SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Tetra Tech, Inc.
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Chicago, IL 60606
Attention: Bruce Welch

Project Name: Joliet Chemical Fire PRP Clean UP

Project Number: 103X903100690002AJ001

Lot Number:**UL20021**

Date Completed:12/31/2019
Revision Date: 12/29/2019

Project Manager:**Nisreen Saikaly**

12/31/2019 4:55 PM
Approved and released by:
Project Manager: Grant Wilton

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Case Narrative
Tetra Tech, Inc.
Lot Number: UL20021

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" qualifier

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

TPH-DRO
Sample -017 was extracted using SW-846 prep method 3510C: separatory funnel liquid-liquid extraction instead of method 3520C: continuous liquid-liquid extraction.

The laboratory control sample (LCS) and matrix spike/matrix spike duplicate (MS/MSD) associated with batch 40144 had TPH-DRO recovered below the acceptance limits. There was insufficient sample volume remaining for re-extraction/re-analysis.

The MS/MSD associated with sample -001 had TPH-DRO recovered outside of the acceptance limits. The LCS was recovered within the required acceptance limits; therefore, this likely demonstrates a matrix effect.

Samples -006, -011, and -012 had the surrogate recovered outside of the acceptance limits due to confirmed matrix interference.

Sample -017 had the surrogate recovered outside of the acceptance limits. There was insufficient sample volume remaining for re-extraction/re-analysis.

Sample -017 was not preserved to a pH<2; the pH was adjusted in the laboratory.

TAL Metals
The method blank associated with batch 39905 had cadmium detected at a concentration that was below ½ the LOQ. All samples associated with this method blank that have detections for cadmium have been flagged with a “B” qualifier.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary
Tetra Tech, Inc.
Lot Number: UL20021

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MPGI-SF-Soil-09-121719	Solid	12/17/2019 0940	12/20/2019
002	MPGI-SF-Soil-10A-121719	Solid	12/17/2019 1140	12/20/2019
003	MPGI-SF-Soil-10B-121719	Solid	12/17/2019 1144	12/20/2019
004	MPGI-SF-Soil-10C-121719	Solid	12/17/2019 1146	12/20/2019
005	MPGI-SF-Soil-11A-121919	Solid	12/19/2019 1240	12/20/2019
006	MPGI-SF-Soil-11B-121919	Solid	12/19/2019 1242	12/20/2019
007	MPGI-SF-Soil-11C-121919	Solid	12/19/2019 1244	12/20/2019
008	MPGI-SF-Soil-12A-121919	Solid	12/19/2019 1310	12/20/2019
009	MPGI-SF-Soil-12B-121819	Solid	12/18/2019 1001	12/20/2019
010	MPGI-SF-Soil-12C-121919	Solid	12/19/2019 1312	12/20/2019
011	MPGI-SF-Soil-13A-121719	Solid	12/17/2019 1410	12/20/2019
012	MPGI-SF-Soil-13B-121719	Solid	12/17/2019 1414	12/20/2019
013	MPGI-SF-Soil-14A-121919	Solid	12/19/2019 1210	12/20/2019
014	MPGI-SF-Soil-14A-121919-D	Solid	12/19/2019 1212	12/20/2019
015	MPGI-SF-Soil-14B-121919	Solid	12/19/2019 1214	12/20/2019
016	MPGI-SF-Soil-14C-121919	Solid	12/19/2019 1216	12/20/2019
017	MPG1-RB-121719	Aqueous	12/19/2019 1330	12/20/2019

(17 samples)

Detection Summary

Tetra Tech, Inc.

Lot Number: UL20021

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MPGI-SF-Soil-09-121719	Solid	TPH-DRO	8015C	41000		ug/kg	12
001	MPGI-SF-Soil-09-121719	Solid	Aluminum	6010D	21000		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Arsenic	6010D	14		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Barium	6010D	220		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Beryllium	6010D	0.98		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Cadmium	6010D	0.47		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Calcium	6010D	16000		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Chromium	6010D	27		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Cobalt	6010D	15		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Copper	6010D	26		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Iron	6010D	26000		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Lead	6010D	27		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Magnesium	6010D	11000		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Manganese	6010D	1700		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Mercury	7471B	0.028	J	mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Nickel	6010D	34		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Potassium	6010D	3200		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Sodium	6010D	130	J	mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Vanadium	6010D	46		mg/kg	13
001	MPGI-SF-Soil-09-121719	Solid	Zinc	6010D	99		mg/kg	13
002	MPGI-SF-Soil-10A-121719	Solid	TPH-DRO	8015C	16000		ug/kg	14
002	MPGI-SF-Soil-10A-121719	Solid	Aluminum	6010D	18000		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Arsenic	6010D	20		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Barium	6010D	180		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Beryllium	6010D	1.0		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Cadmium	6010D	0.52	J	mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Calcium	6010D	3300		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Chromium	6010D	25		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Cobalt	6010D	18		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Copper	6010D	29		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Iron	6010D	37000		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Lead	6010D	28		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Magnesium	6010D	4200		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Manganese	6010D	1900		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Nickel	6010D	43		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Potassium	6010D	3000		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Selenium	6010D	0.99	J	mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Sodium	6010D	140	J	mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Vanadium	6010D	46		mg/kg	15
002	MPGI-SF-Soil-10A-121719	Solid	Zinc	6010D	86		mg/kg	15
003	MPGI-SF-Soil-10B-121719	Solid	TPH-DRO	8015C	41000		ug/kg	16
003	MPGI-SF-Soil-10B-121719	Solid	Aluminum	6010D	15000		mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Arsenic	6010D	13		mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Barium	6010D	110		mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Beryllium	6010D	0.78		mg/kg	17

Detection Summary (Continued)

Lot Number: UL20021

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
003	MPGI-SF-Soil-10B-121719	Solid	Cadmium	6010D	0.21	J	mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Calcium	6010D	13000		mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Chromium	6010D	21		mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Cobalt	6010D	14		mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Copper	6010D	21		mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Iron	6010D	24000		mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Lead	6010D	22		mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Magnesium	6010D	9400		mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Manganese	6010D	940		mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Mercury	7471B	0.027	J	mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Nickel	6010D	27		mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Potassium	6010D	2700		mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Sodium	6010D	130	J	mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Vanadium	6010D	36		mg/kg	17
003	MPGI-SF-Soil-10B-121719	Solid	Zinc	6010D	83		mg/kg	17
004	MPGI-SF-Soil-10C-121719	Solid	TPH-DRO	8015C	4900	J	ug/kg	18
004	MPGI-SF-Soil-10C-121719	Solid	Aluminum	6010D	18000		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Antimony	6010D	0.28	J	mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Arsenic	6010D	20		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Barium	6010D	330		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Beryllium	6010D	1.0		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Cadmium	6010D	0.49	J	mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Calcium	6010D	8500		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Chromium	6010D	26		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Cobalt	6010D	21		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Copper	6010D	28		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Iron	6010D	35000		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Lead	6010D	35		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Magnesium	6010D	6400		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Manganese	6010D	2800		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Mercury	7471B	0.025	J	mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Nickel	6010D	38		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Potassium	6010D	3500		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Silver	6010D	0.17	J	mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Sodium	6010D	280		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Vanadium	6010D	47		mg/kg	19
004	MPGI-SF-Soil-10C-121719	Solid	Zinc	6010D	130		mg/kg	19
005	MPGI-SF-Soil-11A-121919	Solid	TPH-DRO	8015C	6400	J	ug/kg	20
005	MPGI-SF-Soil-11A-121919	Solid	Aluminum	6010D	20000		mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Arsenic	6010D	15		mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Barium	6010D	120		mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Beryllium	6010D	0.91		mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Cadmium	6010D	0.20	J	mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Calcium	6010D	6000		mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Chromium	6010D	25		mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Cobalt	6010D	6.6		mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Copper	6010D	20		mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Iron	6010D	24000		mg/kg	21

Detection Summary (Continued)

Lot Number: UL20021

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
005	MPGI-SF-Soil-11A-121919	Solid	Lead	6010D	23		mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Magnesium	6010D	4300		mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Manganese	6010D	470		mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Mercury	7471B	0.035	J	mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Nickel	6010D	18		mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Potassium	6010D	2700		mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Selenium	6010D	0.60	J	mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Sodium	6010D	210	J	mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Vanadium	6010D	44		mg/kg	21
005	MPGI-SF-Soil-11A-121919	Solid	Zinc	6010D	76		mg/kg	21
006	MPGI-SF-Soil-11B-121919	Solid	Aluminum	6010D	19000		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Arsenic	6010D	17		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Barium	6010D	270		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Beryllium	6010D	0.90		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Cadmium	6010D	0.52		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Calcium	6010D	5400		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Chromium	6010D	24		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Cobalt	6010D	17		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Copper	6010D	21		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Iron	6010D	26000		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Lead	6010D	27		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Magnesium	6010D	4100		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Manganese	6010D	2200		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Mercury	7471B	0.033	J	mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Nickel	6010D	25		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Potassium	6010D	2400		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Sodium	6010D	170	J	mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Vanadium	6010D	46		mg/kg	23
006	MPGI-SF-Soil-11B-121919	Solid	Zinc	6010D	80		mg/kg	23
007	MPGI-SF-Soil-11C-121919	Solid	TPH-DRO	8015C	15000		ug/kg	24
007	MPGI-SF-Soil-11C-121919	Solid	Aluminum	6010D	19000		mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Arsenic	6010D	22		mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Barium	6010D	320		mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Beryllium	6010D	0.95		mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Cadmium	6010D	0.47	J	mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Calcium	6010D	7300		mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Chromium	6010D	25		mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Cobalt	6010D	16		mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Copper	6010D	24		mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Iron	6010D	35000		mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Lead	6010D	30		mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Magnesium	6010D	5100		mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Manganese	6010D	1900		mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Mercury	7471B	0.032	J	mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Nickel	6010D	25		mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Potassium	6010D	2800		mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Sodium	6010D	130	J	mg/kg	25
007	MPGI-SF-Soil-11C-121919	Solid	Vanadium	6010D	49		mg/kg	25

Detection Summary (Continued)

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Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
007	MPGI-SF-Soil-11C-121919	Solid	Zinc	6010D	110		mg/kg	25
008	MPGI-SF-Soil-12A-121919	Solid	TPH-DRO	8015C	8300	J	ug/kg	26
008	MPGI-SF-Soil-12A-121919	Solid	Aluminum	6010D	19000		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Antimony	6010D	0.33	J	mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Arsenic	6010D	13		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Barium	6010D	140		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Beryllium	6010D	0.91		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Cadmium	6010D	0.30	J	mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Calcium	6010D	8700		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Chromium	6010D	25		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Cobalt	6010D	9.7		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Copper	6010D	25		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Iron	6010D	23000		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Lead	6010D	26		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Magnesium	6010D	6000		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Manganese	6010D	700		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Mercury	7471B	0.030	J	mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Nickel	6010D	21		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Potassium	6010D	3200		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Selenium	6010D	0.62	J	mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Sodium	6010D	120	J	mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Vanadium	6010D	43		mg/kg	27
008	MPGI-SF-Soil-12A-121919	Solid	Zinc	6010D	120		mg/kg	27
009	MPGI-SF-Soil-12B-121819	Solid	TPH-DRO	8015C	13000		ug/kg	28
009	MPGI-SF-Soil-12B-121819	Solid	Aluminum	6010D	17000		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Arsenic	6010D	17		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Barium	6010D	440		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Beryllium	6010D	0.89		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Cadmium	6010D	0.73		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Calcium	6010D	11000		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Chromium	6010D	23		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Cobalt	6010D	42		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Copper	6010D	23		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Iron	6010D	28000		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Lead	6010D	31		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Magnesium	6010D	7300		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Manganese	6010D	3900		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Nickel	6010D	33		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Potassium	6010D	2800		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Silver	6010D	0.35	J	mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Sodium	6010D	150	J	mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Vanadium	6010D	47		mg/kg	29
009	MPGI-SF-Soil-12B-121819	Solid	Zinc	6010D	110		mg/kg	29
010	MPGI-SF-Soil-12C-121919	Solid	TPH-DRO	8015C	12000		ug/kg	30
010	MPGI-SF-Soil-12C-121919	Solid	Aluminum	6010D	14000		mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Arsenic	6010D	10		mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Barium	6010D	110		mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Beryllium	6010D	0.68		mg/kg	31

