TP11-0405-02	03TP12-0102-03	03TP12-0304-02
03TP12-0405-01	03TP13-0203-01	03TP14-0203-01	

OVERVIEW

The sample set for the NAS JRB Willow Grove Site 3 Test Pits – Willow Grove, PA, SDG C7E050116 consists of 7 solid environmental samples (designated 03TP11-, 03TP12-, 03TP13-, and 03TP14-). No matrix spike samples were designated for this sample set. No field duplicate pairs were included in this sample set. All samples were analyzed for target analyte list (TAL) metals and cyanide.

The samples were collected by Tetra Tech NUS on May 4, 2007 and analyzed by Severn Trent Laboratories (STL) of Pittsburgh, Pennsylvania.

EPA SW-846 Methods were conducted using 6010B for ICP-AES metals, 7471A for mercury, and 9012A for cyanide. Percent solids were analyzed by EPA Method 160.3 modified.

SUMMARY

Most analytes were successfully analyzed in all samples. The findings offered in this report are based upon a general review of all available data including data completeness, holding times until analysis, calibration data, laboratory blank results, ICP interference check samples, matrix spike (MS) and matrix spike duplicate (MSD) results, laboratory control spike (LCS) results, field duplicate results, ICP serial dilution results, detection limits, and analyte quantitation.

Areas of concern with respect to data quality are listed below as follows:

MAJOR PROBLEMS

- Sodium and thallium exhibited negative concentrations with absolute values greater than the MDL in ICS solution A, which indicates the potential for negative bias to an extent that depends on the sample mineral concentrations. For non-detected sodium and thallium results, when the MDL was less than the absolute value of the predicted magnitude of negative interference, such results were qualified as unusable (UR).

MINOR PROBLEMS

- The following table summarizes the analytes detected as contaminants in the laboratory blanks at the maximum concentration indicated:

Analyte	Maximum Concentration	Action Level
Aluminum	19.7 ug/L	9.85 mg/kg
Antimony	1.9 ug/L	0.95 mg/kg
Beryllium	1.1 ug/L	0.55 mg/kg
Lead	2.4 ug/L	1.2 mg/kg
Manganese	0.015 mg/kg	0.075 mg/kg
Potassium	19.5 mg/kg	390 mg/kg
Silver	0.4 ug/L	0.2 mg/kg
Zinc	0.27 mg/kg	1.35 mg/kg

Samples affected: The action levels apply to all solid environmental samples.

Dilution factors, percent solids, and sample preparation weights were taken into account during application of the action levels. Results reported at concentrations within the action level are qualified (B) and are considered to be false positives (artifacts of blank contamination). No action was taken for aluminum, beryllium, lead, manganese, and zinc because the results exceeded the action level or there were no positive results for these analytes.

- Sodium exhibited a negative concentration with an absolute value greater than the MDL in ICS solution A, which indicates the potential for negative bias to an extent that depends on the sample mineral concentrations. For positive sodium results, when the sample concentration was less than 10 times the absolute value of the expected interference, such results were qualified as biased low (L).
- Selenium and thallium exhibited negative concentrations with absolute values greater than the MDL in ICS solution A, which indicates the potential for negative bias to an extent that depends on the sample mineral concentrations. For non-detected selenium and thallium results, when the absolute value of the predicted magnitude of negative interference was less than the MDL but more than one-tenth of the MDL, such results were qualified as biased low (UL).
- The MSD recovery for chromium exceeded the upper QC limit of 120%. All positive results for these analytes were qualified as biased high (K).
- The MS/MSD recoveries for antimony and mercury were below the lower QC limit of 80%. All positive and non-detected results for antimony and mercury were qualified as biased low (L/UL), except where superseded by the qualifier for blank contamination (B).

NOTES

The cyanide and percent solids data are acceptable as reported by the laboratory.

EXECUTIVE SUMMARY

Lab ratory Performance: Many analytes displayed signals with absolute values greater than the MDL in the ICP Interference Check Sample A. Three of these analytes may have produced bias in sample analyses. Several analytes were present in the laboratory blanks.

Other Factors Affecting Data Quality: MS/MSD recoveries were outside QC criteria for three analytes.

The data for these analyses were reviewed with reference to the EPA "Functional Guidelines for Inorganic Data Review", as amended for use within EPA Region 3 (4/93).

The text of this report has been formatted 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 Functional Guidelines and the Quality Assurance Project Plan (QAPjP)."

Megan N. Ritchie

Megan N. Ritchie
Chemist

Tetra Tech NUS, Inc.
Russ Sloboda
Data Validation 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

PROJ_NO: 2192

SDG: C7E050116 MEDIA: SOIL DATA FRACTION: M

nsample	03TP11-0304-01	nsample	03TP11-0405-02	nsample	03TP12-0102-03
samp_date	5/4/2007	samp_date	5/4/2007	samp_date	5/4/2007
lab_id	C7E050116005	lab_id	C7E050116006	lab_id	C7E050116004
qc_type	NM	qc_type	NM	qc_type	NM
units	MG/KG	units	MG/KG	units	MG/KG
Pct_Solids	84.0	Pct_Solids	84.0	Pct_Solids	84.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	12800		
ANTIMONY	0.38	UL	D
ARSENIC	4.6		
BARIUM	58		
BERYLLIUM	0.77		
CADMIUM	0.083	U	
CALCIUM	1310		
CHROMIUM	18.6	K	D
COBALT	7.1		
COPPER	12.9		
IRON	21200		
LEAD	11.6		
MAGNESIUM	2420		
MANGANESE	412		
MERCURY	0.036	L	D
NICKEL	10.4		
POTASSIUM	605		
SELENIUM	0.31	UL	K
SILVER	0.075	B	A
SODIUM	26.4	L	K
THALLIUM	0.54	UR	K
VANADIUM	32.6		
ZINC	29.1		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	12400		
ANTIMONY	0.38	UL	D
ARSENIC	4.1		
BARIUM	48.4		
BERYLLIUM	0.78		
CADMIUM	0.083	U	
CALCIUM	641		
CHROMIUM	18.7	K	D
COBALT	8.1		
COPPER	16.3		
IRON	19800		
LEAD	7.6		
MAGNESIUM	1840		
MANGANESE	541		
MERCURY	0.027	L	D
NICKEL	10		
POTASSIUM	527		
SELENIUM	0.31	UL	K
SILVER	0.036	U	
SODIUM	19.1	L	K
THALLIUM	0.55	UR	K
VANADIUM	30.5		
ZINC	22.9		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	11100		
ANTIMONY	0.38	UL	D
ARSENIC	4.1		
BARIUM	74.9		
BERYLLIUM	1		
CADMIUM	0.083	U	
CALCIUM	2050		
CHROMIUM	14.4	K	D
COBALT	6.1		
COPPER	13.8		
IRON	14600		
LEAD	19		
MAGNESIUM	1860		
MANGANESE	383		
MERCURY	0.097	L	D
NICKEL	9.2		
POTASSIUM	497		
SELENIUM	0.31	UL	K
SILVER	0.11	B	A
SODIUM	34	L	K
THALLIUM	0.55	UL	K
VANADIUM	23.6		
ZINC	34.6		