Detection Summary (Continued)

Lot Number: UL20021

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
010	MPGI-SF-Soil-12C-121919	Solid	Cadmium	6010D	0.19	J	mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Calcium	6010D	12000		mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Chromium	6010D	19		mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Cobalt	6010D	7.1		mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Copper	6010D	19		mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Iron	6010D	18000		mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Lead	6010D	20		mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Magnesium	6010D	7100		mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Manganese	6010D	580		mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Nickel	6010D	16		mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Potassium	6010D	2400		mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Selenium	6010D	0.44	J	mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Sodium	6010D	84	J	mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Vanadium	6010D	33		mg/kg	31
010	MPGI-SF-Soil-12C-121919	Solid	Zinc	6010D	87		mg/kg	31
011	MPGI-SF-Soil-13A-121719	Solid	TPH-DRO	8015C	8300	J	ug/kg	32
011	MPGI-SF-Soil-13A-121719	Solid	Aluminum	6010D	19000		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Antimony	6010D	0.41	J	mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Arsenic	6010D	12		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Barium	6010D	110		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Beryllium	6010D	0.80		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Calcium	6010D	7600		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Chromium	6010D	23		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Cobalt	6010D	10		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Copper	6010D	21		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Iron	6010D	23000		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Lead	6010D	22		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Magnesium	6010D	6300		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Manganese	6010D	550		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Mercury	7471B	0.036	J	mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Nickel	6010D	22		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Potassium	6010D	3300		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Selenium	6010D	0.55	J	mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Vanadium	6010D	39		mg/kg	33
011	MPGI-SF-Soil-13A-121719	Solid	Zinc	6010D	74		mg/kg	33
012	MPGI-SF-Soil-13B-121719	Solid	TPH-DRO	8015C	5000	J	ug/kg	34
012	MPGI-SF-Soil-13B-121719	Solid	Aluminum	6010D	19000		mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Antimony	6010D	0.35	J	mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Arsenic	6010D	12		mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Barium	6010D	120		mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Beryllium	6010D	0.85		mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Cadmium	6010D	0.091	J	mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Calcium	6010D	8200		mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Chromium	6010D	26		mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Cobalt	6010D	9.3		mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Copper	6010D	25		mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Iron	6010D	22000		mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Lead	6010D	27		mg/kg	35

Detection Summary (Continued)

Lot Number: UL20021

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
012	MPGI-SF-Soil-13B-121719	Solid	Magnesium	6010D	6000		mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Manganese	6010D	500		mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Mercury	7471B	0.052	J	mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Nickel	6010D	21		mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Potassium	6010D	3600		mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Selenium	6010D	0.51	J	mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Vanadium	6010D	40		mg/kg	35
012	MPGI-SF-Soil-13B-121719	Solid	Zinc	6010D	82		mg/kg	35
013	MPGI-SF-Soil-14A-121919	Solid	TPH-DRO	8015C	8300		ug/kg	36
013	MPGI-SF-Soil-14A-121919	Solid	Aluminum	6010D	16000		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Arsenic	6010D	7.4		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Barium	6010D	96		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Beryllium	6010D	0.68		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Cadmium	6010D	0.12	J	mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Calcium	6010D	5800		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Chromium	6010D	20		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Cobalt	6010D	6.5		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Copper	6010D	16		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Iron	6010D	16000		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Lead	6010D	17		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Magnesium	6010D	4200		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Manganese	6010D	390		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Mercury	7471B	0.034	J	mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Nickel	6010D	14		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Potassium	6010D	2100		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Sodium	6010D	55	J	mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Vanadium	6010D	35		mg/kg	37
013	MPGI-SF-Soil-14A-121919	Solid	Zinc	6010D	71		mg/kg	37
014	MPGI-SF-Soil-14A-121919-D	Solid	TPH-DRO	8015C	10000		ug/kg	38
014	MPGI-SF-Soil-14A-121919-D	Solid	Aluminum	6010D	14000		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Arsenic	6010D	8.1		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Barium	6010D	98		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Beryllium	6010D	0.62		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Cadmium	6010D	0.18	J	mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Calcium	6010D	5200		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Chromium	6010D	17		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Cobalt	6010D	7.8		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Copper	6010D	15		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Iron	6010D	16000		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Lead	6010D	18		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Magnesium	6010D	3700		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Manganese	6010D	620		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Mercury	7471B	0.033	J	mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Nickel	6010D	15		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Potassium	6010D	1800		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Sodium	6010D	41	J	mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Vanadium	6010D	31		mg/kg	39
014	MPGI-SF-Soil-14A-121919-D	Solid	Zinc	6010D	66		mg/kg	39

Detection Summary (Continued)

Lot Number: UL20021

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
015	MPGI-SF-Soil-14B-121919	Solid	TPH-DRO	8015C	23000		ug/kg	40
015	MPGI-SF-Soil-14B-121919	Solid	Aluminum	6010D	13000		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Arsenic	6010D	9.5		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Barium	6010D	93		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Beryllium	6010D	0.64		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Cadmium	6010D	0.16	J	mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Calcium	6010D	14000		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Chromium	6010D	17		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Cobalt	6010D	7.9		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Copper	6010D	18		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Iron	6010D	18000		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Lead	6010D	19		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Magnesium	6010D	8800		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Manganese	6010D	590		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Mercury	7471B	0.025	J	mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Nickel	6010D	17		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Potassium	6010D	2100		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Sodium	6010D	80	J	mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Vanadium	6010D	30		mg/kg	41
015	MPGI-SF-Soil-14B-121919	Solid	Zinc	6010D	99		mg/kg	41
016	MPGI-SF-Soil-14C-121919	Solid	TPH-DRO	8015C	13000		ug/kg	42
016	MPGI-SF-Soil-14C-121919	Solid	Aluminum	6010D	12000		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Arsenic	6010D	10		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Barium	6010D	110		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Beryllium	6010D	0.59		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Cadmium	6010D	0.22	J	mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Calcium	6010D	12000		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Chromium	6010D	16		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Cobalt	6010D	9.4		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Copper	6010D	17		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Iron	6010D	19000		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Lead	6010D	20		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Magnesium	6010D	6500		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Manganese	6010D	720		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Mercury	7471B	0.027	J	mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Nickel	6010D	17		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Potassium	6010D	2000		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Sodium	6010D	39	J	mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Vanadium	6010D	29		mg/kg	43
016	MPGI-SF-Soil-14C-121919	Solid	Zinc	6010D	81		mg/kg	43
017	MPG1-RB-121719	Aqueous	Arsenic	6010D	0.0031	J	mg/L	45
017	MPG1-RB-121719	Aqueous	Sodium	6010D	0.71	J	mg/L	45

(327 detections)

TPH - DRO

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-001**
Description:	**MPGI-SF-Soil-09-121719**	Matrix:	**Solid**
Date Sampled:	**12/17/2019 0940**	% Solids:	**76.0 12/20/2019 2143**
Date Received:	**12/20/2019**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	3550C	8015C	1	12/26/2019 1137	CHG	12/25/2019 1907	40054

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**41000**		**8600**	**4100**	**ug/kg**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
o - Terphenyl		57	55-120

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL
H = Out of holding time	W = Reported on wet weight basis		

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TAL Metals

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-001**
Description: **MPGI-SF-Soil-09-121719**
Matrix: **Solid**
Date Sampled: **12/17/2019 0940**
% Solids: **76.0** **12/20/2019 2143**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/31/2019 0658	LLL	12/30/2019 0956	40381
1	7471B	7471B	1	12/30/2019 1842	JMH	12/30/2019 1349	40382
2	3050B	6010D	2	12/31/2019 0823	LLL	12/30/2019 0956	40381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**21000**		**24**	**9.1**	**mg/kg**	**1**
Antimony	7440-36-0	6010D	ND		1.2	0.31	mg/kg	1
Arsenic	**7440-38-2**	**6010D**	**14**		**0.91**	**0.30**	**mg/kg**	**1**
Barium	**7440-39-3**	**6010D**	**220**		**1.6**	**0.40**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**0.98**		**0.30**	**0.077**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.47**		**0.30**	**0.077**	**mg/kg**	**1**
Calcium	**7440-70-2**	**6010D**	**16000**		**300**	**38**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**27**		**0.61**	**0.15**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**15**		**1.6**	**0.40**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**26**		**0.61**	**0.27**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**26000**		**6.1**	**2.8**	**mg/kg**	**1**
Lead	**7439-92-1**	**6010D**	**27**		**0.61**	**0.27**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6010D**	**11000**		**300**	**38**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**1700**		**1.8**	**0.72**	**mg/kg**	**2**
Mercury	**7439-97-6**	**7471B**	**0.028**	**J**	**0.097**	**0.023**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6010D**	**34**		**2.4**	**0.64**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6010D**	**3200**		**300**	**38**	**mg/kg**	**1**
Selenium	7782-49-2	6010D	ND		2.4	0.99	mg/kg	2
Silver	7440-22-4	6010D	ND		0.61	0.15	mg/kg	1
Sodium	**7440-23-5**	**6010D**	**130**	**J**	**300**	**38**	**mg/kg**	**1**
Thallium	7440-28-0	6010D	ND		3.0	0.76	mg/kg	1
Vanadium	**7440-62-2**	**6010D**	**46**		**3.0**	**0.76**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6010D**	**99**		**3.0**	**0.76**	**mg/kg**	**1**

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
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P = The RPD between two GC columns exceeds 40%
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TPH - DRO

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-002**
Description: **MPGI-SF-Soil-10A-121719**
Matrix: **Solid**
Date Sampled: **12/17/2019 1140**
% Solids: **80.7** **12/20/2019 2143**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	3550C	8015C	1	12/26/2019 1235	CHG	12/25/2019 1907	40054

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**16000**		**8200**	**3900**	**ug/kg**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
o - Terphenyl		57	55-120

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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TAL Metals

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-002**
Description: **MPGI-SF-Soil-10A-121719**
Matrix: **Solid**
Date Sampled: **12/17/2019 1140**
% Solids: **80.7** **12/20/2019 2143**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/31/2019 0738	LLL	12/30/2019 0956	40381
1	7471B	7471B	1	12/30/2019 1849	JMH	12/30/2019 1349	40382
2	3050B	6010D	2	12/31/2019 0902	LLL	12/30/2019 0956	40381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**18000**		**24**	**9.1**	**mg/kg**	**1**
Antimony	7440-36-0	6010D	ND		1.2	0.31	mg/kg	1
Arsenic	**7440-38-2**	**6010D**	**20**		**1.8**	**0.61**	**mg/kg**	**2**
Barium	**7440-39-3**	**6010D**	**180**		**1.6**	**0.39**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**1.0**		**0.30**	**0.076**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.52**	**J**	**0.61**	**0.15**	**mg/kg**	**2**
Calcium	**7440-70-2**	**6010D**	**3300**		**300**	**38**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**25**		**0.61**	**0.15**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**18**		**1.6**	**0.39**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**29**		**0.61**	**0.27**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**37000**		**12**	**5.5**	**mg/kg**	**2**
Lead	**7439-92-1**	**6010D**	**28**		**1.2**	**0.55**	**mg/kg**	**2**
Magnesium	**7439-95-4**	**6010D**	**4200**		**300**	**38**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**1900**		**1.8**	**0.72**	**mg/kg**	**2**
Mercury	7439-97-6	7471B	ND		0.10	0.025	mg/kg	1
Nickel	**7440-02-0**	**6010D**	**43**		**4.9**	**1.3**	**mg/kg**	**2**
Potassium	**7440-09-7**	**6010D**	**3000**		**300**	**38**	**mg/kg**	**1**
Selenium	**7782-49-2**	**6010D**	**0.99**	**J**	**2.4**	**0.99**	**mg/kg**	**2**
Silver	7440-22-4	6010D	ND		0.61	0.15	mg/kg	1
Sodium	**7440-23-5**	**6010D**	**140**	**J**	**300**	**38**	**mg/kg**	**1**
Thallium	7440-28-0	6010D	ND		6.1	1.5	mg/kg	2
Vanadium	**7440-62-2**	**6010D**	**46**		**6.1**	**1.5**	**mg/kg**	**2**
Zinc	**7440-66-6**	**6010D**	**86**		**3.0**	**0.76**	**mg/kg**	**1**