PROJ_NO: 2192

SDG: C7E050116 MEDIA: SOIL DATA FRACTION: M

nsample	03TP12-0304-02	nsample	03TP12-0405-01	nsample	03TP13-0203-01
samp_date	5/4/2007	samp_date	5/4/2007	samp_date	5/4/2007
lab_id	C7E050116003	lab_id	C7E050116002	lab_id	C7E050116007
qc_type	NM	qc_type	NM	qc_type	NM
units	MG/KG	units	MG/KG	units	MG/KG
Pct_Solids	81.0	Pct_Solids	83.0	Pct_Solids	85.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	10400		
ANTIMONY	0.4	UL	D
ARSENIC	4.6		
BARIUM	117		
BERYLLIUM	1.1		
CADMIUM	0.086	U	
CALCIUM	1230		
CHROMIUM	14.2	K	D
COBALT	6.6		
COPPER	11.3		
IRON	13800		
LEAD	30.2		
MAGNESIUM	1540		
MANGANESE	947		
MERCURY	0.06	L	D
NICKEL	9.2		
POTASSIUM	356	B	A
SELENIUM	0.32	UL	K
SILVER	0.17	B	A
SODIUM	19.4	UR	K
THALLIUM	0.56	UL	K
VANADIUM	22.3		
ZINC	37.3		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	12000		
ANTIMONY	1	B	A
ARSENIC	5.3		
BARIUM	83.9		
BERYLLIUM	0.94		
CADMIUM	2.7		
CALCIUM	1220		
CHROMIUM	21.5	K	D
COBALT	8.4		
COPPER	34.6		
IRON	21600		
LEAD	104		
MAGNESIUM	1620		
MANGANESE	774		
MERCURY	0.18	L	D
NICKEL	10.8		
POTASSIUM	365	B	A
SELENIUM	0.32	UL	K
SILVER	0.31		
SODIUM	18.9	UR	K
THALLIUM	0.55	UR	K
VANADIUM	28.1		
ZINC	141		

Parameter	Result	Val Qual	Qual Code
ALUMINUM	13900		
ANTIMONY	0.38	UL	D
ARSENIC	2.3		
BARIUM	77.1		
BERYLLIUM	0.67		
CADMIUM	0.082	U	
CALCIUM	396		
CHROMIUM	6.9	K	D
COBALT	4.1		
COPPER	21.9		
IRON	9570		
LEAD	3.3		
MAGNESIUM	809		
MANGANESE	221		
MERCURY	0.034	L	D
NICKEL	7.4		
POTASSIUM	350	B	A
SELENIUM	0.31	UL	K
SILVER	0.035	U	
SODIUM	32.8	L	K
THALLIUM	0.54	UL	K
VANADIUM	13.2		
ZINC	14.7		

PROJ_NO: 2192

SDG: C7E050116 MEDIA: SOIL DATA FRACTION: M

nsample	03TP14-0203-01
samp_date	5/4/2007
lab_id	C7E050116008
qc_type	NM
units	MG/KG
Pct_Solids	79.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ALUMINUM	11100		
ANTIMONY	0.4	UL	D
ARSENIC	6.7		
BARIUM	90.9		
BERYLLIUM	1.2		
CADMIUM	0.088	U	
CALCIUM	1420		
CHROMIUM	18.1	K	D
COBALT	5.7		
COPPER	9.3		
IRON	13200		
LEAD	23.4		
MAGNESIUM	1470		
MANGANESE	321		
MERCURY	0.09	L	D
NICKEL	9.3		
POTASSIUM	336	B	A
SELENIUM	0.33	UL	K
SILVER	0.038	U	
SODIUM	19.7	UR	K
THALLIUM	0.57	UL	K
VANADIUM	25.4		
ZINC	37.9		

PROJ_NO: 2192

SDG: C7E050116 MEDIA: SOIL DATA FRACTION: MISC

nsample	03TP11-0304-01	nsample	03TP11-0405-02	nsample	03TP12-0102-03
samp_date	5/4/2007	samp_date	5/4/2007	samp_date	5/4/2007
lab_id	C7E050116005	lab_id	C7E050116006	lab_id	C7E050116004
qc_type	NM	qc_type	NM	qc_type	NM
Pct_Solids	84.0	Pct_Solids	84.0	Pct_Solids	84.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.6	U	
PERCENT SOLIDS	%	84		

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.6	U	
PERCENT SOLIDS	%	83.6		

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.6	U	
PERCENT SOLIDS	%	83.6		

PROJ_NO: 2192

SDG: C7E050116 MEDIA: SOIL DATA FRACTION: MISC

nsample	03TP12-0304-02	nsample	03TP12-0405-01	nsample	03TP13-0203-01
samp_date	5/4/2007	samp_date	5/4/2007	samp_date	5/4/2007
lab_id	C7E050116003	lab_id	C7E050116002	lab_id	C7E050116007
qc_type	NM	qc_type	NM	qc_type	NM
Pct_Solids	81.0	Pct_Solids	83.0	Pct_Solids	85.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.62	U	
PERCENT SOLIDS	%	80.9		

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.17		
PERCENT SOLIDS	%	82.8		

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.59	U	
PERCENT SOLIDS	%	85.1		

PROJ_NO: 2192

SDG: C7E050116 MEDIA: SOIL DATA FRACTION: MISC

nsample	03TP14-0203-01
samp_date	5/4/2007
lab_id	C7E050116008
qc_type	NM
Pct_Solids	79.0
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
CYANIDE	MG/KG	0.13		
PERCENT SOLIDS	%	79.3		

Data Qualifier Key:

B	-	Positive result is considered to be an artifact of blank contamination and should not be considered present.
J	-	Value is considered estimated due to exceedance of technical quality control or because result is less than the Contract Required Quantitation Limit (CRQL).
L	-	Positive result is considered biased low due to exceedance of technical quality control criteria.
U	-	Value is a non-detected result as reported by the laboratory.
UL	-	Non-detected result is considered biased low due to exceedance of technical quality control criteria.

Qualifier Codes:

a	=	Lab Blank Contamination
b	=	Field Blank Contamination
c	=	Calibration (i.e., %RSDs, %Ds, ICVs, CCVs, RPDs, RRFs, etc.) Noncompliance
d	=	MS/MSD Noncompliance
e	=	LSC/LSCD Noncompliance
f	=	Laboratory Duplicate Imprecision
g	=	Field Duplicate Imprecision
h	=	Holding Time Exceedance
i	=	ICP Serial Dilution Noncompliance
j	=	GFAA PDS – GFAA MSA's r<0.995 (correlation coefficient)
k	=	ICP Interference – include ICSAB %Rs
l	=	Instrument Calibration Range Exceedance
m	=	Sample Preservation
n	=	Internal Standard Noncompliance
o	=	Poor Instrument Performance (i.e. baseline drifting)
p	=	Uncertainty Near Detection Limit (<2 x IDL for inorganics and < CRQL for organics)
q	=	Other Problems (can encompass of number of issues)
r	=	Surrogates Recovery Noncompliance
s	=	Pesticide/PCB Resolution
t	=	% Breakdown Noncompliance for DDT and Endrin
u	=	Pesticide/PCB % Difference Between Columns for Positive Results
v	=	Non-linear Calibrations, Tuning r <0.995 (correlation coefficient)

APPENDIX B

Results as Reported by the Laboratory

Tetra Tech NUS, Inc

Client Sample ID: 03TP11-0304-01

TOTAL Metals

Lot-Sample #...: C7E050116-005 Matrix.....: SOLID
Date Sampled...: 05/04/07 Date Received..: 05/05/07
% Moisture.....: 16

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7128178						
Silver	0.075 J	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEK1AT
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.036	
Aluminum	12800 B	23.8	mg/kg	SW846 6010B	05/09-05/16/07	JWDEK1AU
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.95	
Arsenic	4.6	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEK1AV
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.39	
Barium	58.0	23.8	mg/kg	SW846 6010B	05/09-05/16/07	JWDEK1AW
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.12	
Beryllium	0.77	0.48	mg/kg	SW846 6010B	05/09-05/16/07	JWDEK1AX
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.050	
Calcium	1310	596	mg/kg	SW846 6010B	05/09-05/16/07	JWDEK1A0
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 4.7	
Cadmium	ND	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEK1A1
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.083	
Cobalt	7.1	6.0	mg/kg	SW846 6010B	05/09-05/16/07	JWDEK1A2
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.063	
Chromium	18.6	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEK1A3
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.11	

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Tetra Tech NUS, Inc

Client Sample ID: 03TP11-0304-01

TOTAL Metals

Lot-Sample #...: C7E050116-005 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	**12.9**	**3.0**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEK1A4**
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.14	
Iron	**21200**	**11.9**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEK1A5**
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 2.1	
Potassium	**605 B**	**596**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEK1A6**
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 8.9	
Magnesium	**2420**	**596**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEK1A7**
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 1.2	
Manganese	**412 B**	**1.8**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEK1A8**
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.014	
Sodium	**26.4 J**	**596**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEK1AA**
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 18.7	
Nickel	**10.4**	**4.8**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEK1AC**
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.15	
Lead	**11.6**	**0.36**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEK1AD**
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.19	
Antimony	ND	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEK1AE
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.38	
Selenium	ND	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEK1AF
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.31	

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Tetra Tech NUS, Inc

Client Sample ID: 03TP11-0304-01

TOTAL Metals

Lot-Sample #...: C7E050116-005 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEK1AG
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.54	
Vanadium	32.6	6.0	mg/kg	SW846 6010B	05/09-05/16/07	JWDEK1AH
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.12	
Zinc	29.1 B	2.4	mg/kg	SW846 6010B	05/09-05/16/07	JWDEK1AJ
		Dilution Factor: 1		Analysis Time..: 15:52	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.20	
Prep Batch #...: 7144113						
Mercury	0.036 J	0.039	mg/kg	SW846 7471A	05/24/07	JWDEK1AR
		Dilution Factor: 1		Analysis Time..: 14:25	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7144073	MDL.....: 0.0085	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

B Blank contamination: Target analyte was detected at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: 03TP11-0405-02

TOTAL Metals

Lot-Sample #...: C7E050116-006 Matrix.....: SOLID
Date Sampled...: 05/04/07 Date Received..: 05/05/07
% Moisture.....: 16

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7128178						
Silver	ND	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEL1CQ
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.036	
Aluminum	**12400 B**	**23.9**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEL1CU**
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.95	
Arsenic	**4.1**	**1.2**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEL1CX**
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.39	
Barium	**48.4**	**23.9**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEL1C2**
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.12	
Beryllium	**0.78**	**0.48**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEL1C5**
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.050	
Calcium	**641**	**598**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEL1C8**
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 4.7	
Cadmium	ND	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEL1DC
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.083	
Cobalt	**8.1**	**6.0**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEL1DF**
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.063	
Chromium	**18.7**	**0.60**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEL1DJ**
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.11	

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Tetra Tech NUS, Inc

Client Sample ID: 03TP11-0405-02

TOTAL Metals

Lot-Sample #...: C7E050116-006 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	16.3	3.0	mg/kg	SW846 6010B	05/09-05/16/07	JWDEL1DM
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.14	
Iron	19800	12.0	mg/kg	SW846 6010B	05/09-05/16/07	JWDEL1DQ
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 2.2	
Potassium	527 J,B	598	mg/kg	SW846 6010B	05/09-05/16/07	JWDEL1DU
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 9.0	
Magnesium	1840	598	mg/kg	SW846 6010B	05/09-05/16/07	JWDEL1DX
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 1.2	
Manganese	541 B	1.8	mg/kg	SW846 6010B	05/09-05/16/07	JWDEL1D2
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.014	
Sodium	19.1 J	598	mg/kg	SW846 6010B	05/09-05/16/07	JWDEL1AA
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 18.7	
Nickel	10	4.8	mg/kg	SW846 6010B	05/09-05/16/07	JWDEL1AE
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.15	
Lead	7.6	0.36	mg/kg	SW846 6010B	05/09-05/16/07	JWDEL1AH
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.19	
Antimony	ND	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEL1AL
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.38	
Selenium	ND	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEL1AP
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.31	

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Tetra Tech NUS, Inc

Client Sample ID: 03TP11-0405-02

TOTAL Metals

Lot-Sample #...: C7E050116-006 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEL1AT
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.55	
Vanadium	**30.5**	**6.0**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEL1AW**
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.12	
Zinc	**22.9 B**	**2.4**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEL1A1**
		Dilution Factor: 1		Analysis Time..: 15:58	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.20	

Prep Batch #...: 7144113

Mercury	**0.027 J**	**0.039**	**mg/kg**	**SW846 7471A**	**05/24/07**	**JWDEL1CM**
		Dilution Factor: 1		Analysis Time..: 14:30	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7144073	MDL.....: 0.0085	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Blank contamination: Target analyte was detected at a reportable level.

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

Tetra Tech NUS, Inc

Client Sample ID: 03TP12-0102-03

TOTAL Metals

Lot-Sample #...: C7E050116-004 Matrix.....: SOLID
Date Sampled...: 05/04/07 Date Received..: 05/05/07
% Moisture.....: 16

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7128178						
Silver	0.11 J	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1AT
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.036	
Aluminum	11100 B	23.9	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1AU
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.95	
Arsenic	4.1	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1AV
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.39	
Barium	74.9	23.9	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1AW
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.12	
Beryllium	1.0	0.48	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1AX
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.050	
Calcium	2050	598	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1A0
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 4.7	
Cadmium	ND	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1A1
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.083	
Cobalt	6.1	6.0	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1A2
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.063	
Chromium	14.4	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1A3
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.11	

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Tetra Tech NUS, Inc

Client Sample ID: 03TP12-0102-03

TOTAL Metals

Lot-Sample #...: C7E050116-004 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	13.8	3.0	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1A4
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.14	
Iron	14600	12.0	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1A5
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 2.2	
Potassium	497 J,B	598	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1A6
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 9.0	
Magnesium	1860	598	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1A7
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 1.2	
Manganese	383 B	1.8	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1A8
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.014	
Sodium	34.0 J	598	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1AA
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 18.7	
Nickel	9.2	4.8	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1AC
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.15	
Lead	19.0	0.36	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1AD
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.19	
Antimony	ND	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1AE
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.38	
Selenium	ND	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1AF
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.31	

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Tetra Tech NUS, Inc

Client Sample ID: 03TP12-0102-03

TOTAL Metals

Lot-Sample #...: C7E050116-004 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEJ1AG
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.55	
Vanadium	**23.6**	**6.0**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEJ1AH**
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.12	
Zinc	**34.6 B**	**2.4**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEJ1AJ**
		Dilution Factor: 1		Analysis Time..: 15:36	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.20	