LOQ = Limit of Quantitation
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P = The RPD between two GC columns exceeds 40%
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H = Out of holding time
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TPH - DRO

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-003**
Description: **MPGI-SF-Soil-10B-121719**
Matrix: **Solid**
Date Sampled: **12/17/2019 1144**
% Solids: **81.4** **12/20/2019 2143**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8015C	1	12/24/2019 1206	CHG	12/23/2019 2339	39962

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**41000**		**8000**	**3800**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
o - Terphenyl		68	55-120

LOQ = Limit of Quantitation
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J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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TAL Metals

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-003**
Description:	**MPGI-SF-Soil-10B-121719**	Matrix:	**Solid**
Date Sampled:	**12/17/2019 1144**	% Solids:	**81.4** **12/20/2019 2143**
Date Received:	**12/20/2019**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/31/2019 0744	LLL	12/30/2019 0956	40381
1	7471B	7471B	1	12/30/2019 1851	JMH	12/30/2019 1349	40382

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**15000**		**21**	**8.0**	**mg/kg**	**1**
Antimony	7440-36-0	6010D	ND		1.1	0.27	mg/kg	1
Arsenic	**7440-38-2**	**6010D**	**13**		**0.80**	**0.27**	**mg/kg**	**1**
Barium	**7440-39-3**	**6010D**	**110**		**1.4**	**0.35**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**0.78**		**0.27**	**0.067**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.21**	**J**	**0.27**	**0.067**	**mg/kg**	**1**
Calcium	**7440-70-2**	**6010D**	**13000**		**270**	**33**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**21**		**0.53**	**0.13**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**14**		**1.4**	**0.35**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**21**		**0.53**	**0.24**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**24000**		**5.3**	**2.4**	**mg/kg**	**1**
Lead	**7439-92-1**	**6010D**	**22**		**0.53**	**0.24**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6010D**	**9400**		**270**	**33**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**940**		**0.80**	**0.32**	**mg/kg**	**1**
Mercury	**7439-97-6**	**7471B**	**0.027**	**J**	**0.098**	**0.024**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6010D**	**27**		**2.1**	**0.56**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6010D**	**2700**		**270**	**33**	**mg/kg**	**1**
Selenium	7782-49-2	6010D	ND		1.1	0.43	mg/kg	1
Silver	7440-22-4	6010D	ND		0.53	0.13	mg/kg	1
Sodium	**7440-23-5**	**6010D**	**130**	**J**	**270**	**33**	**mg/kg**	**1**
Thallium	7440-28-0	6010D	ND		2.7	0.67	mg/kg	1
Vanadium	**7440-62-2**	**6010D**	**36**		**2.7**	**0.67**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6010D**	**83**		**2.7**	**0.67**	**mg/kg**	**1**

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
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TPH - DRO

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-004**
Description:	**MPGI-SF-Soil-10C-121719**	Matrix:	**Solid**
Date Sampled:	**12/17/2019 1146**	% Solids:	**81.5** **12/20/2019 2143**
Date Received:	**12/20/2019**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	3550C	8015C	1	12/26/2019 1254	CHG	12/25/2019 1907	40054

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**4900**	**J**	**8200**	**3900**	**ug/kg**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
o - Terphenyl		58	55-120

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL
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TAL Metals

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-004**
Description:	**MPGI-SF-Soil-10C-121719**	Matrix:	**Solid**
Date Sampled:	**12/17/2019 1146**	% Solids:	**81.5 12/20/2019 2143**
Date Received:	**12/20/2019**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/31/2019 0749	LLL	12/30/2019 0956	40381
1	7471B	7471B	1	12/30/2019 1854	JMH	12/30/2019 1349	40382
2	3050B	6010D	2	12/31/2019 0907	LLL	12/30/2019 0956	40381
3	3050B	6010D	4	12/31/2019 0913	LLL	12/30/2019 0956	40381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**18000**		**22**	**8.2**	**mg/kg**	**1**
Antimony	**7440-36-0**	**6010D**	**0.28**	**J**	**1.1**	**0.28**	**mg/kg**	**1**
Arsenic	**7440-38-2**	**6010D**	**20**		**1.6**	**0.55**	**mg/kg**	**2**
Barium	**7440-39-3**	**6010D**	**330**		**1.4**	**0.36**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**1.0**		**0.27**	**0.069**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.49**	**J**	**0.55**	**0.14**	**mg/kg**	**2**
Calcium	**7440-70-2**	**6010D**	**8500**		**270**	**34**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**26**		**0.55**	**0.14**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**21**		**1.4**	**0.36**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**28**		**0.55**	**0.25**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**35000**		**11**	**5.0**	**mg/kg**	**2**
Lead	**7439-92-1**	**6010D**	**35**		**1.1**	**0.49**	**mg/kg**	**2**
Magnesium	**7439-95-4**	**6010D**	**6400**		**270**	**34**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**2800**		**3.3**	**1.3**	**mg/kg**	**3**
Mercury	**7439-97-6**	**7471B**	**0.025**	**J**	**0.093**	**0.022**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6010D**	**38**		**4.4**	**1.2**	**mg/kg**	**2**
Potassium	**7440-09-7**	**6010D**	**3500**		**270**	**34**	**mg/kg**	**1**
Selenium	7782-49-2	6010D	ND		4.4	1.8	mg/kg	3
Silver	**7440-22-4**	**6010D**	**0.17**	**J**	**0.55**	**0.14**	**mg/kg**	**1**
Sodium	**7440-23-5**	**6010D**	**280**		**270**	**34**	**mg/kg**	**1**
Thallium	7440-28-0	6010D	ND		5.5	1.4	mg/kg	2
Vanadium	**7440-62-2**	**6010D**	**47**		**5.5**	**1.4**	**mg/kg**	**2**
Zinc	**7440-66-6**	**6010D**	**130**		**2.7**	**0.69**	**mg/kg**	**1**

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TPH - DRO

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-005**
Description:	**MPGI-SF-Soil-11A-121919**	Matrix:	**Solid**
Date Sampled:	**12/19/2019 1240**	% Solids:	**79.2** **12/20/2019 2143**
Date Received:	**12/20/2019**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8015C	1	12/24/2019 1244	CHG	12/23/2019 2339	39962

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**6400**	**J**	**8200**	**3900**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
o - Terphenyl		65	55-120

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
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TAL Metals

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-005**
Description:	**MPGI-SF-Soil-11A-121919**	Matrix:	**Solid**
Date Sampled:	**12/19/2019 1240**	% Solids:	**79.2 12/20/2019 2143**
Date Received:	**12/20/2019**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/31/2019 0755	LLL	12/30/2019 0956	40381
1	7471B	7471B	1	12/30/2019 1856	JMH	12/30/2019 1349	40382

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**20000**		**23**	**8.5**	**mg/kg**	**1**
Antimony	7440-36-0	6010D	ND		1.1	0.28	mg/kg	1
Arsenic	**7440-38-2**	**6010D**	**15**		**0.85**	**0.28**	**mg/kg**	**1**
Barium	**7440-39-3**	**6010D**	**120**		**1.5**	**0.37**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**0.91**		**0.28**	**0.071**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.20**	**J**	**0.28**	**0.071**	**mg/kg**	**1**
Calcium	**7440-70-2**	**6010D**	**6000**		**280**	**35**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**25**		**0.57**	**0.14**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**6.6**		**1.5**	**0.37**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**20**		**0.57**	**0.25**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**24000**		**5.7**	**2.6**	**mg/kg**	**1**
Lead	**7439-92-1**	**6010D**	**23**		**0.57**	**0.25**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6010D**	**4300**		**280**	**35**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**470**		**0.85**	**0.33**	**mg/kg**	**1**
Mercury	**7439-97-6**	**7471B**	**0.035**	**J**	**0.093**	**0.022**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6010D**	**18**		**2.3**	**0.59**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6010D**	**2700**		**280**	**35**	**mg/kg**	**1**
Selenium	**7782-49-2**	**6010D**	**0.60**	**J**	**1.1**	**0.46**	**mg/kg**	**1**
Silver	7440-22-4	6010D	ND		0.57	0.14	mg/kg	1
Sodium	**7440-23-5**	**6010D**	**210**	**J**	**280**	**35**	**mg/kg**	**1**
Thallium	7440-28-0	6010D	ND		2.8	0.71	mg/kg	1
Vanadium	**7440-62-2**	**6010D**	**44**		**2.8**	**0.71**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6010D**	**76**		**2.8**	**0.71**	**mg/kg**	**1**

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TPH - DRO

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-006**
Description: **MPGI-SF-Soil-11B-121919**
Matrix: **Solid**
Date Sampled: **12/19/2019 1242**
% Solids: **80.2** **12/20/2019 2143**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8015C	1	12/24/2019 1303	CHG	12/23/2019 2339	39962

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		8015C	ND		8100	3900	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
o - Terphenyl	N	51	55-120

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
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TAL Metals

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-006**
Description: **MPGI-SF-Soil-11B-121919**
Matrix: **Solid**
Date Sampled: **12/19/2019 1242**
% Solids: **80.2** **12/20/2019 2143**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/31/2019 0801	LLL	12/30/2019 0956	40381
1	7471B	7471B	1	12/30/2019 1903	JMH	12/30/2019 1349	40382
2	3050B	6010D	3	12/31/2019 0957	LLL	12/30/2019 0956	40381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**19000**		**22**	**8.4**	**mg/kg**	**1**
Antimony	7440-36-0	6010D	ND		1.1	0.28	mg/kg	1
Arsenic	**7440-38-2**	**6010D**	**17**		**0.84**	**0.28**	**mg/kg**	**1**
Barium	**7440-39-3**	**6010D**	**270**		**1.5**	**0.36**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**0.90**		**0.28**	**0.071**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.52**		**0.28**	**0.071**	**mg/kg**	**1**
Calcium	**7440-70-2**	**6010D**	**5400**		**280**	**35**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**24**		**0.56**	**0.14**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**17**		**1.5**	**0.36**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**21**		**0.56**	**0.25**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**26000**		**5.6**	**2.6**	**mg/kg**	**1**
Lead	**7439-92-1**	**6010D**	**27**		**0.56**	**0.25**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6010D**	**4100**		**280**	**35**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**2200**		**2.5**	**1.0**	**mg/kg**	**2**
Mercury	**7439-97-6**	**7471B**	**0.033**	**J**	**0.095**	**0.023**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6010D**	**25**		**2.2**	**0.59**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6010D**	**2400**		**280**	**35**	**mg/kg**	**1**
Selenium	7782-49-2	6010D	ND		3.4	1.4	mg/kg	2
Silver	7440-22-4	6010D	ND		0.56	0.14	mg/kg	1
Sodium	**7440-23-5**	**6010D**	**170**	**J**	**280**	**35**	**mg/kg**	**1**
Thallium	7440-28-0	6010D	ND		2.8	0.70	mg/kg	1
Vanadium	**7440-62-2**	**6010D**	**46**		**2.8**	**0.70**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6010D**	**80**		**2.8**	**0.70**	**mg/kg**	**1**