Prep Batch #...: 7144113

Mercury	**0.097**	**0.039**	**mg/kg**	**SW846 7471A**	**05/24/07**	**JWDEJ1AR**
		Dilution Factor: 1		Analysis Time..: 14:23	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7144073	MDL.....: 0.0085	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

B Blank contamination: Target analyte was detected at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: 03TP12-0304-02

TOTAL Metals

Lot-Sample #...: C7E050116-003 Matrix.....: SOLID
Dat Sampled...: 05/04/07 Date Received..: 05/05/07
% Moisture.....: 19

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7128178						
Silver	0.17 J	0.62	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1AT
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.037	
Aluminum	10400 B	24.7	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1AU
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.99	
Arsenic	4.6	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1AV
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.41	
Barium	117	24.7	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1AW
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.12	
Beryllium	1.1	0.49	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1AX
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.052	
Calcium	1230	618	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1A0
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 4.9	
Cadmium	ND	0.62	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1A1
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.086	
Cobalt	6.6	6.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1A2
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.065	
Chromium	14.2	0.62	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1A3
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.12	

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Tetra Tech NUS, Inc

Client Sample ID: 03TP12-0304-02

TOTAL Metals

Lot-Sample #...: C7E050116-003 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	11.3	3.1	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1A4
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.14	
Iron	13800	12.4	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1A5
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 2.2	
Potassium	356 J,B	618	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1A6
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 9.3	
Magnesium	1540	618	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1A7
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 1.3	
Manganese	947 B	1.9	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1A8
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.014	
Sodium	ND	618	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1AA
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 19.4	
Nickel	9.2	4.9	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1AC
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.15	
Lead	30.2	0.37	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1AD
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.20	
Antimony	ND	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1AE
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.40	
Selenium	ND	0.62	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1AF
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.32	

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Tetra Tech NUS, Inc

Client Sample ID: 03TP12-0304-02

TOTAL Metals

Lot-Sample #...: C7E050116-003 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEH1AG
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.56	
Vanadium	**22.3**	**6.2**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEH1AH**
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.13	
Zinc	**37.3 B**	**2.5**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEH1AJ**
		Dilution Factor: 1		Analysis Time..: 15:30	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.21	

Prep Batch #...: 7144113

Mercury	**0.060**	**0.041**	**mg/kg**	**SW846 7471A**	**05/24/07**	**JWDEH1AR**
		Dilution Factor: 1		Analysis Time..: 14:22	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7144073	MDL.....: 0.0088	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

B Blank contamination: Target analyte was detected at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: 03TP12-0405-01

TOTAL Metals

Lot-Sample #...: C7E050116-002 Matrix.....: SOLID
Date Sampled...: 05/04/07 Date Received..: 05/05/07
% Moisture.....: 17

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7128178						
Silver	0.31 J	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEF1AH
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.036	
Aluminum	12000 B	24.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEF1AJ
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.96	
Arsenic	5.3	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEF1AK
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.40	
Barium	83.9	24.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEF1AL
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.12	
Beryllium	0.94	0.48	mg/kg	SW846 6010B	05/09-05/16/07	JWDEF1AM
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.050	
Calcium	1220	604	mg/kg	SW846 6010B	05/09-05/16/07	JWDEF1AN
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 4.8	
Cadmium	2.7	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEF1AP
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.084	
Cobalt	8.4	6.0	mg/kg	SW846 6010B	05/09-05/16/07	JWDEF1AQ
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.064	
Chromium	21.5	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEF1AR
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.11	

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Tetra Tech NUS, Inc

Client Sample ID: 03TP12-0405-01

TOTAL Metals

Lot-Sample #...: C7E050116-002 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	**34.6**	**3.0**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEF1AT**
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.14	
Iron	**21600**	**12.1**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEF1AU**
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 2.2	
Potassium	**365 J,B**	**604**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEF1AV**
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 9.1	
Magnesium	**1620**	**604**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEF1AW**
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 1.2	
Manganese	**774 B**	**1.8**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEF1AX**
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.014	
Sodium	ND	604	mg/kg	SW846 6010B	05/09-05/16/07	JWDEF1A0
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 18.9	
Nickel	**10.8**	**4.8**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEF1A1**
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.15	
Lead	**104**	**0.36**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEF1A2**
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.19	
Antimony	**1.0 J**	**1.2**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEF1A3**
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.39	
Selenium	ND	0.60	mg/kg	SW846 6010B	05/09-05/16/07	JWDEF1A4
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.32	

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Tetra Tech NUS, Inc

Client Sample ID: 03TP12-0405-01

TOTAL Metals

Lot-Sample #...: C7E050116-002 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEF1A5
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.55	
Vanadium	**28.1**	**6.0**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEF1A6**
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.13	
Zinc	**141 B**	**2.4**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEF1A7**
		Dilution Factor: 1		Analysis Time..: 15:25	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.20	

Prep Batch #...: 7144113

Mercury	**0.18**	**0.040**	**mg/kg**	**SW846 7471A**	**05/24/07**	**JWDEF1AG**
		Dilution Factor: 1		Analysis Time..: 14:20	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7144073	MDL.....: 0.0086	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

B Blank contamination: Target analyte was detected at a reportable level.

Tetra Tech NUS, Inc

Client Sample ID: 03TP13-0203-01

TOTAL Metals

Lot-Sample #...: C7E050116-007 **Matrix.....:** SOLID
Date Sampled...: 05/04/07 **Date Received..:** 05/05/07
% Moisture.....: 15

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7128178						
Silver	ND	0.59	mg/kg	SW846 6010B	05/09-05/16/07	JWDER1AT
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.035	
Aluminum	**13900 B**	**23.5**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1AU**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.94	
Arsenic	**2.3**	**1.2**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1AV**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.39	
Barium	**77.1**	**23.5**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1AW**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.12	
Beryllium	**0.67**	**0.47**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1AX**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.049	
Calcium	**396 J**	**588**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1A0**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 4.6	
Cadmium	ND	0.59	mg/kg	SW846 6010B	05/09-05/16/07	JWDER1A1
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.082	
Cobalt	**4.1 J**	**5.9**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1A2**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.062	
Chromium	**6.9**	**0.59**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1A3**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.11	

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Tetra Tech NUS, Inc

Client Sample ID: 03TP13-0203-01

TOTAL Metals

Lot-Sample #...: C7E050116-007 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	**21.9**	**2.9**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1A4**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.14	
Iron	**9570**	**11.8**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1A5**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 2.1	
Potassium	**350 J,B**	**588**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1A6**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 8.8	
Magnesium	**809**	**588**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1A7**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 1.2	
Manganese	**221 B**	**1.8**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1A8**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.013	
Sodium	**32.8 J**	**588**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1AA**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 18.4	
Nickel	**7.4**	**4.7**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1AC**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.15	
Lead	**3.3**	**0.35**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1AD**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.19	
Antimony	ND	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDER1AE
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.38	
Selenium	ND	0.59	mg/kg	SW846 6010B	05/09-05/16/07	JWDER1AF
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.31	

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Tetra Tech NUS, Inc

Client Sample ID: 03TP13-0203-01

TOTAL Metals

Lot-Sample #...: C7E050116-007 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDER1AG
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.54	
Vanadium	**13.2**	**5.9**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1AH**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.12	
Zinc	**14.7 B**	**2.4**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDER1AJ**
		Dilution Factor: 1		Analysis Time..: 16:20	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.20	

Prep Batch #...: 7144113

Mercury	**0.034 J**	**0.039**	**mg/kg**	**SW846 7471A**	**05/24/07**	**JWDER1AR**
		Dilution Factor: 1		Analysis Time..: 14:35	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7144073	MDL.....: 0.0083	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Blank contamination: Target analyte was detected at a reportable level.