LOQ = Limit of Quantitation
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P = The RPD between two GC columns exceeds 40%
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TPH - DRO

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-007**
Description:	**MPGI-SF-Soil-11C-121919**	Matrix:	**Solid**
Date Sampled:	**12/19/2019 1244**	% Solids:	**79.2 12/20/2019 2143**
Date Received:	**12/20/2019**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	3550C	8015C	1	12/26/2019 1333	CHG	12/25/2019 1907	40054

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**15000**		**8400**	**4000**	**ug/kg**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
o - Terphenyl		57	55-120

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL
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TAL Metals

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-007**
Description: **MPGI-SF-Soil-11C-121919**
Matrix: **Solid**
Date Sampled: **12/19/2019 1244**
% Solids: **79.2** **12/20/2019 2143**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/31/2019 0806	LLL	12/30/2019 0956	40381
1	7471B	7471B	1	12/30/2019 1905	JMH	12/30/2019 1349	40382
2	3050B	6010D	3	12/31/2019 0924	LLL	12/30/2019 0956	40381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**19000**		**25**	**9.5**	**mg/kg**	**1**
Antimony	7440-36-0	6010D	ND		1.3	0.32	mg/kg	1
Arsenic	**7440-38-2**	**6010D**	**22**		**2.8**	**0.95**	**mg/kg**	**2**
Barium	**7440-39-3**	**6010D**	**320**		**1.6**	**0.41**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**0.95**		**0.32**	**0.079**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.47**	**J**	**0.95**	**0.24**	**mg/kg**	**2**
Calcium	**7440-70-2**	**6010D**	**7300**		**320**	**39**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**25**		**0.63**	**0.16**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**16**		**1.6**	**0.41**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**24**		**0.63**	**0.28**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**35000**		**19**	**8.6**	**mg/kg**	**2**
Lead	**7439-92-1**	**6010D**	**30**		**1.9**	**0.85**	**mg/kg**	**2**
Magnesium	**7439-95-4**	**6010D**	**5100**		**320**	**39**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**1900**		**2.8**	**1.1**	**mg/kg**	**2**
Mercury	**7439-97-6**	**7471B**	**0.032**	**J**	**0.10**	**0.025**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6010D**	**25**		**7.6**	**2.0**	**mg/kg**	**2**
Potassium	**7440-09-7**	**6010D**	**2800**		**320**	**39**	**mg/kg**	**1**
Selenium	7782-49-2	6010D	ND		3.8	1.5	mg/kg	2
Silver	7440-22-4	6010D	ND		0.63	0.16	mg/kg	1
Sodium	**7440-23-5**	**6010D**	**130**	**J**	**320**	**39**	**mg/kg**	**1**
Thallium	7440-28-0	6010D	ND		9.5	2.4	mg/kg	2
Vanadium	**7440-62-2**	**6010D**	**49**		**9.5**	**2.4**	**mg/kg**	**2**
Zinc	**7440-66-6**	**6010D**	**110**		**3.2**	**0.79**	**mg/kg**	**1**

LOQ = Limit of Quantitation
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TPH - DRO

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-008**
Description:	**MPGI-SF-Soil-12A-121919**	Matrix:	**Solid**
Date Sampled:	**12/19/2019 1310**	% Solids:	**74.3 12/20/2019 2143**
Date Received:	**12/20/2019**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8015C	1	12/24/2019 1341	CHG	12/23/2019 2339	39962

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**8300**	**J**	**9000**	**4300**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
o - Terphenyl		55	55-120

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
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TAL Metals

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-008**
Description: **MPGI-SF-Soil-12A-121919**
Matrix: **Solid**
Date Sampled: **12/19/2019 1310**
% Solids: **74.3** **12/20/2019 2143**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/31/2019 0812	LLL	12/30/2019 0956	40381
1	7471B	7471B	1	12/30/2019 1908	JMH	12/30/2019 1349	40382

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**19000**		**26**	**9.8**	**mg/kg**	**1**
Antimony	**7440-36-0**	**6010D**	**0.33**	**J**	**1.3**	**0.33**	**mg/kg**	**1**
Arsenic	**7440-38-2**	**6010D**	**13**		**0.98**	**0.33**	**mg/kg**	**1**
Barium	**7440-39-3**	**6010D**	**140**		**1.7**	**0.43**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**0.91**		**0.33**	**0.083**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.30**	**J**	**0.33**	**0.083**	**mg/kg**	**1**
Calcium	**7440-70-2**	**6010D**	**8700**		**330**	**41**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**25**		**0.66**	**0.16**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**9.7**		**1.7**	**0.43**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**25**		**0.66**	**0.30**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**23000**		**6.6**	**3.0**	**mg/kg**	**1**
Lead	**7439-92-1**	**6010D**	**26**		**0.66**	**0.30**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6010D**	**6000**		**330**	**41**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**700**		**0.98**	**0.39**	**mg/kg**	**1**
Mercury	**7439-97-6**	**7471B**	**0.030**	**J**	**0.10**	**0.025**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6010D**	**21**		**2.6**	**0.69**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6010D**	**3200**		**330**	**41**	**mg/kg**	**1**
Selenium	**7782-49-2**	**6010D**	**0.62**	**J**	**1.3**	**0.53**	**mg/kg**	**1**
Silver	7440-22-4	6010D	ND		0.66	0.16	mg/kg	1
Sodium	**7440-23-5**	**6010D**	**120**	**J**	**330**	**41**	**mg/kg**	**1**
Thallium	7440-28-0	6010D	ND		3.3	0.82	mg/kg	1
Vanadium	**7440-62-2**	**6010D**	**43**		**3.3**	**0.82**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6010D**	**120**		**3.3**	**0.82**	**mg/kg**	**1**

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TPH - DRO

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-009**
Description: **MPGI-SF-Soil-12B-121819**
Matrix: **Solid**
Date Sampled: **12/18/2019 1001**
% Solids: **73.3** **12/20/2019 2143**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8015C	1	12/24/2019 1401	CHG	12/23/2019 2339	39962

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**13000**		**8900**	**4200**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
o - Terphenyl		74	55-120

LOQ = Limit of Quantitation
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TAL Metals

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-009**
Description: **MPGI-SF-Soil-12B-121819**
Matrix: **Solid**
Date Sampled: **12/18/2019 1001**
% Solids: **73.3** **12/20/2019 2143**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/31/2019 0817	LLL	12/30/2019 0956	40381
1	7471B	7471B	1	12/30/2019 1910	JMH	12/30/2019 1349	40382
2	3050B	6010D	5	12/31/2019 0946	LLL	12/30/2019 0956	40381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**17000**		**25**	**9.2**	**mg/kg**	**1**
Antimony	7440-36-0	6010D	ND		1.2	0.31	mg/kg	1
Arsenic	**7440-38-2**	**6010D**	**17**		**0.92**	**0.31**	**mg/kg**	**1**
Barium	**7440-39-3**	**6010D**	**440**		**1.6**	**0.40**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**0.89**		**0.31**	**0.077**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.73**		**0.31**	**0.077**	**mg/kg**	**1**
Calcium	**7440-70-2**	**6010D**	**11000**		**310**	**38**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**23**		**0.61**	**0.15**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**42**		**1.6**	**0.40**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**23**		**0.61**	**0.28**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**28000**		**6.1**	**2.8**	**mg/kg**	**1**
Lead	**7439-92-1**	**6010D**	**31**		**0.61**	**0.28**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6010D**	**7300**		**310**	**38**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**3900**		**4.6**	**1.8**	**mg/kg**	**2**
Mercury	7439-97-6	7471B	ND		0.11	0.026	mg/kg	1
Nickel	**7440-02-0**	**6010D**	**33**		**2.5**	**0.64**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6010D**	**2800**		**310**	**38**	**mg/kg**	**1**
Selenium	7782-49-2	6010D	ND		6.1	2.5	mg/kg	2
Silver	**7440-22-4**	**6010D**	**0.35**	**J**	**0.61**	**0.15**	**mg/kg**	**1**
Sodium	**7440-23-5**	**6010D**	**150**	**J**	**310**	**38**	**mg/kg**	**1**
Thallium	7440-28-0	6010D	ND		3.1	0.77	mg/kg	1
Vanadium	**7440-62-2**	**6010D**	**47**		**3.1**	**0.77**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6010D**	**110**		**3.1**	**0.77**	**mg/kg**	**1**

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TPH - DRO

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-010**
Description:	**MPGI-SF-Soil-12C-121919**	Matrix:	**Solid**
Date Sampled:	**12/19/2019 1312**	% Solids:	**80.0**
Date Received:	**12/20/2019**		**12/20/2019 2143**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	3550C	8015C	1	12/26/2019 1352	CHG	12/25/2019 1907	40054

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**12000**		**8400**	**4000**	**ug/kg**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
o - Terphenyl		62	55-120

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
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TAL Metals

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-010**
Description:	**MPGI-SF-Soil-12C-121919**	Matrix:	**Solid**
Date Sampled:	**12/19/2019 1312**	% Solids:	**80.0**
Date Received:	**12/20/2019**		**12/20/2019 2143**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/26/2019 0655	LLL	12/24/2019 0905	39838
1	7471B	7471B	1	12/21/2019 0933	KSH2	12/20/2019 1708	39735

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**14000**		**21**	**8.0**	**mg/kg**	**1**
Antimony	7440-36-0	6010D	ND		1.1	0.27	mg/kg	1
Arsenic	**7440-38-2**	**6010D**	**10**		**0.80**	**0.27**	**mg/kg**	**1**
Barium	**7440-39-3**	**6010D**	**110**		**1.4**	**0.35**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**0.68**		**0.27**	**0.067**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.19**	**J**	**0.27**	**0.067**	**mg/kg**	**1**
Calcium	**7440-70-2**	**6010D**	**12000**		**270**	**33**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**19**		**0.53**	**0.13**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**7.1**		**1.4**	**0.35**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**19**		**0.53**	**0.24**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**18000**		**5.3**	**2.4**	**mg/kg**	**1**
Lead	**7439-92-1**	**6010D**	**20**		**0.53**	**0.24**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6010D**	**7100**		**270**	**33**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**580**		**0.80**	**0.31**	**mg/kg**	**1**
Mercury	7439-97-6	7471B	ND		0.095	0.023	mg/kg	1
Nickel	**7440-02-0**	**6010D**	**16**		**2.1**	**0.56**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6010D**	**2400**		**270**	**33**	**mg/kg**	**1**
Selenium	**7782-49-2**	**6010D**	**0.44**	**J**	**1.1**	**0.43**	**mg/kg**	**1**
Silver	7440-22-4	6010D	ND		0.53	0.13	mg/kg	1
Sodium	**7440-23-5**	**6010D**	**84**	**J**	**270**	**33**	**mg/kg**	**1**
Thallium	7440-28-0	6010D	ND		2.7	0.66	mg/kg	1
Vanadium	**7440-62-2**	**6010D**	**33**		**2.7**	**0.66**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6010D**	**87**		**2.7**	**0.66**	**mg/kg**	**1**

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TPH - DRO

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-011**
Description:	**MPGI-SF-Soil-13A-121719**	Matrix:	**Solid**
Date Sampled:	**12/17/2019 1410**	% Solids:	**74.5 12/20/2019 2143**
Date Received:	**12/20/2019**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8015C	1	12/24/2019 1439	CHG	12/23/2019 2339	39962

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**8300**	**J**	**8900**	**4300**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
o - Terphenyl	N	44	55-120