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

Tetra Tech NUS, Inc

Client Sample ID: 03TP14-0203-01

TOTAL Metals

Lot-Sample #...: C7E050116-008 **Matrix.....:** SOLID
Date Sampled...: 05/04/07 **Date Received..:** 05/05/07
% Moisture.....: 21

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7128178						
Silver	ND	0.63	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1AT
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.038	
Aluminum	**11100 B**	**25.2**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEV1AU**
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 1.0	
Arsenic	**6.7**	**1.3**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEV1AV**
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.42	
Barium	**90.9**	**25.2**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEV1AW**
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.13	
Beryllium	**1.2**	**0.50**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEV1AX**
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.053	
Calcium	**1420**	**631**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEV1A0**
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 5.0	
Cadmium	ND	0.63	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1A1
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.088	
Cobalt	**5.7 J**	**6.3**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEV1A2**
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.067	
Chromium	**18.1**	**0.63**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWDEV1A3**
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.12	

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Tetra Tech NUS, Inc

Client Sample ID: 03TP14-0203-01

TOTAL Metals

Lot-Sample #...: C7E050116-008 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Copper	9.3	3.2	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1A4
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.15	
Iron	13200	12.6	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1A5
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 2.3	
Potassium	336 J,B	631	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1A6
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 9.5	
Magnesium	1470	631	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1A7
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 1.3	
Manganese	321 B	1.9	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1A8
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.014	
Sodium	ND	631	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1AA
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 19.7	
Nickel	9.3	5.0	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1AC
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.16	
Lead	23.4	0.38	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1AD
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.20	
Antimony	ND	1.3	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1AE
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.40	
Selenium	ND	0.63	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1AF
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.33	

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Tetra Tech NUS, Inc

Client Sample ID: 03TP14-0203-01

TOTAL Metals

Lot-Sample #...: C7E050116-008 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Thallium	ND	1.3	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1AG
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.57	
Vanadium	25.4	6.3	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1AH
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.13	
Zinc	37.9 B	2.5	mg/kg	SW846 6010B	05/09-05/16/07	JWDEV1AJ
		Dilution Factor: 1		Analysis Time..: 16:26	Analyst ID.....: 022952	
		Instrument ID..: TRACEICP		MS Run #.....: 7128111	MDL.....: 0.21	
Prep Batch #...: 7144113						
Mercury	0.090	0.042	mg/kg	SW846 7471A	05/24/07	JWDEV1AR
		Dilution Factor: 1		Analysis Time..: 14:37	Analyst ID.....: 400491	
		Instrument ID..: HGHYDRA		MS Run #.....: 7144073	MDL.....: 0.0090	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Blank contamination: Target analyte was detected at a reportable level.

J Estimated Result: Result is less than RL and greater than or equal to the MDL.

Willow Grove CTO 003

Cyanide, Total

Lab Name: STL PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: SW846 9012A
Lot Number: C7E050116

Distillati n procedure

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
03TP12-0405-01	C7E050116 002	JWDEF1A8	0.17 B	mg/kg	0.12	0.60	1	5/9/2007 - 5/10/2007 16:47	7129293
03TP12-0304-02	C7E050116 003	JWDEH1AK	ND	mg/kg	0.12	0.62	1	5/9/2007 - 5/10/2007 16:54	7129293
03TP12-0102-03	C7E050116 004	JWDEJ1AK	ND	mg/kg	0.11	0.60	1	5/9/2007 - 5/10/2007 16:54	7129293
03TP11-0304-01	C7E050116 005	JWDEK1AK	ND	mg/kg	0.11	0.60	1	5/9/2007 - 5/10/2007 16:54	7129293
03TP11-0405-02	C7E050116 006	JWDEL1A4	ND	mg/kg	0.11	0.60	1	5/9/2007 - 5/10/2007 16:54	7129293
03TP13-0203-01	C7E050116 007	JWDER1AK	ND	mg/kg	0.11	0.59	1	5/9/2007 - 5/10/2007 16:54	7129293
03TP14-0203-01	C7E050116 008	JWDEV1AK	0.13 B	mg/kg	0.12	0.63	1	5/9/2007 - 5/10/2007 16:54	7129293

B Estimated result. Result is less than RL.

Willow Grove CTO 003

Percent Solids

Lab Name: STL PITTSBURGH
Client Name: Tetra Tech NUS, Inc
Matrix: SOLID

Method: MCAWW 160.3 MOD
Lot Number: C7E050116

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
03TP12-0405-01	C7E050116 002	JWDEF1AA	82.8	%	0.0	1.0	1	5/8/2007 - 5/9/2007 09:00	7128324
03TP12-0304-02	C7E050116 003	JWDEH1AL	80.9	%	0.0	1.0	1	5/8/2007 - 5/9/2007 09:00	7128324
03TP12-0102-03	C7E050116 004	JWDEJ1AL	83.6	%	0.0	1.0	1	5/8/2007 - 5/9/2007 09:00	7128324
03TP11-0304-01	C7E050116 005	JWDEK1AL	84.0	%	0.0	1.0	1	5/8/2007 - 5/9/2007 09:00	7128324
03TP11-0405-02	C7E050116 006	JWDEL1A7	83.6	%	0.0	1.0	1	5/8/2007 - 5/9/2007 09:00	7128324
03TP13-0203-01	C7E050116 007	JWDER1AL	85.1	%	0.0	1.0	1	5/8/2007 - 5/8/2007 09:00	7128324
03TP14-0203-01	C7E050116 008	JWDEV1AL	79.3	%	0.0	1.0	1	5/8/2007 - 5/9/2007 09:00	7128324

APPENDIX C

Support Documentation

CASE NARRATIVE
TETRATECH NUS, INC.
WILLOW GROVE
CT0 003

STL Lot #: C7E050116

Pesticides:
All compounds <20% RSD will use an average response factor curve if no visible improvement is accomplished using a curve. A curve will be used for a compound where it is determined to be the "best-fit" evaluation.

Due to the concentration of compounds detected, 03TP14-0203-01 was analyzed at a dilution.

The matrix spike and matrix spike duplicate were below control limits for endrin aldehyde.

PCBs:
There were no problems associated with the analysis.

Metals:
The method blanks had analytes detected at concentrations between the MDL and the reporting limit. The results were flagged with a "B" qualifier. Any sample associated with a method blank that had the same analyte detected had the result flagged with a "J" qualifier.

For the matrix spike and matrix spike duplicate, aluminum, iron and manganese recoveries were not calculated due to the concentration of analyte in the sample being >4 times the concentration of spike added.

The matrix spike and matrix spike duplicate were below control limits for antimony and mercury. The matrix spike duplicate was above control limits for chromium.

General Chemistry:
There were no problems associated with the analysis.

C7E050116

Chain of Custody Record

STL-4124 (0901)

STL
Severn Trent Laboratories, Inc.