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
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H = Out of holding time	W = Reported on wet weight basis		

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TAL Metals

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-011**
Description: **MPGI-SF-Soil-13A-121719**
Matrix: **Solid**
Date Sampled: **12/17/2019 1410**
% Solids: **74.5** **12/20/2019 2143**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/26/2019 0701	LLL	12/24/2019 0905	39838
1	7471B	7471B	1	12/21/2019 0936	KSH2	12/20/2019 1708	39735

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**19000**		**26**	**9.6**	**mg/kg**	**1**
Antimony	**7440-36-0**	**6010D**	**0.41**	**J**	**1.3**	**0.32**	**mg/kg**	**1**
Arsenic	**7440-38-2**	**6010D**	**12**		**0.96**	**0.32**	**mg/kg**	**1**
Barium	**7440-39-3**	**6010D**	**110**		**1.7**	**0.42**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**0.80**		**0.32**	**0.081**	**mg/kg**	**1**
Cadmium	7440-43-9	6010D	ND		0.32	0.081	mg/kg	1
Calcium	**7440-70-2**	**6010D**	**7600**		**320**	**40**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**23**		**0.64**	**0.16**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**10**		**1.7**	**0.42**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**21**		**0.64**	**0.29**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**23000**		**6.4**	**2.9**	**mg/kg**	**1**
Lead	**7439-92-1**	**6010D**	**22**		**0.64**	**0.29**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6010D**	**6300**		**320**	**40**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**550**		**0.96**	**0.38**	**mg/kg**	**1**
Mercury	**7439-97-6**	**7471B**	**0.036**	**J**	**0.098**	**0.024**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6010D**	**22**		**2.6**	**0.67**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6010D**	**3300**		**320**	**40**	**mg/kg**	**1**
Selenium	**7782-49-2**	**6010D**	**0.55**	**J**	**1.3**	**0.52**	**mg/kg**	**1**
Silver	7440-22-4	6010D	ND		0.64	0.16	mg/kg	1
Sodium	7440-23-5	6010D	ND		320	40	mg/kg	1
Thallium	7440-28-0	6010D	ND		3.2	0.80	mg/kg	1
Vanadium	**7440-62-2**	**6010D**	**39**		**3.2**	**0.80**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6010D**	**74**		**3.2**	**0.80**	**mg/kg**	**1**

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
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P = The RPD between two GC columns exceeds 40%
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TPH - DRO

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-012**
Description:	**MPGI-SF-Soil-13B-121719**	Matrix:	**Solid**
Date Sampled:	**12/17/2019 1414**	% Solids:	**75.5 12/20/2019 2143**
Date Received:	**12/20/2019**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8015C	1	12/24/2019 1458	CHG	12/23/2019 2339	39962

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**5000**	**J**	**8800**	**4200**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
o - Terphenyl	N	41	55-120

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
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H = Out of holding time	W = Reported on wet weight basis		

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TAL Metals

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-012**
Description: **MPGI-SF-Soil-13B-121719**
Matrix: **Solid**
Date Sampled: **12/17/2019 1414**
% Solids: **75.5** **12/20/2019 2143**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/26/2019 0706	LLL	12/24/2019 0905	39838
1	7471B	7471B	1	12/21/2019 0938	KSH2	12/20/2019 1708	39735

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**19000**		**24**	**9.1**	**mg/kg**	**1**
Antimony	**7440-36-0**	**6010D**	**0.35**	**J**	**1.2**	**0.31**	**mg/kg**	**1**
Arsenic	**7440-38-2**	**6010D**	**12**		**0.91**	**0.30**	**mg/kg**	**1**
Barium	**7440-39-3**	**6010D**	**120**		**1.6**	**0.40**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**0.85**		**0.30**	**0.077**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.091**	**J**	**0.30**	**0.077**	**mg/kg**	**1**
Calcium	**7440-70-2**	**6010D**	**8200**		**300**	**38**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**26**		**0.61**	**0.15**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**9.3**		**1.6**	**0.40**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**25**		**0.61**	**0.27**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**22000**		**6.1**	**2.8**	**mg/kg**	**1**
Lead	**7439-92-1**	**6010D**	**27**		**0.61**	**0.27**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6010D**	**6000**		**300**	**38**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**500**		**0.91**	**0.36**	**mg/kg**	**1**
Mercury	**7439-97-6**	**7471B**	**0.052**	**J**	**0.10**	**0.025**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6010D**	**21**		**2.4**	**0.64**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6010D**	**3600**		**300**	**38**	**mg/kg**	**1**
Selenium	**7782-49-2**	**6010D**	**0.51**	**J**	**1.2**	**0.49**	**mg/kg**	**1**
Silver	7440-22-4	6010D	ND		0.61	0.15	mg/kg	1
Sodium	7440-23-5	6010D	ND		300	38	mg/kg	1
Thallium	7440-28-0	6010D	ND		3.0	0.76	mg/kg	1
Vanadium	**7440-62-2**	**6010D**	**40**		**3.0**	**0.76**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6010D**	**82**		**3.0**	**0.76**	**mg/kg**	**1**

LOQ = Limit of Quantitation
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TPH - DRO

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-013**
Description:	**MPGI-SF-Soil-14A-121919**	Matrix:	**Solid**
Date Sampled:	**12/19/2019 1210**	% Solids:	**82.8**
Date Received:	**12/20/2019**		**12/20/2019 2143**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8015C	1	12/24/2019 1517	CHG	12/23/2019 2339	39962

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**8300**		**7900**	**3800**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
o - Terphenyl		58	55-120

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
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TAL Metals

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-013**
Description: **MPGI-SF-Soil-14A-121919**
Matrix: **Solid**
Date Sampled: **12/19/2019 1210**
% Solids: **82.8** **12/20/2019 2143**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/26/2019 0723	LLL	12/24/2019 0905	39838
1	7471B	7471B	1	12/21/2019 0941	KSH2	12/20/2019 1708	39735

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**16000**		**23**	**8.6**	**mg/kg**	**1**
Antimony	7440-36-0	6010D	ND		1.1	0.29	mg/kg	1
Arsenic	**7440-38-2**	**6010D**	**7.4**		**0.86**	**0.29**	**mg/kg**	**1**
Barium	**7440-39-3**	**6010D**	**96**		**1.5**	**0.37**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**0.68**		**0.29**	**0.072**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.12**	**J**	**0.29**	**0.072**	**mg/kg**	**1**
Calcium	**7440-70-2**	**6010D**	**5800**		**290**	**36**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**20**		**0.57**	**0.14**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**6.5**		**1.5**	**0.37**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**16**		**0.57**	**0.26**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**16000**		**5.7**	**2.6**	**mg/kg**	**1**
Lead	**7439-92-1**	**6010D**	**17**		**0.57**	**0.26**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6010D**	**4200**		**290**	**36**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**390**		**0.86**	**0.34**	**mg/kg**	**1**
Mercury	**7439-97-6**	**7471B**	**0.034**	**J**	**0.092**	**0.022**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6010D**	**14**		**2.3**	**0.60**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6010D**	**2100**		**290**	**36**	**mg/kg**	**1**
Selenium	7782-49-2	6010D	ND		1.1	0.47	mg/kg	1
Silver	7440-22-4	6010D	ND		0.57	0.14	mg/kg	1
Sodium	**7440-23-5**	**6010D**	**55**	**J**	**290**	**36**	**mg/kg**	**1**
Thallium	7440-28-0	6010D	ND		2.9	0.72	mg/kg	1
Vanadium	**7440-62-2**	**6010D**	**35**		**2.9**	**0.72**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6010D**	**71**		**2.9**	**0.72**	**mg/kg**	**1**

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TPH - DRO

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-014**
Description:	**MPGI-SF-Soil-14A-121919-D**	Matrix:	**Solid**
Date Sampled:	**12/19/2019 1212**	% Solids:	**84.0**
Date Received:	**12/20/2019**		**12/20/2019 2143**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8015C	1	12/24/2019 1537	CHG	12/23/2019 2339	39962

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**10000**		**7800**	**3700**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
o - Terphenyl		64	55-120

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
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TAL Metals

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-014**
Description:	**MPGI-SF-Soil-14A-121919-D**	Matrix:	**Solid**
Date Sampled:	**12/19/2019 1212**	% Solids:	**84.0**
Date Received:	**12/20/2019**		**12/20/2019 2143**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/26/2019 0728	LLL	12/24/2019 0905	39838
1	7471B	7471B	1	12/21/2019 0943	KSH2	12/20/2019 1708	39735

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**14000**		**22**	**8.3**	**mg/kg**	**1**
Antimony	7440-36-0	6010D	ND		1.1	0.28	mg/kg	1
Arsenic	**7440-38-2**	**6010D**	**8.1**		**0.83**	**0.28**	**mg/kg**	**1**
Barium	**7440-39-3**	**6010D**	**98**		**1.4**	**0.36**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**0.62**		**0.28**	**0.069**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.18**	**J**	**0.28**	**0.069**	**mg/kg**	**1**
Calcium	**7440-70-2**	**6010D**	**5200**		**280**	**34**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**17**		**0.55**	**0.14**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**7.8**		**1.4**	**0.36**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**15**		**0.55**	**0.25**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**16000**		**5.5**	**2.5**	**mg/kg**	**1**
Lead	**7439-92-1**	**6010D**	**18**		**0.55**	**0.25**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6010D**	**3700**		**280**	**34**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**620**		**0.83**	**0.33**	**mg/kg**	**1**
Mercury	**7439-97-6**	**7471B**	**0.033**	**J**	**0.095**	**0.023**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6010D**	**15**		**2.2**	**0.58**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6010D**	**1800**		**280**	**34**	**mg/kg**	**1**
Selenium	7782-49-2	6010D	ND		1.1	0.45	mg/kg	1
Silver	7440-22-4	6010D	ND		0.55	0.14	mg/kg	1
Sodium	**7440-23-5**	**6010D**	**41**	**J**	**280**	**34**	**mg/kg**	**1**
Thallium	7440-28-0	6010D	ND		2.8	0.69	mg/kg	1
Vanadium	**7440-62-2**	**6010D**	**31**		**2.8**	**0.69**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6010D**	**66**		**2.8**	**0.69**	**mg/kg**	**1**

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
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TPH - DRO

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-015**
Description:	**MPGI-SF-Soil-14B-121919**	Matrix:	**Solid**
Date Sampled:	**12/19/2019 1214**	% Solids:	**85.7**
Date Received:	**12/20/2019**		**12/20/2019 2143**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8015C	1	12/24/2019 1556	CHG	12/23/2019 2339	39962

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**23000**		**7600**	**3600**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
o - Terphenyl		65	55-120

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
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TAL Metals

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-015**
Description:	**MPGI-SF-Soil-14B-121919**	Matrix:	**Solid**
Date Sampled:	**12/19/2019 1214**	% Solids:	**85.7** **12/20/2019 2143**
Date Received:	**12/20/2019**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/26/2019 0734	LLL	12/24/2019 0905	39838
1	7471B	7471B	1	12/21/2019 0945	KSH2	12/20/2019 1708	39735

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**13000**		**22**	**8.3**	**mg/kg**	**1**
Antimony	7440-36-0	6010D	ND		1.1	0.28	mg/kg	1
Arsenic	**7440-38-2**	**6010D**	**9.5**		**0.83**	**0.28**	**mg/kg**	**1**
Barium	**7440-39-3**	**6010D**	**93**		**1.4**	**0.36**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**0.64**		**0.28**	**0.070**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.16**	**J**	**0.28**	**0.070**	**mg/kg**	**1**
Calcium	**7440-70-2**	**6010D**	**14000**		**280**	**35**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**17**		**0.55**	**0.14**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**7.9**		**1.4**	**0.36**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**18**		**0.55**	**0.25**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**18000**		**5.5**	**2.5**	**mg/kg**	**1**
Lead	**7439-92-1**	**6010D**	**19**		**0.55**	**0.25**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6010D**	**8800**		**280**	**35**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**590**		**0.83**	**0.33**	**mg/kg**	**1**
Mercury	**7439-97-6**	**7471B**	**0.025**	**J**	**0.096**	**0.023**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6010D**	**17**		**2.2**	**0.58**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6010D**	**2100**		**280**	**35**	**mg/kg**	**1**
Selenium	7782-49-2	6010D	ND		1.1	0.45	mg/kg	1
Silver	7440-22-4	6010D	ND		0.55	0.14	mg/kg	1
Sodium	**7440-23-5**	**6010D**	**80**	**J**	**280**	**35**	**mg/kg**	**1**
Thallium	7440-28-0	6010D	ND		2.8	0.69	mg/kg	1
Vanadium	**7440-62-2**	**6010D**	**30**		**2.8**	**0.69**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6010D**	**99**		**2.8**	**0.69**	**mg/kg**	**1**

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL
H = Out of holding time	W = Reported on wet weight basis		

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TPH - DRO

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-016**
Description: **MPGI-SF-Soil-14C-121919**
Matrix: **Solid**
Date Sampled: **12/19/2019 1216**
% Solids: **81.5** **12/20/2019 2143**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8015C	1	12/24/2019 1615	CHG	12/23/2019 2339	39962

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		**8015C**	**13000**		**8200**	**3900**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
o - Terphenyl		57	55-120

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
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P = The RPD between two GC columns exceeds 40%
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H = Out of holding time
W = Reported on wet weight basis

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TAL Metals

Client:	**Tetra Tech, Inc.**	Laboratory ID:	**UL20021-016**
Description:	**MPGI-SF-Soil-14C-121919**	Matrix:	**Solid**
Date Sampled:	**12/19/2019 1216**	% Solids:	**81.5 12/20/2019 2143**
Date Received:	**12/20/2019**		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6010D	1	12/26/2019 0739	LLL	12/24/2019 0905	39838
1	7471B	7471B	1	12/21/2019 0948	KSH2	12/20/2019 1708	39735

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6010D**	**12000**		**23**	**8.5**	**mg/kg**	**1**
Antimony	7440-36-0	6010D	ND		1.1	0.29	mg/kg	1
Arsenic	**7440-38-2**	**6010D**	**10**		**0.85**	**0.28**	**mg/kg**	**1**
Barium	**7440-39-3**	**6010D**	**110**		**1.5**	**0.37**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6010D**	**0.59**		**0.28**	**0.071**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6010D**	**0.22**	**J**	**0.28**	**0.071**	**mg/kg**	**1**
Calcium	**7440-70-2**	**6010D**	**12000**		**280**	**35**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6010D**	**16**		**0.57**	**0.14**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6010D**	**9.4**		**1.5**	**0.37**	**mg/kg**	**1**
Copper	**7440-50-8**	**6010D**	**17**		**0.57**	**0.25**	**mg/kg**	**1**
Iron	**7439-89-6**	**6010D**	**19000**		**5.7**	**2.6**	**mg/kg**	**1**
Lead	**7439-92-1**	**6010D**	**20**		**0.57**	**0.25**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6010D**	**6500**		**280**	**35**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6010D**	**720**		**0.85**	**0.34**	**mg/kg**	**1**
Mercury	**7439-97-6**	**7471B**	**0.027**	**J**	**0.089**	**0.021**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6010D**	**17**		**2.3**	**0.59**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6010D**	**2000**		**280**	**35**	**mg/kg**	**1**
Selenium	7782-49-2	6010D	ND		1.1	0.46	mg/kg	1
Silver	7440-22-4	6010D	ND		0.57	0.14	mg/kg	1
Sodium	**7440-23-5**	**6010D**	**39**	**J**	**280**	**35**	**mg/kg**	**1**
Thallium	7440-28-0	6010D	ND		2.8	0.71	mg/kg	1
Vanadium	**7440-62-2**	**6010D**	**29**		**2.8**	**0.71**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6010D**	**81**		**2.8**	**0.71**	**mg/kg**	**1**

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL
H = Out of holding time	W = Reported on wet weight basis		

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TPH-DRO

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-017**
Description: **MPG1-RB-121719**
Matrix: **Aqueous**
Date Sampled: **12/19/2019 1330**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8015C	1	12/27/2019 1102	CHG	12/26/2019 1928	40144

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
TPH-DRO		8015C	ND		200	43	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
o - Terphenyl	N	48	53-118

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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TAL Metals

Client: **Tetra Tech, Inc.**
Laboratory ID: **UL20021-017**
Description: **MPG1-RB-121719**
Matrix: **Aqueous**
Date Sampled: **12/19/2019 1330**
Date Received: **12/20/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	12/26/2019 2221	JMH	12/26/2019 1256	39898
1	3005A	6010D	1	12/26/2019 1107	LLL	12/24/2019 1021	39905

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	7429-90-5	6010D	ND		0.40	0.10	mg/L	1
Antimony	7440-36-0	6010D	ND		0.020	0.0070	mg/L	1
Arsenic	**7440-38-2**	**6010D**	**0.0031**	**J**	**0.015**	**0.0025**	**mg/L**	**1**
Barium	7440-39-3	6010D	ND		0.025	0.0031	mg/L	1
Beryllium	7440-41-7	6010D	ND		0.0050	0.00060	mg/L	1
Cadmium	7440-43-9	6010D	ND		0.0050	0.00060	mg/L	1
Calcium	7440-70-2	6010D	ND		5.0	0.63	mg/L	1
Chromium	7440-47-3	6010D	ND		0.010	0.0013	mg/L	1
Cobalt	7440-48-4	6010D	ND		0.025	0.0031	mg/L	1
Copper	7440-50-8	6010D	ND		0.010	0.0020	mg/L	1
Iron	7439-89-6	6010D	ND		0.10	0.040	mg/L	1
Lead	7439-92-1	6010D	ND		0.010	0.0047	mg/L	1
Magnesium	7439-95-4	6010D	ND		5.0	0.63	mg/L	1
Manganese	7439-96-5	6010D	ND		0.015	0.0019	mg/L	1
Mercury	7439-97-6	7470A	ND		0.00020	0.000091	mg/L	1
Nickel	7440-02-0	6010D	ND		0.040	0.0050	mg/L	1
Potassium	7440-09-7	6010D	ND		5.0	0.63	mg/L	1
Selenium	7782-49-2	6010D	ND		0.020	0.0085	mg/L	1
Silver	7440-22-4	6010D	ND		0.010	0.0021	mg/L	1
Sodium	**7440-23-5**	**6010D**	**0.71**	**J**	**5.0**	**0.63**	**mg/L**	**1**
Thallium	7440-28-0	6010D	ND		0.050	0.0063	mg/L	1
Vanadium	7440-62-2	6010D	ND		0.050	0.0063	mg/L	1
Zinc	7440-66-6	6010D	ND		0.020	0.0025	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
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QC Summary

TPH - DRO - MB

Sample ID: UQ39962-001
Batch: 39962
Analytical Method: 8015C

Matrix: Solid
Prep Method: 3550C
Prep Date: 12/23/2019 2339

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
TPH-DRO	ND		1	6700	3200	ug/kg	12/24/2019 1011

Surrogate	Q	% Rec	Acceptance Limit
o - Terphenyl		101	55-120

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TPH - DRO - LCS

Sample ID: UQ39962-002
Batch: 39962
Analytical Method: 8015C

Matrix: Solid
Prep Method: 3550C
Prep Date: 12/23/2019 2339

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
TPH-DRO	83000	75000		1	91	70-130	12/24/2019 1030

Surrogate	Q	% Rec	Acceptance Limit
o - Terphenyl		106	55-120

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TPH - DRO - MS

Sample ID: UL20021-001MS
Batch: 39962
Analytical Method: 8015C

Matrix: Solid
Prep Method: 3550C
Prep Date: 12/23/2019 2339

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
TPH-DRO	15000	110000	79000	N	1	59	70-130	12/24/2019 1108

Surrogate	Q	% Rec	Acceptance Limit
o - Terphenyl		65	55-120

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TPH - DRO - MSD

Sample ID: UL20021-001MD
Batch: 39962
Analytical Method: 8015C

Matrix: Solid
Prep Method: 3550C
Prep Date: 12/23/2019 2339

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
TPH-DRO	15000	110000	69000	N	1	50	13	70-130	20	12/24/2019 1127

Surrogate	Q	% Rec	Acceptance Limit
o - Terphenyl		56	55-120

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TPH - DRO - MB

Sample ID: UQ40054-001
Batch: 40054
Analytical Method: 8015C

Matrix: Solid
Prep Method: 3550C
Prep Date: 12/25/2019 1907

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
TPH-DRO	ND		1	6700	3200	ug/kg	12/26/2019 1021

Surrogate	Q	% Rec	Acceptance Limit
o - Terphenyl		100	55-120

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TPH - DRO - LCS

Sample ID: UQ40054-002
Batch: 40054
Analytical Method: 8015C

Matrix: Solid
Prep Method: 3550C
Prep Date: 12/25/2019 1907

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
TPH-DRO	83000	78000		1	93	70-130	12/26/2019 1040

Surrogate	Q	% Rec	Acceptance Limit
o - Terphenyl		108	55-120

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TPH - DRO - MS

Sample ID: UL20021-001MS
Batch: 40054
Analytical Method: 8015C

Matrix: Solid
Prep Method: 3550C
Prep Date: 12/25/2019 1907

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
TPH-DRO	41000	110000	69000	N	1	26	70-130	12/26/2019 1157

Surrogate	Q	% Rec	Acceptance Limit
o - Terphenyl		69	55-120

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TPH - DRO - MSD

Sample ID: UL20021-001MD
Batch: 40054
Analytical Method: 8015C

Matrix: Solid
Prep Method: 3550C
Prep Date: 12/25/2019 1907

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
TPH-DRO	41000	110000	74000	N	1	30	6.4	70-130	20	12/26/2019 1216

Surrogate	Q	% Rec	Acceptance Limit
o - Terphenyl		58	55-120

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TPH-DRO - MB

Sample ID: UQ40144-001
Batch: 40144
Analytical Method: 8015C

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 12/26/2019 1928

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
TPH-DRO	ND		1	200	43	ug/L	12/27/2019 1024

Surrogate	Q	% Rec	Acceptance Limit
o - Terphenyl		74	53-118

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TPH-DRO - LCS

Sample ID: UQ40144-002
Batch: 40144
Analytical Method: 8015C

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 12/26/2019 1928

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
TPH-DRO	2000	1200	N	1	60	70-130	12/27/2019 1043

Surrogate	Q	% Rec	Acceptance Limit
o - Terphenyl		81	53-118

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TPH-DRO - MS

Sample ID: UL20021-017MS
Batch: 40144
Analytical Method: 8015C

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 12/26/2019 1928

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
TPH-DRO	ND	2000	1100	N	1	57	70-130	12/27/2019 1121

Surrogate	Q	% Rec	Acceptance Limit
o - Terphenyl		74	53-118

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TPH-DRO - MSD

Sample ID: UL20021-017MD
Batch: 40144
Analytical Method: 8015C

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 12/26/2019 1928

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
TPH-DRO	ND	2000	1300	N	1	63	11	70-130	20	12/27/2019 1140