Client	Project Manager	Date	Chain of Custody Number
Tetra Tech NUS	Russ Turner	5/4/07	312320

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page
600 Clark Avenue Suite 3	610 491 9688 610 491 9645		1 of 1

City	State	Zip Code	Site Contact	Lab Contact
King of Prussia	PA	19406	Chuck Meyer	Veronica Bartot

Project Name and Location (State)	Carrier/Waybill Number
NASJRB Willow Grove PA	854568658611 Federal Express

Contract/Purchase Order/Quote No.

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	40 ml VOA Vial TCL VOC	5 gram Encore TCL VOC	400 clear glass SVOC pest/PCB	40 oz clear glass Metals Cyanide	Special Instructions/ Conditions of Receipt
TB-050407	5/4/07	0730		X						X			2				
03TP12-0405-01	5/4/07	0825				X	X							3	1	1	
03TP12-0304-02	5/4/07	0855				X	X							3	1	1	
03TP12-0102-03	5/4/07	0955				X	X							3	1	1	
03TP11-0304-01	5/4/07	1155				X	X							3	1	1	
03TP11-0405-02	5/4/07	1235				X	X							9	3	3	DO MS/MSD
03TP13-0203-01	5/4/07	1520				X	X							3	1	1	
03TP14-0203-01	5/4/07	1610				X	X							2	1	1	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Charles W Meyer	5/4/07	1930	1. Received By: L Bathk	5/5/07	940
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL-Pittsburgh

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPST **Units:** ug/L

Chart Number: T70516B.ARC **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** MET2386-07

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 5/16/2007 11:39 AM Found	Found	Found	Found	Found
Aluminum	308.215		500000	467000				
Antimony	220.353	10		0				
Arsenic	189.042	10		-3				
Barium	493.409	200		1				
Beryllium	313.042	4		0				
Cadmium	226.502	5		0				
Calcium	317.933		500000	480000				
Chromium	267.716	5		1				
Cobalt	228.616	50		0				
Copper	324.753	25		-2				
Iron	271.441		200000	197000				
Lead	220.353	3		0				
Magnesium	279.078		500000	517000				
Manganese	257.61	15		4				
Nickel	231.604	40		2				
Potassium	766.491	5000		190				
Selenium	220.353	5		-3				
Silver	328.068	5		0				
Sodium	330.232	5000		-300				
Thallium	190.864	10		-5				
Vanadium	292.402	50		3				
Zinc	213.856	20		7				

5.04.5

U Result is less than the MDL
B Result is between MDL and RL

Form 4 Equivalent

INORGANIC INTERFERENCE CHECK SAMPLE VALIDATION

Affected Analyte	MDL	Sample	Reported Result	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interference	Validation Action	Validation Action
Arsenic	2.3	03TP11-0304-01	38.71		Iron	200000	-3	178410	-2.68	na	na
Barium	0.36	03TP11-0304-01	487.07		Iron	200000	1	178410	0.89	na	na
Chromium	0.82	03TP11-0304-01	155.84		Iron	200000	1	178410	0.89	na	na
Copper	1.4	03TP11-0304-01	107.9		Iron	200000	-2	178410	-1.78	na	na
Manganese	0.27	03TP11-0304-01	3463.2		Iron	200000	4	178410	3.57	na	na
Nickel	1	03TP11-0304-01	87.4		Iron	200000	2	178410	1.78	na	na
Selenium	2.9	03TP11-0304-01		U	Iron	200000	-3	178410	-2.68	na	UL
Sodium	139	03TP11-0304-01	221.38		Iron	200000	-300	178410	-267.62	L	na
Thallium	3.2	03TP11-0304-01		U	Iron	200000	-5	178410	-4.46	na	UR
Vanadium	2.6	03TP11-0304-01	273.32		Iron	200000	3	178410	2.68	na	na
Zinc	3.5	03TP11-0304-01	244.51		Iron	200000	7	178410	6.24	na	na

Affected Analyte	MDL	Sample	Reported Result	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interference	Validation Action	Validation Action
Arsenic	2.3	03TP11-0405-02	34.42		Iron	200000	-3	165550	-2.48	na	na
Barium	0.36	03TP11-0405-02	404.13		Iron	200000	1	165550	0.83	na	na
Chromium	0.82	03TP11-0405-02	156.28		Iron	200000	1	165550	0.83	na	na
Copper	1.4	03TP11-0405-02	136.04		Iron	200000	-2	165550	-1.66	na	na
Manganese	0.27	03TP11-0405-02	4519.8		Iron	200000	4	165550	3.31	na	na
Nickel	1	03TP11-0405-02	83.42		Iron	200000	2	165550	1.66	na	na
Selenium	2.9	03TP11-0405-02		U	Iron	200000	-3	165550	-2.48	na	UL
Sodium	139	03TP11-0405-02	159.41		Iron	200000	-300	165550	-248.33	L	na
Thallium	3.2	03TP11-0405-02		U	Iron	200000	-5	165550	-4.14	na	UR
Vanadium	2.6	03TP11-0405-02	254.81		Iron	200000	3	165550	2.48	na	na
Zinc	3.5	03TP11-0405-02	191.41		Iron	200000	7	165550	5.79	na	na

Affected Analyte	MDL	Sample	Reported Result	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interference	Validation Action	Validation Action
Arsenic	2.3	03TP12-0102-03	34.38		Iron	200000	-3	121730	-1.83	na	na
Barium	0.36	03TP12-0102-03	626.62		Iron	200000	1	121730	0.61	na	na
Chromium	0.82	03TP12-0102-03	120.41		Iron	200000	1	121730	0.61	na	na
Copper	1.4	03TP12-0102-03	115.23		Iron	200000	-2	121730	-1.22	na	na
Manganese	0.27	03TP12-0102-03	3199.7		Iron	200000	4	121730	2.43	na	na
Nickel	1	03TP12-0102-03	77.07		Iron	200000	2	121730	1.22	na	na
Selenium	2.9	03TP12-0102-03		U	Iron	200000	-3	121730	-1.83	na	UL
Sodium	139	03TP12-0102-03	284.35		Iron	200000	-300	121730	-182.60	L	na
Thallium	3.2	03TP12-0102-03		U	Iron	200000	-5	121730	-3.04	na	UL
Vanadium	2.6	03TP12-0102-03	197.71		Iron	200000	3	121730	1.83	na	na
Zinc	3.5	03TP12-0102-03	289.26		Iron	200000	7	121730	4.26	na	na

Affected Analyte	MDL	Sample	Reported Result	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interference	Validation Action	Validation Action
Arsenic	2.3	03TP12-0304-02	37.1		Iron	200000	-3	111570	-1.67	na	na
Barium	0.36	03TP12-0304-02	945.69		Iron	200000	1	111570	0.56	na	na
Chromium	0.82	03TP12-0304-02	114.76		Iron	200000	1	111570	0.56	na	na
Copper	1.4	03TP12-0304-02	91.32		Iron	200000	-2	111570	-1.12	na	na
Manganese	0.27	03TP12-0304-02	7657.8		Iron	200000	4	111570	2.23	na	na
Nickel	1	03TP12-0304-02	74.09		Iron	200000	2	111570	1.12	na	na
Selenium	2.9	03TP12-0304-02		U	Iron	200000	-3	111570	-1.67	na	UL
Sodium	139	03TP12-0304-02		U	Iron	200000	-300	111570	-167.36	na	UR
Thallium	3.2	03TP12-0304-02		U	Iron	200000	-5	111570	-2.79	na	UL
Vanadium	2.6	03TP12-0304-02	180.06		Iron	200000	3	111570	1.67	na	na
Zinc	3.5	03TP12-0304-02	301.82		Iron	200000	7	111570	3.90	na	na

Affected Analyte	MDL	Sample	Reported Result	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interference	Validation Action	Validation Action
Arsenic	2.3	03TP12-0405-01	43.56		Iron	200000	-3	179060	-2.69	na	na
Barium	0.36	03TP12-0405-01	694.39		Iron	200000	1	179060	0.90	na	na
Chromium	0.82	03TP12-0405-01	177.54		Iron	200000	1	179060	0.90	na	na
Copper	1.4	03TP12-0405-01	286.53		Iron	200000	-2	179060	-1.79	na	na
Manganese	0.27	03TP12-0405-01	6405.4		Iron	200000	4	179060	3.58	na	na
Nickel	1	03TP12-0405-01	89.73		Iron	200000	2	179060	1.79	na	na
Selenium	2.9	03TP12-0405-01		U	Iron	200000	-3	179060	-2.69	na	UL
Sodium	139	03TP12-0405-01		U	Iron	200000	-300	179060	-268.59	na	UR
Thallium	3.2	03TP12-0405-01		U	Iron	200000	-5	179060	-4.48	na	UR
Vanadium	2.6	03TP12-0405-01	232.56		Iron	200000	3	179060	2.69	na	na
Zinc	3.5	03TP12-0405-01	1164.8		Iron	200000	7	179060	6.27	na	na

Affected Analyte	MDL	Sample	Reported Result	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interference	Validation Action	Validation Action
Arsenic	2.3	03TP13-0203-01	19.83		Iron	200000	-3	81404	-1.22	na	na
Barium	0.36	03TP13-0203-01	655.87		Iron	200000	1	81404	0.41	na	na
Chromium	0.82	03TP13-0203-01	58.32		Iron	200000	1	81404	0.41	na	na

Copper	1.4	03TP13-0203-01	185.97		Iron	200000	-2	81404	-0.81	na	na
Manganese	0.27	03TP13-0203-01	1884.7		Iron	200000	4	81404	1.63	na	na
Nickel	1	03TP13-0203-01	62.75		Iron	200000	2	81404	0.81	na	na
Selenium	2.9	03TP13-0203-01		U	Iron	200000	-3	81404	-1.22	na	UL
Sodium	139	03TP13-0203-01	279.5		Iron	200000	-300	81404	-122.11	L	na
Thallium	3.2	03TP13-0203-01		U	Iron	200000	-5	81404	-2.04	na	UL
Vanadium	2.6	03TP13-0203-01	112.42		Iron	200000	3	81404	1.22	na	na
Zinc	3.5	03TP13-0203-01	125.06		Iron	200000	7	81404	2.85	na	na

Affected Analyte	MDL	Sample	Reported Result	Qualifier	Interferent	Interferent level in ICS	Conc. ICS	Interferent Level	Est. Interference	Validation Action	Validation Action
Arsenic	2.3	03TP14-0203-01	52.99		Iron	200000	-3	104640	-1.57	na	na
Barium	0.36	03TP14-0203-01	720.72		Iron	200000	1	104640	0.52	na	na
Chromium	0.82	03TP14-0203-01	143.62		Iron	200000	1	104640	0.52	na	na
Copper	1.4	03TP14-0203-01	73.75		Iron	200000	-2	104640	-1.05	na	na
Manganese	0.27	03TP14-0203-01	2544.1		Iron	200000	4	104640	2.09	na	na
Nickel	1	03TP14-0203-01	73.39		Iron	200000	2	104640	1.05	na	na
Selenium	2.9	03TP14-0203-01		U	Iron	200000	-3	104640	-1.57	na	UL
Sodium	139	03TP14-0203-01		U	Iron	200000	-300	104640	-156.96	na	UR
Thallium	3.2	03TP14-0203-01		U	Iron	200000	-5	104640	-2.62	na	UL
Vanadium	2.6	03TP14-0203-01	201.24		Iron	200000	3	104640	1.57	na	na
Zinc	3.5	03TP14-0203-01	300.31		Iron	200000	7	104640	3.66	na	na

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C7E050116 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: C7E080000-178 **Prep Batch #...:** 7128178						
Aluminum	**1.4 J**	**20.0**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWGC71AL**
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Antimony	ND	1.0	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AE
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Arsenic	ND	1.0	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AM
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Barium	ND	20.0	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AN
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Beryllium	ND	0.40	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AP
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Cadmium	ND	0.50	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AR
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Calcium	ND	500	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AQ
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Chromium	ND	0.50	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AU
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Cobalt	ND	5.0	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AT
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Copper	ND	2.5	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AV
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Iron	ND	10.0	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AW
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	

(Continued on next page)

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: C7E050116 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead	ND	0.30	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AD
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Magnesium	ND	500	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71A0
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Manganese	**0.015 J**	**1.5**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWGC71A1**
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Nickel	ND	4.0	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AC
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Potassium	**19.5 J**	**500**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWGC71AX**
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Selenium	ND	0.50	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AF
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Silver	ND	0.50	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AK
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Sodium	ND	500	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AA
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Thallium	ND	1.0	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AG
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Vanadium	ND	5.0	mg/kg	SW846 6010B	05/09-05/16/07	JWGC71AH
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	
Zinc	**0.27 J**	**2.0**	**mg/kg**	**SW846 6010B**	**05/09-05/16/07**	**JWGC71AJ**
		Dilution Factor: 1				
		Analysis Time..: 14:14		Analyst ID.....: 022952	Instrument ID..: TRA	

(Continued on next page)

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPST **Units:** ug/L

Chart Number: T70516B.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 5/16/2007 11:28 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Aluminum	308.215	200	**19.7**	**B**								
Antimony	220.353	10	**1.0**	**B**								
Arsenic	189.042	10	2.3	U								
Barium	493.409	200	0.4	U								
Beryllium	313.042	4	**0.4**	**B**								
Cadmium	226.502	5	0.5	U								
Calcium	317.933	5000	251.0	U								
Chromium	267.716	5	0.8	U								
Cobalt	228.616	50	0.4	U								
Copper	324.753	25	1.4	U								
Iron	271.441	100	30.0	U								
Lead	220.353	3	1.6	U								
Magnesium	279.078	5000	13.1	U								
Manganese	257.61	15	0.3	U								
Nickel	231.604	40	1.0	U								
Potassium	766.491	5000	500.0	U								
Selenium	220.353	5	2.9	U								
Silver	328.068	5	0.4	U								
Sodium	330.232	5000	**-630.0**	**B**								
Thallium	190.864	10	3.2	U								
Vanadium	292.402	50	2.6	U								
Zinc	213.856	20	3.5	U								

5.04.5

U Result is less than the MDL
B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Result