Surrogate	Q	% Rec	Acceptance Limit
o - Terphenyl		84	53-118

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - MB

Sample ID: UQ39838-001
Batch: 39838
Analytical Method: 6010D

Matrix: Solid
Prep Method: 3050B
Prep Date: 12/24/2019 0905

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Aluminum	ND		1	20	7.5	mg/kg	12/26/2019 0644
Antimony	ND		1	1.0	0.25	mg/kg	12/26/2019 0644
Arsenic	ND		1	0.75	0.25	mg/kg	12/26/2019 0644
Barium	ND		1	1.3	0.33	mg/kg	12/26/2019 0644
Beryllium	ND		1	0.25	0.063	mg/kg	12/26/2019 0644
Cadmium	ND		1	0.25	0.063	mg/kg	12/26/2019 0644
Calcium	ND		1	250	31	mg/kg	12/26/2019 0644
Chromium	ND		1	0.50	0.13	mg/kg	12/26/2019 0644
Cobalt	ND		1	1.3	0.33	mg/kg	12/26/2019 0644
Copper	ND		1	0.50	0.23	mg/kg	12/26/2019 0644
Iron	ND		1	5.0	2.3	mg/kg	12/26/2019 0644
Lead	ND		1	0.50	0.23	mg/kg	12/26/2019 0644
Magnesium	ND		1	250	31	mg/kg	12/26/2019 0644
Manganese	ND		1	0.75	0.30	mg/kg	12/26/2019 0644
Nickel	ND		1	2.0	0.53	mg/kg	12/26/2019 0644
Potassium	ND		1	250	31	mg/kg	12/26/2019 0644
Selenium	ND		1	1.0	0.41	mg/kg	12/26/2019 0644
Silver	ND		1	0.50	0.13	mg/kg	12/26/2019 0644
Sodium	ND		1	250	31	mg/kg	12/26/2019 0644
Thallium	ND		1	2.5	0.63	mg/kg	12/26/2019 0644
Vanadium	ND		1	2.5	0.63	mg/kg	12/26/2019 0644
Zinc	ND		1	2.5	0.63	mg/kg	12/26/2019 0644

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - LCS

Sample ID: UQ39838-002
Batch: 39838
Analytical Method: 6010D

Matrix: Solid
Prep Method: 3050B
Prep Date: 12/24/2019 0905

Parameter	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Aluminum	1000	960		1	96	80-120	12/26/2019 0650
Antimony	50	48		1	97	80-120	12/26/2019 0650
Arsenic	250	250		1	102	80-120	12/26/2019 0650
Barium	500	490		1	98	80-120	12/26/2019 0650
Beryllium	100	100		1	100	80-120	12/26/2019 0650
Cadmium	50	47		1	93	80-120	12/26/2019 0650
Calcium	2000	2000		1	98	80-120	12/26/2019 0650
Chromium	250	240		1	97	80-120	12/26/2019 0650
Cobalt	100	98		1	98	80-120	12/26/2019 0650
Copper	100	98		1	98	80-120	12/26/2019 0650
Iron	1000	960		1	96	80-120	12/26/2019 0650
Lead	250	250		1	98	80-120	12/26/2019 0650
Magnesium	2000	1900		1	97	80-120	12/26/2019 0650
Manganese	100	97		1	97	80-120	12/26/2019 0650
Nickel	100	98		1	98	80-120	12/26/2019 0650
Potassium	2000	2000		1	100	80-120	12/26/2019 0650
Selenium	50	49		1	97	80-120	12/26/2019 0650
Silver	50	47		1	94	80-120	12/26/2019 0650
Sodium	2000	2000		1	98	80-120	12/26/2019 0650
Thallium	40	40		1	99	80-120	12/26/2019 0650
Vanadium	100	95		1	95	80-120	12/26/2019 0650
Zinc	100	97		1	97	80-120	12/26/2019 0650

LOQ = Limit of Quantitation
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LOD = Limit of Detection

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Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - MB

Sample ID: UQ39905-001
Batch: 39905
Analytical Method: 6010D

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/24/2019 1021

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Aluminum	ND		1	0.40	0.10	mg/L	12/26/2019 0955
Antimony	ND		1	0.020	0.0070	mg/L	12/26/2019 0955
Arsenic	ND		1	0.015	0.0025	mg/L	12/26/2019 0955
Barium	ND		1	0.025	0.0031	mg/L	12/26/2019 0955
Beryllium	ND		1	0.0050	0.00060	mg/L	12/26/2019 0955
Cadmium	**0.00060**	**J**	**1**	**0.0050**	**0.00060**	**mg/L**	**12/26/2019 0955**
Calcium	ND		1	5.0	0.63	mg/L	12/26/2019 0955
Chromium	ND		1	0.010	0.0013	mg/L	12/26/2019 0955
Cobalt	ND		1	0.025	0.0031	mg/L	12/26/2019 0955
Copper	ND		1	0.010	0.0020	mg/L	12/26/2019 0955
Iron	ND		1	0.10	0.040	mg/L	12/26/2019 0955
Lead	ND		1	0.010	0.0047	mg/L	12/26/2019 0955
Magnesium	ND		1	5.0	0.63	mg/L	12/26/2019 0955
Manganese	ND		1	0.015	0.0019	mg/L	12/26/2019 0955
Nickel	ND		1	0.040	0.0050	mg/L	12/26/2019 0955
Potassium	ND		1	5.0	0.63	mg/L	12/26/2019 0955
Selenium	ND		1	0.020	0.0085	mg/L	12/26/2019 0955
Silver	ND		1	0.010	0.0021	mg/L	12/26/2019 0955
Sodium	ND		1	5.0	0.63	mg/L	12/26/2019 0955
Thallium	ND		1	0.050	0.0063	mg/L	12/26/2019 0955
Vanadium	ND		1	0.050	0.0063	mg/L	12/26/2019 0955
Zinc	ND		1	0.020	0.0025	mg/L	12/26/2019 0955

LOQ = Limit of Quantitation
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LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
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ND = Not detected at or above the DL
N = Recovery is out of criteria
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Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - LCS

Sample ID: UQ39905-002
Batch: 39905
Analytical Method: 6010D

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/24/2019 1021

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Aluminum	20	21		1	103	80-120	12/26/2019 1000
Antimony	0.40	0.39		1	96	80-120	12/26/2019 1000
Arsenic	0.40	0.42		1	105	80-120	12/26/2019 1000
Barium	2.0	2.1		1	106	80-120	12/26/2019 1000
Beryllium	2.0	2.1		1	107	80-120	12/26/2019 1000
Cadmium	0.40	0.40		1	99	80-120	12/26/2019 1000
Calcium	40	41		1	103	80-120	12/26/2019 1000
Chromium	2.0	2.1		1	104	80-120	12/26/2019 1000
Cobalt	2.0	2.0		1	100	80-120	12/26/2019 1000
Copper	2.0	2.1		1	103	80-120	12/26/2019 1000
Iron	20	20		1	102	80-120	12/26/2019 1000
Lead	0.40	0.41		1	102	80-120	12/26/2019 1000
Magnesium	40	41		1	101	80-120	12/26/2019 1000
Manganese	2.0	2.1		1	104	80-120	12/26/2019 1000
Nickel	2.0	2.0		1	99	80-120	12/26/2019 1000
Potassium	40	43		1	107	80-120	12/26/2019 1000
Selenium	0.40	0.40		1	101	80-120	12/26/2019 1000
Silver	0.40	0.42		1	104	80-120	12/26/2019 1000
Sodium	40	44		1	109	80-120	12/26/2019 1000
Thallium	0.80	0.84		1	105	80-120	12/26/2019 1000
Vanadium	2.0	2.1		1	104	80-120	12/26/2019 1000
Zinc	2.0	2.0		1	99	80-120	12/26/2019 1000

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - MB

Sample ID: UQ40381-001
Batch: 40381
Analytical Method: 6010D

Matrix: Solid
Prep Method: 3050B
Prep Date: 12/30/2019 0956

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Aluminum	ND		1	20	7.5	mg/kg	12/31/2019 0647
Antimony	ND		1	1.0	0.25	mg/kg	12/31/2019 0647
Arsenic	ND		1	0.75	0.25	mg/kg	12/31/2019 0647
Barium	ND		1	1.3	0.33	mg/kg	12/31/2019 0647
Beryllium	ND		1	0.25	0.063	mg/kg	12/31/2019 0647
Cadmium	ND		1	0.25	0.063	mg/kg	12/31/2019 0647
Calcium	ND		1	250	31	mg/kg	12/31/2019 0647
Chromium	ND		1	0.50	0.13	mg/kg	12/31/2019 0647
Cobalt	ND		1	1.3	0.33	mg/kg	12/31/2019 0647
Copper	ND		1	0.50	0.23	mg/kg	12/31/2019 0647
Iron	ND		1	5.0	2.3	mg/kg	12/31/2019 0647
Lead	ND		1	0.50	0.23	mg/kg	12/31/2019 0647
Magnesium	ND		1	250	31	mg/kg	12/31/2019 0647
Manganese	ND		1	0.75	0.30	mg/kg	12/31/2019 0647
Nickel	ND		1	2.0	0.53	mg/kg	12/31/2019 0647
Potassium	ND		1	250	31	mg/kg	12/31/2019 0647
Selenium	ND		1	1.0	0.41	mg/kg	12/31/2019 0647
Silver	ND		1	0.50	0.13	mg/kg	12/31/2019 0647
Sodium	ND		1	250	31	mg/kg	12/31/2019 0647
Thallium	ND		1	2.5	0.63	mg/kg	12/31/2019 0647
Vanadium	ND		1	2.5	0.63	mg/kg	12/31/2019 0647
Zinc	ND		1	2.5	0.63	mg/kg	12/31/2019 0647

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
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N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - LCS

Sample ID: UQ40381-002
Batch: 40381
Analytical Method: 6010D

Matrix: Solid
Prep Method: 3050B
Prep Date: 12/30/2019 0956

Parameter	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Aluminum	1000	1000		1	100	80-120	12/31/2019 0652
Antimony	50	48		1	96	80-120	12/31/2019 0652
Arsenic	250	260		1	103	80-120	12/31/2019 0652
Barium	500	510		1	101	80-120	12/31/2019 0652
Beryllium	100	100		1	105	80-120	12/31/2019 0652
Cadmium	50	47		1	94	80-120	12/31/2019 0652
Calcium	2000	2000		1	100	80-120	12/31/2019 0652
Chromium	250	260		1	102	80-120	12/31/2019 0652
Cobalt	100	100		1	100	80-120	12/31/2019 0652
Copper	100	100		1	102	80-120	12/31/2019 0652
Iron	1000	1000		1	100	80-120	12/31/2019 0652
Lead	250	250		1	101	80-120	12/31/2019 0652
Magnesium	2000	2000		1	100	80-120	12/31/2019 0652
Manganese	100	100		1	102	80-120	12/31/2019 0652
Nickel	100	99		1	99	80-120	12/31/2019 0652
Potassium	2000	2000		1	98	80-120	12/31/2019 0652
Selenium	50	49		1	99	80-120	12/31/2019 0652
Silver	50	49		1	98	80-120	12/31/2019 0652
Sodium	2000	2000		1	100	80-120	12/31/2019 0652
Thallium	40	41		1	102	80-120	12/31/2019 0652
Vanadium	100	100		1	102	80-120	12/31/2019 0652
Zinc	100	99		1	99	80-120	12/31/2019 0652

LOQ = Limit of Quantitation
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LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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N = Recovery is out of criteria
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TAL Metals - MS