Instrument: ICPST **Units:** ug/L

Chart Number: T70516B.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 5/16/2007 12:28 PM		CCB2 5/16/2007 1:36 PM		CCB3 5/16/2007 2:41 PM		CCB4 5/16/2007 3:47 PM		CCB5 5/16/2007 4:47 PM	
			Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Aluminum	308.215	200	14.2	U	14.2	U	14.2	U	14.2	U	**15.2**	**B**
Antimony	220.353	10	0.9	U	0.9	U	**1.9**	**B**	0.9	U	0.9	U
Arsenic	189.042	10	2.3	U	2.3	U	2.3	U	2.3	U	2.3	U
Barium	493.409	200	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Beryllium	313.042	4	**0.4**	**B**	**0.8**	**B**	**0.8**	**B**	**0.9**	**B**	**1.1**	**B**
Cadmium	226.502	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Calcium	317.933	5000	251.0	U	251.0	U	251.0	U	251.0	U	251.0	U
Chromium	267.716	5	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U
Cobalt	228.616	50	0.4	U	**-0.6**	**B**	0.4	U	0.4	U	0.4	U
Copper	324.753	25	1.4	U	1.4	U	1.4	U	**-1.8**	**B**	**-2.2**	**B**
Iron	271.441	100	30.0	U	30.0	U	30.0	U	30.0	U	30.0	U
Lead	220.353	3	1.6	U	1.6	U	**2.4**	**B**	1.6	U	1.6	U
Magnesium	279.078	5000	13.1	U	13.1	U	13.1	U	13.1	U	13.1	U
Manganese	257.61	15	0.3	U	**0.4**	**B**	0.3	U	0.3	U	0.3	U
Nickel	231.604	40	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Potassium	766.491	5000	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U
Selenium	220.353	5	2.9	U	2.9	U	2.9	U	2.9	U	2.9	U
Silver	328.068	5	0.4	U	0.4	U	0.4	U	**0.4**	**B**	0.4	U
Sodium	330.232	5000	**-670.0**	**B**	**-630.0**	**B**	**-630.0**	**B**	**-600.0**	**B**	**-690.0**	**B**
Thallium	190.864	10	3.2	U	3.2	U	3.2	U	3.2	U	3.2	U
Vanadium	292.402	50	2.6	U	2.6	U	2.6	U	2.6	U	2.6	U
Zinc	213.856	20	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U

5.04.5

U Result is less than the MDL
B Result is between MDL and RL

Form 3 Equivalent

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C7E050116 **Matrix.....:** SOLID
Date Sampled...: 05/04/07 **Date Received..:** 05/05/07

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: C7E050116-006 **Prep Batch #...:** 7128178							
						% Moisture.....: 16	
Aluminum	NC	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1CV
	NC	(80 - 120)		(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1CW
		Dilution Factor: 1					
		Analysis Time..: 16:09			Instrument ID..: TRACEICP	Analyst ID.....: 022952	
		MS Run #.....: 7128111					
Antimony	53 N	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1AM
	50 N	(80 - 120)	6.6	(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1AN
		Dilution Factor: 1					
		Analysis Time..: 16:09			Instrument ID..: TRACEICP	Analyst ID.....: 022952	
		MS Run #.....: 7128111					
Arsenic	88	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1C0
	88	(80 - 120)	0.28	(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1C1
		Dilution Factor: 1					
		Analysis Time..: 16:09			Instrument ID..: TRACEICP	Analyst ID.....: 022952	
		MS Run #.....: 7128111					
Barium	93	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1C3
	97	(80 - 120)	3.4	(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1C4
		Dilution Factor: 1					
		Analysis Time..: 16:09			Instrument ID..: TRACEICP	Analyst ID.....: 022952	
		MS Run #.....: 7128111					
Beryllium	94	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1C6
	95	(80 - 120)	0.63	(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1C7
		Dilution Factor: 1					
		Analysis Time..: 16:09			Instrument ID..: TRACEICP	Analyst ID.....: 022952	
		MS Run #.....: 7128111					
Cadmium	83	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1DD
	82	(80 - 120)	0.82	(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1DE
		Dilution Factor: 1					
		Analysis Time..: 16:09			Instrument ID..: TRACEICP	Analyst ID.....: 022952	
		MS Run #.....: 7128111					
Calcium	90	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1C9
	94	(80 - 120)	3.0	(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1DA
		Dilution Factor: 1					
		Analysis Time..: 16:09			Instrument ID..: TRACEICP	Analyst ID.....: 022952	
		MS Run #.....: 7128111					

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C7E050116 **Matrix.....:** SOLID
Date Sampled...: 05/04/07 **Date Received..:** 05/05/07

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Chromium	100	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1DK
	135 N	(80 - 120)	18	(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1DL
		Dilution Factor: 1					
		Analysis Time..: 16:09			Instrument ID..: TRACEICP	Analyst ID.....: 022952	
		MS Run #.....: 7128111					
Cobalt	92	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1DG
	86	(80 - 120)	6.1	(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1DH
		Dilution Factor: 1					
		Analysis Time..: 16:09			Instrument ID..: TRACEICP	Analyst ID.....: 022952	
		MS Run #.....: 7128111					
Copper	101	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1DN
	97	(80 - 120)	2.1	(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1DP
		Dilution Factor: 1					
		Analysis Time..: 16:09			Instrument ID..: TRACEICP	Analyst ID.....: 022952	
		MS Run #.....: 7128111					
Iron	NC	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1DR
	NC	(80 - 120)		(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1DT
		Dilution Factor: 1					
		Analysis Time..: 16:09			Instrument ID..: TRACEICP	Analyst ID.....: 022952	
		MS Run #.....: 7128111					
Lead	89	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1AJ
	89	(80 - 120)	0.13	(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1AK
		Dilution Factor: 1					
		Analysis Time..: 16:09			Instrument ID..: TRACEICP	Analyst ID.....: 022952	
		MS Run #.....: 7128111					
Magnesium	93	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1D0
	103	(80 - 120)	7.3	(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1D1
		Dilution Factor: 1					
		Analysis Time..: 16:09			Instrument ID..: TRACEICP	Analyst ID.....: 022952	
		MS Run #.....: 7128111					
Manganese	NC	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1D3
	NC	(80 - 120)		(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1D4
		Dilution Factor: 1					
		Analysis Time..: 16:09			Instrument ID..: TRACEICP	Analyst ID.....: 022952	
		MS Run #.....: 7128111					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: C7E050116 **Matrix.....:** SOLID
Date Sampled...: 05/04/07 **Date Received..:** 05/05/07

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc	94	(80 - 120)			SW846 6010B	05/09-05/16/07	JWDEL1A2
	104	(80 - 120)	6.7	(0-20)	SW846 6010B	05/09-05/16/07	JWDEL1A3

Dilution Factor: 1
Analysis Time..: 16:09 Instrument ID..: TRACEICP Analyst ID.....: 022952
MS Run #.....: 7128111

MS Lot-Sample #: C7E050116-006 **Prep Batch #...:** 7144113
% Moisture.....: 16

Mercury	43 N	(80 - 120)			SW846 7471A	05/24/07	JWDEL1CN
	43 N	(80 - 120)	0.0	(0-20)	SW846 7471A	05/24/07	JWDEL1CP

Dilution Factor: 1
Analysis Time..: 14:32 Instrument ID..: HGHYDRA Analyst ID.....: 400491
MS Run #.....: 7144073

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
Results and reporting limits have been adjusted for dry weight.
NC The recovery and/or RPD were not calculated.
N Spiked analyte recovery is outside stated control limits.