Sample ID: UL20021-001MS
Batch: 40381
Analytical Method: 6010D

Matrix: Solid
Prep Method: 3050B
Prep Date: 12/30/2019 0956

Parameter	Sample Amount (mg/kg)	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Aluminum	21000	1300	30000	N	1	705	75-125	12/31/2019 0704
Antimony	ND	66	28	N	1	42	75-125	12/31/2019 0704
Arsenic	14	330	370		1	108	75-125	12/31/2019 0704
Barium	220	660	850		1	95	75-125	12/31/2019 0704
Beryllium	0.98	130	140		1	106	75-125	12/31/2019 0704
Cadmium	0.47	66	67		1	101	75-125	12/31/2019 0704
Calcium	16000	2600	14000	N	1	-105	75-125	12/31/2019 0704
Chromium	27	330	360		1	101	75-125	12/31/2019 0704
Cobalt	15	130	140		1	98	75-125	12/31/2019 0704
Copper	26	130	160		1	105	75-125	12/31/2019 0704
Iron	26000	1300	28000	N	1	140	75-125	12/31/2019 0704
Lead	27	330	350		1	100	75-125	12/31/2019 0704
Magnesium	11000	2600	11000	N	1	0.094	75-125	12/31/2019 0704
Manganese	1700	130	930	N	2	-566	75-125	12/31/2019 0839
Nickel	34	130	160		1	93	75-125	12/31/2019 0704
Potassium	3200	2600	7900	N	1	177	75-125	12/31/2019 0704
Selenium	ND	66	66		2	100	75-125	12/31/2019 0839
Silver	ND	66	67		1	103	75-125	12/31/2019 0704
Sodium	130	2600	2900		1	104	75-125	12/31/2019 0704
Thallium	ND	53	48		1	92	75-125	12/31/2019 0704
Vanadium	46	130	190		1	110	75-125	12/31/2019 0704
Zinc	99	130	230		1	97	75-125	12/31/2019 0704

LOQ = Limit of Quantitation
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LOD = Limit of Detection
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N = Recovery is out of criteria
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Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - MSD

Sample ID: UL20021-001MD
Batch: 40381
Analytical Method: 6010D

Matrix: Solid
Prep Method: 3050B
Prep Date: 12/30/2019 0956

Parameter	Sample Amount (mg/kg)	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Aluminum	21000	1300	30000	N	1	721	0.38	75-125	20	12/31/2019 0710
Antimony	ND	63	27	N	1	42	4.3	75-125	20	12/31/2019 0710
Arsenic	14	320	360		1	108	3.4	75-125	20	12/31/2019 0710
Barium	220	630	810		1	92	4.8	75-125	20	12/31/2019 0710
Beryllium	0.98	130	130		1	105	4.1	75-125	20	12/31/2019 0710
Cadmium	0.47	63	64		1	101	3.4	75-125	20	12/31/2019 0710
Calcium	16000	2500	14000	N	1	-98	1.9	75-125	20	12/31/2019 0710
Chromium	27	320	350		1	101	3.2	75-125	20	12/31/2019 0710
Cobalt	15	130	140		1	97	3.5	75-125	20	12/31/2019 0710
Copper	26	130	160		1	105	3.5	75-125	20	12/31/2019 0710
Iron	26000	1300	28000		1	105	1.8	75-125	20	12/31/2019 0710
Lead	27	320	340		1	99	4.1	75-125	20	12/31/2019 0710
Magnesium	11000	2500	11000	N	1	-1.8	0.43	75-125	20	12/31/2019 0710
Manganese	1700	130	840	N	2	-662	11	75-125	20	12/31/2019 0845
Nickel	34	130	150		1	93	2.8	75-125	20	12/31/2019 0710
Potassium	3200	2500	7900	N	1	184	0.20	75-125	20	12/31/2019 0710
Selenium	ND	63	65		2	103	1.0	75-125	20	12/31/2019 0845
Silver	ND	63	65		1	103	3.6	75-125	20	12/31/2019 0710
Sodium	130	2500	2800		1	106	1.6	75-125	20	12/31/2019 0710
Thallium	ND	51	47		1	93	2.6	75-125	20	12/31/2019 0710
Vanadium	46	130	190		1	110	2.7	75-125	20	12/31/2019 0710
Zinc	99	130	220		1	98	1.4	75-125	20	12/31/2019 0710

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - MB

Sample ID: UQ39735-001
Batch: 39735
Analytical Method: 7471B

Matrix: Solid
Prep Method: 7471B
Prep Date: 12/20/2019 1708

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Mercury	ND		1	0.083	0.020	mg/kg	12/21/2019 0929

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - LCS

Sample ID: UQ39735-002
Batch: 39735
Analytical Method: 7471B

Matrix: Solid
Prep Method: 7471B
Prep Date: 12/20/2019 1708

Parameter	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	0.83	0.85		1	102	80-120	12/21/2019 0931

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - MS

Sample ID: UL20021-016MS
Batch: 39735
Analytical Method: 7471B

Matrix: Solid
Prep Method: 7471B
Prep Date: 12/20/2019 1708

Parameter	Sample Amount (mg/kg)	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	0.027	1.0	1.2		1	114	80-120	12/21/2019 0955

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - MSD

Sample ID: UL20021-016MD
Batch: 39735
Analytical Method: 7471B

Matrix: Solid
Prep Method: 7471B
Prep Date: 12/20/2019 1708

Parameter	Sample Amount (mg/kg)	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Mercury	0.027	1.0	1.2		1	111	2.1	80-120	20	12/21/2019 0957

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - MB

Sample ID: UQ39898-001
Batch: 39898
Analytical Method: 7470A

Matrix: Aqueous
Prep Method:
Prep Date: 12/26/2019 1256

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Mercury	ND		1	0.00020	0.000091	mg/L	12/26/2019 2215

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - LCS

Sample ID: UQ39898-002
Batch: 39898
Analytical Method: 7470A

Matrix: Aqueous
Prep Method:
Prep Date: 12/26/2019 1256

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	0.0020	0.0020		1	100	80-120	12/26/2019 2218

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

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TAL Metals - MB

Sample ID: UQ40382-001
Batch: 40382
Analytical Method: 7471B

Matrix: Solid
Prep Method: 7471B
Prep Date: 12/30/2019 1349

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Mercury	ND		1	0.083	0.020	mg/kg	12/30/2019 1837

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

TAL Metals - LCS

Sample ID: UQ40382-002
Batch: 40382
Analytical Method: 7471B

Matrix: Solid
Prep Method: 7471B
Prep Date: 12/30/2019 1349

Parameter	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	0.83	0.83		1	99	80-120	12/30/2019 1839

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - MS

Sample ID: UL20021-001MS
Batch: 40382
Analytical Method: 7471B

Matrix: Solid
Prep Method: 7471B
Prep Date: 12/30/2019 1349

Parameter	Sample Amount (mg/kg)	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	0.028	1.1	1.3		1	117	80-120	12/30/2019 1844

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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TAL Metals - MSD

Sample ID: UL20021-001MD
Batch: 40382
Analytical Method: 7471B

Matrix: Solid
Prep Method: 7471B
Prep Date: 12/30/2019 1349

Parameter	Sample Amount (mg/kg)	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Mercury	0.028	1.0	1.2		1	115	4.6	80-120	20	12/30/2019 1847

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Chain of Custody
and
Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client: Tetra Tech	Report to Contact: Andre Baker and Brendan Martin
Address: 1 S. Wacker Drive, Suite 3700	Sampler's Signature: x Brendan Martin
City: Chicago; State: IL; Zip Code: 60606	Printed Name: Brendan Martin
Project Name: Joliet Chemical Fire PRP Cleanup Site	
Project Number: 103X9031006900C2AJ001	P.O No.: SHLY-1
Telephone No. / E-mail: andre.baker@tetratech.com, brendan.martin@tetratech.com	Quote No.: 22 1613
Analysis (Attach list if more space is needed)	Page 1 of 2

UL20021

NMS

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G-Grab C-Composite	Matrix: Aqueous	Solid	Non-Aqueous		No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit		TCL VOCs/SW-846 8260C	TCL SVOCs/SW-846 8270D	TPH-DRO/SW-846 8015C	TAL Metals (with mercury)/SW 846 6010D/7470A/7471B						Remarks / Cooler I.D.
MPGI-SF-Soil-09-121719	121719	0940			X			2									X	X						Extra volume for MS/MSD
MPGI-SF-Soil-10A-121719	121719	1140			X			1									X	X						
MPGI-SF-Soil-10B-121719	121719	1144			X			1									X	X						
MPGI-SF-Soil-10C-121719	121719	1146			X			1									X	X						
MPGI-SF-Soil-11A-121919	121919	1240			X			1									X	X						
MPGI-SF-Soil-11B-121919	121919	1242			X			1									X	X						
MPGI-SF-Soil-11C-121919	121919	1244			X			1									X	X						
MPGI-SF-Soil-12A-121919	121919	1310			X			1									X	X						
MPGI-SF-Soil-12B-121919	121919	1001			X			1									X	X						
MPGI-SF-Soil-12C-121919	121919	1312			X			1									X	X						

Turn Around Time Required (Prior lab approval required for expedited TAT): [ ] Standard [x] Rush (Please Specify) 2/3 day

Sample Disposal: [ ] Return to Client [x] Disposal by Lab

Possible Hazard Identification (List any known hazards in the remarks): [x] Non-Hazardous [ ] Flammable [ ] Skin Irritant [ ] SDS provided [ ] Unknown

QC Requirements

	Date	Time
1. Relinquished by: Brendan Martin Brendan Martin	121919	1430
2. Relinquished by:		
3. Relinquished by:		
4. Relinquished by: FedEx	12-20-19	1308

	Date	Time
1. Received by:		
2. Received by:		
3. Received by:		
4. Laboratory Received by: Erin Brown	12.20.19	1308

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) [✓] Y [ ] N [ ] Ice Pack
Receipt Temp. 3.1 °C

Document Number: ME0020W-01

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client: Tetra Tech	Report to Contact: Andre Baker and Brendan Martin	Telephone No. / E-mail: andre.baker@tetratech.com, brendan.martin@tetratech.com	Quote No.
Address: S. Wacker Drive, Suite 3700	Sampler's Signature: x Brendan Martin	Analysis (Attach list if more space is needed)	Page 2 of 2
City: Chicago; State: IL; Zip Code: 60606	Printed Name: Brendan Martin		UL20021
Project Name: Joliet Chemical Fire PRP Cleanup Site			NPS
Project Number: 103X9031006900X2AJ001; P.O No.: SHLY-1			

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous		No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit		TCL VOCs/SW-846 8260C	TCL SVOCs/SW-846 8270D	TPH-DRO/SW-846 8015C	TAL Metals (with mercury)/SW-846 6010D/7470A/7471B						Remarks / Cooler I.D.
MPGI-SF-Soil-13A-121719	121719	1410			X			1									X	X						
MPGI-SF-Soil-13B-121719	121719	1414			X			1									X	X						
MPGI-SF-Soil-14A-121919	121919	1210			X			1									X	X						
MPGI-SF-Soil-14A-121919-D	121919	1212			X			1									X	X						
MPGI-SF-Soil-14B-121919	121919	1214			X			1									X	X						
MPGI-SF-Soil-14C-121919	121919	1216			X			1									X	X						
MPGI-RB-121719	121719	1330		X				1									X	X						Rinsate Blank

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	Possible Hazard Identification (List any known hazards in the remarks)	QC Requirements
☐ Standard ☒ Rush (Please Specify) 2/3 day	☐ Return to Client ☒ Disposal by Lab	☒ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown	

	Date	Time		Date	Time
1. Relinquished by: Brendan Martin	121919	1430	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by: FedEx	12-20-19	1308	4. Laboratory Received by: Erin Brown	12-20-19	1308

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☑ Y ☐ N ☐ Ice Pack Receipt Temp. 3.1 °C

Document Number: ME002OW-01

Shealy Environmental Services, Inc.
Document Number: MF0018C-14

Page: 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Tetra Tech Cooler Inspected by/date: JSH / 12/20/19 Lot #: UL20021

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Other: _____

☑ Yes	☐ No		1. Were custody seals present on the cooler?
☑ Yes	☐ No	☐ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: 19-2313

3.1 / 3.1 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☑ Yes	☐ No	☐ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 22663

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JSH Date: 12/20/19

Comments: